K. Moribayashi and T. Kato 1996 NIFS-DATA-36
"Dielectronic Recombination of Be-like Fe Ion"

Table IV $\lambda(\AA)$, $gAr(1/\mathrm{s})$, $\sum Ar$, $Aa(1/\mathrm{s})$, and Qd from the upper level to the lower level.

lower level	upper level	$\lambda(\AA)$	$gAr(1/\mathrm{s})$	$\sum Ar$	$Aa(1/\mathrm{s})$	Qd
$1s^22p^2\ ^3P_1$	$1s^22p11s\ ^3P_2$	6.78000	0.31283D+11	0.12975D+12	0.18119D+13	0.29192D+11
$1s^22p^2\ ^3P_2$	$1s^22p11s\ ^3P_2$	6.80072	0.88822D+11	0.12975D+12	0.18119D+13	0.82886D+11
$1s^22p^2\ ^1D_2$	$1s^22p11s\ ^3P_2$	6.85986	0.39999D+11	0.12975D+12	0.18119D+13	0.37326D+11
$1s^22p3p\ ^3D_3$	$1s^22p11s\ ^3P_2$	16.24943	0.69220D+11	0.12975D+12	0.18119D+13	0.64594D+11
$1s^22p3p\ ^3S_1$	$1s^22p11s\ ^3P_2$	16.28872	0.20069D+11	0.12975D+12	0.18119D+13	0.18728D+11
$1s^22p3p\ ^3P_2$	$1s^22p11s\ ^3P_2$	16.29536	0.35964D+11	0.12975D+12	0.18119D+13	0.33561D+11
$1s^22p4p\ ^3P_2$	$1s^22p11s\ ^3P_2$	31.06973	0.24141D+11	0.12975D+12	0.18119D+13	0.22528D+11
$1s^22p4p\ ^3D_3$	$1s^22p11s\ ^3P_2$	31.08062	0.43462D+11	0.12975D+12	0.18119D+13	0.40558D+11
$1s^22p4p\ ^3S_1$	$1s^22p11s\ ^3P_2$	31.11795	0.10788D+11	0.12975D+12	0.18119D+13	0.10067D+11
$1s^22p5p\ ^3D_2$	$1s^22p11s\ ^3P_2$	53.32466	0.16507D+11	0.12975D+12	0.18119D+13	0.15404D+11
$1s^22p5p\ ^3D_3$	$1s^22p11s\ ^3P_2$	53.37123	0.29977D+11	0.12975D+12	0.18119D+13	0.27974D+11
$1s^22p6p\ ^3D_2$	$1s^22p11s\ ^3P_2$	87.02220	0.12192D+11	0.12975D+12	0.18119D+13	0.11377D+11
$1s^22p6p\ ^3D_3$	$1s^22p11s\ ^3P_2$	87.11282	0.22038D+11	0.12975D+12	0.18119D+13	0.20565D+11
$1s^22p7p\ ^3D_3$	$1s^22p11s\ ^3P_2$	140.44370	0.17037D+11	0.12975D+12	0.18119D+13	0.15898D+11
$1s^22p^2\ ^1D_2$	$1s^22p11s\ ^1P_1$	6.85974	0.10435D+12	0.14538D+12	0.15510D+14	0.10338D+12
$1s^22p^2\ ^1S_0$	$1s^22p11s\ ^1P_1$	6.95205	0.32130D+11	0.14538D+12	0.15510D+14	0.31832D+11
$1s^22p3p\ ^3P_1$	$1s^22p11s\ ^1P_1$	16.23061	0.21179D+11	0.14538D+12	0.15510D+14	0.20982D+11
$1s^22p3p\ ^1D_2$	$1s^22p11s\ ^1P_1$	16.45455	0.30024D+11	0.14538D+12	0.15510D+14	0.29745D+11
$1s^22p4p\ ^1P_1$	$1s^22p11s\ ^1P_1$	31.00991	0.12502D+11	0.14538D+12	0.15510D+14	0.12386D+11
$1s^22p4p\ ^1D_2$	$1s^22p11s\ ^1P_1$	31.30155	0.21436D+11	0.14538D+12	0.15510D+14	0.21237D+11
$1s^22p5p\ ^1D_2$	$1s^22p11s\ ^1P_1$	53.65686	0.15335D+11	0.14538D+12	0.15510D+14	0.15193D+11
$1s^22p6p\ ^1D_2$	$1s^22p11s\ ^1P_1$	87.51514	0.11655D+11	0.14538D+12	0.15510D+14	0.11547D+11
$1s^22p8p\ ^3D_3$	$1s^22p11s\ ^3P_2$	232.63659	0.13249D+11	0.12975D+12	0.18119D+13	0.12364D+11
$1s^22p9p\ ^3D_3$	$1s^22p11s\ ^3P_2$	422.40058	0.11438D+11	0.12975D+12	0.18119D+13	0.10674D+11
$1s^22s11s\ ^3S_1$	$1s^22p11s\ ^3P_2$	192.04891	0.21322D+11	0.12975D+12	0.18119D+13	0.19897D+11
$1s^22s2p\ ^3P_1$	$1s^22p11p\ ^3P_1$	6.49458	0.57968D+11	0.26117D+12	0.85709D+13	0.56254D+11
$1s^22s2p\ ^3P_2$	$1s^22p11p\ ^3P_1$	6.53329	0.19148D+12	0.26117D+12	0.85709D+13	0.18582D+12
$1s^22s2p\ ^1P_1$	$1s^22p11p\ ^3P_1$	6.64373	0.16196D+12	0.26117D+12	0.85709D+13	0.15717D+12
$1s^22p3s\ ^3P_2$	$1s^22p11p\ ^3P_1$	15.85250	0.57289D+11	0.26117D+12	0.85709D+13	0.55595D+11
$1s^22p3s\ ^1P_1$	$1s^22p11p\ ^3P_1$	15.95521	0.64409D+11	0.26117D+12	0.85709D+13	0.62504D+11
$1s^22p4s\ ^3P_2$	$1s^22p11p\ ^3P_1$	30.47089	0.20967D+11	0.26117D+12	0.85709D+13	0.20347D+11
$1s^22p4s\ ^1P_1$	$1s^22p11p\ ^3P_1$	30.52574	0.33206D+11	0.26117D+12	0.85709D+13	0.32224D+11
$1s^22p5s\ ^3P_2$	$1s^22p11p\ ^3P_1$	52.36974	0.14329D+11	0.26117D+12	0.85709D+13	0.13905D+11
$1s^22p5s\ ^1P_1$	$1s^22p11p\ ^3P_1$	52.46138	0.18739D+11	0.26117D+12	0.85709D+13	0.18185D+11
$1s^22p6s\ ^1P_1$	$1s^22p11p\ ^3P_1$	85.66189	0.11704D+11	0.26117D+12	0.85709D+13	0.11358D+11
$1s^22s2p\ ^3P_1$	$1s^22p11p\ ^3D_2$	6.49451	0.36521D+11	0.27382D+12	0.23866D+13	0.32762D+11
$1s^22s2p\ ^3P_2$	$1s^22p11p\ ^3D_2$	6.53321	0.53620D+12	0.27382D+12	0.23866D+13	0.48101D+12
$1s^22s2p\ ^1P_1$	$1s^22p11p\ ^3D_2$	6.64365	0.16861D+12	0.27382D+12	0.23866D+13	0.15126D+12
$1s^22p3s\ ^3P_2$	$1s^22p11p\ ^3D_2$	15.85207	0.16064D+12	0.27382D+12	0.23866D+13	0.14411D+12
$1s^22p3s\ ^1P_1$	$1s^22p11p\ ^3D_2$	15.95477	0.58535D+11	0.27382D+12	0.23866D+13	0.52510D+11
$1s^22p4d\ ^3P_2$	$1s^22p11p\ ^3D_2$	30.34484	0.16789D+11	0.27382D+12	0.23866D+13	0.15061D+11
$1s^22p4s\ ^3P_2$	$1s^22p11p\ ^3D_2$	30.46931	0.55886D+11	0.27382D+12	0.23866D+13	0.50134D+11
$1s^22p4s\ ^1P_1$	$1s^22p11p\ ^3D_2$	30.52416	0.29517D+11	0.27382D+12	0.23866D+13	0.26479D+11
$1s^22p5s\ ^3P_2$	$1s^22p11p\ ^3D_2$	52.36508	0.39894D+11	0.27382D+12	0.23866D+13	0.35788D+11
$1s^22p5s\ ^1P_1$	$1s^22p11p\ ^3D_2$	52.45671	0.16575D+11	0.27382D+12	0.23866D+13	0.14869D+11
$1s^22p6s\ ^3P_2$	$1s^22p11p\ ^3D_2$	85.47063	0.24768D+11	0.27382D+12	0.23866D+13	0.22219D+11
$1s^22p7s\ ^3P_2$	$1s^22p11p\ ^3D_2$	137.55336	0.16663D+11	0.27382D+12	0.23866D+13	0.14948D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22s2p\ ^3P_2$	$1s^22p11p\ ^3D_3$	6.53311	0.10379D+13	0.27445D+12	0.99405D+12	0.81334D+12
$1s^22p3s\ ^3P_2$	$1s^22p11p\ ^3D_3$	15.85147	0.31348D+12	0.27445D+12	0.99405D+12	0.24566D+12
$1s^22p3d\ ^3F_4$	$1s^22p11p\ ^3D_3$	16.49966	0.26002D+11	0.27445D+12	0.99405D+12	0.20376D+11
$1s^22p4d\ ^3P_2$	$1s^22p11p\ ^3D_3$	30.34262	0.32285D+11	0.27445D+12	0.99405D+12	0.25300D+11
$1s^22p4s\ ^3P_2$	$1s^22p11p\ ^3D_3$	30.46707	0.10902D+12	0.27445D+12	0.99405D+12	0.85433D+11
$1s^22p4d\ ^3F_4$	$1s^22p11p\ ^3D_3$	31.43501	0.24288D+11	0.27445D+12	0.99405D+12	0.19033D+11
$1s^22p5s\ ^3P_2$	$1s^22p11p\ ^3D_3$	52.35849	0.77576D+11	0.27445D+12	0.99405D+12	0.60792D+11
$1s^22p5d\ ^3F_4$	$1s^22p11p\ ^3D_3$	53.85622	0.20776D+11	0.27445D+12	0.99405D+12	0.16281D+11
$1s^22p6s\ ^3P_2$	$1s^22p11p\ ^3D_3$	85.45305	0.48008D+11	0.27445D+12	0.99405D+12	0.37621D+11
$1s^22p6d\ ^3F_4$	$1s^22p11p\ ^3D_3$	87.74992	0.17621D+11	0.27445D+12	0.99405D+12	0.13809D+11
$1s^22p7s\ ^3P_2$	$1s^22p11p\ ^3D_3$	137.50785	0.32354D+11	0.27445D+12	0.99405D+12	0.25354D+11
$1s^22p7d\ ^3F_4$	$1s^22p11p\ ^3D_3$	141.25501	0.15088D+11	0.27445D+12	0.99405D+12	0.11824D+11
$1s^22s2p\ ^3P_1$	$1s^22p11p\ ^3S_1$	6.49436	0.33859D+11	0.25612D+12	0.14867D+14	0.33286D+11
$1s^22s2p\ ^3P_2$	$1s^22p11p\ ^3S_1$	6.53307	0.24853D+12	0.25612D+12	0.14867D+14	0.24432D+12
$1s^22s2p\ ^1P_1$	$1s^22p11p\ ^3S_1$	6.64350	0.11540D+12	0.25612D+12	0.14867D+14	0.11345D+12
$1s^22p3s\ ^3P_2$	$1s^22p11p\ ^3S_1$	15.85121	0.75948D+11	0.25612D+12	0.14867D+14	0.74662D+11
$1s^22p3s\ ^1P_1$	$1s^22p11p\ ^3S_1$	15.95390	0.45102D+11	0.25612D+12	0.14867D+14	0.44338D+11
$1s^22p4s\ ^3P_2$	$1s^22p11p\ ^3S_1$	30.46612	0.25481D+11	0.25612D+12	0.14867D+14	0.25049D+11
$1s^22p4s\ ^1P_1$	$1s^22p11p\ ^3S_1$	30.52096	0.22989D+11	0.25612D+12	0.14867D+14	0.22600D+11
$1s^22p5s\ ^3P_2$	$1s^22p11p\ ^3S_1$	52.35566	0.18569D+11	0.25612D+12	0.14867D+14	0.18255D+11
$1s^22p5s\ ^1P_1$	$1s^22p11p\ ^3S_1$	52.44726	0.12931D+11	0.25612D+12	0.14867D+14	0.12712D+11
$1s^22p6s\ ^3P_2$	$1s^22p11p\ ^3S_1$	85.44554	0.11471D+11	0.25612D+12	0.14867D+14	0.11277D+11
$1s^22s2p\ ^3P_1$	$1s^22p11p\ ^3P_2$	6.49407	0.10109D+12	0.27210D+12	0.12840D+13	0.83414D+11
$1s^22s2p\ ^3P_2$	$1s^22p11p\ ^3P_2$	6.53277	0.24003D+12	0.27210D+12	0.12840D+13	0.19806D+12
$1s^22s2p\ ^1P_1$	$1s^22p11p\ ^3P_2$	6.64319	0.39400D+12	0.27210D+12	0.12840D+13	0.32511D+12
$1s^22p3s\ ^3P_2$	$1s^22p11p\ ^3P_2$	15.84945	0.71104D+11	0.27210D+12	0.12840D+13	0.58671D+11
$1s^22p3s\ ^1P_1$	$1s^22p11p\ ^3P_2$	15.95212	0.13793D+12	0.27210D+12	0.12840D+13	0.11381D+12
$1s^22p4s\ ^3P_2$	$1s^22p11p\ ^3P_2$	30.45963	0.25940D+11	0.27210D+12	0.12840D+13	0.21404D+11
$1s^22p4s\ ^1P_1$	$1s^22p11p\ ^3P_2$	30.51445	0.70126D+11	0.27210D+12	0.12840D+13	0.57864D+11
$1s^22p4d\ ^1F_3$	$1s^22p11p\ ^3P_2$	31.73982	0.12418D+11	0.27210D+12	0.12840D+13	0.10247D+11
$1s^22p5s\ ^3P_2$	$1s^22p11p\ ^3P_2$	52.33650	0.17914D+11	0.27210D+12	0.12840D+13	0.14782D+11
$1s^22p5s\ ^1P_1$	$1s^22p11p\ ^3P_2$	52.42803	0.39482D+11	0.27210D+12	0.12840D+13	0.32578D+11
$1s^22p5d\ ^1F_3$	$1s^22p11p\ ^3P_2$	54.24256	0.12201D+11	0.27210D+12	0.12840D+13	0.10068D+11
$1s^22p6s\ ^1P_1$	$1s^22p11p\ ^3P_2$	85.57300	0.24475D+11	0.27210D+12	0.12840D+13	0.20195D+11
$1s^22p7s\ ^1P_1$	$1s^22p11p\ ^3P_2$	137.58491	0.16902D+11	0.27210D+12	0.12840D+13	0.13947D+11
$1s^22s2p\ ^3P_1$	$1s^22p11p\ ^1S_0$	6.49372	0.26666D+11	0.28828D+12	0.28387D+14	0.26398D+11
$1s^22s2p\ ^1P_1$	$1s^22p11p\ ^1S_0$	6.64283	0.13437D+12	0.28828D+12	0.28387D+14	0.13302D+12
$1s^22p3s\ ^1P_1$	$1s^22p11p\ ^1S_0$	15.95003	0.42396D+11	0.28828D+12	0.28387D+14	0.41970D+11
$1s^22p4s\ ^1P_1$	$1s^22p11p\ ^1S_0$	30.50680	0.21258D+11	0.28828D+12	0.28387D+14	0.21044D+11
$1s^22p5s\ ^1P_1$	$1s^22p11p\ ^1S_0$	52.40546	0.11995D+11	0.28828D+12	0.28387D+14	0.11874D+11
$1s^22p8s\ ^3P_2$	$1s^22p11p\ ^3D_2$	226.86360	0.11773D+11	0.27382D+12	0.23866D+13	0.10561D+11
$1s^22p8s\ ^3P_2$	$1s^22p11p\ ^3D_3$	226.73979	0.22671D+11	0.27445D+12	0.99405D+12	0.17766D+11
$1s^22p9s\ ^3P_2$	$1s^22p11p\ ^3D_3$	407.30443	0.17056D+11	0.27445D+12	0.99405D+12	0.13366D+11
$1s^22p10s\ ^3P_2$	$1s^22p11p\ ^3D_3$	942.94521	0.13518D+11	0.27445D+12	0.99405D+12	0.10593D+11
$1s^22s11p\ ^3P_1$	$1s^22p11p\ ^3D_2$	192.09716	0.20967D+11	0.27382D+12	0.23866D+13	0.18809D+11
$1s^22s11p\ ^3P_2$	$1s^22p11p\ ^3D_3$	192.23328	0.30257D+11	0.27445D+12	0.99405D+12	0.23711D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p^2\ ^3P_1$	$1s^22p11d\ ^1D_2$	6.77776	0.36103D+12	0.34164D+12	0.21348D+12	0.13884D+12
$1s^22p^2\ ^3P_2$	$1s^22p11d\ ^1D_2$	6.79847	0.21930D+12	0.34164D+12	0.21348D+12	0.84334D+11
$1s^22p^2\ ^1D_2$	$1s^22p11d\ ^1D_2$	6.85757	0.15320D+12	0.34164D+12	0.21348D+12	0.58915D+11
$1s^22p3p\ ^3S_1$	$1s^22p11d\ ^1D_2$	15.98270	0.28443D+11	0.34164D+12	0.21348D+12	0.10938D+11
$1s^22p3p\ ^3P_1$	$1s^22p11d\ ^1D_2$	16.21847	0.28294D+12	0.34164D+12	0.21348D+12	0.10881D+12
$1s^22p3p\ ^3P_2$	$1s^22p11d\ ^1D_2$	16.28244	0.72425D+11	0.34164D+12	0.21348D+12	0.27852D+11
$1s^22p4p\ ^1P_1$	$1s^22p11d\ ^1D_2$	30.96564	0.12514D+12	0.34164D+12	0.21348D+12	0.48124D+11
$1s^22p4p\ ^3P_2$	$1s^22p11d\ ^1D_2$	31.02277	0.43623D+11	0.34164D+12	0.21348D+12	0.16776D+11
$1s^22p5p\ ^1P_1$	$1s^22p11d\ ^1D_2$	53.11833	0.63443D+11	0.34164D+12	0.21348D+12	0.24398D+11
$1s^22p6p\ ^1P_1$	$1s^22p11d\ ^1D_2$	86.56046	0.38068D+11	0.34164D+12	0.21348D+12	0.14639D+11
$1s^22p3p\ ^3D_3$	$1s^22p11d\ ^3F_4$	16.23643	0.82234D+12	0.19861D+12	0.24760D+12	0.45631D+12
$1s^22p4p\ ^3D_3$	$1s^22p11d\ ^3F_4$	31.03309	0.35793D+12	0.19861D+12	0.24760D+12	0.19861D+12
$1s^22p5p\ ^3D_3$	$1s^22p11d\ ^3F_4$	53.23121	0.18951D+12	0.19861D+12	0.24760D+12	0.10516D+12
$1s^22p6p\ ^3D_3$	$1s^22p11d\ ^3F_4$	86.74042	0.11304D+12	0.19861D+12	0.24760D+12	0.62725D+11
$1s^22p7p\ ^3D_3$	$1s^22p11d\ ^3F_4$	139.47826	0.73168D+11	0.19861D+12	0.24760D+12	0.40601D+11
$1s^22p^2\ ^3P_2$	$1s^22p11d\ ^3D_3$	6.79835	0.13944D+13	0.39938D+12	0.37899D+12	0.67893D+12
$1s^22p^2\ ^1D_2$	$1s^22p11d\ ^3D_3$	6.85745	0.53861D+11	0.39938D+12	0.37899D+12	0.26225D+11
$1s^22p3p\ ^3D_2$	$1s^22p11d\ ^3D_3$	15.97975	0.45945D+11	0.39938D+12	0.37899D+12	0.22371D+11
$1s^22p3p\ ^3D_3$	$1s^22p11d\ ^3D_3$	16.23589	0.19596D+12	0.39938D+12	0.37899D+12	0.95413D+11
$1s^22p3p\ ^3P_2$	$1s^22p11d\ ^3D_3$	16.28175	0.35311D+12	0.39938D+12	0.37899D+12	0.17193D+12
$1s^22p4p\ ^3P_2$	$1s^22p11d\ ^3D_3$	31.02029	0.17743D+12	0.39938D+12	0.37899D+12	0.86391D+11
$1s^22p4p\ ^3D_3$	$1s^22p11d\ ^3D_3$	31.03115	0.85329D+11	0.39938D+12	0.37899D+12	0.41547D+11
$1s^22p5p\ ^3D_2$	$1s^22p11d\ ^3D_3$	53.17919	0.95946D+11	0.39938D+12	0.37899D+12	0.46716D+11
$1s^22p5p\ ^3D_3$	$1s^22p11d\ ^3D_3$	53.22550	0.45124D+11	0.39938D+12	0.37899D+12	0.21971D+11
$1s^22p6p\ ^3D_2$	$1s^22p11d\ ^3D_3$	86.63544	0.58147D+11	0.39938D+12	0.37899D+12	0.28312D+11
$1s^22p6p\ ^3D_3$	$1s^22p11d\ ^3D_3$	86.72526	0.26890D+11	0.39938D+12	0.37899D+12	0.13093D+11
$1s^22p7p\ ^3D_2$	$1s^22p11d\ ^3D_3$	139.27906	0.38208D+11	0.39938D+12	0.37899D+12	0.18603D+11
$1s^22p^2\ ^3P_1$	$1s^22p11d\ ^3P_1$	6.77753	0.50007D+12	0.44984D+12	0.55553D+13	0.46261D+12
$1s^22p^2\ ^3P_2$	$1s^22p11d\ ^3P_1$	6.79823	0.20194D+12	0.44984D+12	0.55553D+13	0.18681D+12
$1s^22p^2\ ^1D_2$	$1s^22p11d\ ^3P_1$	6.85733	0.61982D+11	0.44984D+12	0.55553D+13	0.57339D+11
$1s^22p^2\ ^1S_0$	$1s^22p11d\ ^3P_1$	6.94958	0.11222D+11	0.44984D+12	0.55553D+13	0.10381D+11
$1s^22p3p\ ^3P_1$	$1s^22p11d\ ^3P_1$	16.21713	0.29237D+11	0.44984D+12	0.55553D+13	0.27047D+11
$1s^22p3p\ ^3S_1$	$1s^22p11d\ ^3P_1$	16.27445	0.15240D+12	0.44984D+12	0.55553D+13	0.14098D+12
$1s^22p3p\ ^3P_2$	$1s^22p11d\ ^3P_1$	16.28108	0.48161D+11	0.44984D+12	0.55553D+13	0.44553D+11
$1s^22p4p\ ^1P_1$	$1s^22p11d\ ^3P_1$	30.96075	0.31912D+11	0.44984D+12	0.55553D+13	0.29522D+11
$1s^22p4p\ ^3P_2$	$1s^22p11d\ ^3P_1$	31.01786	0.22878D+11	0.44984D+12	0.55553D+13	0.21164D+11
$1s^22p4p\ ^3S_1$	$1s^22p11d\ ^3P_1$	31.06591	0.53235D+11	0.44984D+12	0.55553D+13	0.49247D+11
$1s^22p5p\ ^1P_1$	$1s^22p11d\ ^3P_1$	53.10393	0.20573D+11	0.44984D+12	0.55553D+13	0.19032D+11
$1s^22p5p\ ^3D_2$	$1s^22p11d\ ^3P_1$	53.17205	0.12257D+11	0.44984D+12	0.55553D+13	0.11339D+11
$1s^22p5p\ ^3S_1$	$1s^22p11d\ ^3P_1$	53.25333	0.25521D+11	0.44984D+12	0.55553D+13	0.23609D+11
$1s^22p6p\ ^1P_1$	$1s^22p11d\ ^3P_1$	86.52224	0.12315D+11	0.44984D+12	0.55553D+13	0.11393D+11
$1s^22p6p\ ^3S_1$	$1s^22p11d\ ^3P_1$	86.78956	0.15572D+11	0.44984D+12	0.55553D+13	0.14406D+11
$1s^22p^2\ ^3P_1$	$1s^22p11d\ ^3P_0$	6.77751	0.20846D+12	0.40076D+12	0.79394D+13	0.19844D+12
$1s^22p3p\ ^3S_1$	$1s^22p11d\ ^3P_0$	16.27437	0.74101D+11	0.40076D+12	0.79394D+13	0.70540D+11
$1s^22p4p\ ^1P_1$	$1s^22p11d\ ^3P_0$	30.96046	0.11216D+11	0.40076D+12	0.79394D+13	0.10677D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p4p\ ^3S_1$	$1s^22p11d\ ^3P_0$	31.06562	0.27121D+11	0.40076D+12	0.79394D+13	0.25818D+11
$1s^22p5p\ ^3S_1$	$1s^22p11d\ ^3P_0$	53.25246	0.13217D+11	0.40076D+12	0.79394D+13	0.12582D+11
$1s^22p^2\ \ ^3P_1$	$1s^22p11d\ ^3P_2$	6.77751	0.16995D+12	0.44936D+12	0.76363D+13	0.16051D+12
$1s^22p^2\ \ ^3P_2$	$1s^22p11d\ ^3P_2$	6.79822	0.57323D+12	0.44936D+12	0.76363D+13	0.54137D+12
$1s^22p^2\ \ ^1D_2$	$1s^22p11d\ ^3P_2$	6.85731	0.55557D+12	0.44936D+12	0.76363D+13	0.52469D+12
$1s^22p3p\ ^3D_3$	$1s^22p11d\ ^3P_2$	16.23513	0.30085D+11	0.44936D+12	0.76363D+13	0.28413D+11
$1s^22p3p\ ^3S_1$	$1s^22p11d\ ^3P_2$	16.27435	0.17392D+12	0.44936D+12	0.76363D+13	0.16425D+12
$1s^22p3p\ ^3P_2$	$1s^22p11d\ ^3P_2$	16.28099	0.11662D+12	0.44936D+12	0.76363D+13	0.11014D+12
$1s^22p3p\ ^1D_2$	$1s^22p11d\ ^3P_2$	16.44060	0.84858D+11	0.44936D+12	0.76363D+13	0.80142D+11
$1s^22p4p\ ^3P_2$	$1s^22p11d\ ^3P_2$	31.01751	0.48419D+11	0.44936D+12	0.76363D+13	0.45728D+11
$1s^22p4p\ ^3D_3$	$1s^22p11d\ ^3P_2$	31.02836	0.13367D+11	0.44936D+12	0.76363D+13	0.12624D+11
$1s^22p4p\ ^3S_1$	$1s^22p11d\ ^3P_2$	31.06556	0.80905D+11	0.44936D+12	0.76363D+13	0.76409D+11
$1s^22p4p\ ^1D_2$	$1s^22p11d\ ^3P_2$	31.25111	0.47810D+11	0.44936D+12	0.76363D+13	0.45153D+11
$1s^22p5p\ ^3D_2$	$1s^22p11d\ ^3P_2$	53.17102	0.24665D+11	0.44936D+12	0.76363D+13	0.23294D+11
$1s^22p5p\ ^3S_1$	$1s^22p11d\ ^3P_2$	53.25229	0.43123D+11	0.44936D+12	0.76363D+13	0.40726D+11
$1s^22p5p\ ^1D_2$	$1s^22p11d\ ^3P_2$	53.50879	0.27581D+11	0.44936D+12	0.76363D+13	0.26048D+11
$1s^22p6p\ ^3D_2$	$1s^22p11d\ ^3P_2$	86.61377	0.14708D+11	0.44936D+12	0.76363D+13	0.13891D+11
$1s^22p6p\ ^3S_1$	$1s^22p11d\ ^3P_2$	86.78681	0.26020D+11	0.44936D+12	0.76363D+13	0.24574D+11
$1s^22p6p\ ^1D_2$	$1s^22p11d\ ^3P_2$	87.12193	0.16964D+11	0.44936D+12	0.76363D+13	0.16021D+11
$1s^22p7p\ ^3S_1$	$1s^22p11d\ ^3P_2$	139.47624	0.17018D+11	0.44936D+12	0.76363D+13	0.16072D+11
$1s^22p7p\ ^3P_2$	$1s^22p11d\ ^3P_2$	140.03882	0.11415D+11	0.44936D+12	0.76363D+13	0.10781D+11
$1s^22p^2\ \ ^1D_2$	$1s^22p11d\ ^1F_3$	6.85701	0.27931D+13	0.57831D+12	0.31448D+13	0.23592D+13
$1s^22p3p\ ^3D_2$	$1s^22p11d\ ^1F_3$	15.97739	0.36690D+11	0.57831D+12	0.31448D+13	0.30991D+11
$1s^22p3p\ ^3D_3$	$1s^22p11d\ ^1F_3$	16.23346	0.16347D+11	0.57831D+12	0.31448D+13	0.13808D+11
$1s^22p3p\ ^3P_2$	$1s^22p11d\ ^1F_3$	16.27930	0.14765D+11	0.57831D+12	0.31448D+13	0.12472D+11
$1s^22p3p\ ^1D_2$	$1s^22p11d\ ^1F_3$	16.43888	0.45401D+12	0.57831D+12	0.31448D+13	0.38349D+12
$1s^22p4p\ ^3P_2$	$1s^22p11d\ ^1F_3$	31.01140	0.21033D+11	0.57831D+12	0.31448D+13	0.17766D+11
$1s^22p4p\ ^1D_2$	$1s^22p11d\ ^1F_3$	31.24491	0.22137D+12	0.57831D+12	0.31448D+13	0.18698D+12
$1s^22p5p\ ^3D_2$	$1s^22p11d\ ^1F_3$	53.15307	0.14000D+11	0.57831D+12	0.31448D+13	0.11825D+11
$1s^22p5p\ ^1D_2$	$1s^22p11d\ ^1F_3$	53.49061	0.12206D+12	0.57831D+12	0.31448D+13	0.10310D+12
$1s^22p6p\ ^1D_2$	$1s^22p11d\ ^1F_3$	87.07375	0.75438D+11	0.57831D+12	0.31448D+13	0.63720D+11
$1s^22p7p\ ^3P_2$	$1s^22p11d\ ^1F_3$	139.91438	0.50735D+11	0.57831D+12	0.31448D+13	0.42854D+11
$1s^22s^2\ \ ^1S_0$	$1s^22p11d\ ^1P_1$	6.33746	0.15343D+11	0.44017D+12	0.59719D+13	0.14290D+11
$1s^22p^2\ \ ^3P_0$	$1s^22p11d\ ^1P_1$	6.74477	0.95397D+11	0.44017D+12	0.59719D+13	0.88848D+11
$1s^22p^2\ \ ^3P_1$	$1s^22p11d\ ^1P_1$	6.77714	0.18952D+11	0.44017D+12	0.59719D+13	0.17651D+11
$1s^22p^2\ \ ^1D_2$	$1s^22p11d\ ^1P_1$	6.85693	0.32770D+11	0.44017D+12	0.59719D+13	0.30520D+11
$1s^22p^2\ \ ^1S_0$	$1s^22p11d\ ^1P_1$	6.94917	0.60853D+12	0.44017D+12	0.59719D+13	0.56676D+12
$1s^22p3p\ ^3P_1$	$1s^22p11d\ ^1P_1$	16.21491	0.84624D+11	0.44017D+12	0.59719D+13	0.78815D+11
$1s^22p3p\ ^3S_1$	$1s^22p11d\ ^1P_1$	16.27221	0.30747D+11	0.44017D+12	0.59719D+13	0.28636D+11
$1s^22p3p\ ^1S_0$	$1s^22p11d\ ^1P_1$	16.62584	0.92660D+11	0.44017D+12	0.59719D+13	0.86299D+11
$1s^22p4p\ ^1P_1$	$1s^22p11d\ ^1P_1$	30.95266	0.29794D+11	0.44017D+12	0.59719D+13	0.27749D+11
$1s^22p4p\ ^3S_1$	$1s^22p11d\ ^1P_1$	31.05777	0.24213D+11	0.44017D+12	0.59719D+13	0.22551D+11
$1s^22p4p\ ^1S_0$	$1s^22p11d\ ^1P_1$	31.46965	0.50802D+11	0.44017D+12	0.59719D+13	0.47315D+11
$1s^22p5p\ ^1P_1$	$1s^22p11d\ ^1P_1$	53.08014	0.13924D+11	0.44017D+12	0.59719D+13	0.12968D+11
$1s^22p5p\ ^3S_1$	$1s^22p11d\ ^1P_1$	53.22940	0.15078D+11	0.44017D+12	0.59719D+13	0.14043D+11
$1s^22p5p\ ^1S_0$	$1s^22p11d\ ^1P_1$	53.76903	0.29620D+11	0.44017D+12	0.59719D+13	0.27587D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p3d\ ^3F_3$	$1s^22p11f\ ^1F_3$	16.24570	0.16648D+11	0.21409D+12	0.12016D+13	0.14130D+11
$1s^22p3d\ ^3P_2$	$1s^22p11f\ ^1F_3$	16.27229	0.23463D+11	0.21409D+12	0.12016D+13	0.19915D+11
$1s^22p3d\ ^1D_2$	$1s^22p11f\ ^1F_3$	16.51326	0.43091D+12	0.21409D+12	0.12016D+13	0.36575D+12
$1s^22p3d\ ^3D_3$	$1s^22p11f\ ^1F_3$	16.57620	0.64661D+11	0.21409D+12	0.12016D+13	0.54883D+11
$1s^22p3d\ ^3P_2$	$1s^22p11f\ ^1F_3$	16.62511	0.20737D+11	0.21409D+12	0.12016D+13	0.17601D+11
$1s^22p3d\ ^1F_3$	$1s^22p11f\ ^1F_3$	16.77830	0.16724D+11	0.21409D+12	0.12016D+13	0.14195D+11
$1s^22p4d\ ^1D_2$	$1s^22p11f\ ^1F_3$	31.40685	0.26473D+12	0.21409D+12	0.12016D+13	0.22470D+12
$1s^22p4d\ ^3D_3$	$1s^22p11f\ ^1F_3$	31.47766	0.46984D+11	0.21409D+12	0.12016D+13	0.39879D+11
$1s^22p4d\ ^3P_2$	$1s^22p11f\ ^1F_3$	31.54754	0.12011D+11	0.21409D+12	0.12016D+13	0.10195D+11
$1s^22p5d\ ^1D_2$	$1s^22p11f\ ^1F_3$	53.76499	0.15528D+12	0.21409D+12	0.12016D+13	0.13180D+12
$1s^22p5d\ ^3D_3$	$1s^22p11f\ ^1F_3$	53.85806	0.28797D+11	0.21409D+12	0.12016D+13	0.24442D+11
$1s^22p6d\ ^1D_2$	$1s^22p11f\ ^1F_3$	87.51530	0.97257D+11	0.21409D+12	0.12016D+13	0.82550D+11
$1s^22p6d\ ^3D_3$	$1s^22p11f\ ^1F_3$	87.64903	0.18155D+11	0.21409D+12	0.12016D+13	0.15410D+11
$1s^22p7d\ ^1D_2$	$1s^22p11f\ ^1F_3$	140.66605	0.63967D+11	0.21409D+12	0.12016D+13	0.54294D+11
$1s^22p7d\ ^3D_3$	$1s^22p11f\ ^1F_3$	140.87495	0.12099D+11	0.21409D+12	0.12016D+13	0.10269D+11
$1s^22p3d\ ^3F_3$	$1s^22p11f\ ^3F_4$	16.24538	0.30240D+11	0.21122D+12	0.17260D+13	0.26943D+11
$1s^22p3d\ ^3F_4$	$1s^22p11f\ ^3F_4$	16.49185	0.13367D+12	0.21122D+12	0.17260D+13	0.11910D+12
$1s^22p3d\ ^3D_3$	$1s^22p11f\ ^3F_4$	16.57587	0.54286D+12	0.21122D+12	0.17260D+13	0.48367D+12
$1s^22p3d\ ^1F_3$	$1s^22p11f\ ^3F_4$	16.77796	0.17608D+11	0.21122D+12	0.17260D+13	0.15688D+11
$1s^22p4d\ ^3F_4$	$1s^22p11f\ ^3F_4$	31.40668	0.74355D+11	0.21122D+12	0.17260D+13	0.66248D+11
$1s^22p4d\ ^3D_3$	$1s^22p11f\ ^3F_4$	31.47646	0.33161D+12	0.21122D+12	0.17260D+13	0.29545D+12
$1s^22p4d\ ^1F_3$	$1s^22p11f\ ^3F_4$	31.71901	0.20903D+11	0.21122D+12	0.17260D+13	0.18624D+11
$1s^22p5d\ ^3F_4$	$1s^22p11f\ ^3F_4$	53.77311	0.42781D+11	0.21122D+12	0.17260D+13	0.38116D+11
$1s^22p5d\ ^3D_3$	$1s^22p11f\ ^3F_4$	53.85454	0.19380D+12	0.21122D+12	0.17260D+13	0.17267D+12
$1s^22p5d\ ^1F_3$	$1s^22p11f\ ^3F_4$	54.18180	0.15539D+11	0.21122D+12	0.17260D+13	0.13845D+11
$1s^22p6d\ ^3F_4$	$1s^22p11f\ ^3F_4$	87.52951	0.26385D+11	0.21122D+12	0.17260D+13	0.23508D+11
$1s^22p6d\ ^3D_3$	$1s^22p11f\ ^3F_4$	87.63971	0.12139D+12	0.21122D+12	0.17260D+13	0.10815D+12
$1s^22p7d\ ^3F_4$	$1s^22p11f\ ^3F_4$	140.68475	0.17204D+11	0.21122D+12	0.17260D+13	0.15328D+11
$1s^22p7d\ ^3D_3$	$1s^22p11f\ ^3F_4$	140.85086	0.80319D+11	0.21122D+12	0.17260D+13	0.71562D+11
$1s^22p3d\ ^1D_2$	$1s^22p11f\ ^3F_2$	16.51261	0.49994D+11	0.20487D+12	0.39313D+12	0.32867D+11
$1s^22p3d\ ^3P_2$	$1s^22p11f\ ^3F_2$	16.62446	0.87457D+11	0.20487D+12	0.39313D+12	0.57495D+11
$1s^22p3d\ ^3P_1$	$1s^22p11f\ ^3F_2$	16.62474	0.18514D+12	0.20487D+12	0.39313D+12	0.12171D+12
$1s^22p3d\ ^1P_1$	$1s^22p11f\ ^3F_2$	16.80350	0.27549D+11	0.20487D+12	0.39313D+12	0.18111D+11
$1s^22p4d\ ^1D_2$	$1s^22p11f\ ^3F_2$	31.40453	0.31175D+11	0.20487D+12	0.39313D+12	0.20495D+11
$1s^22p4d\ ^3P_1$	$1s^22p11f\ ^3F_2$	31.54241	0.11771D+12	0.20487D+12	0.39313D+12	0.77384D+11
$1s^22p4d\ ^3P_2$	$1s^22p11f\ ^3F_2$	31.54520	0.53307D+11	0.20487D+12	0.39313D+12	0.35045D+11
$1s^22p4d\ ^1P_1$	$1s^22p11f\ ^3F_2$	31.76275	0.17482D+11	0.20487D+12	0.39313D+12	0.11493D+11
$1s^22p5d\ ^1D_2$	$1s^22p11f\ ^3F_2$	53.75818	0.18669D+11	0.20487D+12	0.39313D+12	0.12273D+11
$1s^22p5d\ ^3P_1$	$1s^22p11f\ ^3F_2$	53.93842	0.71043D+11	0.20487D+12	0.39313D+12	0.46705D+11
$1s^22p5d\ ^3P_2$	$1s^22p11f\ ^3F_2$	53.94673	0.31671D+11	0.20487D+12	0.39313D+12	0.20821D+11
$1s^22p6d\ ^3P_1$	$1s^22p11f\ ^3F_2$	87.77242	0.45556D+11	0.20487D+12	0.39313D+12	0.29949D+11
$1s^22p6d\ ^3P_2$	$1s^22p11f\ ^3F_2$	87.78286	0.19528D+11	0.20487D+12	0.39313D+12	0.12838D+11
$1s^22p7d\ ^3P_1$	$1s^22p11f\ ^3F_2$	141.03491	0.30582D+11	0.20487D+12	0.39313D+12	0.20105D+11
$1s^22p3d\ ^1D_2$	$1s^22p11f\ ^3D_3$	16.51254	0.50468D+11	0.20852D+12	0.57809D+12	0.37089D+11
$1s^22p3d\ ^3D_3$	$1s^22p11f\ ^3D_3$	16.57548	0.90645D+11	0.20852D+12	0.57809D+12	0.66616D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p3d\ ^3P_2$	$1s^22p11f\ ^3D_3$	16.62439	0.34845D+12	0.20852D+12	0.57809D+12	0.25608D+12
$1s^22p3d\ ^1F_3$	$1s^22p11f\ ^3D_3$	16.77756	0.29717D+11	0.20852D+12	0.57809D+12	0.21839D+11
$1s^22p4d\ ^1D_2$	$1s^22p11f\ ^3D_3$	31.40426	0.30149D+11	0.20852D+12	0.57809D+12	0.22157D+11
$1s^22p4d\ ^3D_3$	$1s^22p11f\ ^3D_3$	31.47506	0.49735D+11	0.20852D+12	0.57809D+12	0.36551D+11
$1s^22p4d\ ^3P_2$	$1s^22p11f\ ^3D_3$	31.54492	0.21587D+12	0.20852D+12	0.57809D+12	0.15864D+12
$1s^22p4d\ ^1F_3$	$1s^22p11f\ ^3D_3$	31.71758	0.25519D+11	0.20852D+12	0.57809D+12	0.18754D+11
$1s^22p5d\ ^1D_2$	$1s^22p11f\ ^3D_3$	53.75739	0.16913D+11	0.20852D+12	0.57809D+12	0.12430D+11
$1s^22p5d\ ^3D_3$	$1s^22p11f\ ^3D_3$	53.85044	0.28086D+11	0.20852D+12	0.57809D+12	0.20641D+11
$1s^22p5d\ ^3P_2$	$1s^22p11f\ ^3D_3$	53.94594	0.12950D+12	0.20852D+12	0.57809D+12	0.95171D+11
$1s^22p5d\ ^1F_3$	$1s^22p11f\ ^3D_3$	54.17765	0.17303D+11	0.20852D+12	0.57809D+12	0.12716D+11
$1s^22p6d\ ^3D_3$	$1s^22p11f\ ^3D_3$	87.62885	0.17466D+11	0.20852D+12	0.57809D+12	0.12836D+11
$1s^22p6d\ ^3P_2$	$1s^22p11f\ ^3D_3$	87.78076	0.82582D+11	0.20852D+12	0.57809D+12	0.60690D+11
$1s^22p7d\ ^3P_2$	$1s^22p11f\ ^3D_3$	141.05280	0.55375D+11	0.20852D+12	0.57809D+12	0.40696D+11
$1s^22p3d\ ^3F_4$	$1s^22p11f\ ^3G_5$	16.49139	0.97964D+12	0.22258D+12	0.47561D+13	0.93584D+12
$1s^22p4d\ ^3F_4$	$1s^22p11f\ ^3G_5$	31.40501	0.54667D+12	0.22258D+12	0.47561D+13	0.52223D+12
$1s^22p5d\ ^3F_4$	$1s^22p11f\ ^3G_5$	53.76820	0.31581D+12	0.22258D+12	0.47561D+13	0.30169D+12
$1s^22p6d\ ^3F_4$	$1s^22p11f\ ^3G_5$	87.51651	0.19567D+12	0.22258D+12	0.47561D+13	0.18692D+12
$1s^22p7d\ ^3F_4$	$1s^22p11f\ ^3G_5$	140.65117	0.12824D+12	0.22258D+12	0.47561D+13	0.12251D+12
$1s^22p3d\ ^3P_1$	$1s^22p11f\ ^3D_1$	16.62415	0.10464D+12	0.20750D+12	0.51873D+12	0.74741D+11
$1s^22p3d\ ^3P_0$	$1s^22p11f\ ^3D_1$	16.62967	0.10601D+12	0.20750D+12	0.51873D+12	0.75720D+11
$1s^22p4d\ ^3P_1$	$1s^22p11f\ ^3D_1$	31.54031	0.63674D+11	0.20750D+12	0.51873D+12	0.45481D+11
$1s^22p4d\ ^3P_0$	$1s^22p11f\ ^3D_1$	31.54852	0.64018D+11	0.20750D+12	0.51873D+12	0.45726D+11
$1s^22p5d\ ^3P_1$	$1s^22p11f\ ^3D_1$	53.93227	0.38184D+11	0.20750D+12	0.51873D+12	0.27274D+11
$1s^22p5d\ ^3P_0$	$1s^22p11f\ ^3D_1$	53.94174	0.38345D+11	0.20750D+12	0.51873D+12	0.27389D+11
$1s^22p6d\ ^3P_1$	$1s^22p11f\ ^3D_1$	87.75612	0.24124D+11	0.20750D+12	0.51873D+12	0.17231D+11
$1s^22p6d\ ^3P_0$	$1s^22p11f\ ^3D_1$	87.77663	0.24284D+11	0.20750D+12	0.51873D+12	0.17345D+11
$1s^22p7d\ ^3P_1$	$1s^22p11f\ ^3D_1$	140.99282	0.16328D+11	0.20750D+12	0.51873D+12	0.11663D+11
$1s^22p7d\ ^3P_0$	$1s^22p11f\ ^3D_1$	141.01912	0.16426D+11	0.20750D+12	0.51873D+12	0.11733D+11
$1s^22p3d\ ^3F_3$	$1s^22p11f\ ^1G_4$	16.24443	0.91292D+11	0.19075D+12	0.55143D+13	0.88240D+11
$1s^22p3d\ ^3D_3$	$1s^22p11f\ ^1G_4$	16.57488	0.10675D+11	0.19075D+12	0.55143D+13	0.10318D+11
$1s^22p3d\ ^1F_3$	$1s^22p11f\ ^1G_4$	16.77695	0.49172D+12	0.19075D+12	0.55143D+13	0.47528D+12
$1s^22p4d\ ^3F_3$	$1s^22p11f\ ^1G_4$	30.35051	0.11541D+11	0.19075D+12	0.55143D+13	0.11155D+11
$1s^22p4d\ ^3D_3$	$1s^22p11f\ ^1G_4$	31.47290	0.24131D+11	0.19075D+12	0.55143D+13	0.23324D+11
$1s^22p4d\ ^1F_3$	$1s^22p11f\ ^1G_4$	31.71539	0.34934D+12	0.19075D+12	0.55143D+13	0.33766D+12
$1s^22p5d\ ^3D_3$	$1s^22p11f\ ^1G_4$	53.84412	0.18577D+11	0.19075D+12	0.55143D+13	0.17956D+11
$1s^22p5d\ ^1F_3$	$1s^22p11f\ ^1G_4$	54.17126	0.21632D+12	0.19075D+12	0.55143D+13	0.20909D+12
$1s^22p6d\ ^3D_3$	$1s^22p11f\ ^1G_4$	87.61213	0.12239D+11	0.19075D+12	0.55143D+13	0.11830D+11
$1s^22p6d\ ^1F_3$	$1s^22p11f\ ^1G_4$	88.10096	0.14096D+12	0.19075D+12	0.55143D+13	0.13625D+12
$1s^22p7d\ ^1F_3$	$1s^22p11f\ ^1G_4$	141.55157	0.97197D+11	0.19075D+12	0.55143D+13	0.93947D+11
$1s^22s2p\ ^1P_1$	$1s^22p11f\ ^1D_2$	6.64204	0.21729D+11	0.19912D+12	0.35418D+12	0.13909D+11
$1s^22p3d\ ^1D_2$	$1s^22p11f\ ^1D_2$	16.51143	0.25087D+11	0.19912D+12	0.35418D+12	0.16059D+11
$1s^22p3d\ ^3P_2$	$1s^22p11f\ ^1D_2$	16.62327	0.51051D+11	0.19912D+12	0.35418D+12	0.32679D+11
$1s^22p3d\ ^3P_1$	$1s^22p11f\ ^1D_2$	16.62354	0.23938D+11	0.19912D+12	0.35418D+12	0.15323D+11
$1s^22p3d\ ^1P_1$	$1s^22p11f\ ^1D_2$	16.80227	0.21960D+12	0.19912D+12	0.35418D+12	0.14057D+12
$1s^22p4d\ ^3P_2$	$1s^22p11f\ ^1D_2$	31.54089	0.32098D+11	0.19912D+12	0.35418D+12	0.20546D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2p4d\ ^1P_1$	$1s^2 2p11f\ ^1D_2$	31.75838	0.15423D+12	0.19912D+12	0.35418D+12	0.98725D+11
$1s^2 2p5d\ ^3P_2$	$1s^2 2p11f\ ^1D_2$	53.93413	0.19460D+11	0.19912D+12	0.35418D+12	0.12457D+11
$1s^2 2p5d\ ^1P_1$	$1s^2 2p11f\ ^1D_2$	54.23028	0.96945D+11	0.19912D+12	0.35418D+12	0.62056D+11
$1s^2 2p6d\ ^1P_1$	$1s^2 2p11f\ ^1D_2$	88.19155	0.63622D+11	0.19912D+12	0.35418D+12	0.40725D+11
$1s^2 2p7d\ ^1P_1$	$1s^2 2p11f\ ^1D_2$	141.67816	0.44118D+11	0.19912D+12	0.35418D+12	0.28241D+11
$1s^2 2p8d\ ^1D_2$	$1s^2 2p11f\ ^1F_3$	231.98277	0.44289D+11	0.21409D+12	0.12016D+13	0.37592D+11
$1s^2 2p9d\ ^1D_2$	$1s^2 2p11f\ ^1F_3$	417.79820	0.31716D+11	0.21409D+12	0.12016D+13	0.26920D+11
$1s^2 2p10d\ ^1D_2$	$1s^2 2p11f\ ^1F_3$	977.50851	0.23594D+11	0.21409D+12	0.12016D+13	0.20026D+11
$1s^2 2p8d\ ^3F_4$	$1s^2 2p11f\ ^3F_4$	231.99219	0.11907D+11	0.21122D+12	0.17260D+13	0.10609D+11
$1s^2 2p8d\ ^3D_3$	$1s^2 2p11f\ ^3F_4$	232.28663	0.55018D+11	0.21122D+12	0.17260D+13	0.49019D+11
$1s^2 2p9d\ ^3F_3$	$1s^2 2p11f\ ^3F_4$	418.37591	0.38888D+11	0.21122D+12	0.17260D+13	0.34648D+11
$1s^2 2p10d\ ^3D_3$	$1s^2 2p11f\ ^3F_4$	979.68909	0.29546D+11	0.21122D+12	0.17260D+13	0.26325D+11
$1s^2 2p8d\ ^3P_1$	$1s^2 2p11f\ ^3F_2$	232.61889	0.21738D+11	0.20487D+12	0.39313D+12	0.14291D+11
$1s^2 2p9d\ ^3P_1$	$1s^2 2p11f\ ^3F_2$	419.04457	0.15814D+11	0.20487D+12	0.39313D+12	0.10396D+11
$1s^2 2p8d\ ^3P_2$	$1s^2 2p11f\ ^3D_3$	232.64730	0.38716D+11	0.20852D+12	0.57809D+12	0.28453D+11
$1s^2 2p9d\ ^3P_2$	$1s^2 2p11f\ ^3D_3$	419.13116	0.27970D+11	0.20852D+12	0.57809D+12	0.20555D+11
$1s^2 2p10d\ ^3P_2$	$1s^2 2p11f\ ^3D_3$	982.02887	0.20545D+11	0.20852D+12	0.57809D+12	0.15099D+11
$1s^2 2p8d\ ^3F_4$	$1s^2 2p11f\ ^3G_5$	231.90089	0.88886D+11	0.22258D+12	0.47561D+13	0.84912D+11
$1s^2 2p9d\ ^3F_4$	$1s^2 2p11f\ ^3G_5$	417.48267	0.63988D+11	0.22258D+12	0.47561D+13	0.61127D+11
$1s^2 2p10d\ ^3F_4$	$1s^2 2p11f\ ^3G_5$	975.43085	0.46280D+11	0.22258D+12	0.47561D+13	0.44211D+11
$1s^2 2p8d\ ^1F_3$	$1s^2 2p11f\ ^1G_4$	233.40671	0.68785D+11	0.19075D+12	0.55143D+13	0.66485D+11
$1s^2 2p9d\ ^1F_3$	$1s^2 2p11f\ ^1G_4$	420.64580	0.48890D+11	0.19075D+12	0.55143D+13	0.47255D+11
$1s^2 2p10d\ ^1F_3$	$1s^2 2p11f\ ^1G_4$	988.33859	0.36393D+11	0.19075D+12	0.55143D+13	0.35176D+11
$1s^2 2p8d\ ^1P_1$	$1s^2 2p11f\ ^1D_2$	233.59236	0.31819D+11	0.19912D+12	0.35418D+12	0.20368D+11
$1s^2 2p9d\ ^1P_1$	$1s^2 2p11f\ ^1D_2$	420.99095	0.23428D+11	0.19912D+12	0.35418D+12	0.14997D+11
$1s^2 2p10d\ ^1P_1$	$1s^2 2p11f\ ^1D_2$	989.01208	0.16514D+11	0.19912D+12	0.35418D+12	0.10571D+11
$1s^2 2s11f\ ^3F_2$	$1s^2 2p11f\ ^1F_3$	192.25009	0.12227D+11	0.21409D+12	0.12016D+13	0.10378D+11
$1s^2 2s11f\ ^3F_3$	$1s^2 2p11f\ ^3F_4$	192.21846	0.22568D+11	0.21122D+12	0.17260D+13	0.20107D+11
$1s^2 2s11f\ ^3F_4$	$1s^2 2p11f\ ^3F_4$	192.24359	0.15547D+11	0.21122D+12	0.17260D+13	0.13852D+11
$1s^2 2s11f\ ^3F_2$	$1s^2 2p11f\ ^3F_2$	192.16302	0.17135D+11	0.20487D+12	0.39313D+12	0.11265D+11
$1s^2 2s11f\ ^3F_4$	$1s^2 2p11f\ ^3G_5$	192.18089	0.46444D+11	0.22258D+12	0.47561D+13	0.44368D+11
$1s^2 2s11f\ ^1F_3$	$1s^2 2p11f\ ^1G_4$	192.20013	0.21555D+11	0.19075D+12	0.55143D+13	0.20834D+11
$1s^2 2s11f\ ^1F_3$	$1s^2 2p11f\ ^1D_2$	192.13064	0.15819D+11	0.19912D+12	0.35418D+12	0.10126D+11
$1s^2 2p5g\ ^3G_4$	$1s^2 2p11h\ ^3H_5$	54.16961	0.15658D+12	0.66697D+11	0.16650D+13	0.15055D+12
$1s^2 2p6g\ ^3G_4$	$1s^2 2p11h\ ^3H_5$	88.11045	0.17546D+12	0.66697D+11	0.16650D+13	0.16870D+12
$1s^2 2p5g\ ^3G_3$	$1s^2 2p11h\ ^3H_4$	54.19907	0.12226D+12	0.66835D+11	0.17265D+12	0.88140D+11
$1s^2 2p6g\ ^3G_4$	$1s^2 2p11h\ ^3H_4$	88.10795	0.14471D+11	0.66835D+11	0.17265D+12	0.10432D+11
$1s^2 2p6g\ ^3G_3$	$1s^2 2p11h\ ^3H_4$	88.14986	0.13729D+12	0.66835D+11	0.17265D+12	0.98975D+11
$1s^2 2p5g\ ^3G_5$	$1s^2 2p11h\ ^3H_6$	54.18675	0.18857D+12	0.66641D+11	0.17171D+13	0.18153D+12
$1s^2 2p5g\ ^3H_6$	$1s^2 2p11h\ ^3H_6$	54.23955	0.11553D+11	0.66641D+11	0.17171D+13	0.11121D+11
$1s^2 2p6g\ ^3G_5$	$1s^2 2p11h\ ^3H_6$	88.13631	0.21145D+12	0.66641D+11	0.17171D+13	0.20355D+12
$1s^2 2p6g\ ^3H_6$	$1s^2 2p11h\ ^3H_6$	88.22759	0.13077D+11	0.66641D+11	0.17171D+13	0.12588D+11
$1s^2 2p5g\ ^3F_4$	$1s^2 2p11h\ ^3G_5$	54.21500	0.15562D+12	0.66761D+11	0.21521D+12	0.11877D+12

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p4f\ ^1F_3$	$1s^22p11g\ ^3G_4$	31.61634	0.25356D+12	0.12328D+12	0.17090D+13	0.23650D+12
$1s^22p4f\ ^3F_4$	$1s^22p11g\ ^3G_4$	31.64108	0.20515D+11	0.12328D+12	0.17090D+13	0.19135D+11
$1s^22p4f\ ^1G_4$	$1s^22p11g\ ^3G_4$	31.71057	0.12389D+11	0.12328D+12	0.17090D+13	0.11555D+11
$1s^22p5f\ ^1F_3$	$1s^22p11g\ ^3G_4$	54.07058	0.21673D+12	0.12328D+12	0.17090D+13	0.20215D+12
$1s^22p5f\ ^3F_4$	$1s^22p11g\ ^3G_4$	54.10799	0.19058D+11	0.12328D+12	0.17090D+13	0.17776D+11
$1s^22p6f\ ^1F_3$	$1s^22p11g\ ^3G_4$	87.96708	0.15760D+12	0.12328D+12	0.17090D+13	0.14700D+12
$1s^22p6f\ ^3F_4$	$1s^22p11g\ ^3G_4$	88.02619	0.13824D+11	0.12328D+12	0.17090D+13	0.12894D+11
$1s^22p7f\ ^1F_3$	$1s^22p11g\ ^3G_4$	141.36182	0.11252D+12	0.12328D+12	0.17090D+13	0.10495D+12
$1s^22p4f\ ^3F_4$	$1s^22p11g\ ^3G_5$	31.64046	0.30657D+12	0.12286D+12	0.18329D+13	0.28731D+12
$1s^22p4f\ ^3G_5$	$1s^22p11g\ ^3G_5$	31.69116	0.31478D+11	0.12286D+12	0.18329D+13	0.29501D+11
$1s^22p4f\ ^1G_4$	$1s^22p11g\ ^3G_5$	31.70995	0.11130D+11	0.12286D+12	0.18329D+13	0.10431D+11
$1s^22p5f\ ^3F_4$	$1s^22p11g\ ^3G_5$	54.10618	0.25716D+12	0.12286D+12	0.18329D+13	0.24101D+12
$1s^22p5f\ ^3G_5$	$1s^22p11g\ ^3G_5$	54.16826	0.27186D+11	0.12286D+12	0.18329D+13	0.25478D+11
$1s^22p5f\ ^1G_4$	$1s^22p11g\ ^3G_5$	54.21199	0.15808D+11	0.12286D+12	0.18329D+13	0.14815D+11
$1s^22p6f\ ^3F_4$	$1s^22p11g\ ^3G_5$	88.02139	0.18794D+12	0.12286D+12	0.18329D+13	0.17613D+12
$1s^22p6f\ ^3G_5$	$1s^22p11g\ ^3G_5$	88.12042	0.19932D+11	0.12286D+12	0.18329D+13	0.18680D+11
$1s^22p6f\ ^1G_4$	$1s^22p11g\ ^3G_5$	88.19933	0.11193D+11	0.12286D+12	0.18329D+13	0.10490D+11
$1s^22p7f\ ^3F_4$	$1s^22p11g\ ^3G_5$	141.44386	0.13296D+12	0.12286D+12	0.18329D+13	0.12461D+12
$1s^22p7f\ ^3G_5$	$1s^22p11g\ ^3G_5$	141.58795	0.14335D+11	0.12286D+12	0.18329D+13	0.13435D+11
$1s^22p^2\ \ ^1D_2$	$1s^22p11g\ ^3G_3$	6.85691	0.20030D+11	0.12610D+12	0.26390D+12	0.13554D+11
$1s^22p4f\ ^1F_3$	$1s^22p11g\ ^3G_3$	31.61555	0.30554D+11	0.12610D+12	0.26390D+12	0.20675D+11
$1s^22p4f\ ^3F_2$	$1s^22p11g\ ^3G_3$	31.67449	0.17220D+12	0.12610D+12	0.26390D+12	0.11652D+12
$1s^22p5f\ ^1F_3$	$1s^22p11g\ ^3G_3$	54.06826	0.25853D+11	0.12610D+12	0.26390D+12	0.17494D+11
$1s^22p5f\ ^3F_2$	$1s^22p11g\ ^3G_3$	54.15279	0.14824D+12	0.12610D+12	0.26390D+12	0.10031D+12
$1s^22p6f\ ^1F_3$	$1s^22p11g\ ^3G_3$	87.96095	0.18791D+11	0.12610D+12	0.26390D+12	0.12715D+11
$1s^22p6f\ ^3F_2$	$1s^22p11g\ ^3G_3$	88.08291	0.10844D+12	0.12610D+12	0.26390D+12	0.73378D+11
$1s^22p7f\ ^3F_2$	$1s^22p11g\ ^3G_3$	141.54450	0.77927D+11	0.12610D+12	0.26390D+12	0.52731D+11
$1s^22p4f\ ^3F_4$	$1s^22p11g\ ^3F_4$	31.63977	0.30108D+11	0.12284D+12	0.21623D+12	0.19200D+11
$1s^22p4f\ ^3D_3$	$1s^22p11g\ ^3F_4$	31.68137	0.24173D+12	0.12284D+12	0.21623D+12	0.15415D+12
$1s^22p5f\ ^3F_4$	$1s^22p11g\ ^3F_4$	54.10416	0.24757D+11	0.12284D+12	0.21623D+12	0.15788D+11
$1s^22p5f\ ^3D_3$	$1s^22p11g\ ^3F_4$	54.15975	0.20873D+12	0.12284D+12	0.21623D+12	0.13311D+12
$1s^22p6f\ ^3F_4$	$1s^22p11g\ ^3F_4$	88.01606	0.18202D+11	0.12284D+12	0.21623D+12	0.11608D+11
$1s^22p6f\ ^3D_3$	$1s^22p11g\ ^3F_4$	88.09082	0.15276D+12	0.12284D+12	0.21623D+12	0.97417D+11
$1s^22p7f\ ^3D_3$	$1s^22p11g\ ^3F_4$	141.55227	0.10988D+12	0.12284D+12	0.21623D+12	0.70072D+11
$1s^22p4f\ ^1G_4$	$1s^22p11g\ ^1H_5$	31.70848	0.32203D+12	0.12106D+12	0.64105D+13	0.31606D+12
$1s^22p5f\ ^3F_4$	$1s^22p11g\ ^1H_5$	54.10189	0.13653D+11	0.12106D+12	0.64105D+13	0.13400D+11
$1s^22p5f\ ^1G_4$	$1s^22p11g\ ^1H_5$	54.20768	0.27613D+12	0.12106D+12	0.64105D+13	0.27101D+12
$1s^22p6f\ ^1G_4$	$1s^22p11g\ ^1H_5$	88.18793	0.20500D+12	0.12106D+12	0.64105D+13	0.20120D+12
$1s^22p7f\ ^1G_4$	$1s^22p11g\ ^1H_5$	141.69506	0.14797D+12	0.12106D+12	0.64105D+13	0.14523D+12
$1s^22p4f\ ^3G_5$	$1s^22p11g\ ^3H_6$	31.68935	0.40649D+12	0.12232D+12	0.64023D+13	0.39887D+12
$1s^22p5f\ ^3G_5$	$1s^22p11g\ ^3H_6$	54.16296	0.35144D+12	0.12232D+12	0.64023D+13	0.34485D+12
$1s^22p6f\ ^3G_5$	$1s^22p11g\ ^3H_6$	88.10639	0.25807D+12	0.12232D+12	0.64023D+13	0.25323D+12
$1s^22p7f\ ^3G_5$	$1s^22p11g\ ^3H_6$	141.55171	0.18617D+12	0.12232D+12	0.64023D+13	0.18268D+12
$1s^22p4f\ ^3F_2$	$1s^22p11g\ ^3F_2$	31.67267	0.26221D+11	0.12238D+12	0.14780D+12	0.14344D+11
$1s^22p4f\ ^3D_1$	$1s^22p11g\ ^3F_2$	31.73436	0.11638D+12	0.12238D+12	0.14780D+12	0.63664D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2p5f\ ^3F_2$	$1s^2 2p11g\ ^3F_2$	54.14748	0.23769D+11	0.12238D+12	0.14780D+12	0.13003D+11
$1s^2 2p5f\ ^3D_1$	$1s^2 2p11g\ ^3F_2$	54.22906	0.10218D+12	0.12238D+12	0.14780D+12	0.55897D+11
$1s^2 2p6f\ ^3D_1$	$1s^2 2p11g\ ^3F_2$	88.18703	0.75766D+11	0.12238D+12	0.14780D+12	0.41447D+11
$1s^2 2p7f\ ^3D_1$	$1s^2 2p11g\ ^3F_2$	141.69119	0.55284D+11	0.12238D+12	0.14780D+12	0.30243D+11
$1s^2 2p4f\ ^3D_3$	$1s^2 2p11g\ ^3F_3$	31.67935	0.26289D+11	0.12204D+12	0.33883D+12	0.19328D+11
$1s^2 2p4f\ ^1D_2$	$1s^2 2p11g\ ^3F_3$	31.77255	0.18013D+12	0.12204D+12	0.33883D+12	0.13243D+12
$1s^2 2p5f\ ^3D_3$	$1s^2 2p11g\ ^3F_3$	54.15386	0.22765D+11	0.12204D+12	0.33883D+12	0.16737D+11
$1s^2 2p5f\ ^1D_2$	$1s^2 2p11g\ ^3F_3$	54.29381	0.15869D+12	0.12204D+12	0.33883D+12	0.11667D+12
$1s^2 2p6f\ ^3D_3$	$1s^2 2p11g\ ^3F_3$	88.07523	0.16698D+11	0.12204D+12	0.33883D+12	0.12276D+11
$1s^2 2p6f\ ^1D_2$	$1s^2 2p11g\ ^3F_3$	88.28890	0.11801D+12	0.12204D+12	0.33883D+12	0.86761D+11
$1s^2 2p7f\ ^1D_2$	$1s^2 2p11g\ ^3F_3$	141.85876	0.86351D+11	0.12204D+12	0.33883D+12	0.63485D+11
$1s^2 2p8f\ ^1F_3$	$1s^2 2p11g\ ^3G_4$	233.19808	0.82289D+11	0.12328D+12	0.17090D+13	0.76752D+11
$1s^2 2p9f\ ^1F_3$	$1s^2 2p11g\ ^3G_4$	420.37260	0.60382D+11	0.12328D+12	0.17090D+13	0.56319D+11
$1s^2 2p10f\ ^1F_3$	$1s^2 2p11g\ ^3G_4$	986.78595	0.44539D+11	0.12328D+12	0.17090D+13	0.41542D+11
$1s^2 2p8f\ ^3F_4$	$1s^2 2p11g\ ^3G_5$	233.33874	0.97410D+11	0.12286D+12	0.18329D+13	0.91291D+11
$1s^2 2p9f\ ^3F_4$	$1s^2 2p11g\ ^3G_5$	420.65872	0.71430D+11	0.12286D+12	0.18329D+13	0.66943D+11
$1s^2 2p10f\ ^3F_4$	$1s^2 2p11g\ ^3G_5$	987.75383	0.52171D+11	0.12286D+12	0.18329D+13	0.48894D+11
$1s^2 2p8f\ ^3F_2$	$1s^2 2p11g\ ^3G_3$	233.48649	0.57253D+11	0.12610D+12	0.26390D+12	0.38742D+11
$1s^2 2p9f\ ^3F_2$	$1s^2 2p11g\ ^3G_3$	420.96862	0.42431D+11	0.12610D+12	0.26390D+12	0.28712D+11
$1s^2 2p10f\ ^3F_2$	$1s^2 2p11g\ ^3G_3$	989.10696	0.30939D+11	0.12610D+12	0.26390D+12	0.20936D+11
$1s^2 2p8f\ ^3D_3$	$1s^2 2p11g\ ^3F_4$	233.49930	0.80098D+11	0.12284D+12	0.21623D+12	0.51080D+11
$1s^2 2p9f\ ^3D_3$	$1s^2 2p11g\ ^3F_4$	420.97251	0.59111D+11	0.12284D+12	0.21623D+12	0.37696D+11
$1s^2 2p10f\ ^3D_3$	$1s^2 2p11g\ ^3F_4$	988.95046	0.43486D+11	0.12284D+12	0.21623D+12	0.27732D+11
$1s^2 2p8f\ ^1G_4$	$1s^2 2p11g\ ^1H_5$	233.77180	0.10933D+12	0.12106D+12	0.64105D+13	0.10730D+12
$1s^2 2p9f\ ^1G_4$	$1s^2 2p11g\ ^1H_5$	421.54375	0.80709D+11	0.12106D+12	0.64105D+13	0.79213D+11
$1s^2 2p10f\ ^1G_4$	$1s^2 2p11g\ ^1H_5$	991.02429	0.58420D+11	0.12106D+12	0.64105D+13	0.57337D+11
$1s^2 2p8f\ ^3D_1$	$1s^2 2p11g\ ^3F_2$	233.70613	0.40459D+11	0.12238D+12	0.14780D+12	0.22133D+11
$1s^2 2p9f\ ^3D_1$	$1s^2 2p11g\ ^3F_2$	421.37554	0.30227D+11	0.12238D+12	0.14780D+12	0.16535D+11
$1s^2 2p10f\ ^3D_1$	$1s^2 2p11g\ ^3F_2$	990.09607	0.21932D+11	0.12238D+12	0.14780D+12	0.11998D+11
$1s^2 2p8f\ ^1D_2$	$1s^2 2p11g\ ^3F_3$	233.96793	0.63544D+11	0.12204D+12	0.33883D+12	0.46717D+11
$1s^2 2p9f\ ^1D_2$	$1s^2 2p11g\ ^3F_3$	421.93025	0.47586D+11	0.12204D+12	0.33883D+12	0.34985D+11
$1s^2 2p10f\ ^1D_2$	$1s^2 2p11g\ ^3F_3$	992.30960	0.34396D+11	0.12204D+12	0.33883D+12	0.25288D+11
$1s^2 2p8f\ ^3G_5$	$1s^2 2p11g\ ^3H_6$	233.50127	0.13732D+12	0.12232D+12	0.64023D+13	0.13475D+12
$1s^2 2p9f\ ^3G_5$	$1s^2 2p11g\ ^3H_6$	420.91014	0.10121D+12	0.12232D+12	0.64023D+13	0.99312D+11
$1s^2 2p10f\ ^3G_5$	$1s^2 2p11g\ ^3H_6$	988.21651	0.73485D+11	0.12232D+12	0.64023D+13	0.72107D+11
$1s^2 2s11g\ ^3G_3$	$1s^2 2p11g\ ^3G_4$	192.25408	0.15958D+11	0.12328D+12	0.17090D+13	0.14884D+11
$1s^2 2s11g\ ^3G_4$	$1s^2 2p11g\ ^3G_4$	192.25807	0.19739D+11	0.12328D+12	0.17090D+13	0.18411D+11
$1s^2 2s11g\ ^3G_5$	$1s^2 2p11g\ ^3G_5$	192.25397	0.25907D+11	0.12286D+12	0.18329D+13	0.24280D+11
$1s^2 2s11g\ ^1G_4$	$1s^2 2p11g\ ^3G_5$	192.26225	0.12444D+11	0.12286D+12	0.18329D+13	0.11662D+11
$1s^2 2s11g\ ^3G_3$	$1s^2 2p11g\ ^3G_3$	192.22481	0.22257D+11	0.12610D+12	0.26390D+12	0.15061D+11
$1s^2 2s11g\ ^1G_4$	$1s^2 2p11g\ ^3F_4$	192.23682	0.25120D+11	0.12284D+12	0.21623D+12	0.16019D+11
$1s^2 2s11g\ ^3G_4$	$1s^2 2p11g\ ^1H_5$	192.18104	0.36585D+11	0.12106D+12	0.64105D+13	0.35907D+11
$1s^2 2s11g\ ^3G_5$	$1s^2 2p11g\ ^3H_6$	192.18717	0.56165D+11	0.12232D+12	0.64023D+13	0.55112D+11
$1s^2 2s11g\ ^3G_3$	$1s^2 2p11g\ ^3F_2$	192.15792	0.21894D+11	0.12238D+12	0.14780D+12	0.11977D+11
$1s^2 2s11g\ ^1G_4$	$1s^2 2p11g\ ^3F_3$	192.16261	0.27337D+11	0.12204D+12	0.33883D+12	0.20098D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p6g\ ^3G_5$	$1s^22p11h\ ^3G_5$	88.13381	0.14062D+11	0.66761D+11	0.21521D+12	0.10733D+11
$1s^22p6g\ ^3F_4$	$1s^22p11h\ ^3G_5$	88.17244	0.17503D+12	0.66761D+11	0.21521D+12	0.13359D+12
$1s^22p5g\ ^1H_5$	$1s^22p11h\ ^1I_6$	54.22193	0.19700D+12	0.66749D+11	0.59934D+13	0.19483D+12
$1s^22p6g\ ^1H_5$	$1s^22p11h\ ^1I_6$	88.20072	0.22324D+12	0.66749D+11	0.59934D+13	0.22078D+12
$1s^22p5g\ ^3F_2$	$1s^22p11h\ ^3G_3$	54.26033	0.93207D+11	0.66811D+11	0.18067D+12	0.68044D+11
$1s^22p6g\ ^3F_2$	$1s^22p11h\ ^3G_3$	88.23794	0.10589D+12	0.66811D+11	0.18067D+12	0.77303D+11
$1s^22p5g\ ^3H_6$	$1s^22p11h\ ^3I_7$	54.23626	0.22948D+12	0.66703D+11	0.60226D+13	0.22697D+12
$1s^22p6g\ ^3H_6$	$1s^22p11h\ ^3I_7$	88.21890	0.25987D+12	0.66703D+11	0.60226D+13	0.25702D+12
$1s^22p5g\ ^3F_3$	$1s^22p11h\ ^3G_4$	54.27934	0.12646D+12	0.66816D+11	0.21312D+12	0.96276D+11
$1s^22p6g\ ^3F_3$	$1s^22p11h\ ^3G_4$	88.26763	0.14367D+12	0.66816D+11	0.21312D+12	0.10938D+12
$1s^22p8g\ ^3G_4$	$1s^22p11h\ ^3H_5$	233.57986	0.12351D+12	0.66697D+11	0.16650D+13	0.11875D+12
$1s^22p9g\ ^3G_4$	$1s^22p11h\ ^3H_5$	421.15158	0.96307D+11	0.66697D+11	0.16650D+13	0.92598D+11
$1s^22p10g\ ^3G_4$	$1s^22p11h\ ^3H_5$	989.46614	0.72942D+11	0.66697D+11	0.16650D+13	0.70133D+11
$1s^22p8g\ ^3G_3$	$1s^22p11h\ ^3H_4$	233.66915	0.96301D+11	0.66835D+11	0.17265D+12	0.69425D+11
$1s^22p9g\ ^3G_3$	$1s^22p11h\ ^3H_4$	421.34181	0.75503D+11	0.66835D+11	0.17265D+12	0.54432D+11
$1s^22p10g\ ^3G_3$	$1s^22p11h\ ^3H_4$	990.19411	0.57029D+11	0.66835D+11	0.17265D+12	0.41113D+11
$1s^22p8g\ ^3F_4$	$1s^22p11h\ ^3G_5$	233.72240	0.12275D+12	0.66761D+11	0.21521D+12	0.93687D+11
$1s^22p9g\ ^3F_4$	$1s^22p11h\ ^3G_5$	421.44178	0.96195D+11	0.66761D+11	0.21521D+12	0.73419D+11
$1s^22p10g\ ^3F_4$	$1s^22p11h\ ^3G_5$	990.48245	0.72776D+11	0.66761D+11	0.21521D+12	0.55545D+11
$1s^22p8g\ ^3F_2$	$1s^22p11h\ ^3G_3$	233.87234	0.74243D+11	0.66811D+11	0.18067D+12	0.54200D+11
$1s^22p9g\ ^3F_2$	$1s^22p11h\ ^3G_3$	421.75123	0.58651D+11	0.66811D+11	0.18067D+12	0.42817D+11
$1s^22p10g\ ^3F_2$	$1s^22p11h\ ^3G_3$	991.49496	0.44170D+11	0.66811D+11	0.18067D+12	0.32246D+11
$1s^22p8g\ ^3F_3$	$1s^22p11h\ ^3G_4$	233.94943	0.10082D+12	0.66816D+11	0.21312D+12	0.76756D+11
$1s^22p9g\ ^3F_3$	$1s^22p11h\ ^3G_4$	421.91013	0.79667D+11	0.66816D+11	0.21312D+12	0.60652D+11
$1s^22p10g\ ^3F_3$	$1s^22p11h\ ^3G_4$	992.02117	0.59995D+11	0.66816D+11	0.21312D+12	0.45675D+11
$1s^22p8g\ ^3G_5$	$1s^22p11h\ ^3H_6$	233.64568	0.14866D+12	0.66641D+11	0.17171D+13	0.14311D+12
$1s^22p9g\ ^3G_5$	$1s^22p11h\ ^3H_6$	421.28145	0.11580D+12	0.66641D+11	0.17171D+13	0.11147D+12
$1s^22p10g\ ^3G_5$	$1s^22p11h\ ^3H_6$	989.88633	0.87570D+11	0.66641D+11	0.17171D+13	0.84298D+11
$1s^22p8g\ ^1H_5$	$1s^22p11h\ ^1I_6$	233.82422	0.15796D+12	0.66749D+11	0.59934D+13	0.15622D+12
$1s^22p9g\ ^1H_5$	$1s^22p11h\ ^1I_6$	421.63582	0.12336D+12	0.66749D+11	0.59934D+13	0.12200D+12
$1s^22p10g\ ^1H_5$	$1s^22p11h\ ^1I_6$	991.08028	0.92833D+11	0.66749D+11	0.59934D+13	0.91810D+11
$1s^22p8g\ ^3H_6$	$1s^22p11h\ ^3I_7$	233.85730	0.18408D+12	0.66703D+11	0.60226D+13	0.18206D+12
$1s^22p9g\ ^3H_6$	$1s^22p11h\ ^3I_7$	421.68578	0.14378D+12	0.66703D+11	0.60226D+13	0.14221D+12
$1s^22p10g\ ^3H_6$	$1s^22p11h\ ^3I_7$	991.15985	0.10822D+12	0.66703D+11	0.60226D+13	0.10703D+12
$1s^22s11h\ ^3H_4$	$1s^22p11h\ ^3H_5$	192.23860	0.18976D+11	0.66697D+11	0.16650D+13	0.18245D+11
$1s^22s11h\ ^3H_5$	$1s^22p11h\ ^3H_5$	192.23893	0.28451D+11	0.66697D+11	0.16650D+13	0.27355D+11
$1s^22s11h\ ^3H_4$	$1s^22p11h\ ^3H_4$	192.22666	0.28267D+11	0.66835D+11	0.17265D+12	0.20378D+11
$1s^22s11h\ ^3H_6$	$1s^22p11h\ ^3H_6$	192.23923	0.32758D+11	0.66641D+11	0.17171D+13	0.31534D+11
$1s^22s11h\ ^1H_5$	$1s^22p11h\ ^3H_6$	192.23960	0.20405D+11	0.66641D+11	0.17171D+13	0.19643D+11
$1s^22s11h\ ^3H_6$	$1s^22p11h\ ^3G_5$	192.22733	0.13252D+11	0.66761D+11	0.21521D+12	0.10114D+11
$1s^22s11h\ ^1H_5$	$1s^22p11h\ ^3G_5$	192.22770	0.34229D+11	0.66761D+11	0.21521D+12	0.26125D+11
$1s^22s11h\ ^3H_5$	$1s^22p11h\ ^1I_6$	192.19740	0.52923D+11	0.66749D+11	0.59934D+13	0.52340D+11
$1s^22s11h\ ^3H_4$	$1s^22p11h\ ^3G_3$	192.18621	0.30525D+11	0.66811D+11	0.18067D+12	0.22284D+11
$1s^22s11h\ ^3H_6$	$1s^22p11h\ ^3I_7$	192.19799	0.64989D+11	0.66703D+11	0.60226D+13	0.64277D+11
$1s^22s11h\ ^1H_5$	$1s^22p11h\ ^3G_4$	192.18665	0.38463D+11	0.66816D+11	0.21312D+12	0.29283D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2p6h\ ^3H_5$	$1s^2 2p11i\ ^3I_6$	88.19918	0.11187D+12	0.59091D+11	0.13606D+13	0.10721D+12
$1s^2 2p7h\ ^3H_5$	$1s^2 2p11i\ ^3I_6$	141.70920	0.15451D+12	0.59091D+11	0.13606D+13	0.14808D+12
$1s^2 2p6h\ ^3H_4$	$1s^2 2p11i\ ^3I_5$	88.21578	0.92129D+11	0.59099D+11	0.88606D+11	0.55267D+11
$1s^2 2p7h\ ^3H_4$	$1s^2 2p11i\ ^3I_5$	141.73487	0.12750D+12	0.59099D+11	0.88606D+11	0.76485D+11
$1s^2 2p6h\ ^3G_5$	$1s^2 2p11i\ ^3H_6$	88.23253	0.11178D+12	0.59069D+11	0.11866D+12	0.74629D+11
$1s^2 2p7h\ ^3G_5$	$1s^2 2p11i\ ^3H_6$	141.76018	0.15466D+12	0.59069D+11	0.11866D+12	0.10326D+12
$1s^2 2p6h\ ^3G_3$	$1s^2 2p11i\ ^3H_4$	88.26699	0.74880D+11	0.59159D+11	0.88397D+11	0.44858D+11
$1s^2 2p7h\ ^3G_3$	$1s^2 2p11i\ ^3H_4$	141.81293	0.10422D+12	0.59159D+11	0.88397D+11	0.62435D+11
$1s^2 2p6h\ ^3G_4$	$1s^2 2p11i\ ^3H_5$	88.28421	0.94336D+11	0.59127D+11	0.89314D+11	0.56760D+11
$1s^2 2p7h\ ^3G_4$	$1s^2 2p11i\ ^3H_5$	141.83912	0.13129D+12	0.59127D+11	0.89314D+11	0.78995D+11
$1s^2 2p6h\ ^3H_6$	$1s^2 2p11i\ ^3I_7$	88.21583	0.13103D+12	0.59060D+11	0.14024D+13	0.12573D+12
$1s^2 2p7h\ ^3H_6$	$1s^2 2p11i\ ^3I_7$	141.73442	0.18098D+12	0.59060D+11	0.14024D+13	0.17367D+12
$1s^2 2p6h\ ^1I_6$	$1s^2 2p11i\ ^1K_7$	88.24762	0.13523D+12	0.59162D+11	0.47601D+13	0.13357D+12
$1s^2 2p7h\ ^1I_6$	$1s^2 2p11i\ ^1K_7$	141.78291	0.18780D+12	0.59162D+11	0.47601D+13	0.18549D+12
$1s^2 2p6h\ ^3I_7$	$1s^2 2p11i\ ^3K_8$	88.26442	0.15415D+12	0.59132D+11	0.47882D+13	0.15227D+12
$1s^2 2p7h\ ^3I_7$	$1s^2 2p11i\ ^3K_8$	141.80811	0.21408D+12	0.59132D+11	0.47882D+13	0.21147D+12
$1s^2 2p8h\ ^3H_4$	$1s^2 2p11i\ ^3I_5$	233.80913	0.12738D+12	0.59099D+11	0.88606D+11	0.76413D+11
$1s^2 2p9h\ ^3H_4$	$1s^2 2p11i\ ^3I_5$	421.60205	0.11249D+12	0.59099D+11	0.88606D+11	0.67481D+11
$1s^2 2p10h\ ^3H_4$	$1s^2 2p11i\ ^3I_5$	990.90842	0.91183D+11	0.59099D+11	0.88606D+11	0.54699D+11
$1s^2 2p8h\ ^3G_3$	$1s^2 2p11i\ ^3H_4$	233.92896	0.10389D+12	0.59159D+11	0.88397D+11	0.62238D+11
$1s^2 2p9h\ ^3G_3$	$1s^2 2p11i\ ^3H_4$	421.84428	0.92223D+11	0.59159D+11	0.88397D+11	0.55248D+11
$1s^2 2p10h\ ^3G_3$	$1s^2 2p11i\ ^3H_4$	991.69357	0.74615D+11	0.59159D+11	0.88397D+11	0.44700D+11
$1s^2 2p8h\ ^3G_4$	$1s^2 2p11i\ ^3H_5$	233.97155	0.13088D+12	0.59127D+11	0.89314D+11	0.78748D+11
$1s^2 2p9h\ ^3G_4$	$1s^2 2p11i\ ^3H_5$	421.92686	0.11617D+12	0.59127D+11	0.89314D+11	0.69897D+11
$1s^2 2p10h\ ^3G_4$	$1s^2 2p11i\ ^3H_5$	991.94737	0.93972D+11	0.59127D+11	0.89314D+11	0.56541D+11
$1s^2 2p8h\ ^3H_5$	$1s^2 2p11i\ ^3I_6$	233.77644	0.15502D+12	0.59091D+11	0.13606D+13	0.14857D+12
$1s^2 2p9h\ ^3H_5$	$1s^2 2p11i\ ^3I_6$	421.52847	0.13634D+12	0.59091D+11	0.13606D+13	0.13067D+12
$1s^2 2p10h\ ^3H_5$	$1s^2 2p11i\ ^3I_6$	990.63650	0.11054D+12	0.59091D+11	0.13606D+13	0.10594D+12
$1s^2 2p8h\ ^3H_6$	$1s^2 2p11i\ ^3I_7$	233.81749	0.18161D+12	0.59060D+11	0.14024D+13	0.17427D+12
$1s^2 2p9h\ ^3H_6$	$1s^2 2p11i\ ^3I_7$	421.60756	0.15969D+12	0.59060D+11	0.14024D+13	0.15324D+12
$1s^2 2p10h\ ^3H_6$	$1s^2 2p11i\ ^3I_7$	990.87700	0.12943D+12	0.59060D+11	0.14024D+13	0.12420D+12
$1s^2 2p8h\ ^3G_5$	$1s^2 2p11i\ ^3H_6$	233.85008	0.15460D+12	0.59069D+11	0.11866D+12	0.10322D+12
$1s^2 2p9h\ ^3G_5$	$1s^2 2p11i\ ^3H_6$	421.68080	0.13652D+12	0.59069D+11	0.11866D+12	0.91147D+11
$1s^2 2p10h\ ^3G_5$	$1s^2 2p11i\ ^3H_6$	991.14511	0.11064D+12	0.59069D+11	0.11866D+12	0.73868D+11
$1s^2 2p8h\ ^1I_6$	$1s^2 2p11i\ ^1K_7$	233.90954	0.18913D+12	0.59162D+11	0.47601D+13	0.18681D+12
$1s^2 2p9h\ ^1I_6$	$1s^2 2p11i\ ^1K_7$	421.77845	0.16623D+12	0.59162D+11	0.47601D+13	0.16419D+12
$1s^2 2p10h\ ^1I_6$	$1s^2 2p11i\ ^1K_7$	991.43696	0.13440D+12	0.59162D+11	0.47601D+13	0.13275D+12
$1s^2 2p8h\ ^3I_7$	$1s^2 2p11i\ ^3K_8$	233.94998	0.21564D+12	0.59132D+11	0.47882D+13	0.21301D+12
$1s^2 2p9h\ ^3I_7$	$1s^2 2p11i\ ^3K_8$	421.85549	0.18949D+12	0.59132D+11	0.47882D+13	0.18718D+12
$1s^2 2p10h\ ^3I_7$	$1s^2 2p11i\ ^3K_8$	991.66702	0.15317D+12	0.59132D+11	0.47882D+13	0.15130D+12
$1s^2 2s11i\ ^3I_5$	$1s^2 2p11i\ ^3I_6$	192.23047	0.21845D+11	0.59091D+11	0.13606D+13	0.20936D+11
$1s^2 2s11i\ ^3I_6$	$1s^2 2p11i\ ^3I_6$	192.23054	0.34535D+11	0.59091D+11	0.13606D+13	0.33098D+11
$1s^2 2s11i\ ^3I_5$	$1s^2 2p11i\ ^3I_5$	192.22448	0.34268D+11	0.59099D+11	0.88606D+11	0.20557D+11
$1s^2 2s11i\ ^1I_6$	$1s^2 2p11i\ ^3I_7$	192.23087	0.23610D+11	0.59060D+11	0.14024D+13	0.22656D+11
$1s^2 2s11i\ ^1I_6$	$1s^2 2p11i\ ^3H_6$	192.22474	0.40342D+11	0.59069D+11	0.11866D+12	0.26934D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22s11i\ ^3I_7$	$1s^22p11i\ ^3H_6$	192.22478	0.16170D+11	0.59069D+11	0.11866D+12	0.10796D+11
$1s^22s11i\ ^3I_6$	$1s^22p11i\ ^1K_7$	192.20538	0.61905D+11	0.59162D+11	0.47601D+13	0.61145D+11
$1s^22s11i\ ^3I_5$	$1s^22p11i\ ^3H_4$	192.19969	0.39256D+11	0.59159D+11	0.88397D+11	0.23517D+11
$1s^22s11i\ ^1I_6$	$1s^22p11i\ ^3H_5$	192.19984	0.47481D+11	0.59127D+11	0.89314D+11	0.28568D+11
$1s^22s11i\ ^3I_7$	$1s^22p11i\ ^3I_7$	192.23091	0.38639D+11	0.59060D+11	0.14024D+13	0.37078D+11
$1s^22s11i\ ^3I_7$	$1s^22p11i\ ^3K_8$	192.20568	0.73551D+11	0.59132D+11	0.47882D+13	0.72654D+11
$1s^22p7i\ ^3I_5$	$1s^22p11k\ ^3K_6$	141.79657	0.80584D+11	0.45056D+11	0.33382D+11	0.34296D+11
$1s^22p7i\ ^3H_4$	$1s^22p11k\ ^3I_5$	141.84317	0.68301D+11	0.45090D+11	0.33162D+11	0.28945D+11
$1s^22p7i\ ^3H_5$	$1s^22p11k\ ^3I_6$	141.86202	0.82338D+11	0.45073D+11	0.33156D+11	0.34897D+11
$1s^22p7i\ ^3I_6$	$1s^22p11k\ ^3K_7$	141.78370	0.94567D+11	0.45058D+11	0.91340D+12	0.90121D+11
$1s^22p7i\ ^3I_7$	$1s^22p11k\ ^3K_8$	141.80209	0.10830D+12	0.45042D+11	0.94790D+12	0.10339D+12
$1s^22p7i\ ^3H_6$	$1s^22p11k\ ^3I_7$	141.81519	0.94707D+11	0.45039D+11	0.51795D+11	0.50657D+11
$1s^22p7i\ ^1K_7$	$1s^22p11k\ ^1L_8$	141.82774	0.11132D+12	0.45113D+11	0.31252D+13	0.10974D+12
$1s^22p7i\ ^3K_8$	$1s^22p11k\ ^3L_9$	141.84633	0.12493D+12	0.45096D+11	0.31512D+13	0.12317D+12
$1s^22p8i\ ^3H_4$	$1s^22p11k\ ^3I_5$	233.98950	0.11183D+12	0.45090D+11	0.33162D+11	0.47392D+11
$1s^22p9i\ ^3H_4$	$1s^22p11k\ ^3I_5$	421.97102	0.12522D+12	0.45090D+11	0.33162D+11	0.53066D+11
$1s^22p10i\ ^3H_4$	$1s^22p11k\ ^3I_5$	992.12747	0.11579D+12	0.45090D+11	0.33162D+11	0.49070D+11
$1s^22p8i\ ^3I_6$	$1s^22p11k\ ^3K_7$	233.90423	0.15578D+12	0.45058D+11	0.91340D+12	0.14846D+12
$1s^22p9i\ ^3I_6$	$1s^22p11k\ ^3K_7$	421.79232	0.17322D+12	0.45058D+11	0.91340D+12	0.16508D+12
$1s^22p10i\ ^3I_6$	$1s^22p11k\ ^3K_7$	991.53330	0.16024D+12	0.45058D+11	0.91340D+12	0.15271D+12
$1s^22p8i\ ^3I_5$	$1s^22p11k\ ^3K_6$	233.91824	0.13224D+12	0.45056D+11	0.33382D+11	0.56280D+11
$1s^22p9i\ ^3I_5$	$1s^22p11k\ ^3K_6$	421.82791	0.14759D+12	0.45056D+11	0.33382D+11	0.62812D+11
$1s^22p10i\ ^3I_5$	$1s^22p11k\ ^3K_6$	991.66604	0.13657D+12	0.45056D+11	0.33382D+11	0.58122D+11
$1s^22p8i\ ^3I_7$	$1s^22p11k\ ^3K_8$	233.93329	0.17841D+12	0.45042D+11	0.94790D+12	0.17032D+12
$1s^22p9i\ ^3I_7$	$1s^22p11k\ ^3K_8$	421.84730	0.19838D+12	0.45042D+11	0.94790D+12	0.18938D+12
$1s^22p10i\ ^3I_7$	$1s^22p11k\ ^3K_8$	991.69554	0.18349D+12	0.45042D+11	0.94790D+12	0.17517D+12
$1s^22p8i\ ^3H_6$	$1s^22p11k\ ^3I_7$	233.94746	0.15548D+12	0.45039D+11	0.51795D+11	0.83164D+11
$1s^22p9i\ ^3H_6$	$1s^22p11k\ ^3I_7$	421.88325	0.17349D+12	0.45039D+11	0.51795D+11	0.92797D+11
$1s^22p10i\ ^3H_6$	$1s^22p11k\ ^3I_7$	991.82833	0.16050D+12	0.45039D+11	0.51795D+11	0.85849D+11
$1s^22p8i\ ^1K_7$	$1s^22p11k\ ^1L_8$	233.98676	0.18401D+12	0.45113D+11	0.31252D+13	0.18139D+12
$1s^22p9i\ ^1K_7$	$1s^22p11k\ ^1L_8$	421.93986	0.20419D+12	0.45113D+11	0.31252D+13	0.20128D+12
$1s^22p10i\ ^1K_7$	$1s^22p11k\ ^1L_8$	991.98968	0.18865D+12	0.45113D+11	0.31252D+13	0.18597D+12
$1s^22p8i\ ^3K_8$	$1s^22p11k\ ^3L_9$	234.01600	0.20668D+12	0.45096D+11	0.31512D+13	0.20376D+12
$1s^22p9i\ ^3K_8$	$1s^22p11k\ ^3L_9$	421.99524	0.22922D+12	0.45096D+11	0.31512D+13	0.22599D+12
$1s^22p10i\ ^3K_8$	$1s^22p11k\ ^3L_9$	992.15208	0.21173D+12	0.45096D+11	0.31512D+13	0.20874D+12
$1s^22p8i\ ^3H_5$	$1s^22p11k\ ^3I_6$	234.01907	0.13482D+12	0.45073D+11	0.33156D+11	0.57141D+11
$1s^22p9i\ ^3H_5$	$1s^22p11k\ ^3I_6$	422.02729	0.15096D+12	0.45073D+11	0.33156D+11	0.63982D+11
$1s^22p10i\ ^3H_5$	$1s^22p11k\ ^3I_6$	992.29385	0.13958D+12	0.45073D+11	0.33156D+11	0.59158D+11
$1s^22s11k\ ^3K_6$	$1s^22p11k\ ^3K_7$	192.22592	0.24679D+11	0.45058D+11	0.91340D+12	0.23519D+11
$1s^22s11k\ ^3K_6$	$1s^22p11k\ ^3K_6$	192.22256	0.40215D+11	0.45056D+11	0.33382D+11	0.17115D+11
$1s^22s11k\ ^3K_6$	$1s^22p11k\ ^3I_5$	192.20634	0.48020D+11	0.45090D+11	0.33162D+11	0.20350D+11
$1s^22s11k\ ^3K_7$	$1s^22p11k\ ^3K_7$	192.22596	0.40453D+11	0.45058D+11	0.91340D+12	0.38551D+11
$1s^22s11k\ ^1K_7$	$1s^22p11k\ ^3K_8$	192.22618	0.26280D+11	0.45042D+11	0.94790D+12	0.25088D+11
$1s^22s11k\ ^3K_8$	$1s^22p11k\ ^3K_8$	192.22625	0.44208D+11	0.45042D+11	0.94790D+12	0.42203D+11
$1s^22s11k\ ^1K_7$	$1s^22p11k\ ^3I_7$	192.22267	0.46257D+11	0.45039D+11	0.51795D+11	0.24742D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/\mathrm{s})$	$\sum Ar$	$Aa(1/\mathrm{s})$	Qd
$1s^2 2s11k\ ^3K_8$	$1s^2 2p11k\ ^3I_7$	192.22274	0.19085D+11	0.45039D+11	0.51795D+11	0.10208D+11
$1s^2 2s11k\ ^3K_7$	$1s^2 2p11k\ ^1L_8$	192.20955	0.69979D+11	0.45113D+11	0.31252D+13	0.68983D+11
$1s^2 2s11k\ ^3K_8$	$1s^2 2p11k\ ^3L_9$	192.20978	0.82033D+11	0.45096D+11	0.31512D+13	0.80876D+11
$1s^2 2s11k\ ^1K_7$	$1s^2 2p11k\ ^3I_6$	192.20645	0.56363D+11	0.45073D+11	0.33156D+11	0.23888D+11
$1s^2 2p8k\ ^3K_6$	$1s^2 2p11l\ ^3L_7$	233.96826	0.88360D+11	0.35784D+11	0.99812D+10	0.19271D+11
$1s^2 2p9k\ ^3K_6$	$1s^2 2p11l\ ^3L_7$	421.93577	0.16567D+12	0.35784D+11	0.99812D+10	0.36132D+11
$1s^2 2p10k\ ^3K_6$	$1s^2 2p11l\ ^3L_7$	992.03692	0.19669D+12	0.35784D+11	0.99812D+10	0.42897D+11
$1s^2 2p8k\ ^3I_7$	$1s^2 2p11l\ ^3K_8$	233.99136	0.10153D+12	0.35774D+11	0.10027D+11	0.22227D+11
$1s^2 2p9k\ ^3I_7$	$1s^2 2p11l\ ^3K_8$	421.97796	0.19034D+12	0.35774D+11	0.10027D+11	0.41668D+11
$1s^2 2p10k\ ^3I_7$	$1s^2 2p11l\ ^3K_8$	992.15306	0.22594D+12	0.35774D+11	0.10027D+11	0.49462D+11
$1s^2 2p8k\ ^3I_6$	$1s^2 2p11l\ ^3K_7$	234.03693	0.89634D+11	0.35779D+11	0.98217D+10	0.19306D+11
$1s^2 2p9k\ ^3I_6$	$1s^2 2p11l\ ^3K_7$	422.06986	0.16845D+12	0.35779D+11	0.98217D+10	0.36282D+11
$1s^2 2p10k\ ^3I_6$	$1s^2 2p11l\ ^3K_7$	992.44649	0.19997D+12	0.35779D+11	0.98217D+10	0.43071D+11
$1s^2 2s11l\ ^3L_7$	$1s^2 2p11l\ ^3L_7$	192.22086	0.46134D+11	0.35784D+11	0.99812D+10	0.10062D+11
$1s^2 2s11l\ ^1L_8$	$1s^2 2p11l\ ^3K_8$	192.22093	0.52142D+11	0.35774D+11	0.10027D+11	0.11415D+11
$1s^2 2s11l\ ^1L_8$	$1s^2 2p11l\ ^3K_7$	192.20974	0.65254D+11	0.35779D+11	0.98217D+10	0.14055D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2s3p\ ^3P_1$	$1s^2 3s^2\ \ ^1S_0$	11.07952	0.99249D+12	0.58250D+13	0.13576D+15	0.94969D+12
$1s^2 2s3p\ ^1P_1$	$1s^2 3s^2\ \ ^1S_0$	11.11913	0.15032D+13	0.58250D+13	0.13576D+15	0.14384D+13
$1s^2 2p3s\ ^3P_1$	$1s^2 3s^2\ \ ^1S_0$	11.44517	0.49576D+12	0.58250D+13	0.13576D+15	0.47438D+12
$1s^2 2p3s\ ^1P_1$	$1s^2 3s^2\ \ ^1S_0$	11.64241	0.27587D+13	0.58250D+13	0.13576D+15	0.26397D+13
$1s^2 2p3d\ ^1P_1$	$1s^2 3s^2\ \ ^1S_0$	12.09263	0.59833D+11	0.58250D+13	0.13576D+15	0.57253D+11
$1s^2 2s3s\ ^3S_1$	$1s^2 3s3p\ ^3P_0$	10.78845	0.76268D+13	0.10088D+14	0.58203D+14	0.33314D+13
$1s^2 2s3d\ ^3D_1$	$1s^2 3s3p\ ^3P_0$	11.13544	0.25609D+12	0.10088D+14	0.58203D+14	0.11186D+12
$1s^2 2p3p\ ^3D_1$	$1s^2 3s3p\ ^3P_0$	11.47009	0.84529D+12	0.10088D+14	0.58203D+14	0.36923D+12
$1s^2 2p3p\ ^3S_1$	$1s^2 3s3p\ ^3P_0$	11.55512	0.36629D+12	0.10088D+14	0.58203D+14	0.16000D+12
$1s^2 2p3p\ ^3P_1$	$1s^2 3s3p\ ^3P_0$	11.67785	0.36766D+12	0.10088D+14	0.58203D+14	0.16060D+12
$1s^2 2p3p\ ^3S_1$	$1s^2 3s3p\ ^3P_0$	11.70754	0.62494D+12	0.10088D+14	0.58203D+14	0.27298D+12
$1s^2 2s3s\ ^3S_1$	$1s^2 3s3p\ ^3P_1$	10.77769	0.22533D+14	0.10173D+14	0.60554D+14	0.96497D+13
$1s^2 2s3s\ ^1S_0$	$1s^2 3s3p\ ^3P_1$	10.84991	0.42914D+12	0.10173D+14	0.60554D+14	0.18378D+12
$1s^2 2s3d\ ^3D_1$	$1s^2 3s3p\ ^3P_1$	11.12398	0.19475D+12	0.10173D+14	0.60554D+14	0.83401D+11
$1s^2 2s3d\ ^3D_2$	$1s^2 3s3p\ ^3P_1$	11.12964	0.58884D+12	0.10173D+14	0.60554D+14	0.25217D+12
$1s^2 2p3p\ ^3D_1$	$1s^2 3s3p\ ^3P_1$	11.45792	0.17211D+13	0.10173D+14	0.60554D+14	0.73706D+12
$1s^2 2p3p\ ^3D_2$	$1s^2 3s3p\ ^3P_1$	11.54159	0.20563D+13	0.10173D+14	0.60554D+14	0.88060D+12
$1s^2 2p3p\ ^3P_0$	$1s^2 3s3p\ ^3P_1$	11.56727	0.17930D+12	0.10173D+14	0.60554D+14	0.76785D+11
$1s^2 2p3p\ ^3S_1$	$1s^2 3s3p\ ^3P_1$	11.69487	0.12244D+13	0.10173D+14	0.60554D+14	0.52435D+12
$1s^2 2p3p\ ^3P_2$	$1s^2 3s3p\ ^3P_1$	11.69831	0.15055D+13	0.10173D+14	0.60554D+14	0.64473D+12
$1s^2 2p3p\ ^1S_0$	$1s^2 3s3p\ ^3P_1$	11.87664	0.38028D+11	0.10173D+14	0.60554D+14	0.16285D+11
$1s^2 2s3s\ ^3S_1$	$1s^2 3s3p\ ^3P_2$	10.74770	0.38748D+14	0.10277D+14	0.57618D+14	0.16464D+14
$1s^2 2s3d\ ^3D_2$	$1s^2 3s3p\ ^3P_2$	11.09767	0.20248D+12	0.10277D+14	0.57618D+14	0.86035D+11
$1s^2 2s3d\ ^3D_3$	$1s^2 3s3p\ ^3P_2$	11.10683	0.11390D+13	0.10277D+14	0.57618D+14	0.48397D+12
$1s^2 2p3p\ ^3D_2$	$1s^2 3s3p\ ^3P_2$	11.50721	0.15447D+13	0.10277D+14	0.57618D+14	0.65635D+12
$1s^2 2p3p\ ^3S_1$	$1s^2 3s3p\ ^3P_2$	11.50838	0.15886D+13	0.10277D+14	0.57618D+14	0.67501D+12
$1s^2 2p3p\ ^3P_1$	$1s^2 3s3p\ ^3P_2$	11.63012	0.28364D+12	0.10277D+14	0.57618D+14	0.12052D+12
$1s^2 2p3p\ ^3D_3$	$1s^2 3s3p\ ^3P_2$	11.63944	0.62247D+13	0.10277D+14	0.57618D+14	0.26449D+13
$1s^2 2p3p\ ^3S_1$	$1s^2 3s3p\ ^3P_2$	11.65957	0.11614D+13	0.10277D+14	0.57618D+14	0.49349D+12
$1s^2 2p3p\ ^3P_2$	$1s^2 3s3p\ ^3P_2$	11.66299	0.59326D+11	0.10277D+14	0.57618D+14	0.25208D+11
$1s^2 2p3p\ ^1D_2$	$1s^2 3s3p\ ^3P_2$	11.74469	0.41118D+12	0.10277D+14	0.57618D+14	0.17471D+12
$1s^2 2s3s\ ^3S_1$	$1s^2 3s3p\ ^1P_1$	10.64949	0.47933D+12	0.12343D+14	0.17226D+15	0.16743D+12
$1s^2 2s3s\ ^1S_0$	$1s^2 3s3p\ ^1P_1$	10.72000	0.20011D+14	0.12343D+14	0.17226D+15	0.69897D+13
$1s^2 2s3d\ ^1D_2$	$1s^2 3s3p\ ^1P_1$	11.07213	0.32952D+13	0.12343D+14	0.17226D+15	0.11510D+13
$1s^2 2p3p\ ^3D_1$	$1s^2 3s3p\ ^1P_1$	11.31314	0.30330D+13	0.12343D+14	0.17226D+15	0.10594D+13
$1s^2 2p3p\ ^3D_2$	$1s^2 3s3p\ ^1P_1$	11.39470	0.39258D+12	0.12343D+14	0.17226D+15	0.13712D+12
$1s^2 2p3p\ ^3S_1$	$1s^2 3s3p\ ^1P_1$	11.39586	0.26848D+13	0.12343D+14	0.17226D+15	0.93778D+12
$1s^2 2p3p\ ^3P_0$	$1s^2 3s3p\ ^1P_1$	11.41974	0.19537D+12	0.12343D+14	0.17226D+15	0.68241D+11
$1s^2 2p3p\ ^3P_1$	$1s^2 3s3p\ ^1P_1$	11.51521	0.44164D+13	0.12343D+14	0.17226D+15	0.15426D+13
$1s^2 2p3p\ ^3S_1$	$1s^2 3s3p\ ^1P_1$	11.54408	0.94524D+12	0.12343D+14	0.17226D+15	0.33016D+12
$1s^2 2p3p\ ^3P_2$	$1s^2 3s3p\ ^1P_1$	11.54743	0.15728D+12	0.12343D+14	0.17226D+15	0.54936D+11
$1s^2 2p3p\ ^1D_2$	$1s^2 3s3p\ ^1P_1$	11.62752	0.10289D+13	0.12343D+14	0.17226D+15	0.35939D+12
$1s^2 2p3p\ ^1S_0$	$1s^2 3s3p\ ^1P_1$	11.72116	0.30395D+12	0.12343D+14	0.17226D+15	0.10617D+12

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	gAr(1/s)	$\sum Ar$	Aa(1/s)	Qd
$1s^2 2s3p\ ^3P_1$	$1s^2 3s3d\ ^1D_2$	10.82257	0.20443D+14	0.20819D+14	0.10646D+15	0.86739D+13
$1s^2 2s3p\ ^1P_1$	$1s^2 3s3d\ ^1D_2$	10.86036	0.33101D+14	0.20819D+14	0.10646D+15	0.14045D+14
$1s^2 2s3p\ ^3P_2$	$1s^2 3s3d\ ^1D_2$	10.86247	0.91935D+12	0.20819D+14	0.10646D+15	0.39008D+12
$1s^2 2p3s\ ^3P_1$	$1s^2 3s3d\ ^1D_2$	11.17119	0.15455D+14	0.20819D+14	0.10646D+15	0.65575D+13
$1s^2 2p3s\ ^3P_2$	$1s^2 3s3d\ ^1D_2$	11.30679	0.88441D+12	0.20819D+14	0.10646D+15	0.37525D+12
$1s^2 2p3s\ ^1P_1$	$1s^2 3s3d\ ^1D_2$	11.35902	0.26705D+14	0.20819D+14	0.10646D+15	0.11331D+14
$1s^2 2p3d\ ^3F_2$	$1s^2 3s3d\ ^1D_2$	11.45523	0.68146D+12	0.20819D+14	0.10646D+15	0.28914D+12
$1s^2 2p3d\ ^3F_3$	$1s^2 3s3d\ ^1D_2$	11.50966	0.88879D+11	0.20819D+14	0.10646D+15	0.37711D+11
$1s^2 2p3d\ ^3P_2$	$1s^2 3s3d\ ^1D_2$	11.52294	0.32435D+12	0.20819D+14	0.10646D+15	0.13762D+12
$1s^2 2p3d\ ^3D_1$	$1s^2 3s3d\ ^1D_2$	11.54509	0.23035D+12	0.20819D+14	0.10646D+15	0.97737D+11
$1s^2 2p3d\ ^1D_2$	$1s^2 3s3d\ ^1D_2$	11.64326	0.12030D+13	0.20819D+14	0.10646D+15	0.51043D+12
$1s^2 2p3d\ ^3D_3$	$1s^2 3s3d\ ^1D_2$	11.67453	0.70111D+12	0.20819D+14	0.10646D+15	0.29748D+12
$1s^2 2p3d\ ^3P_2$	$1s^2 3s3d\ ^1D_2$	11.69875	0.52313D+11	0.20819D+14	0.10646D+15	0.22196D+11
$1s^2 2p3d\ ^3P_1$	$1s^2 3s3d\ ^1D_2$	11.69889	0.82241D+11	0.20819D+14	0.10646D+15	0.34895D+11
$1s^2 2p3d\ ^1F_3$	$1s^2 3s3d\ ^1D_2$	11.77460	0.29215D+13	0.20819D+14	0.10646D+15	0.12396D+13
$1s^2 2p3d\ ^1P_1$	$1s^2 3s3d\ ^1D_2$	11.78719	0.29780D+12	0.20819D+14	0.10646D+15	0.12636D+12
$1s^2 2s3p\ ^3P_0$	$1s^2 3s3d\ ^3D_1$	10.79971	0.88407D+11	0.24550D+14	0.21147D+14	0.30480D+11
$1s^2 2s3p\ ^1P_1$	$1s^2 3s3d\ ^3D_1$	10.83808	0.15684D+12	0.24550D+14	0.21147D+14	0.54074D+11
$1s^2 2p3s\ ^3P_0$	$1s^2 3s3d\ ^3D_1$	11.12775	0.37358D+14	0.24550D+14	0.21147D+14	0.12880D+14
$1s^2 2p3s\ ^3P_1$	$1s^2 3s3d\ ^3D_1$	11.14762	0.22777D+14	0.24550D+14	0.21147D+14	0.78529D+13
$1s^2 2p3s\ ^3P_2$	$1s^2 3s3d\ ^3D_1$	11.28265	0.17417D+13	0.24550D+14	0.21147D+14	0.60049D+12
$1s^2 2p3s\ ^1P_1$	$1s^2 3s3d\ ^3D_1$	11.33465	0.46923D+13	0.24550D+14	0.21147D+14	0.16178D+13
$1s^2 2p3d\ ^3F_2$	$1s^2 3s3d\ ^3D_1$	11.43044	0.25206D+13	0.24550D+14	0.21147D+14	0.86903D+12
$1s^2 2p3d\ ^3D_1$	$1s^2 3s3d\ ^3D_1$	11.51991	0.10075D+13	0.24550D+14	0.21147D+14	0.34736D+12
$1s^2 2p3d\ ^1D_2$	$1s^2 3s3d\ ^3D_1$	11.61766	0.13444D+13	0.24550D+14	0.21147D+14	0.46351D+12
$1s^2 2p3d\ ^3P_2$	$1s^2 3s3d\ ^3D_1$	11.67290	0.45619D+12	0.24550D+14	0.21147D+14	0.15728D+12
$1s^2 2p3d\ ^3P_1$	$1s^2 3s3d\ ^3D_1$	11.67304	0.10944D+13	0.24550D+14	0.21147D+14	0.37732D+12
$1s^2 2p3d\ ^3P_0$	$1s^2 3s3d\ ^3D_1$	11.67576	0.32057D+12	0.24550D+14	0.21147D+14	0.11052D+12
$1s^2 2p3d\ ^1P_1$	$1s^2 3s3d\ ^3D_1$	11.76095	0.79343D+11	0.24550D+14	0.21147D+14	0.27355D+11
$1s^2 2s3p\ ^3P_1$	$1s^2 3s3d\ ^3D_2$	10.79420	0.10469D+13	0.24018D+14	0.22802D+14	0.35040D+12
$1s^2 2s3p\ ^1P_1$	$1s^2 3s3d\ ^3D_2$	10.83179	0.17842D+12	0.24018D+14	0.22802D+14	0.59718D+11
$1s^2 2p3s\ ^3P_1$	$1s^2 3s3d\ ^3D_2$	11.14096	0.60706D+14	0.24018D+14	0.22802D+14	0.20319D+14
$1s^2 2p3s\ ^3P_2$	$1s^2 3s3d\ ^3D_2$	11.27583	0.25929D+14	0.24018D+14	0.22802D+14	0.86786D+13
$1s^2 2p3s\ ^1P_1$	$1s^2 3s3d\ ^3D_2$	11.32777	0.21313D+14	0.24018D+14	0.22802D+14	0.71336D+13
$1s^2 2p3d\ ^3F_2$	$1s^2 3s3d\ ^3D_2$	11.42344	0.72595D+12	0.24018D+14	0.22802D+14	0.24298D+12
$1s^2 2p3d\ ^3F_3$	$1s^2 3s3d\ ^3D_2$	11.47758	0.32745D+13	0.24018D+14	0.22802D+14	0.10960D+13
$1s^2 2p3d\ ^3P_2$	$1s^2 3s3d\ ^3D_2$	11.49078	0.14299D+13	0.24018D+14	0.22802D+14	0.47859D+12
$1s^2 2p3d\ ^3D_1$	$1s^2 3s3d\ ^3D_2$	11.51280	0.65251D+12	0.24018D+14	0.22802D+14	0.21840D+12
$1s^2 2p3d\ ^1D_2$	$1s^2 3s3d\ ^3D_2$	11.61042	0.16115D+12	0.24018D+14	0.22802D+14	0.53938D+11
$1s^2 2p3d\ ^3D_3$	$1s^2 3s3d\ ^3D_2$	11.64151	0.24972D+13	0.24018D+14	0.22802D+14	0.83582D+12
$1s^2 2p3d\ ^3P_2$	$1s^2 3s3d\ ^3D_2$	11.66560	0.17662D+13	0.24018D+14	0.22802D+14	0.59116D+12
$1s^2 2p3d\ ^3P_1$	$1s^2 3s3d\ ^3D_2$	11.66574	0.54772D+11	0.24018D+14	0.22802D+14	0.18332D+11
$1s^2 2p3d\ ^1P_1$	$1s^2 3s3d\ ^3D_2$	11.75354	0.30223D+12	0.24018D+14	0.22802D+14	0.10116D+12
$1s^2 2s3p\ ^3P_2$	$1s^2 3s3d\ ^3D_3$	10.82660	0.14321D+12	0.23875D+14	0.21145D+14	0.49924D+11
$1s^2 2p3s\ ^3P_2$	$1s^2 3s3d\ ^3D_3$	11.26793	0.15277D+15	0.23875D+14	0.21145D+14	0.53256D+14

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2p3d\ ^3F_2$	$1s^2 3s3d\ ^3D_3$	11.41534	0.99217D+11	0.23875D+14	0.21145D+14	0.34587D+11
$1s^2 2p3d\ ^3P_2$	$1s^2 3s3d\ ^3D_3$	11.48258	0.24277D+12	0.23875D+14	0.21145D+14	0.84631D+11
$1s^2 2p3d\ ^1D_2$	$1s^2 3s3d\ ^3D_3$	11.60205	0.35195D+12	0.23875D+14	0.21145D+14	0.12269D+12
$1s^2 2p3d\ ^3F_3$	$1s^2 3s3d\ ^3D_3$	11.46940	0.25957D+13	0.23875D+14	0.21145D+14	0.90487D+12
$1s^2 2p3d\ ^3F_4$	$1s^2 3s3d\ ^3D_3$	11.59170	0.76039D+13	0.23875D+14	0.21145D+14	0.26507D+13
$1s^2 2p3d\ ^3D_3$	$1s^2 3s3d\ ^3D_3$	11.63310	0.25476D+13	0.23875D+14	0.21145D+14	0.88810D+12
$1s^2 2s3p\ ^3P_1$	$1s^2 3p^2\ ^3P_0$	10.78105	0.12282D+14	0.15745D+14	0.57373D+13	0.24554D+12
$1s^2 2s3p\ ^1P_1$	$1s^2 3p^2\ ^3P_0$	10.81854	0.21493D+13	0.15745D+14	0.57373D+13	0.42968D+11
$1s^2 2p3d\ ^3D_1$	$1s^2 3p^2\ ^3P_0$	11.49784	0.94142D+12	0.15745D+14	0.57373D+13	0.18820D+11
$1s^2 2s3p\ ^3P_1$	$1s^2 3p^2\ ^3P_2$	10.73243	0.11143D+14	0.16436D+14	0.12826D+14	0.55738D+12
$1s^2 2s3p\ ^1P_1$	$1s^2 3p^2\ ^3P_2$	10.76959	0.68057D+13	0.16436D+14	0.12826D+14	0.34043D+12
$1s^2 2s3p\ ^3P_2$	$1s^2 3p^2\ ^3P_2$	10.77166	0.52951D+14	0.16436D+14	0.12826D+14	0.26486D+13
$1s^2 2p3s\ ^1P_1$	$1s^2 3p^2\ ^3P_2$	11.25976	0.41771D+13	0.16436D+14	0.12826D+14	0.20894D+12
$1s^2 2p3d\ ^3F_2$	$1s^2 3p^2\ ^3P_2$	11.35429	0.42621D+12	0.16436D+14	0.12826D+14	0.21319D+11
$1s^2 2p3d\ ^3P_2$	$1s^2 3p^2\ ^3P_2$	11.42081	0.12988D+13	0.16436D+14	0.12826D+14	0.64967D+11
$1s^2 2p3d\ ^1D_2$	$1s^2 3p^2\ ^3P_2$	11.53899	0.22325D+12	0.16436D+14	0.12826D+14	0.11167D+11
$1s^2 2p3d\ ^3D_3$	$1s^2 3p^2\ ^3P_2$	11.56970	0.13158D+13	0.16436D+14	0.12826D+14	0.65817D+11
$1s^2 2p3d\ ^3P_2$	$1s^2 3p^2\ ^3P_2$	11.59349	0.19112D+13	0.16436D+14	0.12826D+14	0.95599D+11
$1s^2 2p3d\ ^3P_1$	$1s^2 3p^2\ ^3P_2$	11.59362	0.83226D+12	0.16436D+14	0.12826D+14	0.41630D+11
$1s^2 2p3d\ ^1F_3$	$1s^2 3p^2\ ^3P_2$	11.66797	0.49074D+12	0.16436D+14	0.12826D+14	0.24547D+11
$1s^2 2s3p\ ^3P_1$	$1s^2 3p^2\ ^1S_0$	10.64547	0.11025D+13	0.19624D+14	0.62735D+14	0.83550D+11
$1s^2 2s3p\ ^1P_1$	$1s^2 3p^2\ ^1S_0$	10.68203	0.99049D+13	0.19624D+14	0.62735D+14	0.75061D+12
$1s^2 2p3s\ ^3P_1$	$1s^2 3p^2\ ^1S_0$	10.98260	0.59270D+12	0.19624D+14	0.62735D+14	0.44916D+11
$1s^2 2p3s\ ^1P_1$	$1s^2 3p^2\ ^1S_0$	11.16408	0.11431D+13	0.19624D+14	0.62735D+14	0.86626D+11
$1s^2 2p3d\ ^3D_1$	$1s^2 3p^2\ ^1S_0$	11.34377	0.59701D+12	0.19624D+14	0.62735D+14	0.45243D+11
$1s^2 2p3d\ ^1P_1$	$1s^2 3p^2\ ^1S_0$	11.57742	0.62381D+13	0.19624D+14	0.62735D+14	0.47274D+12
$1s^2 2s2p\ ^1P_1$	$1s^2 3p^2\ ^1D_2$	5.63624	0.58634D+11	0.22096D+14	0.16799D+15	0.21853D+11
$1s^2 2s3p\ ^3P_1$	$1s^2 3p^2\ ^1D_2$	10.64450	0.48592D+13	0.22096D+14	0.16799D+15	0.18111D+13
$1s^2 2s3p\ ^1P_1$	$1s^2 3p^2\ ^1D_2$	10.68105	0.16534D+14	0.22096D+14	0.16799D+15	0.61623D+13
$1s^2 2s3p\ ^3P_2$	$1s^2 3p^2\ ^1D_2$	10.68309	0.14052D+13	0.22096D+14	0.16799D+15	0.52373D+12
$1s^2 2p3s\ ^3P_1$	$1s^2 3p^2\ ^1D_2$	10.98156	0.95042D+13	0.22096D+14	0.16799D+15	0.35423D+13
$1s^2 2p3s\ ^1P_1$	$1s^2 3p^2\ ^1D_2$	11.16301	0.40016D+14	0.22096D+14	0.16799D+15	0.14914D+14
$1s^2 2p3d\ ^3F_2$	$1s^2 3p^2\ ^1D_2$	11.25592	0.74537D+13	0.22096D+14	0.16799D+15	0.27780D+13
$1s^2 2p3d\ ^3P_2$	$1s^2 3p^2\ ^1D_2$	11.32129	0.86539D+13	0.22096D+14	0.16799D+15	0.32254D+13
$1s^2 2p3d\ ^3D_1$	$1s^2 3p^2\ ^1D_2$	11.34266	0.11424D+13	0.22096D+14	0.16799D+15	0.42578D+12
$1s^2 2p3d\ ^1D_2$	$1s^2 3p^2\ ^1D_2$	11.43741	0.14248D+14	0.22096D+14	0.16799D+15	0.53103D+13
$1s^2 2p3d\ ^3P_2$	$1s^2 3p^2\ ^1D_2$	11.49095	0.20797D+13	0.22096D+14	0.16799D+15	0.77512D+12
$1s^2 2p3d\ ^1F_3$	$1s^2 3p^2\ ^1D_2$	11.56412	0.71361D+11	0.22096D+14	0.16799D+15	0.26597D+11
$1s^2 2p3d\ ^1P_1$	$1s^2 3p^2\ ^1D_2$	11.57627	0.43870D+13	0.22096D+14	0.16799D+15	0.16351D+13

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2s3d\ ^3D_1$	$1s^2 3p3d\ ^3F_2$	10.83649	0.34396D+14	0.29153D+14	0.11038D+12	0.11269D+12
$1s^2 2s3d\ ^3D_2$	$1s^2 3p3d\ ^3F_2$	10.84186	0.10250D+14	0.29153D+14	0.11038D+12	0.33582D+11
$1s^2 2s3d\ ^1D_2$	$1s^2 3p3d\ ^3F_2$	10.91883	0.65245D+13	0.29153D+14	0.11038D+12	0.21376D+11
$1s^2 2p3p\ ^3D_1$	$1s^2 3p3d\ ^3F_2$	11.15315	0.78537D+14	0.29153D+14	0.11038D+12	0.25731D+12
$1s^2 2p3p\ ^3D_2$	$1s^2 3p3d\ ^3F_2$	11.23241	0.40411D+13	0.29153D+14	0.11038D+12	0.13240D+11
$1s^2 2p3p\ ^3P_2$	$1s^2 3p3d\ ^3F_2$	11.38079	0.72838D+13	0.29153D+14	0.11038D+12	0.23864D+11
$1s^2 2s3d\ ^3D_2$	$1s^2 3p3d\ ^3F_3$	10.81622	0.55085D+14	0.28834D+14	0.66003D+12	0.98464D+12
$1s^2 2s3d\ ^1D_2$	$1s^2 3p3d\ ^3F_3$	10.89283	0.12885D+13	0.28834D+14	0.66003D+12	0.23032D+11
$1s^2 2p3p\ ^3D_2$	$1s^2 3p3d\ ^3F_3$	11.20489	0.86020D+14	0.28834D+14	0.66003D+12	0.15376D+13
$1s^2 2p3p\ ^3P_2$	$1s^2 3p3d\ ^3F_3$	11.35254	0.37541D+14	0.28834D+14	0.66003D+12	0.67104D+12
$1s^2 2p3p\ ^1D_2$	$1s^2 3p3d\ ^3F_3$	11.42994	0.73648D+12	0.28834D+14	0.66003D+12	0.13165D+11
$1s^2 2s3d\ ^3D_1$	$1s^2 3p3d\ ^1D_2$	10.79800	0.61581D+13	0.28534D+14	0.32496D+12	0.40356D+11
$1s^2 2s3d\ ^3D_3$	$1s^2 3p3d\ ^1D_2$	10.81202	0.38010D+13	0.28534D+14	0.32496D+12	0.24909D+11
$1s^2 2s3d\ ^1D_2$	$1s^2 3p3d\ ^1D_2$	10.87976	0.32733D+14	0.28534D+14	0.32496D+12	0.21451D+12
$1s^2 2p3p\ ^3D_2$	$1s^2 3p3d\ ^1D_2$	11.19107	0.39002D+13	0.28534D+14	0.32496D+12	0.25559D+11
$1s^2 2p3p\ ^3S_1$	$1s^2 3p3d\ ^1D_2$	11.19218	0.31584D+14	0.28534D+14	0.32496D+12	0.20698D+12
$1s^2 2p3p\ ^3P_1$	$1s^2 3p3d\ ^1D_2$	11.30728	0.50814D+14	0.28534D+14	0.32496D+12	0.33300D+12
$1s^2 2p3p\ ^3P_2$	$1s^2 3p3d\ ^1D_2$	11.33835	0.48251D+13	0.28534D+14	0.32496D+12	0.31620D+11
$1s^2 2p3p\ ^1D_2$	$1s^2 3p3d\ ^1D_2$	11.41555	0.66544D+13	0.28534D+14	0.32496D+12	0.43608D+11
$1s^2 2s3d\ ^3D_1$	$1s^2 3p3d\ ^3D_1$	10.76803	0.67021D+13	0.28804D+14	0.51749D+12	0.18696D+11
$1s^2 2s3d\ ^3D_2$	$1s^2 3p3d\ ^3D_1$	10.77334	0.10771D+14	0.28804D+14	0.51749D+12	0.30046D+11
$1s^2 2p3p\ ^3D_1$	$1s^2 3p3d\ ^3D_1$	11.08065	0.14055D+14	0.28804D+14	0.51749D+12	0.39207D+11
$1s^2 2p3p\ ^3S_1$	$1s^2 3p3d\ ^3D_1$	11.15998	0.48490D+13	0.28804D+14	0.51749D+12	0.13527D+11
$1s^2 2p3p\ ^3P_0$	$1s^2 3p3d\ ^3D_1$	11.18288	0.33491D+14	0.28804D+14	0.51749D+12	0.93425D+11
$1s^2 2p3p\ ^3S_1$	$1s^2 3p3d\ ^3D_1$	11.30210	0.10095D+14	0.28804D+14	0.51749D+12	0.28160D+11
$1s^2 2s3d\ ^3D_1$	$1s^2 3p3d\ ^3D_2$	10.75769	0.70315D+13	0.28668D+14	0.64428D+12	0.26789D+11
$1s^2 2s3d\ ^3D_2$	$1s^2 3p3d\ ^3D_2$	10.76299	0.69898D+13	0.28668D+14	0.64428D+12	0.26630D+11
$1s^2 2s3d\ ^3D_3$	$1s^2 3p3d\ ^3D_2$	10.77161	0.16787D+14	0.28668D+14	0.64428D+12	0.63956D+11
$1s^2 2p3p\ ^3D_2$	$1s^2 3p3d\ ^3D_2$	11.14777	0.27348D+14	0.28668D+14	0.64428D+12	0.10419D+12
$1s^2 2p3p\ ^3S_1$	$1s^2 3p3d\ ^3D_2$	11.14888	0.11418D+14	0.28668D+14	0.64428D+12	0.43501D+11
$1s^2 2p3p\ ^3P_1$	$1s^2 3p3d\ ^3D_2$	11.26309	0.14855D+14	0.28668D+14	0.64428D+12	0.56596D+11
$1s^2 2p3p\ ^3D_3$	$1s^2 3p3d\ ^3D_2$	11.27183	0.31235D+13	0.28668D+14	0.64428D+12	0.11900D+11
$1s^2 2p3p\ ^3S_1$	$1s^2 3p3d\ ^3D_2$	11.29071	0.52523D+14	0.28668D+14	0.64428D+12	0.20011D+12
$1s^2 2s3d\ ^3D_2$	$1s^2 3p3d\ ^3D_3$	10.74512	0.12972D+14	0.28572D+14	0.16989D+13	0.11263D+12
$1s^2 2p3p\ ^3D_2$	$1s^2 3p3d\ ^3D_3$	11.12861	0.92966D+13	0.28572D+14	0.16989D+13	0.80715D+11
$1s^2 2p3p\ ^3P_2$	$1s^2 3p3d\ ^3D_3$	11.27424	0.80023D+14	0.28572D+14	0.16989D+13	0.69478D+12
$1s^2 2p3p\ ^1D_2$	$1s^2 3p3d\ ^3D_3$	11.35057	0.19948D+14	0.28572D+14	0.16989D+13	0.17319D+12
$1s^2 2s3d\ ^3D_1$	$1s^2 3p3d\ ^3P_1$	10.73056	0.11548D+14	0.28859D+14	0.28298D+13	0.25728D+12
$1s^2 2s3d\ ^3D_2$	$1s^2 3p3d\ ^3P_1$	10.73583	0.10583D+14	0.28859D+14	0.28298D+13	0.23578D+12
$1s^2 2p3p\ ^3D_2$	$1s^2 3p3d\ ^3P_1$	11.11864	0.45910D+13	0.28859D+14	0.28298D+13	0.10228D+12
$1s^2 2p3p\ ^3S_1$	$1s^2 3p3d\ ^3P_1$	11.11974	0.31791D+14	0.28859D+14	0.28298D+13	0.70828D+12
$1s^2 2p3p\ ^3P_0$	$1s^2 3p3d\ ^3P_1$	11.14247	0.17779D+13	0.28859D+14	0.28298D+13	0.39610D+11
$1s^2 2p3p\ ^3P_1$	$1s^2 3p3d\ ^3P_1$	11.23335	0.11579D+14	0.28859D+14	0.28298D+13	0.25797D+12
$1s^2 2p3p\ ^3S_1$	$1s^2 3p3d\ ^3P_1$	11.26082	0.47357D+13	0.28859D+14	0.28298D+13	0.10551D+12
$1s^2 2p3p\ ^3P_2$	$1s^2 3p3d\ ^3P_1$	11.26401	0.57135D+13	0.28859D+14	0.28298D+13	0.12729D+12

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2p3p\ ^1D_2$	$1s^2 3p3d\ ^3P_1$	11.34020	0.41980D+13	0.28859D+14	0.28298D+13	0.93529D+11
$1s^2 2s3d\ ^3D_1$	$1s^2 3p3d\ ^3P_0$	10.73018	0.76772D+13	0.28964D+14	0.30666D+13	0.19754D+12
$1s^2 2p3p\ ^3S_1$	$1s^2 3p3d\ ^3P_0$	11.11934	0.12873D+14	0.28964D+14	0.30666D+13	0.33123D+12
$1s^2 2p3p\ ^3P_1$	$1s^2 3p3d\ ^3P_0$	11.23294	0.72091D+13	0.28964D+14	0.30666D+13	0.18550D+12
$1s^2 2p3p\ ^3S_1$	$1s^2 3p3d\ ^3P_0$	11.26041	0.10567D+13	0.28964D+14	0.30666D+13	0.27190D+11
$1s^2 2s3d\ ^3D_1$	$1s^2 3p3d\ ^3P_2$	10.72813	0.24186D+13	0.28435D+14	0.26863D+13	0.50194D+11
$1s^2 2s3d\ ^3D_2$	$1s^2 3p3d\ ^3P_2$	10.73340	0.15566D+14	0.28435D+14	0.26863D+13	0.32305D+12
$1s^2 2s3d\ ^3D_3$	$1s^2 3p3d\ ^3P_2$	10.74197	0.15458D+14	0.28435D+14	0.26863D+13	0.32080D+12
$1s^2 2s3d\ ^1D_2$	$1s^2 3p3d\ ^3P_2$	10.80883	0.18479D+13	0.28435D+14	0.26863D+13	0.38350D+11
$1s^2 2p3p\ ^3D_1$	$1s^2 3p3d\ ^3P_2$	11.03840	0.97730D+12	0.28435D+14	0.26863D+13	0.20282D+11
$1s^2 2p3p\ ^3D_2$	$1s^2 3p3d\ ^3P_2$	11.11603	0.13141D+14	0.28435D+14	0.26863D+13	0.27272D+12
$1s^2 2p3p\ ^3S_1$	$1s^2 3p3d\ ^3P_2$	11.11713	0.65931D+13	0.28435D+14	0.26863D+13	0.13683D+12
$1s^2 2p3p\ ^3P_1$	$1s^2 3p3d\ ^3P_2$	11.23069	0.92305D+13	0.28435D+14	0.26863D+13	0.19156D+12
$1s^2 2p3p\ ^3D_3$	$1s^2 3p3d\ ^3P_2$	11.23938	0.27121D+13	0.28435D+14	0.26863D+13	0.56285D+11
$1s^2 2p3p\ ^3S_1$	$1s^2 3p3d\ ^3P_2$	11.25815	0.29914D+14	0.28435D+14	0.26863D+13	0.62081D+12
$1s^2 2p3p\ ^3P_2$	$1s^2 3p3d\ ^3P_2$	11.26133	0.19907D+14	0.28435D+14	0.26863D+13	0.41314D+12
$1s^2 2p3p\ ^1D_2$	$1s^2 3p3d\ ^3P_2$	11.33749	0.24399D+14	0.28435D+14	0.26863D+13	0.50636D+12
$1s^2 2s3d\ ^3D_2$	$1s^2 3p3d\ ^1F_3$	10.65650	0.42294D+12	0.28676D+14	0.94980D+14	0.60832D+11
$1s^2 2s3d\ ^1D_2$	$1s^2 3p3d\ ^1F_3$	10.73085	0.30605D+14	0.28676D+14	0.94980D+14	0.44019D+13
$1s^2 2p3p\ ^3D_2$	$1s^2 3p3d\ ^1F_3$	11.03358	0.19829D+14	0.28676D+14	0.94980D+14	0.28520D+13
$1s^2 2p3p\ ^3P_2$	$1s^2 3p3d\ ^1F_3$	11.17672	0.23984D+14	0.28676D+14	0.94980D+14	0.34496D+13
$1s^2 2p3p\ ^1D_2$	$1s^2 3p3d\ ^1F_3$	11.25173	0.12425D+15	0.28676D+14	0.94980D+14	0.17871D+14
$1s^2 2p3p\ ^1S_0$	$1s^2 3p3d\ ^1P_1$	11.28103	0.34916D+14	0.26618D+14	0.16217D+12	0.18295D+11
$1s^2 2s3d\ ^3D_3$	$1s^2 3p3d\ ^3F_3$	10.82492	0.13558D+14	0.28834D+14	0.66003D+12	0.24235D+12
$1s^2 2p3p\ ^3D_3$	$1s^2 3p3d\ ^3F_3$	11.33022	0.76038D+13	0.28834D+14	0.66003D+12	0.13592D+12
$1s^2 2s3d\ ^3D_3$	$1s^2 3p3d\ ^3F_4$	10.79657	0.87237D+14	0.28631D+14	0.11491D+12	0.34739D+12
$1s^2 2p3p\ ^3D_3$	$1s^2 3p3d\ ^3F_4$	11.29917	0.17044D+15	0.28631D+14	0.11491D+12	0.67872D+12
$1s^2 2s3d\ ^3D_3$	$1s^2 3p3d\ ^3D_3$	10.75371	0.31322D+14	0.28572D+14	0.16989D+13	0.27194D+12
$1s^2 2p3p\ ^3D_3$	$1s^2 3p3d\ ^3D_3$	11.25223	0.46315D+14	0.28572D+14	0.16989D+13	0.40212D+12
$1s^2 2s3d\ ^3D_3$	$1s^2 3p3d\ ^1F_3$	10.66495	0.10879D+13	0.28676D+14	0.94980D+14	0.15647D+12
$1s^2 2p3p\ ^3D_3$	$1s^2 3p3d\ ^1F_3$	11.15509	0.49903D+12	0.28676D+14	0.94980D+14	0.71776D+11
$1s^2 2p3d\ ^3F_2$	$1s^2 3d^2\ \ ^3F_2$	11.12698	0.65118D+14	0.43180D+14	0.18437D+12	0.51452D+11
$1s^2 2p3d\ ^3P_2$	$1s^2 3d^2\ \ ^3F_2$	11.19086	0.17503D+14	0.43180D+14	0.18437D+12	0.13830D+11
$1s^2 2p3d\ ^3D_1$	$1s^2 3d^2\ \ ^3F_2$	11.21174	0.86683D+14	0.43180D+14	0.18437D+12	0.68492D+11
$1s^2 2p3d\ ^3P_1$	$1s^2 3d^2\ \ ^3F_2$	11.35674	0.25817D+14	0.43180D+14	0.18437D+12	0.20399D+11
$1s^2 2p3d\ ^3D_1$	$1s^2 3d^2\ \ ^3P_0$	11.14186	0.27112D+14	0.42251D+14	0.18231D+12	0.76799D+11
$1s^2 2p3d\ ^3P_1$	$1s^2 3d^2\ \ ^3P_0$	11.28503	0.11043D+14	0.42251D+14	0.18231D+12	0.31281D+11
$1s^2 2p3d\ ^1P_1$	$1s^2 3d^2\ \ ^3P_0$	11.36718	0.38091D+13	0.42251D+14	0.18231D+12	0.10790D+11
$1s^2 2p3d\ ^3P_2$	$1s^2 3d^2\ \ ^3P_2$	11.11419	0.47224D+14	0.41374D+14	0.11760D+12	0.50001D+11
$1s^2 2p3d\ ^3D_3$	$1s^2 3d^2\ \ ^3P_2$	11.25515	0.29738D+14	0.41374D+14	0.11760D+12	0.31487D+11
$1s^2 2p3d\ ^3P_2$	$1s^2 3d^2\ \ ^3P_2$	11.27766	0.60960D+14	0.41374D+14	0.11760D+12	0.64545D+11
$1s^2 2p3d\ ^3P_1$	$1s^2 3d^2\ \ ^3P_2$	11.27778	0.33300D+14	0.41374D+14	0.11760D+12	0.35258D+11
$1s^2 2p3d\ ^3P_2$	$1s^2 3d^2\ \ ^1D_2$	11.09185	0.96896D+13	0.39039D+14	0.29137D+12	0.10274D+11
$1s^2 2p3d\ ^1D_2$	$1s^2 3d^2\ \ ^1D_2$	11.20329	0.43646D+14	0.39039D+14	0.29137D+12	0.46279D+11
$1s^2 2p3d\ ^3P_2$	$1s^2 3d^2\ \ ^1D_2$	11.25466	0.39435D+14	0.39039D+14	0.29137D+12	0.41814D+11
$1s^2 2p3d\ ^1F_3$	$1s^2 3d^2\ \ ^1D_2$	11.32484	0.17602D+14	0.39039D+14	0.29137D+12	0.18664D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p3d\ ^1P_1$	$1s^23d^2\ ^1D_2$	11.33649	0.58531D+14	0.39039D+14	0.29137D+12	0.62063D+11
$1s^22s3p\ ^3P_1$	$1s^23d^2\ ^1S_0$	10.29509	0.27052D+12	0.37593D+14	0.31480D+14	0.64774D+11
$1s^22s3p\ ^1P_1$	$1s^23d^2\ ^1S_0$	10.32928	0.94252D+12	0.37593D+14	0.31480D+14	0.22568D+12
$1s^22p3s\ ^3P_1$	$1s^23d^2\ ^1S_0$	10.61006	0.17059D+12	0.37593D+14	0.31480D+14	0.40847D+11
$1s^22p3s\ ^1P_1$	$1s^23d^2\ ^1S_0$	10.77935	0.56064D+12	0.37593D+14	0.31480D+14	0.13424D+12
$1s^22p3d\ ^3D_1$	$1s^23d^2\ ^1S_0$	10.94677	0.38980D+13	0.37593D+14	0.31480D+14	0.93335D+12
$1s^22p3d\ ^3P_1$	$1s^23d^2\ ^1S_0$	11.08494	0.10748D+12	0.37593D+14	0.31480D+14	0.25735D+11
$1s^22p3d\ ^1P_1$	$1s^23d^2\ ^1S_0$	11.16419	0.31609D+14	0.37593D+14	0.31480D+14	0.75685D+13
$1s^22p3d\ ^3F_3$	$1s^23d^2\ ^3F_4$	11.15833	0.18464D+14	0.42332D+14	0.19288D+13	0.14644D+12
$1s^22p3d\ ^3F_4$	$1s^23d^2\ ^3F_4$	11.27406	0.11854D+15	0.42332D+14	0.19288D+13	0.94013D+12
$1s^22p3d\ ^3D_3$	$1s^23d^2\ ^3F_4$	11.31322	0.23631D+15	0.42332D+14	0.19288D+13	0.18741D+13
$1s^22p3d\ ^1F_3$	$1s^23d^2\ ^3F_4$	11.40716	0.76643D+13	0.42332D+14	0.19288D+13	0.60785D+11
$1s^22p3d\ ^3F_3$	$1s^23d^2\ ^1G_4$	11.10128	0.29946D+14	0.41801D+14	0.19099D+15	0.43014D+13
$1s^22p3d\ ^3F_4$	$1s^23d^2\ ^1G_4$	11.21582	0.12158D+13	0.41801D+14	0.19099D+15	0.17464D+12
$1s^22p3d\ ^3D_3$	$1s^23d^2\ ^1G_4$	11.25458	0.72156D+13	0.41801D+14	0.19099D+15	0.10364D+13
$1s^22p3d\ ^1F_3$	$1s^23d^2\ ^1G_4$	11.34755	0.33778D+15	0.41801D+14	0.19099D+15	0.48518D+14
$1s^22s3s\ ^3S_1$	$1s^23p4s\ ^3P_0$	8.06318	0.90972D+11	0.93599D+13	0.50734D+13	0.13209D+11
$1s^22s3d\ ^3D_1$	$1s^23p4s\ ^3P_0$	8.25545	0.21181D+12	0.93599D+13	0.50734D+13	0.30754D+11
$1s^22p3p\ ^3D_1$	$1s^23p4s\ ^3P_0$	8.43796	0.22825D+12	0.93599D+13	0.50734D+13	0.33141D+11
$1s^22p3p\ ^3P_1$	$1s^23p4s\ ^3P_0$	8.54986	0.49208D+12	0.93599D+13	0.50734D+13	0.71449D+11
$1s^22p3p\ ^3S_1$	$1s^23p4s\ ^3P_0$	8.56577	0.24886D+12	0.93599D+13	0.50734D+13	0.36134D+11
$1s^22s4s\ ^3S_1$	$1s^23p4s\ ^3P_0$	10.69384	0.70385D+13	0.93599D+13	0.50734D+13	0.10220D+13
$1s^22s4d\ ^3D_1$	$1s^23p4s\ ^3P_0$	10.82856	0.12826D+12	0.93599D+13	0.50734D+13	0.18623D+11
$1s^22p4p\ ^3P_1$	$1s^23p4s\ ^3P_0$	11.27659	0.64775D+12	0.93599D+13	0.50734D+13	0.94052D+11
$1s^22p4p\ ^1P_1$	$1s^23p4s\ ^3P_0$	11.41595	0.24101D+12	0.93599D+13	0.50734D+13	0.34994D+11
$1s^22s3s\ ^3S_1$	$1s^23p4s\ ^3P_1$	8.05818	0.26696D+12	0.93702D+13	0.15348D+14	0.67811D+11
$1s^22s3s\ ^1S_0$	$1s^23p4s\ ^3P_1$	8.09849	0.42324D+12	0.93702D+13	0.15348D+14	0.10751D+12
$1s^22s3d\ ^3D_1$	$1s^23p4s\ ^3P_1$	8.25020	0.14756D+12	0.93702D+13	0.15348D+14	0.37482D+11
$1s^22s3d\ ^3D_2$	$1s^23p4s\ ^3P_1$	8.25332	0.48430D+12	0.93702D+13	0.15348D+14	0.12302D+12
$1s^22p3p\ ^3D_1$	$1s^23p4s\ ^3P_1$	8.43248	0.38539D+12	0.93702D+13	0.15348D+14	0.97893D+11
$1s^22p3p\ ^3D_2$	$1s^23p4s\ ^3P_1$	8.47771	0.23041D+12	0.93702D+13	0.15348D+14	0.58526D+11
$1s^22p3p\ ^3S_1$	$1s^23p4s\ ^3P_1$	8.47835	0.62765D+11	0.93702D+13	0.15348D+14	0.15943D+11
$1s^22p3p\ ^3P_0$	$1s^23p4s\ ^3P_1$	8.49156	0.55053D+12	0.93702D+13	0.15348D+14	0.13984D+12
$1s^22p3p\ ^3P_1$	$1s^23p4s\ ^3P_1$	8.54424	0.20795D+12	0.93702D+13	0.15348D+14	0.52821D+11
$1s^22p3p\ ^3S_1$	$1s^23p4s\ ^3P_1$	8.56012	0.14590D+12	0.93702D+13	0.15348D+14	0.37060D+11
$1s^22p3p\ ^3P_2$	$1s^23p4s\ ^3P_1$	8.56196	0.11698D+13	0.93702D+13	0.15348D+14	0.29714D+12
$1s^22p3p\ ^1D_2$	$1s^23p4s\ ^3P_1$	8.60591	0.51037D+11	0.93702D+13	0.15348D+14	0.12964D+11
$1s^22p3p\ ^1S_0$	$1s^23p4s\ ^3P_1$	8.65710	0.65043D+11	0.93702D+13	0.15348D+14	0.16522D+11
$1s^22s4s\ ^3S_1$	$1s^23p4s\ ^3P_1$	10.68504	0.18854D+14	0.93702D+13	0.15348D+14	0.47891D+13
$1s^22s4s\ ^1S_0$	$1s^23p4s\ ^3P_1$	10.70955	0.10587D+13	0.93702D+13	0.15348D+14	0.26892D+12
$1s^22s4d\ ^3D_1$	$1s^23p4s\ ^3P_1$	10.81954	0.86032D+11	0.93702D+13	0.15348D+14	0.21853D+11
$1s^22s4d\ ^3D_2$	$1s^23p4s\ ^3P_1$	10.82146	0.27924D+12	0.93702D+13	0.15348D+14	0.70930D+11
$1s^22s4d\ ^1D_2$	$1s^23p4s\ ^3P_1$	10.84596	0.12960D+12	0.93702D+13	0.15348D+14	0.32920D+11
$1s^22p4p\ ^3D_1$	$1s^23p4s\ ^3P_1$	11.23437	0.27655D+12	0.93702D+13	0.15348D+14	0.70246D+11
$1s^22p4p\ ^3P_1$	$1s^23p4s\ ^3P_1$	11.26681	0.14482D+13	0.93702D+13	0.15348D+14	0.36786D+12
$1s^22p4p\ ^3P_0$	$1s^23p4s\ ^3P_1$	11.27079	0.71243D+12	0.93702D+13	0.15348D+14	0.18096D+12

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2p4p\ ^3P_2$	$1s^2 3p4s\ ^3P_1$	11.41367	0.21175D+12	0.93702D+13	0.15348D+14	0.53787D+11
$1s^2 2p4p\ ^1D_2$	$1s^2 3p4s\ ^3P_1$	11.44516	0.69333D+12	0.93702D+13	0.15348D+14	0.17611D+12
$1s^2 2p4p\ ^1S_0$	$1s^2 3p4s\ ^3P_1$	11.47560	0.62818D+11	0.93702D+13	0.15348D+14	0.15956D+11
$1s^2 2s3s\ ^3S_1$	$1s^2 3p4s\ ^3P_2$	8.04166	0.14485D+12	0.98948D+13	0.65432D+13	0.24027D+11
$1s^2 2s3d\ ^3D_2$	$1s^2 3p4s\ ^3P_2$	8.23599	0.17514D+12	0.98948D+13	0.65432D+13	0.29051D+11
$1s^2 2s3d\ ^3D_3$	$1s^2 3p4s\ ^3P_2$	8.24104	0.11638D+13	0.98948D+13	0.65432D+13	0.19304D+12
$1s^2 2p3p\ ^3D_2$	$1s^2 3p4s\ ^3P_2$	8.45943	0.72167D+12	0.98948D+13	0.65432D+13	0.11971D+12
$1s^2 2p3p\ ^3S_1$	$1s^2 3p4s\ ^3P_2$	8.46006	0.33356D+12	0.98948D+13	0.65432D+13	0.55329D+11
$1s^2 2p3p\ ^3P_1$	$1s^2 3p4s\ ^3P_2$	8.52567	0.61084D+12	0.98948D+13	0.65432D+13	0.10132D+12
$1s^2 2p3p\ ^3D_3$	$1s^2 3p4s\ ^3P_2$	8.53067	0.14795D+13	0.98948D+13	0.65432D+13	0.24541D+12
$1s^2 2p3p\ ^3S_1$	$1s^2 3p4s\ ^3P_2$	8.54148	0.22927D+12	0.98948D+13	0.65432D+13	0.38030D+11
$1s^2 2p3p\ ^3P_2$	$1s^2 3p4s\ ^3P_2$	8.54332	0.11498D+13	0.98948D+13	0.65432D+13	0.19072D+12
$1s^2 2p3p\ ^1D_2$	$1s^2 3p4s\ ^3P_2$	8.58707	0.73605D+12	0.98948D+13	0.65432D+13	0.12209D+12
$1s^2 2s4s\ ^3S_1$	$1s^2 3p4s\ ^3P_2$	10.65602	0.35183D+14	0.98948D+13	0.65432D+13	0.58360D+13
$1s^2 2s4d\ ^3D_2$	$1s^2 3p4s\ ^3P_2$	10.79169	0.71111D+11	0.98948D+13	0.65432D+13	0.11796D+11
$1s^2 2s4d\ ^3D_3$	$1s^2 3p4s\ ^3P_2$	10.79518	0.10360D+13	0.98948D+13	0.65432D+13	0.17185D+12
$1s^2 2p4p\ ^3D_1$	$1s^2 3p4s\ ^3P_2$	11.20229	0.91162D+11	0.98948D+13	0.65432D+13	0.15121D+11
$1s^2 2p4p\ ^3D_2$	$1s^2 3p4s\ ^3P_2$	11.23665	0.33235D+12	0.98948D+13	0.65432D+13	0.55128D+11
$1s^2 2p4p\ ^1P_1$	$1s^2 3p4s\ ^3P_2$	11.37285	0.85734D+12	0.98948D+13	0.65432D+13	0.14221D+12
$1s^2 2p4p\ ^3P_2$	$1s^2 3p4s\ ^3P_2$	11.38056	0.13774D+13	0.98948D+13	0.65432D+13	0.22848D+12
$1s^2 2p4p\ ^3S_1$	$1s^2 3p4s\ ^3P_2$	11.38704	0.26816D+13	0.98948D+13	0.65432D+13	0.44481D+12
$1s^2 2p4p\ ^1D_2$	$1s^2 3p4s\ ^3P_2$	11.41186	0.99401D+12	0.98948D+13	0.65432D+13	0.16488D+12
$1s^2 2s3s\ ^1S_0$	$1s^2 3p4s\ ^1P_1$	8.06683	0.11684D+13	0.98335D+13	0.84617D+14	0.37787D+12
$1s^2 2s3d\ ^3D_2$	$1s^2 3p4s\ ^1P_1$	8.22044	0.31468D+11	0.98335D+13	0.84617D+14	0.10177D+11
$1s^2 2s3d\ ^1D_2$	$1s^2 3p4s\ ^1P_1$	8.26461	0.72480D+12	0.98335D+13	0.84617D+14	0.23441D+12
$1s^2 2p3p\ ^3D_1$	$1s^2 3p4s\ ^1P_1$	8.39816	0.55284D+12	0.98335D+13	0.84617D+14	0.17879D+12
$1s^2 2p3p\ ^3D_2$	$1s^2 3p4s\ ^1P_1$	8.44302	0.20859D+12	0.98335D+13	0.84617D+14	0.67460D+11
$1s^2 2p3p\ ^3S_1$	$1s^2 3p4s\ ^1P_1$	8.44366	0.64419D+12	0.98335D+13	0.84617D+14	0.20834D+12
$1s^2 2p3p\ ^3P_0$	$1s^2 3p4s\ ^1P_1$	8.45676	0.20026D+12	0.98335D+13	0.84617D+14	0.64766D+11
$1s^2 2p3p\ ^3P_1$	$1s^2 3p4s\ ^1P_1$	8.50900	0.63702D+12	0.98335D+13	0.84617D+14	0.20602D+12
$1s^2 2p3p\ ^3S_1$	$1s^2 3p4s\ ^1P_1$	8.52476	0.15112D+12	0.98335D+13	0.84617D+14	0.48873D+11
$1s^2 2p3p\ ^1D_2$	$1s^2 3p4s\ ^1P_1$	8.57017	0.66366D+12	0.98335D+13	0.84617D+14	0.21463D+12
$1s^2 2s4s\ ^3S_1$	$1s^2 3p4s\ ^1P_1$	10.63000	0.19082D+13	0.98335D+13	0.84617D+14	0.61713D+12
$1s^2 2s4s\ ^1S_0$	$1s^2 3p4s\ ^1P_1$	10.65425	0.16148D+14	0.98335D+13	0.84617D+14	0.52224D+13
$1s^2 2s4d\ ^3D_2$	$1s^2 3p4s\ ^1P_1$	10.76501	0.27624D+12	0.98335D+13	0.84617D+14	0.89338D+11
$1s^2 2s4d\ ^1D_2$	$1s^2 3p4s\ ^1P_1$	10.78925	0.91743D+12	0.98335D+13	0.84617D+14	0.29670D+12
$1s^2 2p4p\ ^3D_1$	$1s^2 3p4s\ ^1P_1$	11.17354	0.73965D+12	0.98335D+13	0.84617D+14	0.23921D+12
$1s^2 2p4p\ ^3P_1$	$1s^2 3p4s\ ^1P_1$	11.20563	0.18390D+12	0.98335D+13	0.84617D+14	0.59475D+11
$1s^2 2p4p\ ^3D_2$	$1s^2 3p4s\ ^1P_1$	11.20772	0.12834D+12	0.98335D+13	0.84617D+14	0.41506D+11
$1s^2 2p4p\ ^3P_0$	$1s^2 3p4s\ ^1P_1$	11.20956	0.56040D+11	0.98335D+13	0.84617D+14	0.18124D+11
$1s^2 2p4f\ ^3F_2$	$1s^2 3p4s\ ^1P_1$	11.27767	0.60154D+11	0.98335D+13	0.84617D+14	0.19454D+11
$1s^2 2p4p\ ^1P_1$	$1s^2 3p4s\ ^1P_1$	11.34322	0.18946D+13	0.98335D+13	0.84617D+14	0.61273D+12
$1s^2 2p4p\ ^3P_2$	$1s^2 3p4s\ ^1P_1$	11.35089	0.56309D+11	0.98335D+13	0.84617D+14	0.18211D+11
$1s^2 2p4p\ ^3S_1$	$1s^2 3p4s\ ^1P_1$	11.35733	0.11210D+13	0.98335D+13	0.84617D+14	0.36254D+12
$1s^2 2p4p\ ^1S_0$	$1s^2 3p4s\ ^1P_1$	11.41213	0.90211D+12	0.98335D+13	0.84617D+14	0.29175D+12
$1s^2 2p4f\ ^1D_2$	$1s^2 3p4s\ ^1P_1$	11.45189	0.33567D+11	0.98335D+13	0.84617D+14	0.10856D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2s3p\ ^3P_1$	$1s^2 3d4s\ ^1D_2$	8.11937	0.93607D+11	0.16448D+14	0.11317D+14	0.11303D+11
$1s^2 2s3p\ ^1P_1$	$1s^2 3d4s\ ^1D_2$	8.14062	0.58976D+13	0.16448D+14	0.11317D+14	0.71212D+12
$1s^2 2s3p\ ^3P_2$	$1s^2 3d4s\ ^1D_2$	8.14181	0.18755D+13	0.16448D+14	0.11317D+14	0.22646D+12
$1s^2 2p3s\ ^3P_1$	$1s^2 3d4s\ ^1D_2$	8.31403	0.14705D+13	0.16448D+14	0.11317D+14	0.17756D+12
$1s^2 2p3s\ ^3P_2$	$1s^2 3d4s\ ^1D_2$	8.38890	0.30355D+12	0.16448D+14	0.11317D+14	0.36653D+11
$1s^2 2p3d\ ^3F_3$	$1s^2 3d4s\ ^1D_2$	8.50006	0.56716D+12	0.16448D+14	0.11317D+14	0.68483D+11
$1s^2 2p3d\ ^1D_2$	$1s^2 3d4s\ ^1D_2$	8.57270	0.39022D+12	0.16448D+14	0.11317D+14	0.47118D+11
$1s^2 2p3d\ ^1F_3$	$1s^2 3d4s\ ^1D_2$	8.64369	0.69486D+12	0.16448D+14	0.11317D+14	0.83903D+11
$1s^2 2p3d\ ^1P_1$	$1s^2 3d4s\ ^1D_2$	8.65048	0.45072D+12	0.16448D+14	0.11317D+14	0.54424D+11
$1s^2 2s4p\ ^3P_1$	$1s^2 3d4s\ ^1D_2$	10.67874	0.17982D+14	0.16448D+14	0.11317D+14	0.21713D+13
$1s^2 2s4p\ ^3P_2$	$1s^2 3d4s\ ^1D_2$	10.69352	0.33940D+12	0.16448D+14	0.11317D+14	0.40982D+11
$1s^2 2s4p\ ^1P_1$	$1s^2 3d4s\ ^1D_2$	10.69837	0.53271D+13	0.16448D+14	0.11317D+14	0.64324D+12
$1s^2 2s4f\ ^3F_3$	$1s^2 3d4s\ ^1D_2$	10.76668	0.20698D+12	0.16448D+14	0.11317D+14	0.24992D+11
$1s^2 2s4f\ ^1F_3$	$1s^2 3d4s\ ^1D_2$	10.77325	0.14175D+12	0.16448D+14	0.11317D+14	0.17116D+11
$1s^2 2p4s\ ^3P_1$	$1s^2 3d4s\ ^1D_2$	11.08884	0.35458D+13	0.16448D+14	0.11317D+14	0.42815D+12
$1s^2 2p4d\ ^3F_2$	$1s^2 3d4s\ ^1D_2$	11.20773	0.17100D+12	0.16448D+14	0.11317D+14	0.20648D+11
$1s^2 2p4s\ ^3P_2$	$1s^2 3d4s\ ^1D_2$	11.24330	0.13010D+13	0.16448D+14	0.11317D+14	0.15709D+12
$1s^2 2p4s\ ^1P_1$	$1s^2 3d4s\ ^1D_2$	11.25082	0.39870D+14	0.16448D+14	0.11317D+14	0.48142D+13
$1s^2 2p4d\ ^1D_2$	$1s^2 3d4s\ ^1D_2$	11.37241	0.48248D+12	0.16448D+14	0.11317D+14	0.58258D+11
$1s^2 2p4d\ ^3P_1$	$1s^2 3d4s\ ^1D_2$	11.39044	0.42993D+12	0.16448D+14	0.11317D+14	0.51913D+11
$1s^2 2p4d\ ^3P_2$	$1s^2 3d4s\ ^1D_2$	11.39080	0.27303D+12	0.16448D+14	0.11317D+14	0.32968D+11
$1s^2 2s3p\ ^3P_0$	$1s^2 3d4s\ ^3D_1$	8.10155	0.35451D+12	0.20754D+14	0.92526D+12	0.12826D+11
$1s^2 2s3p\ ^3P_1$	$1s^2 3d4s\ ^3D_1$	8.10197	0.34493D+12	0.20754D+14	0.92526D+12	0.12479D+11
$1s^2 2s3p\ ^1P_1$	$1s^2 3d4s\ ^3D_1$	8.12312	0.12017D+13	0.20754D+14	0.92526D+12	0.43477D+11
$1s^2 2p3d\ ^3F_2$	$1s^2 3d4s\ ^3D_1$	8.45139	0.39721D+12	0.20754D+14	0.92526D+12	0.14371D+11
$1s^2 2p3d\ ^3D_1$	$1s^2 3d4s\ ^3D_1$	8.50020	0.97566D+12	0.20754D+14	0.92526D+12	0.35299D+11
$1s^2 2p3d\ ^1D_2$	$1s^2 3d4s\ ^3D_1$	8.55330	0.41533D+12	0.20754D+14	0.92526D+12	0.15027D+11
$1s^2 2p3d\ ^3P_2$	$1s^2 3d4s\ ^3D_1$	8.58321	0.43968D+12	0.20754D+14	0.92526D+12	0.15908D+11
$1s^2 2p3d\ ^3P_1$	$1s^2 3d4s\ ^3D_1$	8.58328	0.46452D+12	0.20754D+14	0.92526D+12	0.16806D+11
$1s^2 2s4p\ ^3P_0$	$1s^2 3d4s\ ^3D_1$	10.64683	0.19519D+13	0.20754D+14	0.92526D+12	0.70619D+11
$1s^2 2s4p\ ^3P_1$	$1s^2 3d4s\ ^3D_1$	10.64865	0.37303D+12	0.20754D+14	0.92526D+12	0.13496D+11
$1s^2 2s4p\ ^1P_1$	$1s^2 3d4s\ ^3D_1$	10.66817	0.14410D+13	0.20754D+14	0.92526D+12	0.52135D+11
$1s^2 2s4f\ ^3F_2$	$1s^2 3d4s\ ^3D_1$	10.73524	0.35524D+12	0.20754D+14	0.92526D+12	0.12853D+11
$1s^2 2p4s\ ^3P_0$	$1s^2 3d4s\ ^3D_1$	11.05111	0.28173D+14	0.20754D+14	0.92526D+12	0.10193D+13
$1s^2 2p4s\ ^3P_1$	$1s^2 3d4s\ ^3D_1$	11.05640	0.15810D+14	0.20754D+14	0.92526D+12	0.57200D+12
$1s^2 2p4d\ ^3P_2$	$1s^2 3d4s\ ^3D_1$	11.19307	0.64703D+12	0.20754D+14	0.92526D+12	0.23409D+11
$1s^2 2p4d\ ^3D_1$	$1s^2 3d4s\ ^3D_1$	11.20400	0.43770D+12	0.20754D+14	0.92526D+12	0.15836D+11
$1s^2 2p4s\ ^3P_2$	$1s^2 3d4s\ ^3D_1$	11.20995	0.66098D+12	0.20754D+14	0.92526D+12	0.23914D+11
$1s^2 2p4s\ ^1P_1$	$1s^2 3d4s\ ^3D_1$	11.21742	0.59781D+13	0.20754D+14	0.92526D+12	0.21629D+12
$1s^2 2p4d\ ^1P_1$	$1s^2 3d4s\ ^3D_1$	11.38470	0.57670D+12	0.20754D+14	0.92526D+12	0.20865D+11
$1s^2 2s3p\ ^3P_2$	$1s^2 3d4s\ ^3D_2$	8.12010	0.55704D+13	0.18481D+14	0.64419D+12	0.68012D+11
$1s^2 2p3d\ ^3P_2$	$1s^2 3d4s\ ^3D_2$	8.48360	0.87462D+12	0.18481D+14	0.64419D+12	0.10679D+11
$1s^2 2p3d\ ^3D_3$	$1s^2 3d4s\ ^3D_2$	8.56548	0.13258D+13	0.18481D+14	0.64419D+12	0.16187D+11
$1s^2 2s4p\ ^3P_1$	$1s^2 3d4s\ ^3D_2$	10.64142	0.74143D+13	0.18481D+14	0.64419D+12	0.90525D+11
$1s^2 2s4p\ ^3P_2$	$1s^2 3d4s\ ^3D_2$	10.65610	0.16655D+13	0.18481D+14	0.64419D+12	0.20335D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22s4p\ ^1P_1$	$1s^23d4s\ ^3D_2$	10.66092	0.39698D+13	0.18481D+14	0.64419D+12	0.48469D+11
$1s^22p4s\ ^3P_1$	$1s^23d4s\ ^3D_2$	11.04861	0.30088D+14	0.18481D+14	0.64419D+12	0.36736D+12
$1s^22p4d\ ^3P_2$	$1s^23d4s\ ^3D_2$	11.18509	0.60622D+13	0.18481D+14	0.64419D+12	0.74017D+11
$1s^22p4s\ ^3P_2$	$1s^23d4s\ ^3D_2$	11.20194	0.90335D+13	0.18481D+14	0.64419D+12	0.11029D+12
$1s^22p4s\ ^1P_1$	$1s^23d4s\ ^3D_2$	11.20940	0.19236D+14	0.18481D+14	0.64419D+12	0.23486D+12
$1s^22p4d\ ^3P_1$	$1s^23d4s\ ^3D_2$	11.34799	0.14835D+13	0.18481D+14	0.64419D+12	0.18113D+11
$1s^22p4d\ ^3P_2$	$1s^23d4s\ ^3D_2$	11.34835	0.16162D+13	0.18481D+14	0.64419D+12	0.19733D+11
$1s^22s3p\ ^3P_2$	$1s^23d4s\ ^3D_3$	8.11442	0.60278D+13	0.18103D+14	0.43760D+12	0.13423D+12
$1s^22s4p\ ^3P_2$	$1s^23d4s\ ^3D_3$	10.64632	0.13324D+14	0.18103D+14	0.43760D+12	0.29672D+12
$1s^22p4d\ ^3P_2$	$1s^23d4s\ ^3D_3$	11.17431	0.23522D+14	0.18103D+14	0.43760D+12	0.52382D+12
$1s^22p4s\ ^3P_2$	$1s^23d4s\ ^3D_3$	11.19114	0.64517D+14	0.18103D+14	0.43760D+12	0.14367D+13
$1s^22p4d\ ^3P_2$	$1s^23d4s\ ^3D_3$	11.33726	0.15841D+13	0.18103D+14	0.43760D+12	0.35277D+11
$1s^22p3d\ ^3F_3$	$1s^23d4s\ ^3D_3$	8.47021	0.13796D+13	0.18103D+14	0.43760D+12	0.30723D+11
$1s^22p3d\ ^3F_4$	$1s^23d4s\ ^3D_3$	8.53673	0.78005D+12	0.18103D+14	0.43760D+12	0.17371D+11
$1s^22p3d\ ^3D_3$	$1s^23d4s\ ^3D_3$	8.55916	0.32614D+13	0.18103D+14	0.43760D+12	0.72629D+11
$1s^22p3d\ ^1F_3$	$1s^23d4s\ ^3D_3$	8.61282	0.67572D+12	0.18103D+14	0.43760D+12	0.15048D+11
$1s^22s4f\ ^3F_4$	$1s^23d4s\ ^3D_3$	10.72050	0.39931D+13	0.18103D+14	0.43760D+12	0.88923D+11
$1s^22s4f\ ^1F_3$	$1s^23d4s\ ^3D_3$	10.72535	0.13874D+13	0.18103D+14	0.43760D+12	0.30896D+11
$1s^22p4d\ ^3F_3$	$1s^23d4s\ ^3D_3$	11.17945	0.60403D+12	0.18103D+14	0.43760D+12	0.13451D+11
$1s^22p4d\ ^3F_4$	$1s^23d4s\ ^3D_3$	11.31920	0.58302D+12	0.18103D+14	0.43760D+12	0.12983D+11
$1s^22p4d\ ^3D_3$	$1s^23d4s\ ^3D_3$	11.32823	0.29328D+13	0.18103D+14	0.43760D+12	0.65311D+11
$1s^22p4d\ ^1F_3$	$1s^23d4s\ ^3D_3$	11.35959	0.75154D+12	0.18103D+14	0.43760D+12	0.16736D+11
$1s^22s3d\ ^3D_1$	$1s^23d4p\ ^1D_2$	8.15495	0.38605D+13	0.23563D+14	0.69900D+12	0.90919D+11
$1s^22s3d\ ^3D_2$	$1s^23d4p\ ^1D_2$	8.15800	0.72694D+12	0.23563D+14	0.69900D+12	0.17120D+11
$1s^22s3d\ ^1D_2$	$1s^23d4p\ ^1D_2$	8.20150	0.75931D+13	0.23563D+14	0.69900D+12	0.17883D+12
$1s^22p3p\ ^3D_1$	$1s^23d4p\ ^1D_2$	8.33300	0.60512D+12	0.23563D+14	0.69900D+12	0.14251D+11
$1s^22p3p\ ^3D_2$	$1s^23d4p\ ^1D_2$	8.37717	0.11691D+13	0.23563D+14	0.69900D+12	0.27534D+11
$1s^22p3p\ ^3S_1$	$1s^23d4p\ ^1D_2$	8.37779	0.28328D+13	0.23563D+14	0.69900D+12	0.66716D+11
$1s^22p3p\ ^3P_1$	$1s^23d4p\ ^1D_2$	8.44212	0.70770D+12	0.23563D+14	0.69900D+12	0.16667D+11
$1s^22s4d\ ^3D_1$	$1s^23d4p\ ^1D_2$	10.65631	0.28464D+13	0.23563D+14	0.69900D+12	0.67036D+11
$1s^22s4d\ ^3D_3$	$1s^23d4p\ ^1D_2$	10.66158	0.66721D+12	0.23563D+14	0.69900D+12	0.15714D+11
$1s^22s4d\ ^1D_2$	$1s^23d4p\ ^1D_2$	10.68194	0.14899D+13	0.23563D+14	0.69900D+12	0.35089D+11
$1s^22p4p\ ^3D_1$	$1s^23d4p\ ^1D_2$	11.05848	0.61837D+14	0.23563D+14	0.69900D+12	0.14563D+13
$1s^22p4f\ ^3F_2$	$1s^23d4p\ ^1D_2$	11.16048	0.10503D+13	0.23563D+14	0.69900D+12	0.24736D+11
$1s^22p4p\ ^1P_1$	$1s^23d4p\ ^1D_2$	11.22467	0.73802D+13	0.23563D+14	0.69900D+12	0.17381D+12
$1s^22p4p\ ^3P_2$	$1s^23d4p\ ^1D_2$	11.23217	0.12131D+14	0.23563D+14	0.69900D+12	0.28570D+12
$1s^22p4p\ ^3S_1$	$1s^23d4p\ ^1D_2$	11.23848	0.18041D+13	0.23563D+14	0.69900D+12	0.42489D+11
$1s^22p4p\ ^1D_2$	$1s^23d4p\ ^1D_2$	11.26267	0.81611D+13	0.23563D+14	0.69900D+12	0.19220D+12
$1s^22p4f\ ^3D_1$	$1s^23d4p\ ^1D_2$	11.32611	0.62911D+12	0.23563D+14	0.69900D+12	0.14816D+11
$1s^22s3d\ ^3D_1$	$1s^23d4p\ ^3F_2$	8.14728	0.64849D+13	0.24751D+14	0.45413D+12	0.10246D+12
$1s^22s3d\ ^1D_2$	$1s^23d4p\ ^3F_2$	8.19374	0.66081D+13	0.24751D+14	0.45413D+12	0.10441D+12
$1s^22p3p\ ^3D_1$	$1s^23d4p\ ^3F_2$	8.32499	0.11754D+13	0.24751D+14	0.45413D+12	0.18571D+11
$1s^22p4p\ ^3D_1$	$1s^23d4p\ ^3F_2$	11.04438	0.82533D+13	0.24751D+14	0.45413D+12	0.13040D+12
$1s^22p4p\ ^3P_1$	$1s^23d4p\ ^3F_2$	11.07573	0.23844D+14	0.24751D+14	0.45413D+12	0.37674D+12
$1s^22p4p\ ^3D_2$	$1s^23d4p\ ^3F_2$	11.07778	0.18357D+14	0.24751D+14	0.45413D+12	0.29004D+12

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2p4f\ ^3F_2$	$1s^2 3d4p\ ^3F_2$	11.14611	0.71886D+12	0.24751D+14	0.45413D+12	0.11358D+11
$1s^2 2p4p\ ^1P_1$	$1s^2 3d4p\ ^3F_2$	11.21013	0.46086D+14	0.24751D+14	0.45413D+12	0.72816D+12
$1s^2 2p4p\ ^3S_1$	$1s^2 3d4p\ ^3F_2$	11.22391	0.39644D+13	0.24751D+14	0.45413D+12	0.62638D+11
$1s^2 2p4p\ ^1D_2$	$1s^2 3d4p\ ^3F_2$	11.24803	0.20108D+13	0.24751D+14	0.45413D+12	0.31771D+11
$1s^2 2p4f\ ^3F_2$	$1s^2 3d4p\ ^3F_2$	11.30346	0.10336D+13	0.24751D+14	0.45413D+12	0.16331D+11
$1s^2 2p4f\ ^3D_1$	$1s^2 3d4p\ ^3F_2$	11.31131	0.66609D+12	0.24751D+14	0.45413D+12	0.10524D+11
$1s^2 2p4f\ ^1D_2$	$1s^2 3d4p\ ^3F_2$	11.31625	0.88572D+12	0.24751D+14	0.45413D+12	0.13994D+11
$1s^2 2s3d\ ^3D_2$	$1s^2 3d4p\ ^3F_3$	8.14763	0.15485D+14	0.24159D+14	0.95999D+12	0.50877D+12
$1s^2 2p3p\ ^3D_2$	$1s^2 3d4p\ ^3F_3$	8.36624	0.46268D+13	0.24159D+14	0.95999D+12	0.15202D+12
$1s^2 2s4d\ ^3D_2$	$1s^2 3d4p\ ^3F_3$	10.64049	0.27647D+13	0.24159D+14	0.95999D+12	0.90835D+11
$1s^2 2p4p\ ^3D_2$	$1s^2 3d4p\ ^3F_3$	11.07282	0.79744D+14	0.24159D+14	0.95999D+12	0.26200D+13
$1s^2 2p4p\ ^3P_2$	$1s^2 3d4p\ ^3F_3$	11.21253	0.36499D+14	0.24159D+14	0.95999D+12	0.11992D+13
$1s^2 2p4p\ ^1D_2$	$1s^2 3d4p\ ^3F_3$	11.24292	0.13612D+13	0.24159D+14	0.95999D+12	0.44723D+11
$1s^2 2p4f\ ^3F_2$	$1s^2 3d4p\ ^3F_3$	11.29830	0.21464D+13	0.24159D+14	0.95999D+12	0.70521D+11
$1s^2 2p4f\ ^1D_2$	$1s^2 3d4p\ ^3F_3$	11.31108	0.67974D+12	0.24159D+14	0.95999D+12	0.22333D+11
$1s^2 2p4p\ ^3P_0$	$1s^2 3d4p\ ^3D_1$	11.06936	0.21402D+14	0.22063D+14	0.84150D+11	0.18592D+11
$1s^2 2s4d\ ^3D_2$	$1s^2 3d4p\ ^3D_2$	10.62773	0.63404D+13	0.22019D+14	0.15694D+12	0.10023D+11
$1s^2 2p4p\ ^3P_1$	$1s^2 3d4p\ ^3D_2$	11.05696	0.98115D+13	0.22019D+14	0.15694D+12	0.15510D+11
$1s^2 2p4p\ ^3D_2$	$1s^2 3d4p\ ^3D_2$	11.05900	0.15290D+14	0.22019D+14	0.15694D+12	0.24170D+11
$1s^2 2p4p\ ^1P_1$	$1s^2 3d4p\ ^3D_2$	11.19091	0.26619D+14	0.22019D+14	0.15694D+12	0.42078D+11
$1s^2 2p4p\ ^3S_1$	$1s^2 3d4p\ ^3D_2$	11.20464	0.21421D+14	0.22019D+14	0.15694D+12	0.33862D+11
$1s^2 2s3d\ ^3D_2$	$1s^2 3d4p\ ^3D_3$	8.13507	0.25204D+13	0.22010D+14	0.12375D+13	0.27875D+11
$1s^2 2p3p\ ^3P_2$	$1s^2 3d4p\ ^3D_3$	8.43477	0.66955D+13	0.22010D+14	0.12375D+13	0.74051D+11
$1s^2 2p3p\ ^1D_2$	$1s^2 3d4p\ ^3D_3$	8.47742	0.13998D+13	0.22010D+14	0.12375D+13	0.15481D+11
$1s^2 2s4d\ ^3D_2$	$1s^2 3d4p\ ^3D_3$	10.61907	0.39962D+13	0.22010D+14	0.12375D+13	0.44197D+11
$1s^2 2p4p\ ^3D_2$	$1s^2 3d4p\ ^3D_3$	11.04962	0.10535D+14	0.22010D+14	0.12375D+13	0.11651D+12
$1s^2 2p4p\ ^3P_2$	$1s^2 3d4p\ ^3D_3$	11.18875	0.51084D+14	0.22010D+14	0.12375D+13	0.56498D+12
$1s^2 2p4p\ ^1D_2$	$1s^2 3d4p\ ^3D_3$	11.21901	0.22985D+14	0.22010D+14	0.12375D+13	0.25421D+12
$1s^2 2s3d\ ^3D_1$	$1s^2 3d4p\ ^3P_0$	8.13077	0.26566D+13	0.23683D+14	0.14962D+13	0.58785D+11
$1s^2 2p3p\ ^3S_1$	$1s^2 3d4p\ ^3P_0$	8.35227	0.45836D+12	0.23683D+14	0.14962D+13	0.10143D+11
$1s^2 2s4d\ ^3D_1$	$1s^2 3d4p\ ^3P_0$	10.61505	0.11420D+13	0.23683D+14	0.14962D+13	0.25270D+11
$1s^2 2p4p\ ^3P_1$	$1s^2 3d4p\ ^3P_0$	11.04524	0.14968D+14	0.23683D+14	0.14962D+13	0.33121D+12
$1s^2 2p4p\ ^1P_1$	$1s^2 3d4p\ ^3P_0$	11.17890	0.16043D+13	0.23683D+14	0.14962D+13	0.35500D+11
$1s^2 2p4p\ ^3S_1$	$1s^2 3d4p\ ^3P_0$	11.19260	0.22550D+13	0.23683D+14	0.14962D+13	0.49898D+11
$1s^2 2s3d\ ^3D_1$	$1s^2 3d4p\ ^3P_1$	8.13011	0.35073D+13	0.23542D+14	0.14716D+13	0.74026D+11
$1s^2 2s3d\ ^3D_2$	$1s^2 3d4p\ ^3P_1$	8.13314	0.43297D+13	0.23542D+14	0.14716D+13	0.91384D+11
$1s^2 2p3p\ ^3S_1$	$1s^2 3d4p\ ^3P_1$	8.35157	0.18637D+13	0.23542D+14	0.14716D+13	0.39336D+11
$1s^2 2s4d\ ^3D_1$	$1s^2 3d4p\ ^3P_1$	10.61393	0.19826D+13	0.23542D+14	0.14716D+13	0.41845D+11
$1s^2 2s4d\ ^3D_2$	$1s^2 3d4p\ ^3P_1$	10.61578	0.10743D+13	0.23542D+14	0.14716D+13	0.22674D+11
$1s^2 2p4p\ ^3D_1$	$1s^2 3d4p\ ^3P_1$	11.01285	0.75915D+12	0.23542D+14	0.14716D+13	0.16023D+11
$1s^2 2p4p\ ^3P_1$	$1s^2 3d4p\ ^3P_1$	11.04402	0.28450D+14	0.23542D+14	0.14716D+13	0.60047D+12
$1s^2 2p4p\ ^3D_2$	$1s^2 3d4p\ ^3P_1$	11.04606	0.60388D+13	0.23542D+14	0.14716D+13	0.12746D+12
$1s^2 2p4p\ ^3P_0$	$1s^2 3d4p\ ^3P_1$	11.04785	0.24514D+13	0.23542D+14	0.14716D+13	0.51740D+11
$1s^2 2p4p\ ^1P_1$	$1s^2 3d4p\ ^3P_1$	11.17766	0.21979D+13	0.23542D+14	0.14716D+13	0.46389D+11
$1s^2 2p4p\ ^3P_2$	$1s^2 3d4p\ ^3P_1$	11.18510	0.16840D+13	0.23542D+14	0.14716D+13	0.35543D+11
$1s^2 2p4p\ ^3S_1$	$1s^2 3d4p\ ^3P_1$	11.19136	0.94013D+13	0.23542D+14	0.14716D+13	0.19843D+12

Table IV (continue)

lower level	upper level	$\lambda(\AA)$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2p4p\ ^1D_2$	$1s^2 3d4p\ ^3P_1$	11.21534	0.50512D+13	0.23542D+14	0.14716D+13	0.10661D+12
$1s^2 2s3d\ ^3D_2$	$1s^2 3d4p\ ^3P_2$	8.13008	0.41335D+13	0.23350D+14	0.15468D+13	0.10200D+12
$1s^2 2s3d\ ^3D_3$	$1s^2 3d4p\ ^3P_2$	8.13500	0.80121D+13	0.23350D+14	0.15468D+13	0.19771D+12
$1s^2 2s3d\ ^1D_2$	$1s^2 3d4p\ ^3P_2$	8.17329	0.79481D+12	0.23350D+14	0.15468D+13	0.19613D+11
$1s^2 2p3p\ ^3D_2$	$1s^2 3d4p\ ^3P_2$	8.34773	0.10396D+13	0.23350D+14	0.15468D+13	0.25654D+11
$1s^2 2p3p\ ^3S_1$	$1s^2 3d4p\ ^3P_2$	8.42763	0.70572D+12	0.23350D+14	0.15468D+13	0.17415D+11
$1s^2 2p3p\ ^3P_2$	$1s^2 3d4p\ ^3P_2$	8.42941	0.70560D+12	0.23350D+14	0.15468D+13	0.17412D+11
$1s^2 2p3p\ ^1D_2$	$1s^2 3d4p\ ^3P_2$	8.47201	0.80543D+12	0.23350D+14	0.15468D+13	0.19876D+11
$1s^2 2s4s\ ^3S_1$	$1s^2 3d4p\ ^3P_2$	10.47939	0.60898D+12	0.23350D+14	0.15468D+13	0.15028D+11
$1s^2 2s4d\ ^3D_2$	$1s^2 3d4p\ ^3P_2$	10.61058	0.18082D+13	0.23350D+14	0.15468D+13	0.44621D+11
$1s^2 2s4d\ ^3D_3$	$1s^2 3d4p\ ^3P_2$	10.61395	0.14190D+13	0.23350D+14	0.15468D+13	0.35017D+11
$1s^2 2p4p\ ^3D_1$	$1s^2 3d4p\ ^3P_2$	11.00725	0.77270D+12	0.23350D+14	0.15468D+13	0.19068D+11
$1s^2 2p4p\ ^3P_1$	$1s^2 3d4p\ ^3P_2$	11.03840	0.46017D+13	0.23350D+14	0.15468D+13	0.11356D+12
$1s^2 2p4p\ ^3D_2$	$1s^2 3d4p\ ^3P_2$	11.04043	0.51533D+13	0.23350D+14	0.15468D+13	0.12717D+12
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4p\ ^3P_2$	11.10942	0.41306D+12	0.23350D+14	0.15468D+13	0.10193D+11
$1s^2 2p4p\ ^3P_2$	$1s^2 3d4p\ ^3P_2$	11.17932	0.10779D+14	0.23350D+14	0.15468D+13	0.26599D+12
$1s^2 2p4p\ ^3D_3$	$1s^2 3d4p\ ^3P_2$	11.18073	0.32713D+13	0.23350D+14	0.15468D+13	0.80726D+11
$1s^2 2p4p\ ^3S_1$	$1s^2 3d4p\ ^3P_2$	11.18558	0.46275D+14	0.23350D+14	0.15468D+13	0.11419D+13
$1s^2 2p4p\ ^1D_2$	$1s^2 3d4p\ ^3P_2$	11.20953	0.23436D+14	0.23350D+14	0.15468D+13	0.57833D+12
$1s^2 2s3d\ ^1D_2$	$1s^2 3d4p\ ^1F_3$	8.14633	0.78414D+13	0.20795D+14	0.60973D+14	0.13086D+13
$1s^2 2p3p\ ^3D_2$	$1s^2 3d4p\ ^1F_3$	8.31961	0.36001D+13	0.20795D+14	0.60973D+14	0.60078D+12
$1s^2 2p3p\ ^3P_2$	$1s^2 3d4p\ ^1F_3$	8.40074	0.20905D+13	0.20795D+14	0.60973D+14	0.34886D+12
$1s^2 2p3p\ ^1D_2$	$1s^2 3d4p\ ^1F_3$	8.44304	0.13638D+14	0.20795D+14	0.60973D+14	0.22759D+13
$1s^2 2s4d\ ^3D_2$	$1s^2 3d4p\ ^1F_3$	10.56518	0.70667D+12	0.20795D+14	0.60973D+14	0.11793D+12
$1s^2 2s4d\ ^1D_2$	$1s^2 3d4p\ ^1F_3$	10.58853	0.14773D+14	0.20795D+14	0.60973D+14	0.24653D+13
$1s^2 2p4p\ ^3D_2$	$1s^2 3d4p\ ^1F_3$	10.99129	0.16451D+14	0.20795D+14	0.60973D+14	0.27453D+13
$1s^2 2p4f\ ^3F_2$	$1s^2 3d4p\ ^1F_3$	11.05856	0.17087D+12	0.20795D+14	0.60973D+14	0.28514D+11
$1s^2 2p4p\ ^3P_2$	$1s^2 3d4p\ ^1F_3$	11.12894	0.14669D+14	0.20795D+14	0.60973D+14	0.24479D+13
$1s^2 2p4p\ ^1D_2$	$1s^2 3d4p\ ^1F_3$	11.15888	0.60043D+14	0.20795D+14	0.60973D+14	0.10020D+14
$1s^2 2p4f\ ^1D_2$	$1s^2 3d4p\ ^1F_3$	11.22602	0.31346D+13	0.20795D+14	0.60973D+14	0.52309D+12
$1s^2 2s3d\ ^1D_2$	$1s^2 3d4p\ ^1P_1$	8.13458	0.46259D+13	0.19780D+14	0.23949D+13	0.57546D+11
$1s^2 2p3p\ ^3P_1$	$1s^2 3d4p\ ^1P_1$	8.37123	0.88696D+12	0.19780D+14	0.23949D+13	0.11034D+11
$1s^2 2p3p\ ^1S_0$	$1s^2 3d4p\ ^1P_1$	8.47954	0.35818D+13	0.19780D+14	0.23949D+13	0.44557D+11
$1s^2 2s4s\ ^1S_0$	$1s^2 3d4p\ ^1P_1$	10.43913	0.96574D+12	0.19780D+14	0.23949D+13	0.12014D+11
$1s^2 2s4d\ ^1D_2$	$1s^2 3d4p\ ^1P_1$	10.56869	0.68720D+13	0.19780D+14	0.23949D+13	0.85487D+11
$1s^2 2p4p\ ^3D_1$	$1s^2 3d4p\ ^1P_1$	10.93716	0.16811D+13	0.19780D+14	0.23949D+13	0.20913D+11
$1s^2 2p4p\ ^3P_1$	$1s^2 3d4p\ ^1P_1$	10.96791	0.14961D+13	0.19780D+14	0.23949D+13	0.18611D+11
$1s^2 2p4p\ ^3P_0$	$1s^2 3d4p\ ^1P_1$	10.97167	0.24297D+13	0.19780D+14	0.23949D+13	0.30225D+11
$1s^2 2p4p\ ^1P_1$	$1s^2 3d4p\ ^1P_1$	11.09969	0.54085D+13	0.19780D+14	0.23949D+13	0.67281D+11
$1s^2 2p4p\ ^3S_1$	$1s^2 3d4p\ ^1P_1$	11.11320	0.44930D+13	0.19780D+14	0.23949D+13	0.55892D+11
$1s^2 2p4p\ ^1D_2$	$1s^2 3d4p\ ^1P_1$	11.13685	0.16894D+13	0.19780D+14	0.23949D+13	0.21016D+11
$1s^2 2p4p\ ^1S_0$	$1s^2 3d4p\ ^1P_1$	11.16566	0.21146D+14	0.19780D+14	0.23949D+13	0.26305D+12
$1s^2 2s3d\ ^3D_3$	$1s^2 3d4p\ ^3F_3$	8.15257	0.15701D+13	0.24159D+14	0.95999D+12	0.51586D+11
$1s^2 2p3p\ ^3D_3$	$1s^2 3d4p\ ^3F_3$	8.43591	0.92549D+12	0.24159D+14	0.95999D+12	0.30407D+11
$1s^2 2p4f\ ^3G_3$	$1s^2 3d4p\ ^3F_3$	11.13712	0.31238D+12	0.24159D+14	0.95999D+12	0.10263D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p4f\ ^3D_3$	$1s^23d4p\ ^3F_3$	11.14221	0.26824D+13	0.24159D+14	0.95999D+12	0.88131D+11
$1s^22p4f\ ^3G_4$	$1s^23d4p\ ^3F_3$	11.14231	0.77594D+12	0.24159D+14	0.95999D+12	0.25494D+11
$1s^22p4p\ ^3D_3$	$1s^23d4p\ ^3F_3$	11.21395	0.15838D+14	0.24159D+14	0.95999D+12	0.52036D+12
$1s^22p4f\ ^1F_3$	$1s^23d4p\ ^3F_3$	11.29081	0.22723D+13	0.24159D+14	0.95999D+12	0.74657D+11
$1s^22p4f\ ^3D_3$	$1s^23d4p\ ^3F_3$	11.29924	0.72722D+12	0.24159D+14	0.95999D+12	0.23893D+11
$1s^22p4f\ ^1G_4$	$1s^23d4p\ ^3F_3$	11.30285	0.32677D+12	0.24159D+14	0.95999D+12	0.10736D+11
$1s^22s3d\ ^3D_3$	$1s^23d4p\ ^3F_4$	8.14449	0.21937D+14	0.23821D+14	0.90436D+12	0.68469D+12
$1s^22p3p\ ^3D_3$	$1s^23d4p\ ^3F_4$	8.42726	0.65050D+13	0.23821D+14	0.90436D+12	0.20303D+12
$1s^22s4d\ ^3D_3$	$1s^23d4p\ ^3F_4$	10.63011	0.34045D+13	0.23821D+14	0.90436D+12	0.10626D+12
$1s^22p4f\ ^3G_3$	$1s^23d4p\ ^3F_4$	11.12204	0.38432D+12	0.23821D+14	0.90436D+12	0.11995D+11
$1s^22p4f\ ^3D_3$	$1s^23d4p\ ^3F_4$	11.12712	0.10370D+13	0.23821D+14	0.90436D+12	0.32367D+11
$1s^22p4f\ ^3G_4$	$1s^23d4p\ ^3F_4$	11.12722	0.38244D+13	0.23821D+14	0.90436D+12	0.11937D+12
$1s^22p4p\ ^3D_3$	$1s^23d4p\ ^3F_4$	11.19866	0.16395D+15	0.23821D+14	0.90436D+12	0.51172D+13
$1s^22p4f\ ^1F_3$	$1s^23d4p\ ^3F_4$	11.27531	0.52779D+12	0.23821D+14	0.90436D+12	0.16473D+11
$1s^22p4f\ ^3F_4$	$1s^23d4p\ ^3F_4$	11.27846	0.80254D+13	0.23821D+14	0.90436D+12	0.25049D+12
$1s^22p4f\ ^3D_3$	$1s^23d4p\ ^3F_4$	11.28372	0.33260D+13	0.23821D+14	0.90436D+12	0.10381D+12
$1s^22p4f\ ^3G_5$	$1s^23d4p\ ^3F_4$	11.28494	0.12361D+13	0.23821D+14	0.90436D+12	0.38581D+11
$1s^22s3d\ ^3D_3$	$1s^23d4p\ ^3D_3$	8.13999	0.11671D+14	0.22010D+14	0.12375D+13	0.12908D+12
$1s^22p3p\ ^3D_3$	$1s^23d4p\ ^3D_3$	8.42244	0.50104D+13	0.22010D+14	0.12375D+13	0.55414D+11
$1s^22s4d\ ^3D_3$	$1s^23d4p\ ^3D_3$	10.62244	0.93824D+13	0.22010D+14	0.12375D+13	0.10377D+12
$1s^22p4p\ ^3D_3$	$1s^23d4p\ ^3D_3$	11.19016	0.27023D+14	0.22010D+14	0.12375D+13	0.29887D+12
$1s^22s3d\ ^3D_3$	$1s^23d4p\ ^1F_3$	8.10829	0.17763D+12	0.20795D+14	0.60973D+14	0.29642D+11
$1s^22s4d\ ^3D_3$	$1s^23d4p\ ^1F_3$	10.56853	0.68501D+12	0.20795D+14	0.60973D+14	0.11431D+12
$1s^22p4f\ ^3G_3$	$1s^23d4p\ ^1F_3$	11.05464	0.95108D+12	0.20795D+14	0.60973D+14	0.15871D+12
$1s^22p4f\ ^3D_3$	$1s^23d4p\ ^1F_3$	11.05967	0.32905D+13	0.20795D+14	0.60973D+14	0.54911D+12
$1s^22p4f\ ^3G_4$	$1s^23d4p\ ^1F_3$	11.05976	0.68050D+12	0.20795D+14	0.60973D+14	0.11356D+12
$1s^22p4p\ ^3D_3$	$1s^23d4p\ ^1F_3$	11.13034	0.59710D+12	0.20795D+14	0.60973D+14	0.99643D+11
$1s^22p4f\ ^1F_3$	$1s^23d4p\ ^1F_3$	11.20605	0.27956D+12	0.20795D+14	0.60973D+14	0.46652D+11
$1s^22p4f\ ^3D_3$	$1s^23d4p\ ^1F_3$	11.21436	0.17125D+13	0.20795D+14	0.60973D+14	0.28578D+12
$1s^22s3d\ ^3D_1$	$1s^23s4f\ ^3F_2$	8.24159	0.25164D+11	0.31499D+13	0.55761D+13	0.15142D+11
$1s^22p3p\ ^3D_1$	$1s^23s4f\ ^3F_2$	8.42348	0.11880D+13	0.31499D+13	0.55761D+13	0.71485D+12
$1s^22p3p\ ^3D_2$	$1s^23s4f\ ^3F_2$	8.46861	0.16473D+12	0.31499D+13	0.55761D+13	0.99122D+11
$1s^22p3p\ ^3S_1$	$1s^23s4f\ ^3F_2$	8.46925	0.18549D+12	0.31499D+13	0.55761D+13	0.11161D+12
$1s^22p3p\ ^3P_1$	$1s^23s4f\ ^3F_2$	8.53499	0.15268D+12	0.31499D+13	0.55761D+13	0.91871D+11
$1s^22p3p\ ^3P_2$	$1s^23s4f\ ^3F_2$	8.55268	0.65098D+11	0.31499D+13	0.55761D+13	0.39171D+11
$1s^22s4d\ ^3D_1$	$1s^23s4f\ ^3F_2$	10.80472	0.10689D+13	0.31499D+13	0.55761D+13	0.64318D+12
$1s^22s4d\ ^3D_2$	$1s^23s4f\ ^3F_2$	10.80664	0.31078D+12	0.31499D+13	0.55761D+13	0.18700D+12
$1s^22p4p\ ^3D_1$	$1s^23s4f\ ^3F_2$	11.21839	0.54058D+11	0.31499D+13	0.55761D+13	0.32528D+11
$1s^22p4f\ ^3G_3$	$1s^23s4f\ ^3F_2$	11.31927	0.27839D+13	0.31499D+13	0.55761D+13	0.16751D+13
$1s^22p4f\ ^3F_2$	$1s^23s4f\ ^3F_2$	11.32337	0.16838D+13	0.31499D+13	0.55761D+13	0.10132D+13
$1s^22p4f\ ^1F_3$	$1s^23s4f\ ^3F_2$	11.47807	0.24866D+13	0.31499D+13	0.55761D+13	0.14962D+13
$1s^22p4f\ ^3F_2$	$1s^23s4f\ ^3F_2$	11.48581	0.34387D+13	0.31499D+13	0.55761D+13	0.20691D+13
$1s^22p4f\ ^3D_3$	$1s^23s4f\ ^3F_2$	11.48678	0.18452D+12	0.31499D+13	0.55761D+13	0.11103D+12
$1s^22p4f\ ^3D_1$	$1s^23s4f\ ^3F_2$	11.49391	0.18687D+13	0.31499D+13	0.55761D+13	0.11244D+13

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2s3d\ ^3D_2$	$1s^2 3s4f\ ^3F_3$	8.24375	0.19581D+11	0.30387D+13	0.57989D+13	0.12083D+11
$1s^2 2p3p\ ^3D_2$	$1s^2 3s4f\ ^3F_3$	8.46761	0.13941D+13	0.30387D+13	0.57989D+13	0.86028D+12
$1s^2 2p3p\ ^3P_2$	$1s^2 3s4f\ ^3F_3$	8.55166	0.40163D+12	0.30387D+13	0.57989D+13	0.24784D+12
$1s^2 2s4d\ ^3D_2$	$1s^2 3s4f\ ^3F_3$	10.80501	0.12097D+13	0.30387D+13	0.57989D+13	0.74649D+12
$1s^2 2s4d\ ^1D_2$	$1s^2 3s4f\ ^3F_3$	10.82943	0.35840D+11	0.30387D+13	0.57989D+13	0.22116D+11
$1s^2 2p4p\ ^3D_2$	$1s^2 3s4f\ ^3F_3$	11.25109	0.47150D+11	0.30387D+13	0.57989D+13	0.29096D+11
$1s^2 2p4f\ ^3F_2$	$1s^2 3s4f\ ^3F_3$	11.32158	0.17579D+13	0.30387D+13	0.57989D+13	0.10848D+13
$1s^2 2p4p\ ^3P_2$	$1s^2 3s4f\ ^3F_3$	11.39537	0.77612D+11	0.30387D+13	0.57989D+13	0.47893D+11
$1s^2 2p4f\ ^3F_2$	$1s^2 3s4f\ ^3F_3$	11.48397	0.22315D+12	0.30387D+13	0.57989D+13	0.13770D+12
$1s^2 2p4f\ ^1D_2$	$1s^2 3s4f\ ^3F_3$	11.49717	0.14050D+13	0.30387D+13	0.57989D+13	0.86700D+12
$1s^2 2s3d\ ^1D_2$	$1s^2 3s4f\ ^1F_3$	8.27903	0.53820D+12	0.48421D+13	0.43156D+13	0.48557D+11
$1s^2 2p3p\ ^3D_2$	$1s^2 3s4f\ ^1F_3$	8.45806	0.29834D+12	0.48421D+13	0.43156D+13	0.26916D+11
$1s^2 2p3p\ ^3P_2$	$1s^2 3s4f\ ^1F_3$	8.54193	0.29637D+13	0.48421D+13	0.43156D+13	0.26739D+12
$1s^2 2p3p\ ^1D_2$	$1s^2 3s4f\ ^1F_3$	8.58567	0.43788D+13	0.48421D+13	0.43156D+13	0.39506D+12
$1s^2 2s4d\ ^1D_2$	$1s^2 3s4f\ ^1F_3$	10.81383	0.62617D+13	0.48421D+13	0.43156D+13	0.56493D+12
$1s^2 2p4p\ ^3D_2$	$1s^2 3s4f\ ^1F_3$	11.23425	0.58192D+12	0.48421D+13	0.43156D+13	0.52501D+11
$1s^2 2p4f\ ^3F_2$	$1s^2 3s4f\ ^1F_3$	11.30453	0.43754D+12	0.48421D+13	0.43156D+13	0.39475D+11
$1s^2 2p4p\ ^3P_2$	$1s^2 3s4f\ ^1F_3$	11.37809	0.59987D+12	0.48421D+13	0.43156D+13	0.54121D+11
$1s^2 2p4p\ ^1D_2$	$1s^2 3s4f\ ^1F_3$	11.40938	0.92120D+12	0.48421D+13	0.43156D+13	0.83111D+11
$1s^2 2p4f\ ^3F_2$	$1s^2 3s4f\ ^1F_3$	11.46642	0.19719D+12	0.48421D+13	0.43156D+13	0.17791D+11
$1s^2 2p4f\ ^1D_2$	$1s^2 3s4f\ ^1F_3$	11.47958	0.70609D+12	0.48421D+13	0.43156D+13	0.63704D+11
$1s^2 2p3p\ ^3D_3$	$1s^2 3s4f\ ^3F_3$	8.53899	0.16496D+12	0.30387D+13	0.57989D+13	0.10179D+12
$1s^2 2s4d\ ^3D_3$	$1s^2 3s4f\ ^3F_3$	10.80850	0.28042D+12	0.30387D+13	0.57989D+13	0.17304D+12
$1s^2 2p4f\ ^3G_3$	$1s^2 3s4f\ ^3F_3$	11.31748	0.18618D+13	0.30387D+13	0.57989D+13	0.11489D+13
$1s^2 2p4f\ ^3D_3$	$1s^2 3s4f\ ^3F_3$	11.32274	0.11609D+13	0.30387D+13	0.57989D+13	0.71637D+12
$1s^2 2p4f\ ^3G_4$	$1s^2 3s4f\ ^3F_3$	11.32284	0.14393D+13	0.30387D+13	0.57989D+13	0.88817D+12
$1s^2 2p4f\ ^1F_3$	$1s^2 3s4f\ ^3F_3$	11.47622	0.14370D+13	0.30387D+13	0.57989D+13	0.88675D+12
$1s^2 2p4f\ ^3F_4$	$1s^2 3s4f\ ^3F_3$	11.47949	0.42123D+13	0.30387D+13	0.57989D+13	0.25993D+13
$1s^2 2p4f\ ^3D_3$	$1s^2 3s4f\ ^3F_3$	11.48494	0.28362D+13	0.30387D+13	0.57989D+13	0.17502D+13
$1s^2 2p4f\ ^1G_4$	$1s^2 3s4f\ ^3F_3$	11.48867	0.12707D+13	0.30387D+13	0.57989D+13	0.78413D+12
$1s^2 2p3p\ ^3D_3$	$1s^2 3s4f\ ^3F_4$	8.53766	0.19230D+13	0.29326D+13	0.60249D+13	0.12158D+13
$1s^2 2s4d\ ^3D_3$	$1s^2 3s4f\ ^3F_4$	10.80637	0.14327D+13	0.29326D+13	0.60249D+13	0.90581D+12
$1s^2 2p4f\ ^3D_3$	$1s^2 3s4f\ ^3F_4$	11.32041	0.35584D+13	0.29326D+13	0.60249D+13	0.22498D+13
$1s^2 2p4f\ ^3G_4$	$1s^2 3s4f\ ^3F_4$	11.32051	0.43377D+13	0.29326D+13	0.60249D+13	0.27425D+13
$1s^2 2p4p\ ^3D_3$	$1s^2 3s4f\ ^3F_4$	11.39446	0.14172D+12	0.29326D+13	0.60249D+13	0.89601D+11
$1s^2 2p4f\ ^1F_3$	$1s^2 3s4f\ ^3F_4$	11.47382	0.13838D+12	0.29326D+13	0.60249D+13	0.87489D+11
$1s^2 2p4f\ ^3F_4$	$1s^2 3s4f\ ^3F_4$	11.47708	0.44519D+13	0.29326D+13	0.60249D+13	0.28147D+13
$1s^2 2p4f\ ^3D_3$	$1s^2 3s4f\ ^3F_4$	11.48253	0.10371D+13	0.29326D+13	0.60249D+13	0.65570D+12
$1s^2 2p4f\ ^3G_5$	$1s^2 3s4f\ ^3F_4$	11.48379	0.81945D+13	0.29326D+13	0.60249D+13	0.51809D+13
$1s^2 2p4f\ ^1G_4$	$1s^2 3s4f\ ^3F_4$	11.48626	0.11426D+13	0.29326D+13	0.60249D+13	0.72240D+12
$1s^2 2s4d\ ^3D_3$	$1s^2 3s4f\ ^1F_3$	10.79296	0.19299D+12	0.48421D+13	0.43156D+13	0.17412D+11
$1s^2 2p4f\ ^3G_3$	$1s^2 3s4f\ ^1F_3$	11.30044	0.23275D+13	0.48421D+13	0.43156D+13	0.20999D+12
$1s^2 2p4f\ ^3D_3$	$1s^2 3s4f\ ^1F_3$	11.30569	0.18250D+13	0.48421D+13	0.43156D+13	0.16465D+12
$1s^2 2p4f\ ^3G_4$	$1s^2 3s4f\ ^1F_3$	11.30579	0.15848D+13	0.48421D+13	0.43156D+13	0.14298D+12
$1s^2 2p4f\ ^1F_3$	$1s^2 3s4f\ ^1F_3$	11.45870	0.42694D+13	0.48421D+13	0.43156D+13	0.38519D+12
$1s^2 2p4f\ ^3D_3$	$1s^2 3s4f\ ^1F_3$	11.46739	0.26006D+13	0.48421D+13	0.43156D+13	0.23463D+12
$1s^2 2p4f\ ^1G_4$	$1s^2 3s4f\ ^1F_3$	11.47111	0.30818D+13	0.48421D+13	0.43156D+13	0.27804D+12

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22s3p\ ^3P_2$	$1s^23p4f\ ^3G_3$	8.11068	0.11685D+12	0.85067D+13	0.16611D+13	0.11362D+11
$1s^22p3d\ ^3F_2$	$1s^23p4f\ ^3G_3$	8.43665	0.16883D+13	0.85067D+13	0.16611D+13	0.16417D+12
$1s^22p3d\ ^1D_2$	$1s^23p4f\ ^3G_3$	8.53820	0.13334D+12	0.85067D+13	0.16611D+13	0.12966D+11
$1s^22s4p\ ^3P_2$	$1s^23p4f\ ^3G_3$	10.63989	0.25516D+12	0.85067D+13	0.16611D+13	0.24812D+11
$1s^22s4f\ ^3F_2$	$1s^23p4f\ ^3G_3$	10.71147	0.25960D+14	0.85067D+13	0.16611D+13	0.25243D+13
$1s^22p4d\ ^3F_2$	$1s^23p4f\ ^3G_3$	11.14883	0.45236D+13	0.85067D+13	0.16611D+13	0.43987D+12
$1s^22p4s\ ^3P_2$	$1s^23p4f\ ^3G_3$	11.18403	0.12688D+13	0.85067D+13	0.16611D+13	0.12338D+12
$1s^22p3d\ ^1D_2$	$1s^23p4f\ ^3F_3$	8.52805	0.15157D+13	0.18802D+14	0.63164D+12	0.36983D+11
$1s^22p3d\ ^3P_2$	$1s^23p4f\ ^3F_3$	8.55778	0.85677D+12	0.18802D+14	0.63164D+12	0.20905D+11
$1s^22s4p\ ^3P_2$	$1s^23p4f\ ^3F_3$	10.62414	0.92148D+12	0.18802D+14	0.63164D+12	0.22484D+11
$1s^22p4d\ ^3P_2$	$1s^23p4f\ ^3F_3$	11.14987	0.59442D+13	0.18802D+14	0.63164D+12	0.14504D+12
$1s^22p4s\ ^3P_2$	$1s^23p4f\ ^3F_3$	11.16662	0.12989D+13	0.18802D+14	0.63164D+12	0.31693D+11
$1s^22p3d\ ^3F_2$	$1s^23p4f\ ^3F_3$	8.41221	0.11331D+13	0.18802D+14	0.63164D+12	0.27648D+11
$1s^22p3d\ ^3P_2$	$1s^23p4f\ ^3F_3$	8.44866	0.13764D+13	0.18802D+14	0.63164D+12	0.33584D+11
$1s^22p3d\ ^3P_2$	$1s^23p4f\ ^3F_3$	8.54279	0.60736D+12	0.18802D+14	0.63164D+12	0.14820D+11
$1s^22s4f\ ^3F_2$	$1s^23p4f\ ^3F_3$	10.67210	0.21614D+14	0.18802D+14	0.63164D+12	0.52738D+12
$1s^22p4d\ ^3F_2$	$1s^23p4f\ ^3F_3$	11.10618	0.33640D+13	0.18802D+14	0.63164D+12	0.82081D+11
$1s^22p4d\ ^1D_2$	$1s^23p4f\ ^3F_3$	11.26787	0.72106D+13	0.18802D+14	0.63164D+12	0.17594D+12
$1s^22p4d\ ^3P_2$	$1s^23p4f\ ^3F_3$	11.28593	0.76965D+12	0.18802D+14	0.63164D+12	0.18779D+11
$1s^22p3d\ ^3F_3$	$1s^23p4f\ ^3D_2$	8.42474	0.18718D+13	0.16599D+14	0.13444D+12	0.13443D+11
$1s^22p3d\ ^3P_2$	$1s^23p4f\ ^3D_2$	8.43185	0.41821D+13	0.16599D+14	0.13444D+12	0.30035D+11
$1s^22p3d\ ^1D_2$	$1s^23p4f\ ^3D_2$	8.49609	0.31186D+13	0.16599D+14	0.13444D+12	0.22397D+11
$1s^22p3d\ ^3P_1$	$1s^23p4f\ ^3D_2$	8.52567	0.39987D+13	0.16599D+14	0.13444D+12	0.28718D+11
$1s^22s4f\ ^3F_2$	$1s^23p4f\ ^3D_2$	10.64528	0.82956D+13	0.16599D+14	0.13444D+12	0.59577D+11
$1s^22s4f\ ^3F_3$	$1s^23p4f\ ^3D_2$	10.64611	0.13486D+14	0.16599D+14	0.13444D+12	0.96853D+11
$1s^22p4d\ ^3P_2$	$1s^23p4f\ ^3D_2$	11.09531	0.10070D+14	0.16599D+14	0.13444D+12	0.72320D+11
$1s^22p4d\ ^3F_3$	$1s^23p4f\ ^3D_2$	11.10038	0.38313D+13	0.16599D+14	0.13444D+12	0.27515D+11
$1s^22p4s\ ^3P_2$	$1s^23p4f\ ^3D_2$	11.11189	0.27314D+13	0.16599D+14	0.13444D+12	0.19616D+11
$1s^22p4d\ ^1D_2$	$1s^23p4f\ ^3D_2$	11.23798	0.73792D+13	0.16599D+14	0.13444D+12	0.52996D+11
$1s^22p4d\ ^3P_1$	$1s^23p4f\ ^3D_2$	11.25559	0.17651D+14	0.16599D+14	0.13444D+12	0.12677D+12
$1s^22p4d\ ^1F_3$	$1s^23p4f\ ^3D_2$	11.27796	0.14616D+13	0.16599D+14	0.13444D+12	0.10497D+11
$1s^22p3d\ ^3P_2$	$1s^23p4f\ ^3D_1$	8.41485	0.23179D+13	0.19626D+14	0.17998D+12	0.15940D+11
$1s^22p3d\ ^3P_0$	$1s^23p4f\ ^3D_1$	8.50974	0.23284D+13	0.19626D+14	0.17998D+12	0.16012D+11
$1s^22p3d\ ^1P_1$	$1s^23p4f\ ^3D_1$	8.55491	0.59977D+13	0.19626D+14	0.17998D+12	0.41245D+11
$1s^22s4f\ ^3F_2$	$1s^23p4f\ ^3D_1$	10.61820	0.82610D+13	0.19626D+14	0.17998D+12	0.56809D+11
$1s^22p4d\ ^3P_2$	$1s^23p4f\ ^3D_1$	11.06589	0.71949D+13	0.19626D+14	0.17998D+12	0.49478D+11
$1s^22p4s\ ^3P_2$	$1s^23p4f\ ^3D_1$	11.08239	0.27464D+13	0.19626D+14	0.17998D+12	0.18886D+11
$1s^22p4d\ ^3P_0$	$1s^23p4f\ ^3D_1$	11.22637	0.48446D+13	0.19626D+14	0.17998D+12	0.33315D+11
$1s^22p4d\ ^1P_1$	$1s^23p4f\ ^3D_1$	11.25316	0.19256D+14	0.19626D+14	0.17998D+12	0.13242D+12
$1s^22s3p\ ^1P_1$	$1s^23p4f\ ^1D_2$	8.04786	0.39246D+12	0.12546D+14	0.70413D+13	0.71481D+11
$1s^22p3s\ ^3P_1$	$1s^23p4f\ ^1D_2$	8.21729	0.11320D+12	0.12546D+14	0.70413D+13	0.20618D+11
$1s^22p3d\ ^3F_2$	$1s^23p4f\ ^1D_2$	8.36994	0.24087D+12	0.12546D+14	0.70413D+13	0.43871D+11
$1s^22p3d\ ^3F_3$	$1s^23p4f\ ^1D_2$	8.39897	0.65774D+12	0.12546D+14	0.70413D+13	0.11980D+12
$1s^22p3d\ ^3P_2$	$1s^23p4f\ ^1D_2$	8.40604	0.28960D+13	0.12546D+14	0.70413D+13	0.52746D+12
$1s^22p3d\ ^3D_1$	$1s^23p4f\ ^1D_2$	8.41782	0.81239D+11	0.12546D+14	0.70413D+13	0.14796D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p3d\ ^1D_2$	$1s^23p4f\ ^1D_2$	8.46989	0.34714D+12	0.12546D+14	0.70413D+13	0.63226D+11
$1s^22p3d\ ^3D_3$	$1s^23p4f\ ^1D_2$	8.48642	0.13715D+12	0.12546D+14	0.70413D+13	0.24980D+11
$1s^22p3d\ ^3P_2$	$1s^23p4f\ ^1D_2$	8.49921	0.11123D+12	0.12546D+14	0.70413D+13	0.20259D+11
$1s^22p3d\ ^1F_3$	$1s^23p4f\ ^1D_2$	8.53918	0.30688D+12	0.12546D+14	0.70413D+13	0.55894D+11
$1s^22p3d\ ^1P_1$	$1s^23p4f\ ^1D_2$	8.54580	0.30211D+13	0.12546D+14	0.70413D+13	0.55025D+12
$1s^22s4p\ ^3P_1$	$1s^23p4f\ ^1D_2$	10.51967	0.44727D+12	0.12546D+14	0.70413D+13	0.81463D+11
$1s^22s4p\ ^3P_2$	$1s^23p4f\ ^1D_2$	10.53402	0.55721D+11	0.12546D+14	0.70413D+13	0.10149D+11
$1s^22s4p\ ^1P_1$	$1s^23p4f\ ^1D_2$	10.53872	0.25099D+12	0.12546D+14	0.70413D+13	0.45714D+11
$1s^22s4f\ ^3F_3$	$1s^23p4f\ ^1D_2$	10.60500	0.13303D+13	0.12546D+14	0.70413D+13	0.24229D+12
$1s^22s4f\ ^1F_3$	$1s^23p4f\ ^1D_2$	10.61138	0.27012D+14	0.12546D+14	0.70413D+13	0.49198D+13
$1s^22p4s\ ^3P_1$	$1s^23p4f\ ^1D_2$	10.91742	0.53730D+12	0.12546D+14	0.70413D+13	0.97861D+11
$1s^22p4d\ ^3F_2$	$1s^23p4f\ ^1D_2$	11.03264	0.72749D+12	0.12546D+14	0.70413D+13	0.13250D+12
$1s^22p4d\ ^3P_2$	$1s^23p4f\ ^1D_2$	11.05065	0.66970D+12	0.12546D+14	0.70413D+13	0.12198D+12
$1s^22p4d\ ^3D_1$	$1s^23p4f\ ^1D_2$	11.06131	0.56585D+12	0.12546D+14	0.70413D+13	0.10306D+12
$1s^22p4s\ ^1P_1$	$1s^23p4f\ ^1D_2$	11.07439	0.45161D+13	0.12546D+14	0.70413D+13	0.82254D+12
$1s^22p4d\ ^1D_2$	$1s^23p4f\ ^1D_2$	11.19218	0.93989D+13	0.12546D+14	0.70413D+13	0.17119D+13
$1s^22p4d\ ^3D_3$	$1s^23p4f\ ^1D_2$	11.20116	0.87612D+11	0.12546D+14	0.70413D+13	0.15957D+11
$1s^22p4d\ ^3P_1$	$1s^23p4f\ ^1D_2$	11.20964	0.42209D+13	0.12546D+14	0.70413D+13	0.76877D+12
$1s^22p4d\ ^3P_2$	$1s^23p4f\ ^1D_2$	11.20999	0.14349D+12	0.12546D+14	0.70413D+13	0.26135D+11
$1s^22p4d\ ^1F_3$	$1s^23p4f\ ^1D_2$	11.23182	0.85344D+12	0.12546D+14	0.70413D+13	0.15544D+12
$1s^22p4d\ ^1P_1$	$1s^23p4f\ ^1D_2$	11.23740	0.33952D+13	0.12546D+14	0.70413D+13	0.61838D+12
$1s^22p3d\ ^3D_3$	$1s^23p4f\ ^3G_3$	8.55500	0.31906D+12	0.85067D+13	0.16611D+13	0.31025D+11
$1s^22s4f\ ^3F_3$	$1s^23p4f\ ^3G_3$	10.71231	0.15226D+14	0.85067D+13	0.16611D+13	0.14806D+13
$1s^22s4f\ ^3F_4$	$1s^23p4f\ ^3G_3$	10.71398	0.27802D+12	0.85067D+13	0.16611D+13	0.27034D+11
$1s^22s4f\ ^1F_3$	$1s^23p4f\ ^3G_3$	10.71882	0.84173D+13	0.85067D+13	0.16611D+13	0.81849D+12
$1s^22p4d\ ^3D_3$	$1s^23p4f\ ^3G_3$	11.32095	0.71947D+12	0.85067D+13	0.16611D+13	0.69961D+11
$1s^22p4d\ ^1F_3$	$1s^23p4f\ ^3G_3$	11.35227	0.25057D+12	0.85067D+13	0.16611D+13	0.24365D+11
$1s^22p3d\ ^3F_3$	$1s^23p4f\ ^3G_4$	8.45804	0.70093D+12	0.87660D+13	0.64416D+13	0.17498D+12
$1s^22p3d\ ^3D_3$	$1s^23p4f\ ^3G_4$	8.54673	0.28137D+13	0.87660D+13	0.64416D+13	0.70241D+12
$1s^22p3d\ ^1F_3$	$1s^23p4f\ ^3G_4$	8.60024	0.58412D+12	0.87660D+13	0.64416D+13	0.14582D+12
$1s^22s4f\ ^3F_3$	$1s^23p4f\ ^3G_4$	10.69935	0.20518D+14	0.87660D+13	0.64416D+13	0.51221D+13
$1s^22s4f\ ^3F_4$	$1s^23p4f\ ^3G_4$	10.70101	0.35221D+14	0.87660D+13	0.64416D+13	0.87926D+13
$1s^22s4f\ ^1F_3$	$1s^23p4f\ ^3G_4$	10.70584	0.86883D+13	0.87660D+13	0.64416D+13	0.21689D+13
$1s^22p4d\ ^3F_3$	$1s^23p4f\ ^3G_4$	11.15826	0.82661D+13	0.87660D+13	0.64416D+13	0.20636D+13
$1s^22p4d\ ^3F_4$	$1s^23p4f\ ^3G_4$	11.29747	0.20533D+13	0.87660D+13	0.64416D+13	0.51259D+12
$1s^22p3d\ ^3D_3$	$1s^23p4f\ ^3F_3$	8.54481	0.84750D+12	0.18802D+14	0.63164D+12	0.20679D+11
$1s^22s4f\ ^3F_3$	$1s^23p4f\ ^3F_3$	10.69634	0.96728D+13	0.18802D+14	0.63164D+12	0.23602D+12
$1s^22s4f\ ^3F_4$	$1s^23p4f\ ^3F_3$	10.69801	0.13311D+14	0.18802D+14	0.63164D+12	0.32479D+12
$1s^22s4f\ ^1F_3$	$1s^23p4f\ ^3F_3$	10.70283	0.23825D+14	0.18802D+14	0.63164D+12	0.58133D+12
$1s^22p4d\ ^3F_3$	$1s^23p4f\ ^3F_3$	11.15499	0.42511D+13	0.18802D+14	0.63164D+12	0.10373D+12
$1s^22p4d\ ^3D_3$	$1s^23p4f\ ^3F_3$	11.30312	0.11434D+13	0.18802D+14	0.63164D+12	0.27899D+11
$1s^22p3d\ ^3F_3$	$1s^23p4f\ ^3F_3$	8.44152	0.14710D+13	0.18802D+14	0.63164D+12	0.35892D+11
$1s^22s4f\ ^3F_3$	$1s^23p4f\ ^3F_3$	10.67293	0.13274D+14	0.18802D+14	0.63164D+12	0.32388D+12
$1s^22s4f\ ^3F_4$	$1s^23p4f\ ^3F_3$	10.67459	0.27705D+13	0.18802D+14	0.63164D+12	0.67600D+11
$1s^22s4f\ ^1F_3$	$1s^23p4f\ ^3F_3$	10.67939	0.11135D+14	0.18802D+14	0.63164D+12	0.27169D+12

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p4d\ ^1F_3$	$1s^23p4f\ ^3F_3$	11.30806	0.10363D+13	0.18802D+14	0.63164D+12	0.25286D+11
$1s^22p3d\ ^3F_3$	$1s^23p4f\ ^3F_4$	8.43852	0.41964D+13	0.98078D+13	0.86367D+12	0.27926D+12
$1s^22p3d\ ^3F_4$	$1s^23p4f\ ^3F_4$	8.50454	0.21281D+13	0.98078D+13	0.86367D+12	0.14162D+12
$1s^22p3d\ ^3D_3$	$1s^23p4f\ ^3F_4$	8.52681	0.52269D+12	0.98078D+13	0.86367D+12	0.34784D+11
$1s^22p3d\ ^1F_3$	$1s^23p4f\ ^3F_4$	8.58006	0.36235D+12	0.98078D+13	0.86367D+12	0.24113D+11
$1s^22s4f\ ^3F_3$	$1s^23p4f\ ^3F_4$	10.66814	0.35642D+14	0.98078D+13	0.86367D+12	0.23719D+13
$1s^22s4f\ ^3F_4$	$1s^23p4f\ ^3F_4$	10.66979	0.25912D+14	0.98078D+13	0.86367D+12	0.17244D+13
$1s^22s4f\ ^1F_3$	$1s^23p4f\ ^3F_4$	10.67459	0.56425D+12	0.98078D+13	0.86367D+12	0.37549D+11
$1s^22p4d\ ^3F_3$	$1s^23p4f\ ^3F_4$	11.12432	0.17730D+13	0.98078D+13	0.86367D+12	0.11799D+12
$1s^22p4d\ ^3F_4$	$1s^23p4f\ ^3F_4$	11.26268	0.63558D+12	0.98078D+13	0.86367D+12	0.42296D+11
$1s^22p4d\ ^3D_3$	$1s^23p4f\ ^3F_4$	11.27163	0.16511D+14	0.98078D+13	0.86367D+12	0.10988D+13
$1s^22p3d\ ^3F_4$	$1s^23p4f\ ^3G_5$	8.50453	0.88227D+13	0.98726D+13	0.20891D+13	0.10339D+13
$1s^22s4f\ ^3F_4$	$1s^23p4f\ ^3G_5$	10.66978	0.75116D+14	0.98726D+13	0.20891D+13	0.88022D+13
$1s^22p4d\ ^3F_4$	$1s^23p4f\ ^3G_5$	11.26266	0.24641D+14	0.98726D+13	0.20891D+13	0.28875D+13
$1s^22p3d\ ^3F_3$	$1s^23p4f\ ^1G_4$	8.41776	0.94891D+13	0.15189D+14	0.78331D+14	0.29828D+13
$1s^22p3d\ ^3F_4$	$1s^23p4f\ ^1G_4$	8.48345	0.58750D+11	0.15189D+14	0.78331D+14	0.18467D+11
$1s^22p3d\ ^3D_3$	$1s^23p4f\ ^1G_4$	8.50561	0.27767D+12	0.15189D+14	0.78331D+14	0.87282D+11
$1s^22p3d\ ^1F_3$	$1s^23p4f\ ^1G_4$	8.55860	0.13720D+14	0.15189D+14	0.78331D+14	0.43127D+13
$1s^22s4f\ ^3F_3$	$1s^23p4f\ ^1G_4$	10.63497	0.26075D+13	0.15189D+14	0.78331D+14	0.81964D+12
$1s^22s4f\ ^3F_4$	$1s^23p4f\ ^1G_4$	10.63662	0.31733D+13	0.15189D+14	0.78331D+14	0.99749D+12
$1s^22s4f\ ^1F_3$	$1s^23p4f\ ^1G_4$	10.64139	0.39841D+14	0.15189D+14	0.78331D+14	0.12524D+14
$1s^22p4d\ ^3F_4$	$1s^23p4f\ ^1G_4$	11.22573	0.23598D+13	0.15189D+14	0.78331D+14	0.74177D+12
$1s^22p4d\ ^3D_3$	$1s^23p4f\ ^1G_4$	11.23461	0.10884D+14	0.15189D+14	0.78331D+14	0.34213D+13
$1s^22p4d\ ^1F_3$	$1s^23p4f\ ^1G_4$	11.26545	0.54224D+14	0.15189D+14	0.78331D+14	0.17045D+14
$1s^22p4f\ ^3F_2$	$1s^23d4f\ ^3F_2$	11.07340	0.56411D+14	0.21896D+14	0.63006D+10	0.11265D+11
$1s^22s3d\ ^3D_2$	$1s^23d4f\ ^3F_3$	8.10862	0.34432D+12	0.21678D+14	0.14065D+13	0.12060D+11
$1s^22p3p\ ^3D_2$	$1s^23d4f\ ^3F_3$	8.32511	0.10499D+13	0.21678D+14	0.14065D+13	0.36774D+11
$1s^22p3p\ ^3P_2$	$1s^23d4f\ ^3F_3$	8.40634	0.46258D+12	0.21678D+14	0.14065D+13	0.16203D+11
$1s^22p3p\ ^1D_2$	$1s^23d4f\ ^3F_3$	8.44870	0.51610D+12	0.21678D+14	0.14065D+13	0.18077D+11
$1s^22s4d\ ^3D_2$	$1s^23d4f\ ^3F_3$	10.57405	0.15833D+13	0.21678D+14	0.14065D+13	0.55457D+11
$1s^22s4d\ ^1D_2$	$1s^23d4f\ ^3F_3$	10.59744	0.47511D+12	0.21678D+14	0.14065D+13	0.16641D+11
$1s^22p4p\ ^3D_2$	$1s^23d4f\ ^3F_3$	11.00089	0.66463D+13	0.21678D+14	0.14065D+13	0.23280D+12
$1s^22p4f\ ^3F_2$	$1s^23d4f\ ^3F_3$	11.06827	0.22099D+13	0.21678D+14	0.14065D+13	0.77405D+11
$1s^22p4p\ ^3P_2$	$1s^23d4f\ ^3F_3$	11.13878	0.74589D+12	0.21678D+14	0.14065D+13	0.26126D+11
$1s^22p4p\ ^1D_2$	$1s^23d4f\ ^3F_3$	11.16877	0.13374D+13	0.21678D+14	0.14065D+13	0.46844D+11
$1s^22p4f\ ^3F_2$	$1s^23d4f\ ^3F_3$	11.22342	0.19566D+14	0.21678D+14	0.14065D+13	0.68533D+12
$1s^22p4f\ ^1D_2$	$1s^23d4f\ ^3F_3$	11.23603	0.12215D+14	0.21678D+14	0.14065D+13	0.42785D+12
$1s^22p4f\ ^1D_2$	$1s^23d4f\ ^1D_2$	11.21663	0.39317D+14	0.21641D+14	0.58754D+10	0.10059D+11
$1s^22p4f\ ^3F_2$	$1s^23d4f\ ^3D_1$	11.02058	0.35159D+14	0.22107D+14	0.41147D+11	0.62824D+11
$1s^22p4f\ ^3D_1$	$1s^23d4f\ ^3D_1$	11.18206	0.21423D+14	0.22107D+14	0.41147D+11	0.38280D+11
$1s^22p4f\ ^1D_2$	$1s^23d4f\ ^3D_1$	11.18689	0.87341D+13	0.22107D+14	0.41147D+11	0.15607D+11
$1s^22p4f\ ^3D_3$	$1s^23d4f\ ^3D_2$	11.02050	0.51376D+14	0.22042D+14	0.31022D+11	0.71004D+11
$1s^22p4f\ ^1F_3$	$1s^23d4f\ ^3D_2$	11.16585	0.97375D+13	0.22042D+14	0.31022D+11	0.13458D+11
$1s^22p4f\ ^3F_2$	$1s^23d4f\ ^3D_2$	11.17318	0.24646D+14	0.22042D+14	0.31022D+11	0.34062D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2p4f\ ^3D_1$	$1s^2 3d4f\ ^3D_2$	11.18084	0.10033D+14	0.22042D+14	0.31022D+11	0.13866D+11
$1s^2 2p4f\ ^1D_2$	$1s^2 3d4f\ ^3D_2$	11.18567	0.83687D+13	0.22042D+14	0.31022D+11	0.11566D+11
$1s^2 2p4f\ ^3F_2$	$1s^2 3d4f\ ^3D_3$	11.01729	0.25228D+13	0.21903D+14	0.22486D+12	0.23314D+11
$1s^2 2p4f\ ^3F_2$	$1s^2 3d4f\ ^3D_3$	11.17100	0.14800D+14	0.21903D+14	0.22486D+12	0.13677D+12
$1s^2 2p4f\ ^1D_2$	$1s^2 3d4f\ ^3D_3$	11.18349	0.18129D+13	0.21903D+14	0.22486D+12	0.16753D+11
$1s^2 2s4d\ ^3D_3$	$1s^2 3d4f\ ^3P_2$	10.51791	0.13076D+13	0.21406D+14	0.23166D+12	0.13301D+11
$1s^2 2p4f\ ^3F_2$	$1s^2 3d4f\ ^3P_2$	11.00315	0.28371D+13	0.21406D+14	0.23166D+12	0.28858D+11
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^3P_2$	11.00425	0.16274D+14	0.21406D+14	0.23166D+12	0.16554D+12
$1s^2 2p4p\ ^3S_1$	$1s^2 3d4f\ ^3P_2$	11.07896	0.15731D+13	0.21406D+14	0.23166D+12	0.16001D+11
$1s^2 2p4f\ ^3F_2$	$1s^2 3d4f\ ^3P_2$	11.15646	0.12926D+14	0.21406D+14	0.23166D+12	0.13148D+12
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^3P_2$	11.15738	0.42442D+14	0.21406D+14	0.23166D+12	0.43171D+12
$1s^2 2p4f\ ^3D_1$	$1s^2 3d4f\ ^3P_2$	11.16411	0.41276D+13	0.21406D+14	0.23166D+12	0.41985D+11
$1s^2 2p4f\ ^1D_2$	$1s^2 3d4f\ ^3P_2$	11.16892	0.20019D+14	0.21406D+14	0.23166D+12	0.20363D+12
$1s^2 2p4f\ ^3F_2$	$1s^2 3d4f\ ^3P_1$	11.00090	0.50058D+13	0.21288D+14	0.22889D+12	0.50710D+11
$1s^2 2p4f\ ^3F_2$	$1s^2 3d4f\ ^3P_1$	11.15416	0.19346D+14	0.21288D+14	0.22889D+12	0.19598D+12
$1s^2 2p4f\ ^3D_1$	$1s^2 3d4f\ ^3P_1$	11.16180	0.25379D+14	0.21288D+14	0.22889D+12	0.25710D+12
$1s^2 2p4f\ ^1D_2$	$1s^2 3d4f\ ^3P_1$	11.16661	0.99186D+13	0.21288D+14	0.22889D+12	0.10048D+12
$1s^2 2p4f\ ^3D_1$	$1s^2 3d4f\ ^3P_0$	11.16003	0.19713D+14	0.21185D+14	0.22589D+12	0.19839D+12
$1s^2 2p3p\ ^3D_2$	$1s^2 3d4f\ ^1F_3$	8.28325	0.14681D+12	0.20906D+14	0.49951D+13	0.11626D+11
$1s^2 2p3p\ ^1D_2$	$1s^2 3d4f\ ^1F_3$	8.40560	0.84199D+12	0.20906D+14	0.49951D+13	0.66675D+11
$1s^2 2s4d\ ^1D_2$	$1s^2 3d4f\ ^1F_3$	10.52971	0.25261D+13	0.20906D+14	0.49951D+13	0.20004D+12
$1s^2 2p4f\ ^3F_2$	$1s^2 3d4f\ ^1F_3$	10.99441	0.61018D+13	0.20906D+14	0.49951D+13	0.48319D+12
$1s^2 2p4p\ ^1D_2$	$1s^2 3d4f\ ^1F_3$	11.09356	0.35130D+12	0.20906D+14	0.49951D+13	0.27819D+11
$1s^2 2p4f\ ^3F_2$	$1s^2 3d4f\ ^1F_3$	11.14748	0.93341D+13	0.20906D+14	0.49951D+13	0.73915D+12
$1s^2 2p4f\ ^1D_2$	$1s^2 3d4f\ ^1F_3$	11.15992	0.28398D+14	0.20906D+14	0.49951D+13	0.22488D+13
$1s^2 2s4d\ ^1D_2$	$1s^2 3d4f\ ^1P_1$	10.49277	0.12186D+13	0.21744D+14	0.42235D+12	0.21406D+11
$1s^2 2p4f\ ^3F_2$	$1s^2 3d4f\ ^1P_1$	10.95414	0.12173D+14	0.21744D+14	0.42235D+12	0.21383D+12
$1s^2 2p4f\ ^3F_2$	$1s^2 3d4f\ ^1P_1$	11.10609	0.85796D+13	0.21744D+14	0.42235D+12	0.15071D+12
$1s^2 2p4f\ ^1D_2$	$1s^2 3d4f\ ^1P_1$	11.11843	0.41984D+14	0.21744D+14	0.42235D+12	0.73748D+12
$1s^2 2p4f\ ^3G_3$	$1s^2 3d4f\ ^3H_4$	11.09335	0.16279D+15	0.22175D+14	0.90092D+13	0.22211D+14
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^3H_4$	11.09841	0.74959D+12	0.22175D+14	0.90092D+13	0.10227D+12
$1s^2 2p4f\ ^3G_4$	$1s^2 3d4f\ ^3H_4$	11.09851	0.30442D+12	0.22175D+14	0.90092D+13	0.41535D+11
$1s^2 2p4p\ ^3D_3$	$1s^2 3d4f\ ^3H_4$	11.16958	0.14463D+12	0.22175D+14	0.90092D+13	0.19733D+11
$1s^2 2p4f\ ^1F_3$	$1s^2 3d4f\ ^3H_4$	11.24583	0.87800D+13	0.22175D+14	0.90092D+13	0.11979D+13
$1s^2 2p4f\ ^3F_4$	$1s^2 3d4f\ ^3H_4$	11.24896	0.23764D+13	0.22175D+14	0.90092D+13	0.32423D+12
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^3H_4$	11.25419	0.34620D+13	0.22175D+14	0.90092D+13	0.47235D+12
$1s^2 2p4f\ ^1G_4$	$1s^2 3d4f\ ^3H_4$	11.25778	0.20816D+14	0.22175D+14	0.90092D+13	0.28401D+13
$1s^2 2p4f\ ^3G_4$	$1s^2 3d4f\ ^3H_5$	11.08976	0.11057D+15	0.21873D+14	0.11504D+14	0.17060D+14
$1s^2 2p4f\ ^3F_4$	$1s^2 3d4f\ ^3H_5$	11.23998	0.66203D+14	0.21873D+14	0.11504D+14	0.10215D+14
$1s^2 2p4f\ ^3G_5$	$1s^2 3d4f\ ^3H_5$	11.24641	0.12322D+14	0.21873D+14	0.11504D+14	0.19012D+13
$1s^2 2p4f\ ^1G_4$	$1s^2 3d4f\ ^3H_5$	11.24878	0.51449D+14	0.21873D+14	0.11504D+14	0.79383D+13
$1s^2 2p3p\ ^3D_3$	$1s^2 3d4f\ ^1G_4$	8.40551	0.23149D+12	0.21798D+14	0.24385D+13	0.13189D+11
$1s^2 2s4d\ ^3D_3$	$1s^2 3d4f\ ^1G_4$	10.59552	0.19610D+12	0.21798D+14	0.24385D+13	0.11172D+11
$1s^2 2p4f\ ^3G_3$	$1s^2 3d4f\ ^1G_4$	11.08418	0.78427D+12	0.21798D+14	0.24385D+13	0.44682D+11
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^1G_4$	11.08923	0.33060D+14	0.21798D+14	0.24385D+13	0.18835D+13
$1s^2 2p4f\ ^3G_4$	$1s^2 3d4f\ ^1G_4$	11.08933	0.39707D+14	0.21798D+14	0.24385D+13	0.22622D+13

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2p4p\ ^3D_3$	$1s^2 3d4f\ ^1G_4$	11.16028	0.59741D+12	0.21798D+14	0.24385D+13	0.34036D+11
$1s^2 2p4f\ ^1F_3$	$1s^2 3d4f\ ^1G_4$	11.23641	0.79681D+14	0.21798D+14	0.24385D+13	0.45397D+13
$1s^2 2p4f\ ^3F_4$	$1s^2 3d4f\ ^1G_4$	11.23953	0.39129D+12	0.21798D+14	0.24385D+13	0.22293D+11
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^1G_4$	11.24476	0.18119D+14	0.21798D+14	0.24385D+13	0.10323D+13
$1s^2 2p4f\ ^3G_5$	$1s^2 3d4f\ ^1G_4$	11.24597	0.78680D+12	0.21798D+14	0.24385D+13	0.44826D+11
$1s^2 2p4f\ ^1G_4$	$1s^2 3d4f\ ^1G_4$	11.24834	0.22515D+14	0.21798D+14	0.24385D+13	0.12827D+13
$1s^2 2p4f\ ^3G_5$	$1s^2 3d4f\ ^3H_6$	11.23742	0.27946D+15	0.21503D+14	0.11472D+14	0.43360D+14
$1s^2 2p3p\ ^3D_3$	$1s^2 3d4f\ ^3F_3$	8.39410	0.30970D+12	0.21678D+14	0.14065D+13	0.10848D+11
$1s^2 2p4f\ ^3G_3$	$1s^2 3d4f\ ^3F_3$	11.06435	0.33931D+13	0.21678D+14	0.14065D+13	0.11885D+12
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^3F_3$	11.06938	0.47979D+14	0.21678D+14	0.14065D+13	0.16805D+13
$1s^2 2p4f\ ^3G_4$	$1s^2 3d4f\ ^3F_3$	11.06948	0.17702D+14	0.21678D+14	0.14065D+13	0.62004D+12
$1s^2 2p4f\ ^1F_3$	$1s^2 3d4f\ ^3F_3$	11.21603	0.23159D+14	0.21678D+14	0.14065D+13	0.81118D+12
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^3F_3$	11.22435	0.43240D+13	0.21678D+14	0.14065D+13	0.15145D+12
$1s^2 2p4f\ ^1G_4$	$1s^2 3d4f\ ^3F_3$	11.22791	0.68590D+13	0.21678D+14	0.14065D+13	0.24025D+12
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^3F_4$	11.06231	0.11805D+14	0.21301D+14	0.54898D+11	0.20519D+11
$1s^2 2p4f\ ^3G_4$	$1s^2 3d4f\ ^3F_4$	11.06240	0.18913D+14	0.21301D+14	0.54898D+11	0.32875D+11
$1s^2 2p4p\ ^3D_3$	$1s^2 3d4f\ ^3F_4$	11.13301	0.10641D+14	0.21301D+14	0.54898D+11	0.18496D+11
$1s^2 2p4f\ ^3F_4$	$1s^2 3d4f\ ^3F_4$	11.21187	0.68428D+14	0.21301D+14	0.54898D+11	0.11894D+12
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^3F_4$	11.21707	0.43647D+14	0.21301D+14	0.54898D+11	0.75867D+11
$1s^2 2p4f\ ^3G_5$	$1s^2 3d4f\ ^3F_4$	11.21827	0.17192D+14	0.21301D+14	0.54898D+11	0.29883D+11
$1s^2 2p4f\ ^1G_4$	$1s^2 3d4f\ ^3F_4$	11.22063	0.12257D+14	0.21301D+14	0.54898D+11	0.21305D+11
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^3G_4$	11.03005	0.27978D+14	0.22123D+14	0.21928D+11	0.12162D+11
$1s^2 2p4f\ ^3G_4$	$1s^2 3d4f\ ^3G_4$	11.03014	0.35390D+14	0.22123D+14	0.21928D+11	0.15384D+11
$1s^2 2p4f\ ^1F_3$	$1s^2 3d4f\ ^3G_4$	11.17564	0.63519D+14	0.22123D+14	0.21928D+11	0.27611D+11
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^3G_4$	11.18391	0.34754D+14	0.22123D+14	0.21928D+11	0.15107D+11
$1s^2 2p4f\ ^1G_4$	$1s^2 3d4f\ ^3G_4$	11.18745	0.23382D+14	0.22123D+14	0.21928D+11	0.10164D+11
$1s^2 2p4f\ ^3G_4$	$1s^2 3d4f\ ^3G_5$	11.02462	0.28426D+14	0.21970D+14	0.17320D+12	0.96203D+11
$1s^2 2p4f\ ^3F_4$	$1s^2 3d4f\ ^3G_5$	11.17306	0.12924D+15	0.21970D+14	0.17320D+12	0.43739D+12
$1s^2 2p4f\ ^3G_5$	$1s^2 3d4f\ ^3G_5$	11.17942	0.83134D+14	0.21970D+14	0.17320D+12	0.28135D+12
$1s^2 2p4f\ ^3G_3$	$1s^2 3d4f\ ^3D_3$	11.01340	0.32342D+13	0.21903D+14	0.22486D+12	0.29888D+11
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^3D_3$	11.01839	0.32731D+14	0.21903D+14	0.22486D+12	0.30247D+12
$1s^2 2p4f\ ^3G_4$	$1s^2 3d4f\ ^3D_3$	11.01849	0.14062D+14	0.21903D+14	0.22486D+12	0.12995D+12
$1s^2 2p4f\ ^1F_3$	$1s^2 3d4f\ ^3D_3$	11.16368	0.10504D+14	0.21903D+14	0.22486D+12	0.97069D+11
$1s^2 2p4f\ ^3F_4$	$1s^2 3d4f\ ^3D_3$	11.16676	0.26553D+14	0.21903D+14	0.22486D+12	0.24538D+12
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^3D_3$	11.17192	0.44831D+14	0.21903D+14	0.22486D+12	0.41429D+12
$1s^2 2p4f\ ^3G_3$	$1s^2 3d4f\ ^1F_3$	10.99054	0.77639D+13	0.20906D+14	0.49951D+13	0.61481D+12
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^1F_3$	10.99550	0.63444D+13	0.20906D+14	0.49951D+13	0.50240D+12
$1s^2 2p4f\ ^3G_4$	$1s^2 3d4f\ ^1F_3$	10.99560	0.22895D+13	0.20906D+14	0.49951D+13	0.18130D+12
$1s^2 2p4f\ ^1F_3$	$1s^2 3d4f\ ^1F_3$	11.14019	0.29545D+14	0.20906D+14	0.49951D+13	0.23396D+13
$1s^2 2p4f\ ^3F_4$	$1s^2 3d4f\ ^1F_3$	11.14326	0.31961D+13	0.20906D+14	0.49951D+13	0.25309D+12
$1s^2 2p4f\ ^3D_3$	$1s^2 3d4f\ ^1F_3$	11.14839	0.36437D+14	0.20906D+14	0.49951D+13	0.28854D+13
$1s^2 2p4f\ ^1G_4$	$1s^2 3d4f\ ^1F_3$	11.15191	0.12576D+14	0.20906D+14	0.49951D+13	0.99587D+12
$1s^2 2p4f\ ^3G_4$	$1s^2 3d4f\ ^1H_5$	10.96525	0.64997D+14	0.22407D+14	0.45812D+14	0.11964D+14
$1s^2 2p4f\ ^3F_4$	$1s^2 3d4f\ ^1H_5$	11.11209	0.41049D+13	0.22407D+14	0.45812D+14	0.75559D+12
$1s^2 2p4f\ ^3G_5$	$1s^2 3d4f\ ^1H_5$	11.11837	0.44144D+12	0.22407D+14	0.45812D+14	0.81256D+11
$1s^2 2p4f\ ^1G_4$	$1s^2 3d4f\ ^1H_5$	11.12069	0.17681D+15	0.22407D+14	0.45812D+14	0.32545D+14
$1s^2 2p5f\ ^1G_4$	$1s^2 3d4f\ ^1H_5$	13.01530	0.70340D+11	0.22407D+14	0.45812D+14	0.12947D+11

Table IV (continue)

lower level	upper level	$\lambda(\AA)$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p^2\ ^3P_1$	$1s^22p13s\ ^3P_0$	6.77396	0.17674D+11	0.74474D+11	0.13917D+13	0.16776D+11
$1s^22p3p\ ^3S_1$	$1s^22p13s\ ^3P_0$	15.96161	0.10570D+11	0.74474D+11	0.13917D+13	0.10033D+11
$1s^22p^2\ ^3P_0$	$1s^22p13s\ ^3P_1$	6.74159	0.21200D+11	0.79950D+11	0.55504D+13	0.20899D+11
$1s^22p^2\ ^3P_2$	$1s^22p13s\ ^3P_1$	6.79462	0.37079D+11	0.79950D+11	0.55504D+13	0.36552D+11
$1s^22p3p\ ^3D_1$	$1s^22p13s\ ^3P_1$	15.79961	0.10894D+11	0.79950D+11	0.55504D+13	0.10739D+11
$1s^22p3p\ ^3D_2$	$1s^22p13s\ ^3P_1$	15.95912	0.24541D+11	0.79950D+11	0.55504D+13	0.24193D+11
$1s^22p4p\ ^3D_2$	$1s^22p13s\ ^3P_1$	29.90147	0.17989D+11	0.79950D+11	0.55504D+13	0.17734D+11
$1s^22p5p\ ^3D_2$	$1s^22p13s\ ^3P_1$	49.83351	0.12737D+11	0.79950D+11	0.55504D+13	0.12556D+11
$1s^22p^2\ ^3P_1$	$1s^22p13s\ ^3P_2$	6.71675	0.19570D+11	0.78682D+11	0.13071D+13	0.18459D+11
$1s^22p^2\ ^3P_2$	$1s^22p13s\ ^3P_2$	6.73709	0.53938D+11	0.78682D+11	0.13071D+13	0.50876D+11
$1s^22p^2\ ^1D_2$	$1s^22p13s\ ^3P_2$	6.79512	0.23921D+11	0.78682D+11	0.13071D+13	0.22563D+11
$1s^22p3p\ ^3D_3$	$1s^22p13s\ ^3P_2$	15.89082	0.40962D+11	0.78682D+11	0.13071D+13	0.38636D+11
$1s^22p3p\ ^3S_1$	$1s^22p13s\ ^3P_2$	15.92839	0.12077D+11	0.78682D+11	0.13071D+13	0.11391D+11
$1s^22p3p\ ^3P_2$	$1s^22p13s\ ^3P_2$	15.93474	0.21709D+11	0.78682D+11	0.13071D+13	0.20476D+11
$1s^22p4p\ ^3P_2$	$1s^22p13s\ ^3P_2$	29.78454	0.14401D+11	0.78682D+11	0.13071D+13	0.13583D+11
$1s^22p4p\ ^3D_3$	$1s^22p13s\ ^3P_2$	29.79455	0.25755D+11	0.78682D+11	0.13071D+13	0.24293D+11
$1s^22p5p\ ^3D_3$	$1s^22p13s\ ^3P_2$	49.68823	0.17673D+11	0.78682D+11	0.13071D+13	0.16670D+11
$1s^22p6p\ ^3D_3$	$1s^22p13s\ ^3P_2$	77.71114	0.12870D+11	0.78682D+11	0.13071D+13	0.12139D+11
$1s^22p^2\ ^1D_2$	$1s^22p13s\ ^1P_1$	6.79505	0.63371D+11	0.87791D+11	0.99180D+13	0.62815D+11
$1s^22p^2\ ^1S_0$	$1s^22p13s\ ^1P_1$	6.88562	0.19740D+11	0.87791D+11	0.99180D+13	0.19567D+11
$1s^22p3p\ ^3P_1$	$1s^22p13s\ ^1P_1$	15.87309	0.12562D+11	0.87791D+11	0.99180D+13	0.12452D+11
$1s^22p3p\ ^1D_2$	$1s^22p13s\ ^1P_1$	16.08720	0.18443D+11	0.87791D+11	0.99180D+13	0.18281D+11
$1s^22p4p\ ^1D_2$	$1s^22p13s\ ^1P_1$	29.99847	0.12925D+11	0.87791D+11	0.99180D+13	0.12812D+11
$1s^22s13s\ ^3S_1$	$1s^22p13s\ ^3P_2$	192.11823	0.21342D+11	0.78682D+11	0.13071D+13	0.20130D+11
$1s^22s2p\ ^3P_0$	$1s^22p13p\ ^3D_1$	6.47661	0.90484D+11	0.15889D+12	0.11522D+13	0.79519D+11
$1s^22s2p\ ^3P_1$	$1s^22p13p\ ^3D_1$	6.48957	0.14056D+12	0.15889D+12	0.11522D+13	0.12353D+12
$1s^22s2p\ ^1P_1$	$1s^22p13p\ ^3D_1$	6.63849	0.23879D+11	0.15889D+12	0.11522D+13	0.20985D+11
$1s^22p3s\ ^3P_0$	$1s^22p13p\ ^3D_1$	15.51972	0.27515D+11	0.15889D+12	0.11522D+13	0.24181D+11
$1s^22p3s\ ^3P_1$	$1s^22p13p\ ^3D_1$	15.55837	0.48298D+11	0.15889D+12	0.11522D+13	0.42445D+11
$1s^22p4s\ ^3P_0$	$1s^22p13p\ ^3D_1$	29.22332	0.12417D+11	0.15889D+12	0.11522D+13	0.10912D+11
$1s^22p4s\ ^3P_1$	$1s^22p13p\ ^3D_1$	29.26021	0.23619D+11	0.15889D+12	0.11522D+13	0.20757D+11
$1s^22p5s\ ^3P_1$	$1s^22p13p\ ^3D_1$	48.89429	0.13099D+11	0.15889D+12	0.11522D+13	0.11512D+11
$1s^22s2p\ ^3P_0$	$1s^22p13p\ ^3P_1$	6.47633	0.18188D+12	0.32173D+12	0.56517D+13	0.17208D+12
$1s^22s2p\ ^3P_1$	$1s^22p13p\ ^3P_1$	6.48929	0.70600D+11	0.32173D+12	0.56517D+13	0.66797D+11
$1s^22s2p\ ^1P_1$	$1s^22p13p\ ^3P_1$	6.63819	0.12261D+11	0.32173D+12	0.56517D+13	0.11601D+11
$1s^22p3s\ ^3P_0$	$1s^22p13p\ ^3P_1$	15.51813	0.55093D+11	0.32173D+12	0.56517D+13	0.52126D+11
$1s^22p3s\ ^3P_1$	$1s^22p13p\ ^3P_1$	15.55677	0.24200D+11	0.32173D+12	0.56517D+13	0.22897D+11
$1s^22p4s\ ^3P_0$	$1s^22p13p\ ^3P_1$	29.21767	0.24875D+11	0.32173D+12	0.56517D+13	0.23535D+11
$1s^22p4s\ ^3P_1$	$1s^22p13p\ ^3P_1$	29.25454	0.11864D+11	0.32173D+12	0.56517D+13	0.11225D+11
$1s^22p5s\ ^3P_0$	$1s^22p13p\ ^3P_1$	48.83647	0.13663D+11	0.32173D+12	0.56517D+13	0.12927D+11
$1s^22s2p\ ^3P_1$	$1s^22p13p\ ^3P_0$	6.48929	0.78165D+11	0.16970D+12	0.83592D+13	0.76610D+11
$1s^22s2p\ ^1P_1$	$1s^22p13p\ ^3P_0$	6.63819	0.16659D+11	0.16970D+12	0.83592D+13	0.16328D+11
$1s^22p3s\ ^3P_1$	$1s^22p13p\ ^3P_0$	15.55676	0.26196D+11	0.16970D+12	0.83592D+13	0.25675D+11
$1s^22p4s\ ^3P_1$	$1s^22p13p\ ^3P_0$	29.25451	0.12808D+11	0.16970D+12	0.83592D+13	0.12553D+11
$1s^22s2p\ ^3P_1$	$1s^22p13p\ ^3D_2$	6.48926	0.36985D+12	0.32783D+12	0.18626D+13	0.31450D+12

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22s2p\ ^1P_1$	$1s^22p13p\ ^3D_2$	6.63817	0.68899D+11	0.32783D+12	0.18626D+13	0.58587D+11
$1s^22p3s\ ^3P_1$	$1s^22p13p\ ^3D_2$	15.55661	0.12559D+12	0.32783D+12	0.18626D+13	0.10679D+12
$1s^22p4s\ ^3P_1$	$1s^22p13p\ ^3D_2$	29.25397	0.61286D+11	0.32783D+12	0.18626D+13	0.52113D+11
$1s^22p5s\ ^3P_1$	$1s^22p13p\ ^3D_2$	48.87688	0.34075D+11	0.32783D+12	0.18626D+13	0.28975D+11
$1s^22p6s\ ^3P_1$	$1s^22p13p\ ^3D_2$	76.48580	0.21143D+11	0.32783D+12	0.18626D+13	0.17979D+11
$1s^22p7s\ ^3P_1$	$1s^22p13p\ ^3D_2$	115.67301	0.14332D+11	0.32783D+12	0.18626D+13	0.12187D+11
$1s^22s2p\ ^3P_1$	$1s^22p13p\ ^3P_1$	6.43696	0.33552D+11	0.32173D+12	0.56517D+13	0.31745D+11
$1s^22s2p\ ^3P_2$	$1s^22p13p\ ^3P_1$	6.47499	0.11717D+12	0.32173D+12	0.56517D+13	0.11086D+12
$1s^22s2p\ ^1P_1$	$1s^22p13p\ ^3P_1$	6.58345	0.10005D+12	0.32173D+12	0.56517D+13	0.94661D+11
$1s^22p3s\ ^3P_2$	$1s^22p13p\ ^3P_1$	15.51357	0.35038D+11	0.32173D+12	0.56517D+13	0.33151D+11
$1s^22p3s\ ^1P_1$	$1s^22p13p\ ^3P_1$	15.61192	0.39144D+11	0.32173D+12	0.56517D+13	0.37036D+11
$1s^22p4s\ ^3P_2$	$1s^22p13p\ ^3P_1$	29.24286	0.12877D+11	0.32173D+12	0.56517D+13	0.12183D+11
$1s^22p4s\ ^1P_1$	$1s^22p13p\ ^3P_1$	29.29338	0.20046D+11	0.32173D+12	0.56517D+13	0.18966D+11
$1s^22p5s\ ^1P_1$	$1s^22p13p\ ^3P_1$	48.92414	0.11282D+11	0.32173D+12	0.56517D+13	0.10674D+11
$1s^22s2p\ ^3P_1$	$1s^22p13p\ ^3D_2$	6.43692	0.23715D+11	0.32783D+12	0.18626D+13	0.20166D+11
$1s^22s2p\ ^3P_2$	$1s^22p13p\ ^3D_2$	6.47494	0.32148D+12	0.32783D+12	0.18626D+13	0.27336D+12
$1s^22s2p\ ^1P_1$	$1s^22p13p\ ^3D_2$	6.58341	0.10223D+12	0.32783D+12	0.18626D+13	0.86929D+11
$1s^22p3s\ ^3P_2$	$1s^22p13p\ ^3D_2$	15.51333	0.96493D+11	0.32783D+12	0.18626D+13	0.82051D+11
$1s^22p3s\ ^1P_1$	$1s^22p13p\ ^3D_2$	15.61167	0.35815D+11	0.32783D+12	0.18626D+13	0.30455D+11
$1s^22p4s\ ^3P_2$	$1s^22p13p\ ^3D_2$	29.24200	0.33795D+11	0.32783D+12	0.18626D+13	0.28737D+11
$1s^22p4s\ ^1P_1$	$1s^22p13p\ ^3D_2$	29.29252	0.18067D+11	0.32783D+12	0.18626D+13	0.15363D+11
$1s^22p5s\ ^3P_2$	$1s^22p13p\ ^3D_2$	48.84203	0.24038D+11	0.32783D+12	0.18626D+13	0.20440D+11
$1s^22p6s\ ^3P_2$	$1s^22p13p\ ^3D_2$	76.46781	0.14903D+11	0.32783D+12	0.18626D+13	0.12672D+11
$1s^22s2p\ ^3P_2$	$1s^22p13p\ ^3D_3$	6.47488	0.62823D+12	0.16714D+12	0.81151D+12	0.52094D+12
$1s^22p3s\ ^3P_2$	$1s^22p13p\ ^3D_3$	15.51297	0.18924D+12	0.16714D+12	0.81151D+12	0.15692D+12
$1s^22p3d\ ^3F_4$	$1s^22p13p\ ^3D_3$	16.13323	0.15042D+11	0.16714D+12	0.81151D+12	0.12473D+11
$1s^22p4d\ ^3P_2$	$1s^22p13p\ ^3D_3$	29.12607	0.19310D+11	0.16714D+12	0.81151D+12	0.16012D+11
$1s^22p4s\ ^3P_2$	$1s^22p13p\ ^3D_3$	29.24072	0.66278D+11	0.16714D+12	0.81151D+12	0.54959D+11
$1s^22p4d\ ^3F_4$	$1s^22p13p\ ^3D_3$	30.13116	0.14132D+11	0.16714D+12	0.81151D+12	0.11718D+11
$1s^22p5s\ ^3P_2$	$1s^22p13p\ ^3D_3$	48.83846	0.47007D+11	0.16714D+12	0.81151D+12	0.38979D+11
$1s^22p6s\ ^3P_2$	$1s^22p13p\ ^3D_3$	76.45904	0.29062D+11	0.16714D+12	0.81151D+12	0.24099D+11
$1s^22p7s\ ^3P_2$	$1s^22p13p\ ^3D_3$	115.62193	0.19564D+11	0.16714D+12	0.81151D+12	0.16223D+11
$1s^22s2p\ ^3P_1$	$1s^22p13p\ ^3S_1$	6.43684	0.20890D+11	0.15661D+12	0.95589D+13	0.20553D+11
$1s^22s2p\ ^3P_2$	$1s^22p13p\ ^3S_1$	6.47486	0.15006D+12	0.15661D+12	0.95589D+13	0.14764D+12
$1s^22s2p\ ^1P_1$	$1s^22p13p\ ^3S_1$	6.58331	0.73325D+11	0.15661D+12	0.95589D+13	0.72143D+11
$1s^22p3s\ ^3P_2$	$1s^22p13p\ ^3S_1$	15.51282	0.45396D+11	0.15661D+12	0.95589D+13	0.44664D+11
$1s^22p3s\ ^1P_1$	$1s^22p13p\ ^3S_1$	15.61116	0.28125D+11	0.15661D+12	0.95589D+13	0.27672D+11
$1s^22p4s\ ^3P_2$	$1s^22p13p\ ^3S_1$	29.24022	0.15304D+11	0.15661D+12	0.95589D+13	0.15057D+11
$1s^22p4s\ ^1P_1$	$1s^22p13p\ ^3S_1$	29.29073	0.14246D+11	0.15661D+12	0.95589D+13	0.14016D+11
$1s^22p5s\ ^3P_2$	$1s^22p13p\ ^3S_1$	48.83705	0.11137D+11	0.15661D+12	0.95589D+13	0.10957D+11
$1s^22s2p\ ^3P_1$	$1s^22p13p\ ^3P_2$	6.43666	0.61566D+11	0.16460D+12	0.94014D+12	0.52393D+11
$1s^22s2p\ ^3P_2$	$1s^22p13p\ ^3P_2$	6.47468	0.14503D+12	0.16460D+12	0.94014D+12	0.12342D+12
$1s^22s2p\ ^1P_1$	$1s^22p13p\ ^3P_2$	6.58313	0.23635D+12	0.16460D+12	0.94014D+12	0.20114D+12
$1s^22p3s\ ^3P_2$	$1s^22p13p\ ^3P_2$	15.51181	0.43225D+11	0.16460D+12	0.94014D+12	0.36785D+11
$1s^22p3s\ ^1P_1$	$1s^22p13p\ ^3P_2$	15.61014	0.83355D+11	0.16460D+12	0.94014D+12	0.70936D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p4s\ ^3P_2$	$1s^22p13p\ ^3P_2$	29.23662	0.15762D+11	0.16460D+12	0.94014D+12	0.13414D+11
$1s^22p4s\ ^1P_1$	$1s^22p13p\ ^3P_2$	29.28712	0.42332D+11	0.16460D+12	0.94014D+12	0.36025D+11
$1s^22p5s\ ^1P_1$	$1s^22p13p\ ^3P_2$	48.90668	0.23791D+11	0.16460D+12	0.94014D+12	0.20246D+11
$1s^22p6s\ ^1P_1$	$1s^22p13p\ ^3P_2$	76.57398	0.14711D+11	0.16460D+12	0.94014D+12	0.12519D+11
$1s^22s2p\ ^3P_1$	$1s^22p13p\ ^1S_0$	6.43646	0.16856D+11	0.17209D+12	0.17662D+14	0.16693D+11
$1s^22s2p\ ^1P_1$	$1s^22p13p\ ^1S_0$	6.58292	0.78149D+11	0.17209D+12	0.17662D+14	0.77395D+11
$1s^22p3s\ ^1P_1$	$1s^22p13p\ ^1S_0$	15.60895	0.25414D+11	0.17209D+12	0.17662D+14	0.25169D+11
$1s^22p4s\ ^1P_1$	$1s^22p13p\ ^1S_0$	29.28296	0.12817D+11	0.17209D+12	0.17662D+14	0.12693D+11
$1s^22p8s\ ^3P_2$	$1s^22p13p\ ^3D_3$	172.80403	0.14125D+11	0.16714D+12	0.81151D+12	0.11713D+11
$1s^22s13p\ ^3P_1$	$1s^22p13p\ ^3D_2$	192.14670	0.20993D+11	0.32783D+12	0.18626D+13	0.17851D+11
$1s^22s13p\ ^3P_2$	$1s^22p13p\ ^3D_3$	192.22740	0.30248D+11	0.16714D+12	0.81151D+12	0.25082D+11
$1s^22p^2\ \ ^3P_2$	$1s^22p13d\ ^3F_2$	6.79333	0.90620D+11	0.14228D+12	0.13683D+12	0.44427D+11
$1s^22p3p\ ^3D_1$	$1s^22p13d\ ^3F_2$	15.79266	0.22807D+12	0.14228D+12	0.13683D+12	0.11181D+12
$1s^22p3p\ ^3D_2$	$1s^22p13d\ ^3F_2$	15.95203	0.33021D+11	0.14228D+12	0.13683D+12	0.16189D+11
$1s^22p4p\ ^3D_1$	$1s^22p13d\ ^3F_2$	29.63489	0.10073D+12	0.14228D+12	0.13683D+12	0.49383D+11
$1s^22p5p\ ^3D_1$	$1s^22p13d\ ^3F_2$	49.42809	0.53375D+11	0.14228D+12	0.13683D+12	0.26167D+11
$1s^22p6p\ ^3D_1$	$1s^22p13d\ ^3F_2$	77.26404	0.31657D+11	0.14228D+12	0.13683D+12	0.15520D+11
$1s^22p7p\ ^3D_1$	$1s^22p13d\ ^3F_2$	116.74543	0.20651D+11	0.14228D+12	0.13683D+12	0.10124D+11
$1s^22p^2\ \ ^3P_1$	$1s^22p13d\ ^3P_2$	6.77246	0.65980D+12	0.53030D+12	0.49550D+13	0.59601D+12
$1s^22p^2\ \ ^3P_2$	$1s^22p13d\ ^3P_2$	6.79313	0.61572D+11	0.53030D+12	0.49550D+13	0.55619D+11
$1s^22p3p\ ^3D_2$	$1s^22p13d\ ^3P_2$	15.95095	0.21899D+11	0.53030D+12	0.49550D+13	0.19782D+11
$1s^22p3p\ ^3S_1$	$1s^22p13d\ ^3P_2$	15.95324	0.21184D+12	0.53030D+12	0.49550D+13	0.19136D+12
$1s^22p3p\ ^3P_1$	$1s^22p13d\ ^3P_2$	16.18813	0.14065D+11	0.53030D+12	0.49550D+13	0.12705D+11
$1s^22p4p\ ^3P_1$	$1s^22p13d\ ^3P_2$	29.85791	0.10290D+12	0.53030D+12	0.49550D+13	0.92952D+11
$1s^22p4p\ ^3D_2$	$1s^22p13d\ ^3P_2$	29.87279	0.11161D+11	0.53030D+12	0.49550D+13	0.10082D+11
$1s^22p5p\ ^3P_1$	$1s^22p13d\ ^3P_2$	49.72404	0.55841D+11	0.53030D+12	0.49550D+13	0.50442D+11
$1s^22p6p\ ^3P_1$	$1s^22p13d\ ^3P_2$	77.63546	0.33240D+11	0.53030D+12	0.49550D+13	0.30026D+11
$1s^22p7p\ ^3P_1$	$1s^22p13d\ ^3P_2$	117.28719	0.22319D+11	0.53030D+12	0.49550D+13	0.20161D+11
$1s^22p^2\ \ ^3P_2$	$1s^22p13d\ ^3F_3$	6.79309	0.84064D+12	0.25009D+12	0.78846D+12	0.63821D+12
$1s^22p^2\ \ ^1D_2$	$1s^22p13d\ ^3F_3$	6.85210	0.12885D+12	0.25009D+12	0.78846D+12	0.97822D+11
$1s^22p3p\ ^3D_2$	$1s^22p13d\ ^3F_3$	15.95072	0.31147D+12	0.25009D+12	0.78846D+12	0.23647D+12
$1s^22p3p\ ^3P_2$	$1s^22p13d\ ^3F_3$	16.25162	0.25194D+11	0.25009D+12	0.78846D+12	0.19127D+11
$1s^22p4p\ ^3D_2$	$1s^22p13d\ ^3F_3$	29.87199	0.15749D+12	0.25009D+12	0.78846D+12	0.11957D+12
$1s^22p5p\ ^3D_2$	$1s^22p13d\ ^3F_3$	49.75169	0.86124D+11	0.25009D+12	0.78846D+12	0.65385D+11
$1s^22p6p\ ^3D_2$	$1s^22p13d\ ^3F_3$	77.70186	0.52439D+11	0.25009D+12	0.78846D+12	0.39811D+11
$1s^22p7p\ ^3D_2$	$1s^22p13d\ ^3F_3$	117.34050	0.34703D+11	0.25009D+12	0.78846D+12	0.26346D+11
$1s^22p^2\ \ ^3P_0$	$1s^22p13d\ ^3D_1$	6.74008	0.42727D+12	0.29409D+12	0.24440D+13	0.38138D+12
$1s^22p^2\ \ ^3P_1$	$1s^22p13d\ ^3D_1$	6.77240	0.64167D+11	0.29409D+12	0.24440D+13	0.57275D+11
$1s^22p^2\ \ ^1S_0$	$1s^22p13d\ ^3D_1$	6.94419	0.40492D+11	0.29409D+12	0.24440D+13	0.36143D+11
$1s^22p3p\ ^3D_1$	$1s^22p13d\ ^3D_1$	15.79129	0.48900D+11	0.29409D+12	0.24440D+13	0.43648D+11
$1s^22p3p\ ^3S_1$	$1s^22p13d\ ^3D_1$	15.95293	0.18541D+11	0.29409D+12	0.24440D+13	0.16550D+11
$1s^22p3p\ ^3P_0$	$1s^22p13d\ ^3D_1$	15.99972	0.69665D+11	0.29409D+12	0.24440D+13	0.62183D+11
$1s^22p4p\ ^3D_1$	$1s^22p13d\ ^3D_1$	29.63010	0.21236D+11	0.29409D+12	0.24440D+13	0.18955D+11
$1s^22p4p\ ^3P_0$	$1s^22p13d\ ^3D_1$	29.88445	0.34813D+11	0.29409D+12	0.24440D+13	0.31074D+11
$1s^22p5p\ ^3D_1$	$1s^22p13d\ ^3D_1$	49.41475	0.11318D+11	0.29409D+12	0.24440D+13	0.10102D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p5p\ ^3P_0$	$1s^22p13d\ ^3D_1$	49.74828	0.19492D+11	0.29409D+12	0.24440D+13	0.17398D+11
$1s^22p6p\ ^3P_0$	$1s^22p13d\ ^3D_1$	77.63987	0.11741D+11	0.29409D+12	0.24440D+13	0.10480D+11
$1s^22p^2\ \ ^3P_1$	$1s^22p13d\ ^1D_2$	6.71543	0.21439D+12	0.20644D+12	0.11043D+12	0.74716D+11
$1s^22p^2\ \ ^3P_2$	$1s^22p13d\ ^1D_2$	6.73575	0.13254D+12	0.20644D+12	0.11043D+12	0.46191D+11
$1s^22p^2\ \ ^1D_2$	$1s^22p13d\ ^1D_2$	6.79376	0.92153D+11	0.20644D+12	0.11043D+12	0.32116D+11
$1s^22p3p\ ^3P_1$	$1s^22p13d\ ^1D_2$	15.86606	0.16903D+12	0.20644D+12	0.11043D+12	0.58908D+11
$1s^22p3p\ ^3P_2$	$1s^22p13d\ ^1D_2$	15.92727	0.43988D+11	0.20644D+12	0.11043D+12	0.15330D+11
$1s^22p4p\ ^1P_1$	$1s^22p13d\ ^1D_2$	29.70585	0.75047D+11	0.20644D+12	0.11043D+12	0.26154D+11
$1s^22p5p\ ^1P_1$	$1s^22p13d\ ^1D_2$	49.51614	0.38157D+11	0.20644D+12	0.11043D+12	0.13298D+11
$1s^22p3p\ ^3D_3$	$1s^22p13d\ ^3F_4$	15.88329	0.49057D+12	0.12069D+12	0.56002D+11	0.15549D+12
$1s^22p4p\ ^3D_3$	$1s^22p13d\ ^3F_4$	29.76811	0.21452D+12	0.12069D+12	0.56002D+11	0.67993D+11
$1s^22p5p\ ^3D_3$	$1s^22p13d\ ^3F_4$	49.61474	0.11396D+12	0.12069D+12	0.56002D+11	0.36120D+11
$1s^22p6p\ ^3D_3$	$1s^22p13d\ ^3F_4$	77.53153	0.68152D+11	0.12069D+12	0.56002D+11	0.21601D+11
$1s^22p7p\ ^3D_3$	$1s^22p13d\ ^3F_4$	117.11106	0.44243D+11	0.12069D+12	0.56002D+11	0.14023D+11
$1s^22p^2\ \ ^3P_2$	$1s^22p13d\ ^3D_3$	6.73569	0.82744D+12	0.23975D+12	0.15768D+12	0.32828D+12
$1s^22p^2\ \ ^1D_2$	$1s^22p13d\ ^3D_3$	6.79369	0.30771D+11	0.23975D+12	0.15768D+12	0.12208D+11
$1s^22p3p\ ^3D_2$	$1s^22p13d\ ^3D_3$	15.63778	0.28239D+11	0.23975D+12	0.15768D+12	0.11204D+11
$1s^22p3p\ ^3D_3$	$1s^22p13d\ ^3D_3$	15.88299	0.11665D+12	0.23975D+12	0.15768D+12	0.46280D+11
$1s^22p3p\ ^3P_2$	$1s^22p13d\ ^3D_3$	15.92688	0.21273D+12	0.23975D+12	0.15768D+12	0.84400D+11
$1s^22p4p\ ^3P_2$	$1s^22p13d\ ^3D_3$	29.75707	0.10708D+12	0.23975D+12	0.15768D+12	0.42483D+11
$1s^22p4p\ ^3D_3$	$1s^22p13d\ ^3D_3$	29.76705	0.50998D+11	0.23975D+12	0.15768D+12	0.20233D+11
$1s^22p5p\ ^3D_2$	$1s^22p13d\ ^3D_3$	49.57158	0.58000D+11	0.23975D+12	0.15768D+12	0.23011D+11
$1s^22p5p\ ^3D_3$	$1s^22p13d\ ^3D_3$	49.61182	0.27047D+11	0.23975D+12	0.15768D+12	0.10731D+11
$1s^22p6p\ ^3D_2$	$1s^22p13d\ ^3D_3$	77.45262	0.35180D+11	0.23975D+12	0.15768D+12	0.13957D+11
$1s^22p^2\ \ ^3P_1$	$1s^22p13d\ ^3P_1$	6.71529	0.30079D+12	0.27169D+12	0.35416D+13	0.27936D+12
$1s^22p^2\ \ ^3P_2$	$1s^22p13d\ ^3P_1$	6.73562	0.12136D+12	0.27169D+12	0.35416D+13	0.11271D+12
$1s^22p^2\ \ ^1D_2$	$1s^22p13d\ ^3P_1$	6.79362	0.37070D+11	0.27169D+12	0.35416D+13	0.34429D+11
$1s^22p3p\ ^3P_1$	$1s^22p13d\ ^3P_1$	15.86529	0.17840D+11	0.27169D+12	0.35416D+13	0.16569D+11
$1s^22p3p\ ^3S_1$	$1s^22p13d\ ^3P_1$	15.92014	0.91470D+11	0.27169D+12	0.35416D+13	0.84953D+11
$1s^22p3p\ ^3P_2$	$1s^22p13d\ ^3P_1$	15.92649	0.29008D+11	0.27169D+12	0.35416D+13	0.26941D+11
$1s^22p4p\ ^1P_1$	$1s^22p13d\ ^3P_1$	29.70316	0.19280D+11	0.27169D+12	0.35416D+13	0.17906D+11
$1s^22p4p\ ^3P_2$	$1s^22p13d\ ^3P_1$	29.75573	0.13738D+11	0.27169D+12	0.35416D+13	0.12759D+11
$1s^22p4p\ ^3S_1$	$1s^22p13d\ ^3P_1$	29.79994	0.31974D+11	0.27169D+12	0.35416D+13	0.29696D+11
$1s^22p5p\ ^1P_1$	$1s^22p13d\ ^3P_1$	49.50866	0.12426D+11	0.27169D+12	0.35416D+13	0.11541D+11
$1s^22p5p\ ^3S_1$	$1s^22p13d\ ^3P_1$	49.63849	0.15341D+11	0.27169D+12	0.35416D+13	0.14248D+11
$1s^22p^2\ \ ^3P_1$	$1s^22p13d\ ^3P_0$	6.71528	0.12532D+12	0.24203D+12	0.50670D+13	0.11961D+12
$1s^22p3p\ ^3S_1$	$1s^22p13d\ ^3P_0$	15.92010	0.44516D+11	0.24203D+12	0.50670D+13	0.42487D+11
$1s^22p4p\ ^3S_1$	$1s^22p13d\ ^3P_0$	29.79978	0.16317D+11	0.24203D+12	0.50670D+13	0.15573D+11
$1s^22p^2\ \ ^3P_1$	$1s^22p13d\ ^3P_2$	6.71528	0.10254D+12	0.53030D+12	0.49550D+13	0.92627D+11
$1s^22p^2\ \ ^3P_2$	$1s^22p13d\ ^3P_2$	6.73561	0.34233D+12	0.53030D+12	0.49550D+13	0.30923D+12
$1s^22p^2\ \ ^1D_2$	$1s^22p13d\ ^3P_2$	6.79361	0.33442D+12	0.53030D+12	0.49550D+13	0.30209D+12
$1s^22p3p\ ^3D_3$	$1s^22p13d\ ^3P_2$	15.88255	0.17762D+11	0.53030D+12	0.49550D+13	0.16045D+11
$1s^22p3p\ ^3S_1$	$1s^22p13d\ ^3P_2$	15.92009	0.10418D+12	0.53030D+12	0.49550D+13	0.94108D+11
$1s^22p3p\ ^3P_2$	$1s^22p13d\ ^3P_2$	15.92643	0.70215D+11	0.53030D+12	0.49550D+13	0.63427D+11
$1s^22p3p\ ^1D_2$	$1s^22p13d\ ^3P_2$	16.07914	0.51736D+11	0.53030D+12	0.49550D+13	0.46734D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p4p\ ^3P_2$	$1s^22p13d\ ^3P_2$	29.75552	0.29128D+11	0.53030D+12	0.49550D+13	0.26312D+11
$1s^22p4p\ ^3S_1$	$1s^22p13d\ ^3P_2$	29.79974	0.48581D+11	0.53030D+12	0.49550D+13	0.43884D+11
$1s^22p4p\ ^1D_2$	$1s^22p13d\ ^3P_2$	29.97043	0.29002D+11	0.53030D+12	0.49550D+13	0.26198D+11
$1s^22p5p\ ^3D_2$	$1s^22p13d\ ^3P_2$	49.56730	0.14857D+11	0.53030D+12	0.49550D+13	0.13421D+11
$1s^22p5p\ ^3S_1$	$1s^22p13d\ ^3P_2$	49.63792	0.25939D+11	0.53030D+12	0.49550D+13	0.23431D+11
$1s^22p5p\ ^1D_2$	$1s^22p13d\ ^3P_2$	49.86071	0.16721D+11	0.53030D+12	0.49550D+13	0.15104D+11
$1s^22p6p\ ^3S_1$	$1s^22p13d\ ^3P_2$	77.58048	0.15660D+11	0.53030D+12	0.49550D+13	0.14146D+11
$1s^22p^2\ \ ^1D_2$	$1s^22p13d\ ^1F_3$	6.79344	0.16734D+13	0.34803D+12	0.15395D+13	0.13649D+13
$1s^22p3p\ ^3D_2$	$1s^22p13d\ ^1F_3$	15.63642	0.22719D+11	0.34803D+12	0.15395D+13	0.18530D+11
$1s^22p3p\ ^1D_2$	$1s^22p13d\ ^1F_3$	16.07816	0.27616D+12	0.34803D+12	0.15395D+13	0.22524D+12
$1s^22p4p\ ^3P_2$	$1s^22p13d\ ^1F_3$	29.75217	0.12283D+11	0.34803D+12	0.15395D+13	0.10018D+11
$1s^22p4p\ ^1D_2$	$1s^22p13d\ ^1F_3$	29.96703	0.13415D+12	0.34803D+12	0.15395D+13	0.10942D+12
$1s^22p5p\ ^1D_2$	$1s^22p13d\ ^1F_3$	49.85129	0.73867D+11	0.34803D+12	0.15395D+13	0.60247D+11
$1s^22p6p\ ^1D_2$	$1s^22p13d\ ^1F_3$	77.82520	0.45587D+11	0.34803D+12	0.15395D+13	0.37182D+11
$1s^22p7p\ ^3P_2$	$1s^22p13d\ ^1F_3$	117.48094	0.30586D+11	0.34803D+12	0.15395D+13	0.24947D+11
$1s^22p^2\ \ ^3P_0$	$1s^22p13d\ ^1P_1$	6.68328	0.59111D+11	0.26638D+12	0.37856D+13	0.55225D+11
$1s^22p^2\ \ ^3P_1$	$1s^22p13d\ ^1P_1$	6.71506	0.11638D+11	0.26638D+12	0.37856D+13	0.10873D+11
$1s^22p^2\ \ ^1D_2$	$1s^22p13d\ ^1P_1$	6.79339	0.19932D+11	0.26638D+12	0.37856D+13	0.18622D+11
$1s^22p^2\ \ ^1S_0$	$1s^22p13d\ ^1P_1$	6.88391	0.36528D+12	0.26638D+12	0.37856D+13	0.34127D+12
$1s^22p3p\ ^3P_1$	$1s^22p13d\ ^1P_1$	15.86401	0.50505D+11	0.26638D+12	0.37856D+13	0.47185D+11
$1s^22p3p\ ^3S_1$	$1s^22p13d\ ^1P_1$	15.91886	0.18373D+11	0.26638D+12	0.37856D+13	0.17165D+11
$1s^22p3p\ ^1S_0$	$1s^22p13d\ ^1P_1$	16.25714	0.57111D+11	0.26638D+12	0.37856D+13	0.53357D+11
$1s^22p4p\ ^1P_1$	$1s^22p13d\ ^1P_1$	29.69870	0.17753D+11	0.26638D+12	0.37856D+13	0.16586D+11
$1s^22p4p\ ^3S_1$	$1s^22p13d\ ^1P_1$	29.79545	0.14519D+11	0.26638D+12	0.37856D+13	0.13565D+11
$1s^22p4p\ ^1S_0$	$1s^22p13d\ ^1P_1$	30.17432	0.31045D+11	0.26638D+12	0.37856D+13	0.29004D+11
$1s^22p5p\ ^1S_0$	$1s^22p13d\ ^1P_1$	50.09473	0.18023D+11	0.26638D+12	0.37856D+13	0.16838D+11
$1s^22p6p\ ^1S_0$	$1s^22p13d\ ^1P_1$	78.22010	0.11332D+11	0.26638D+12	0.37856D+13	0.10587D+11
$1s^22p8p\ ^3P_1$	$1s^22p13d\ ^3P_2$	175.13377	0.15568D+11	0.53030D+12	0.49550D+13	0.14063D+11
$1s^22p9p\ ^3P_1$	$1s^22p13d\ ^3P_2$	264.42400	0.11436D+11	0.53030D+12	0.49550D+13	0.10330D+11
$1s^22p8p\ ^3D_2$	$1s^22p13d\ ^3F_3$	175.19468	0.23951D+11	0.25009D+12	0.78846D+12	0.18183D+11
$1s^22p9p\ ^3D_2$	$1s^22p13d\ ^3F_3$	264.50723	0.17633D+11	0.25009D+12	0.78846D+12	0.13387D+11
$1s^22p10p\ ^3D_2$	$1s^22p13d\ ^3F_3$	416.05991	0.13366D+11	0.25009D+12	0.78846D+12	0.10147D+11
$1s^22p8p\ ^3D_3$	$1s^22p13d\ ^3F_4$	174.91196	0.32497D+11	0.12069D+12	0.56002D+11	0.10300D+11
$1s^22p8p\ ^3P_2$	$1s^22p13d\ ^1F_3$	175.36565	0.19738D+11	0.34803D+12	0.15395D+13	0.16099D+11
$1s^22p9p\ ^3P_2$	$1s^22p13d\ ^1F_3$	264.68940	0.14712D+11	0.34803D+12	0.15395D+13	0.11999D+11
$1s^22s13d\ ^3D_3$	$1s^22p13d\ ^3F_4$	192.24680	0.38190D+11	0.12069D+12	0.56002D+11	0.12105D+11
$1s^22s13d\ ^3D_1$	$1s^22p13d\ ^3P_1$	192.09882	0.10863D+11	0.27169D+12	0.35416D+13	0.10089D+11
$1s^22s13d\ ^3D_2$	$1s^22p13d\ ^3P_2$	192.10628	0.11578D+11	0.53030D+12	0.49550D+13	0.10459D+11
$1s^22s13d\ ^1D_2$	$1s^22p13d\ ^1F_3$	192.13326	0.16526D+11	0.34803D+12	0.15395D+13	0.13479D+11
$1s^22s13d\ ^1D_2$	$1s^22p13d\ ^1P_1$	192.09469	0.10947D+11	0.26638D+12	0.37856D+13	0.10227D+11
$1s^22p3d\ ^3F_2$	$1s^22p13f\ ^3G_3$	16.10918	0.33400D+12	0.12880D+12	0.17220D+13	0.31076D+12
$1s^22p3d\ ^3F_3$	$1s^22p13f\ ^3G_3$	16.21701	0.18081D+11	0.12880D+12	0.17220D+13	0.16823D+11
$1s^22p4d\ ^3F_2$	$1s^22p13f\ ^3G_3$	30.08309	0.18889D+12	0.12880D+12	0.17220D+13	0.17574D+12
$1s^22p4d\ ^3F_3$	$1s^22p13f\ ^3G_3$	30.25492	0.11825D+11	0.12880D+12	0.17220D+13	0.11002D+11
$1s^22p5d\ ^3F_2$	$1s^22p13f\ ^3G_3$	50.04896	0.11011D+12	0.12880D+12	0.17220D+13	0.10245D+12

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p6d\ ^3F_2$	$1s^22p13f\ ^3G_3$	78.11919	0.68316D+11	0.12880D+12	0.17220D+13	0.63562D+11
$1s^22p7d\ ^3F_2$	$1s^22p13f\ ^3G_3$	117.92215	0.45013D+11	0.12880D+12	0.17220D+13	0.41880D+11
$1s^22p3d\ ^3F_2$	$1s^22p13f\ ^3F_2$	16.10888	0.23535D+11	0.24028D+12	0.25255D+12	0.12060D+11
$1s^22p3d\ ^3D_1$	$1s^22p13f\ ^3F_2$	16.28723	0.16736D+12	0.24028D+12	0.25255D+12	0.85763D+11
$1s^22p4d\ ^3D_1$	$1s^22p13f\ ^3F_2$	30.29618	0.10873D+12	0.24028D+12	0.25255D+12	0.55718D+11
$1s^22p5d\ ^3D_1$	$1s^22p13f\ ^3F_2$	50.32457	0.66587D+11	0.24028D+12	0.25255D+12	0.34122D+11
$1s^22p6d\ ^3D_1$	$1s^22p13f\ ^3F_2$	78.47062	0.42236D+11	0.24028D+12	0.25255D+12	0.21644D+11
$1s^22p7d\ ^3D_1$	$1s^22p13f\ ^3F_2$	118.43834	0.29179D+11	0.24028D+12	0.25255D+12	0.14953D+11
$1s^22p3d\ ^3P_2$	$1s^22p13f\ ^3D_3$	16.24318	0.28457D+12	0.24533D+12	0.35823D+12	0.16890D+12
$1s^22p4d\ ^3P_2$	$1s^22p13f\ ^3D_3$	30.21643	0.14421D+12	0.24533D+12	0.35823D+12	0.85592D+11
$1s^22p4s\ ^3P_2$	$1s^22p13f\ ^3D_3$	30.33985	0.37510D+11	0.24533D+12	0.35823D+12	0.22263D+11
$1s^22p5d\ ^3P_2$	$1s^22p13f\ ^3D_3$	50.25164	0.10854D+12	0.24533D+12	0.35823D+12	0.64421D+11
$1s^22p6d\ ^3P_2$	$1s^22p13f\ ^3D_3$	78.37613	0.68112D+11	0.24533D+12	0.35823D+12	0.40426D+11
$1s^22p7d\ ^3P_2$	$1s^22p13f\ ^3D_3$	118.29862	0.46088D+11	0.24533D+12	0.35823D+12	0.27354D+11
$1s^22p3d\ ^3F_3$	$1s^22p13f\ ^3G_4$	16.21660	0.36763D+12	0.11870D+12	0.20997D+13	0.34796D+12
$1s^22p3d\ ^3D_3$	$1s^22p13f\ ^3G_4$	16.54590	0.14255D+11	0.11870D+12	0.20997D+13	0.13492D+11
$1s^22p3d\ ^1F_3$	$1s^22p13f\ ^3G_4$	16.74726	0.15091D+11	0.11870D+12	0.20997D+13	0.14284D+11
$1s^22p4d\ ^3F_3$	$1s^22p13f\ ^3G_4$	30.25349	0.23956D+12	0.11870D+12	0.20997D+13	0.22674D+12
$1s^22p5d\ ^3F_3$	$1s^22p13f\ ^3G_4$	50.28747	0.14489D+12	0.11870D+12	0.20997D+13	0.13714D+12
$1s^22p6d\ ^3F_3$	$1s^22p13f\ ^3G_4$	78.44661	0.92069D+11	0.11870D+12	0.20997D+13	0.87143D+11
$1s^22p7d\ ^3F_3$	$1s^22p13f\ ^3G_4$	118.38727	0.62277D+11	0.11870D+12	0.20997D+13	0.58945D+11
$1s^22p3d\ ^3P_2$	$1s^22p13f\ ^1F_3$	15.91854	0.13402D+11	0.12771D+12	0.59448D+12	0.11032D+11
$1s^22p3d\ ^1D_2$	$1s^22p13f\ ^1F_3$	16.14907	0.25199D+12	0.12771D+12	0.59448D+12	0.20743D+12
$1s^22p3d\ ^3D_3$	$1s^22p13f\ ^1F_3$	16.20926	0.37847D+11	0.12771D+12	0.59448D+12	0.31154D+11
$1s^22p3d\ ^3P_2$	$1s^22p13f\ ^1F_3$	16.25603	0.12175D+11	0.12771D+12	0.59448D+12	0.10022D+11
$1s^22p4d\ ^1D_2$	$1s^22p13f\ ^1F_3$	30.11516	0.15525D+12	0.12771D+12	0.59448D+12	0.12780D+12
$1s^22p4d\ ^3D_3$	$1s^22p13f\ ^1F_3$	30.18026	0.27527D+11	0.12771D+12	0.59448D+12	0.22659D+11
$1s^22p5d\ ^1D_2$	$1s^22p13f\ ^1F_3$	50.08730	0.91357D+11	0.12771D+12	0.59448D+12	0.75202D+11
$1s^22p5d\ ^3D_3$	$1s^22p13f\ ^1F_3$	50.16806	0.16911D+11	0.12771D+12	0.59448D+12	0.13921D+11
$1s^22p6d\ ^1D_2$	$1s^22p13f\ ^1F_3$	78.17232	0.57376D+11	0.12771D+12	0.59448D+12	0.47230D+11
$1s^22p7d\ ^1D_2$	$1s^22p13f\ ^1F_3$	117.99808	0.37864D+11	0.12771D+12	0.59448D+12	0.31168D+11
$1s^22p3d\ ^3F_3$	$1s^22p13f\ ^3F_4$	15.89291	0.17055D+11	0.12603D+12	0.85875D+12	0.14872D+11
$1s^22p3d\ ^3F_4$	$1s^22p13f\ ^3F_4$	16.12872	0.77498D+11	0.12603D+12	0.85875D+12	0.67580D+11
$1s^22p3d\ ^3D_3$	$1s^22p13f\ ^3F_4$	16.20907	0.31925D+12	0.12603D+12	0.85875D+12	0.27839D+12
$1s^22p4d\ ^3F_4$	$1s^22p13f\ ^3F_4$	30.11544	0.43458D+11	0.12603D+12	0.85875D+12	0.37896D+11
$1s^22p4d\ ^3D_3$	$1s^22p13f\ ^3F_4$	30.17959	0.19508D+12	0.12603D+12	0.85875D+12	0.17011D+12
$1s^22p4d\ ^1F_3$	$1s^22p13f\ ^3F_4$	30.40250	0.12160D+11	0.12603D+12	0.85875D+12	0.10604D+11
$1s^22p5d\ ^3F_4$	$1s^22p13f\ ^3F_4$	50.09555	0.25115D+11	0.12603D+12	0.85875D+12	0.21901D+11
$1s^22p5d\ ^3D_3$	$1s^22p13f\ ^3F_4$	50.16621	0.11426D+12	0.12603D+12	0.85875D+12	0.99637D+11
$1s^22p6d\ ^3F_4$	$1s^22p13f\ ^3F_4$	78.18660	0.15542D+11	0.12603D+12	0.85875D+12	0.13553D+11
$1s^22p6d\ ^3D_3$	$1s^22p13f\ ^3F_4$	78.27452	0.71718D+11	0.12603D+12	0.85875D+12	0.62539D+11
$1s^22p7d\ ^3D_3$	$1s^22p13f\ ^3F_4$	118.13482	0.47587D+11	0.12603D+12	0.85875D+12	0.41497D+11
$1s^22p3d\ ^1D_2$	$1s^22p13f\ ^3F_2$	16.14870	0.29258D+11	0.24028D+12	0.25255D+12	0.14993D+11
$1s^22p3d\ ^3P_2$	$1s^22p13f\ ^3F_2$	16.25565	0.51608D+11	0.24028D+12	0.25255D+12	0.26446D+11
$1s^22p3d\ ^3P_1$	$1s^22p13f\ ^3F_2$	16.25592	0.10907D+12	0.24028D+12	0.25255D+12	0.55893D+11
$1s^22p4d\ ^3P_1$	$1s^22p13f\ ^3F_2$	30.24064	0.69417D+11	0.24028D+12	0.25255D+12	0.35573D+11
$1s^22p4d\ ^3P_2$	$1s^22p13f\ ^3F_2$	30.24319	0.31472D+11	0.24028D+12	0.25255D+12	0.16128D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/\mathrm{s})$	$\sum Ar$	$Aa(1/\mathrm{s})$	Qd
$1s^2 2p5d\ ^3P_1$	$1s^2 2p13f\ ^3F_2$	50.24015	0.41946D+11	0.24028D+12	0.25255D+12	0.21495D+11
$1s^2 2p6d\ ^3P_1$	$1s^2 2p13f\ ^3F_2$	78.38317	0.26936D+11	0.24028D+12	0.25255D+12	0.13803D+11
$1s^2 2p3d\ ^1D_2$	$1s^2 2p13f\ ^3D_3$	16.14865	0.28789D+11	0.24533D+12	0.35823D+12	0.17087D+11
$1s^2 2p3d\ ^3D_3$	$1s^2 2p13f\ ^3D_3$	16.20884	0.53332D+11	0.24533D+12	0.35823D+12	0.31654D+11
$1s^2 2p3d\ ^3P_2$	$1s^2 2p13f\ ^3D_3$	16.25561	0.20478D+12	0.24533D+12	0.35823D+12	0.12154D+12
$1s^2 2p3d\ ^1F_3$	$1s^2 2p13f\ ^3D_3$	16.40204	0.17818D+11	0.24533D+12	0.35823D+12	0.10575D+11
$1s^2 2p4d\ ^1D_2$	$1s^2 2p13f\ ^3D_3$	30.11373	0.17393D+11	0.24533D+12	0.35823D+12	0.10323D+11
$1s^2 2p4d\ ^3D_3$	$1s^2 2p13f\ ^3D_3$	30.17882	0.29297D+11	0.24533D+12	0.35823D+12	0.17389D+11
$1s^2 2p4d\ ^3P_2$	$1s^2 2p13f\ ^3D_3$	30.24305	0.12711D+12	0.24533D+12	0.35823D+12	0.75443D+11
$1s^2 2p5d\ ^3P_2$	$1s^2 2p13f\ ^3D_3$	50.24695	0.76392D+11	0.24533D+12	0.35823D+12	0.45341D+11
$1s^2 2p6d\ ^3P_2$	$1s^2 2p13f\ ^3D_3$	78.39049	0.48806D+11	0.24533D+12	0.35823D+12	0.28968D+11
$1s^2 2p7d\ ^3P_2$	$1s^2 2p13f\ ^3D_3$	118.28475	0.32798D+11	0.24533D+12	0.35823D+12	0.19466D+11
$1s^2 2p3d\ ^3F_4$	$1s^2 2p13f\ ^3G_5$	16.12846	0.56793D+12	0.13229D+12	0.23641D+13	0.53783D+12
$1s^2 2p4d\ ^3F_4$	$1s^2 2p13f\ ^3G_5$	30.11452	0.31929D+12	0.13229D+12	0.23641D+13	0.30237D+12
$1s^2 2p5d\ ^3F_4$	$1s^2 2p13f\ ^3G_5$	50.09302	0.18522D+12	0.13229D+12	0.23641D+13	0.17540D+12
$1s^2 2p6d\ ^3F_4$	$1s^2 2p13f\ ^3G_5$	78.18043	0.11509D+12	0.13229D+12	0.23641D+13	0.10899D+12
$1s^2 2p7d\ ^3F_4$	$1s^2 2p13f\ ^3G_5$	118.00387	0.75660D+11	0.13229D+12	0.23641D+13	0.71651D+11
$1s^2 2p3d\ ^3P_1$	$1s^2 2p13f\ ^3D_1$	16.25558	0.61544D+11	0.12338D+12	0.33654D+12	0.45034D+11
$1s^2 2p3d\ ^3P_0$	$1s^2 2p13f\ ^3D_1$	16.26086	0.62282D+11	0.12338D+12	0.33654D+12	0.45574D+11
$1s^2 2p4d\ ^3P_1$	$1s^2 2p13f\ ^3D_1$	30.23948	0.37498D+11	0.12338D+12	0.33654D+12	0.27439D+11
$1s^2 2p4d\ ^3P_0$	$1s^2 2p13f\ ^3D_1$	30.24702	0.37699D+11	0.12338D+12	0.33654D+12	0.27586D+11
$1s^2 2p5d\ ^3P_1$	$1s^2 2p13f\ ^3D_1$	50.23694	0.22511D+11	0.12338D+12	0.33654D+12	0.16472D+11
$1s^2 2p5d\ ^3P_0$	$1s^2 2p13f\ ^3D_1$	50.24516	0.22608D+11	0.12338D+12	0.33654D+12	0.16543D+11
$1s^2 2p6d\ ^3P_1$	$1s^2 2p13f\ ^3D_1$	78.37536	0.14237D+11	0.12338D+12	0.33654D+12	0.10418D+11
$1s^2 2p6d\ ^3P_0$	$1s^2 2p13f\ ^3D_1$	78.39172	0.14336D+11	0.12338D+12	0.33654D+12	0.10490D+11
$1s^2 2p3d\ ^3F_3$	$1s^2 2p13f\ ^1G_4$	15.89236	0.52621D+11	0.11391D+12	0.28097D+13	0.50571D+11
$1s^2 2p3d\ ^1F_3$	$1s^2 2p13f\ ^1G_4$	16.40168	0.29538D+12	0.11391D+12	0.28097D+13	0.28387D+12
$1s^2 2p4d\ ^3D_3$	$1s^2 2p13f\ ^1G_4$	30.17761	0.13924D+11	0.11391D+12	0.28097D+13	0.13381D+11
$1s^2 2p4d\ ^1F_3$	$1s^2 2p13f\ ^1G_4$	30.40049	0.20787D+12	0.11391D+12	0.28097D+13	0.19977D+12
$1s^2 2p5d\ ^3D_3$	$1s^2 2p13f\ ^1G_4$	50.16075	0.10767D+11	0.11391D+12	0.28097D+13	0.10347D+11
$1s^2 2p5d\ ^1F_3$	$1s^2 2p13f\ ^1G_4$	50.44454	0.12847D+12	0.11391D+12	0.28097D+13	0.12346D+12
$1s^2 2p6d\ ^1F_3$	$1s^2 2p13f\ ^1G_4$	78.65103	0.83654D+11	0.11391D+12	0.28097D+13	0.80395D+11
$1s^2 2p7d\ ^1F_3$	$1s^2 2p13f\ ^1G_4$	118.64733	0.57691D+11	0.11391D+12	0.28097D+13	0.55443D+11
$1s^2 2p3d\ ^3P_2$	$1s^2 2p13f\ ^1D_2$	16.25496	0.29882D+11	0.11801D+12	0.22343D+12	0.19554D+11
$1s^2 2p3d\ ^1P_1$	$1s^2 2p13f\ ^1D_2$	16.42609	0.13157D+12	0.11801D+12	0.22343D+12	0.86097D+11
$1s^2 2p4d\ ^3P_2$	$1s^2 2p13f\ ^1D_2$	30.24080	0.18809D+11	0.11801D+12	0.22343D+12	0.12308D+11
$1s^2 2p4d\ ^1P_1$	$1s^2 2p13f\ ^1D_2$	30.44069	0.91796D+11	0.11801D+12	0.22343D+12	0.60070D+11
$1s^2 2p5d\ ^1P_1$	$1s^2 2p13f\ ^1D_2$	50.49764	0.57578D+11	0.11801D+12	0.22343D+12	0.37678D+11
$1s^2 2p6d\ ^1P_1$	$1s^2 2p13f\ ^1D_2$	78.72790	0.37761D+11	0.11801D+12	0.22343D+12	0.24710D+11
$1s^2 2p7d\ ^1P_1$	$1s^2 2p13f\ ^1D_2$	118.74688	0.26173D+11	0.11801D+12	0.22343D+12	0.17127D+11
$1s^2 2p8d\ ^3F_2$	$1s^2 2p13f\ ^3G_3$	176.04757	0.33790D+11	0.12880D+12	0.17220D+13	0.31438D+11
$1s^2 2p9d\ ^3F_2$	$1s^2 2p13f\ ^3G_3$	265.81500	0.24222D+11	0.12880D+12	0.17220D+13	0.22536D+11
$1s^2 2p10d\ ^3F_2$	$1s^2 2p13f\ ^3G_3$	418.23662	0.18017D+11	0.12880D+12	0.17220D+13	0.16763D+11
$1s^2 2p8d\ ^3P_2$	$1s^2 2p13f\ ^3D_3$	176.59739	0.32375D+11	0.24533D+12	0.35823D+12	0.19215D+11
$1s^2 2p9d\ ^3P_2$	$1s^2 2p13f\ ^3D_3$	266.66396	0.23748D+11	0.24533D+12	0.35823D+12	0.14095D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2p10d\ ^3P_2$	$1s^2 2p13f\ ^3D_3$	419.70234	0.17958D+11	0.24533D+12	0.35823D+12	0.10659D+11
$1s^2 2p8d\ ^3F_3$	$1s^2 2p13f\ ^3G_4$	176.70214	0.43007D+11	0.11870D+12	0.20997D+13	0.40706D+11
$1s^2 2p9d\ ^3F_3$	$1s^2 2p13f\ ^3G_4$	266.84876	0.31662D+11	0.11870D+12	0.20997D+13	0.29968D+11
$1s^2 2p10d\ ^3F_3$	$1s^2 2p13f\ ^3G_4$	420.19208	0.23761D+11	0.11870D+12	0.20997D+13	0.22490D+11
$1s^2 2p8d\ ^1D_2$	$1s^2 2p13f\ ^1F_3$	176.16976	0.28050D+11	0.12771D+12	0.59448D+12	0.23090D+11
$1s^2 2p9d\ ^1D_2$	$1s^2 2p13f\ ^1F_3$	266.01560	0.20147D+11	0.12771D+12	0.59448D+12	0.16584D+11
$1s^2 2p10d\ ^1D_2$	$1s^2 2p13f\ ^1F_3$	418.64003	0.15084D+11	0.12771D+12	0.59448D+12	0.12417D+11
$1s^2 2p8d\ ^3D_3$	$1s^2 2p13f\ ^3F_4$	176.35991	0.33769D+11	0.12603D+12	0.85875D+12	0.29447D+11
$1s^2 2p9d\ ^3F_3$	$1s^2 2p13f\ ^3F_4$	266.28379	0.24097D+11	0.12603D+12	0.85875D+12	0.21013D+11
$1s^2 2p10d\ ^3D_3$	$1s^2 2p13f\ ^3F_4$	419.12396	0.18657D+11	0.12603D+12	0.85875D+12	0.16269D+11
$1s^2 2p8d\ ^3P_2$	$1s^2 2p13f\ ^3D_3$	176.58541	0.22964D+11	0.24533D+12	0.35823D+12	0.13630D+11
$1s^2 2p8d\ ^3F_4$	$1s^2 2p13f\ ^3G_5$	176.15878	0.57061D+11	0.13229D+12	0.23641D+13	0.54037D+11
$1s^2 2p9d\ ^3F_4$	$1s^2 2p13f\ ^3G_5$	265.97025	0.40863D+11	0.13229D+12	0.23641D+13	0.38698D+11
$1s^2 2p10d\ ^3F_4$	$1s^2 2p13f\ ^3G_5$	418.46292	0.30407D+11	0.13229D+12	0.23641D+13	0.28796D+11
$1s^2 2p8d\ ^1F_3$	$1s^2 2p13f\ ^1G_4$	177.04931	0.36371D+11	0.11391D+12	0.28097D+13	0.34954D+11
$1s^2 2p9d\ ^1F_3$	$1s^2 2p13f\ ^1G_4$	267.30292	0.26868D+11	0.11391D+12	0.28097D+13	0.25821D+11
$1s^2 2p10d\ ^1F_3$	$1s^2 2p13f\ ^1G_4$	420.95054	0.21651D+11	0.11391D+12	0.28097D+13	0.20807D+11
$1s^2 2p8d\ ^1P_1$	$1s^2 2p13f\ ^1D_2$	177.17981	0.16613D+11	0.11801D+12	0.22343D+12	0.10871D+11
$1s^2 2s13f\ ^3F_2$	$1s^2 2p13f\ ^1F_3$	192.23660	0.12227D+11	0.12771D+12	0.59448D+12	0.10065D+11
$1s^2 2s13f\ ^3F_3$	$1s^2 2p13f\ ^3F_4$	192.21753	0.22678D+11	0.12603D+12	0.85875D+12	0.19776D+11
$1s^2 2s13f\ ^3F_4$	$1s^2 2p13f\ ^3F_4$	192.23272	0.15469D+11	0.12603D+12	0.85875D+12	0.13489D+11
$1s^2 2s13f\ ^3F_4$	$1s^2 2p13f\ ^3G_5$	192.19541	0.46555D+11	0.13229D+12	0.23641D+13	0.44088D+11
$1s^2 2s13f\ ^1F_3$	$1s^2 2p13f\ ^1G_4$	192.20693	0.21597D+11	0.11391D+12	0.28097D+13	0.20756D+11
$1s^2 2s13f\ ^1F_3$	$1s^2 2p13f\ ^1D_2$	192.16531	0.15769D+11	0.11801D+12	0.22343D+12	0.10319D+11
$1s^2 2p4f\ ^3G_3$	$1s^2 2p13g\ ^3H_4$	30.34057	0.15440D+12	0.69027D+11	0.24087D+13	0.15010D+12
$1s^2 2p5f\ ^3G_3$	$1s^2 2p13g\ ^3H_4$	50.39421	0.13338D+12	0.69027D+11	0.24087D+13	0.12966D+12
$1s^2 2p6f\ ^3G_3$	$1s^2 2p13g\ ^3H_4$	78.57805	0.97335D+11	0.69027D+11	0.24087D+13	0.94623D+11
$1s^2 2p7f\ ^3G_3$	$1s^2 2p13g\ ^3H_4$	118.56975	0.70521D+11	0.69027D+11	0.24087D+13	0.68556D+11
$1s^2 2p4f\ ^3F_2$	$1s^2 2p13g\ ^3G_3$	30.37025	0.11135D+12	0.14195D+12	0.17643D+12	0.61704D+11
$1s^2 2p5f\ ^3F_2$	$1s^2 2p13g\ ^3G_3$	50.44627	0.97148D+11	0.14195D+12	0.17643D+12	0.53834D+11
$1s^2 2p6f\ ^3F_2$	$1s^2 2p13g\ ^3G_3$	78.66333	0.71756D+11	0.14195D+12	0.17643D+12	0.39763D+11
$1s^2 2p7f\ ^3F_2$	$1s^2 2p13g\ ^3G_3$	118.68268	0.52158D+11	0.14195D+12	0.17643D+12	0.28903D+11
$1s^2 2p4f\ ^3D_3$	$1s^2 2p13g\ ^3F_4$	30.37833	0.15321D+12	0.14023D+12	0.13299D+12	0.74574D+11
$1s^2 2p5f\ ^3D_3$	$1s^2 2p13g\ ^3F_4$	50.45120	0.13316D+12	0.14023D+12	0.13299D+12	0.64814D+11
$1s^2 2p6f\ ^3D_3$	$1s^2 2p13g\ ^3F_4$	78.66474	0.97961D+11	0.14023D+12	0.13299D+12	0.47682D+11
$1s^2 2p7f\ ^3D_3$	$1s^2 2p13g\ ^3F_4$	118.68094	0.71010D+11	0.14023D+12	0.13299D+12	0.34564D+11
$1s^2 2p4f\ ^3G_4$	$1s^2 2p13g\ ^3H_5$	30.37870	0.19205D+12	0.68288D+11	0.24732D+13	0.18689D+12
$1s^2 2p5f\ ^3G_4$	$1s^2 2p13g\ ^3H_5$	50.45506	0.16700D+12	0.68288D+11	0.24732D+13	0.16251D+12
$1s^2 2p6f\ ^3G_4$	$1s^2 2p13g\ ^3H_5$	78.66562	0.12234D+12	0.68288D+11	0.24732D+13	0.11905D+12
$1s^2 2p7f\ ^3G_4$	$1s^2 2p13g\ ^3H_5$	118.69967	0.89283D+11	0.68288D+11	0.24732D+13	0.86884D+11
$1s^2 2p4f\ ^1F_3$	$1s^2 2p13g\ ^3G_4$	30.30894	0.14251D+12	0.71916D+11	0.88698D+12	0.13182D+12
$1s^2 2p4f\ ^3F_4$	$1s^2 2p13g\ ^3G_4$	30.33167	0.11522D+11	0.71916D+11	0.88698D+12	0.10658D+11
$1s^2 2p5f\ ^1F_3$	$1s^2 2p13g\ ^3G_4$	50.35576	0.12214D+12	0.71916D+11	0.88698D+12	0.11298D+12
$1s^2 2p6f\ ^1F_3$	$1s^2 2p13g\ ^3G_4$	78.54075	0.89082D+11	0.71916D+11	0.88698D+12	0.82401D+11
$1s^2 2p7f\ ^1F_3$	$1s^2 2p13g\ ^3G_4$	118.50586	0.63845D+11	0.71916D+11	0.88698D+12	0.59057D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p4f\ ^3F_4$	$1s^22p13g\ ^3G_5$	30.33132	0.17258D+12	0.71636D+11	0.95406D+12	0.16053D+12
$1s^22p4f\ ^3G_5$	$1s^22p13g\ ^3G_5$	30.37791	0.17764D+11	0.71636D+11	0.95406D+12	0.16523D+11
$1s^22p5f\ ^3F_4$	$1s^22p13g\ ^3G_5$	50.38725	0.14518D+12	0.71636D+11	0.95406D+12	0.13504D+12
$1s^22p5f\ ^3G_5$	$1s^22p13g\ ^3G_5$	50.44109	0.15376D+11	0.71636D+11	0.95406D+12	0.14302D+11
$1s^22p6f\ ^3F_4$	$1s^22p13g\ ^3G_5$	78.58554	0.10640D+12	0.71636D+11	0.95406D+12	0.98969D+11
$1s^22p6f\ ^3G_5$	$1s^22p13g\ ^3G_5$	78.66447	0.11304D+11	0.71636D+11	0.95406D+12	0.10515D+11
$1s^22p7f\ ^3F_4$	$1s^22p13g\ ^3G_5$	118.56691	0.75565D+11	0.71636D+11	0.95406D+12	0.70287D+11
$1s^22p4f\ ^3F_2$	$1s^22p13g\ ^3G_3$	30.36266	0.97109D+11	0.14195D+12	0.17643D+12	0.53813D+11
$1s^22p5f\ ^3F_2$	$1s^22p13g\ ^3G_3$	50.42784	0.83731D+11	0.14195D+12	0.17643D+12	0.46399D+11
$1s^22p6f\ ^3F_2$	$1s^22p13g\ ^3G_3$	78.63500	0.61389D+11	0.14195D+12	0.17643D+12	0.34019D+11
$1s^22p7f\ ^3F_2$	$1s^22p13g\ ^3G_3$	118.63860	0.44255D+11	0.14195D+12	0.17643D+12	0.24524D+11
$1s^22p4f\ ^3D_3$	$1s^22p13g\ ^3F_4$	30.36917	0.13612D+12	0.14023D+12	0.13299D+12	0.66255D+11
$1s^22p5f\ ^3D_3$	$1s^22p13g\ ^3F_4$	50.43440	0.11778D+12	0.14023D+12	0.13299D+12	0.57328D+11
$1s^22p6f\ ^3D_3$	$1s^22p13g\ ^3F_4$	78.64257	0.86415D+11	0.14023D+12	0.13299D+12	0.42062D+11
$1s^22p7f\ ^3D_3$	$1s^22p13g\ ^3F_4$	118.64695	0.62362D+11	0.14023D+12	0.13299D+12	0.30354D+11
$1s^22p4f\ ^1G_4$	$1s^22p13g\ ^1H_5$	30.39436	0.18211D+12	0.70110D+11	0.33463D+13	0.17837D+12
$1s^22p5f\ ^1G_4$	$1s^22p13g\ ^1H_5$	50.47674	0.15634D+12	0.70110D+11	0.33463D+13	0.15313D+12
$1s^22p6f\ ^1G_4$	$1s^22p13g\ ^1H_5$	78.72184	0.11625D+12	0.70110D+11	0.33463D+13	0.11386D+12
$1s^22p7f\ ^1G_4$	$1s^22p13g\ ^1H_5$	118.75153	0.84129D+11	0.70110D+11	0.33463D+13	0.82403D+11
$1s^22p4f\ ^3G_5$	$1s^22p13g\ ^3H_6$	30.37691	0.22887D+12	0.71102D+11	0.33385D+13	0.22410D+12
$1s^22p5f\ ^3G_5$	$1s^22p13g\ ^3H_6$	50.43832	0.19826D+12	0.71102D+11	0.33385D+13	0.19413D+12
$1s^22p6f\ ^3G_5$	$1s^22p13g\ ^3H_6$	78.65773	0.14591D+12	0.71102D+11	0.33385D+13	0.14287D+12
$1s^22p7f\ ^3G_5$	$1s^22p13g\ ^3H_6$	118.65283	0.10557D+12	0.71102D+11	0.33385D+13	0.10337D+12
$1s^22p4f\ ^3D_1$	$1s^22p13g\ ^3F_2$	30.41833	0.65735D+11	0.70775D+11	0.98431D+11	0.38239D+11
$1s^22p5f\ ^3D_1$	$1s^22p13g\ ^3F_2$	50.49581	0.57759D+11	0.70775D+11	0.98431D+11	0.33600D+11
$1s^22p6f\ ^3D_1$	$1s^22p13g\ ^3F_2$	78.72242	0.42891D+11	0.70775D+11	0.98431D+11	0.24951D+11
$1s^22p7f\ ^3D_1$	$1s^22p13g\ ^3F_2$	118.75177	0.31365D+11	0.70775D+11	0.98431D+11	0.18246D+11
$1s^22p4f\ ^3D_3$	$1s^22p13g\ ^3F_3$	30.36804	0.14781D+11	0.70445D+11	0.21772D+12	0.11168D+11
$1s^22p4f\ ^1D_2$	$1s^22p13g\ ^3F_3$	30.45368	0.10194D+12	0.70445D+11	0.21772D+12	0.77020D+11
$1s^22p5f\ ^1D_2$	$1s^22p13g\ ^3F_3$	50.55266	0.89831D+11	0.70445D+11	0.21772D+12	0.67871D+11
$1s^22p6f\ ^1D_2$	$1s^22p13g\ ^3F_3$	78.80532	0.66882D+11	0.70445D+11	0.21772D+12	0.50532D+11
$1s^22p7f\ ^1D_2$	$1s^22p13g\ ^3F_3$	118.87338	0.49039D+11	0.70445D+11	0.21772D+12	0.37051D+11
$1s^22p8f\ ^3G_3$	$1s^22p13g\ ^3H_4$	176.99413	0.52488D+11	0.69027D+11	0.24087D+13	0.51026D+11
$1s^22p9f\ ^3G_3$	$1s^22p13g\ ^3H_4$	267.27334	0.39256D+11	0.69027D+11	0.24087D+13	0.38162D+11
$1s^22p10f\ ^3G_3$	$1s^22p13g\ ^3H_4$	420.74580	0.30016D+11	0.69027D+11	0.24087D+13	0.29180D+11
$1s^22p8f\ ^3F_2$	$1s^22p13g\ ^3G_3$	177.14400	0.37967D+11	0.14195D+12	0.17643D+12	0.21039D+11
$1s^22p9f\ ^3F_2$	$1s^22p13g\ ^3G_3$	267.51701	0.28594D+11	0.14195D+12	0.17643D+12	0.15845D+11
$1s^22p10f\ ^3F_2$	$1s^22p13g\ ^3G_3$	421.22573	0.21925D+11	0.14195D+12	0.17643D+12	0.12150D+11
$1s^22p8f\ ^3D_3$	$1s^22p13g\ ^3F_4$	177.14688	0.52254D+11	0.14023D+12	0.13299D+12	0.25434D+11
$1s^22p9f\ ^3D_3$	$1s^22p13g\ ^3F_4$	267.50957	0.39213D+11	0.14023D+12	0.13299D+12	0.19087D+11
$1s^22p10f\ ^3D_3$	$1s^22p13g\ ^3F_4$	421.17375	0.30023D+11	0.14023D+12	0.13299D+12	0.14613D+11
$1s^22p8f\ ^3G_4$	$1s^22p13g\ ^3H_5$	177.18467	0.65201D+11	0.68288D+11	0.24732D+13	0.63449D+11
$1s^22p9f\ ^3G_4$	$1s^22p13g\ ^3H_5$	267.57485	0.49073D+11	0.68288D+11	0.24732D+13	0.47754D+11
$1s^22p10f\ ^3G_4$	$1s^22p13g\ ^3H_5$	421.28731	0.37648D+11	0.68288D+11	0.24732D+13	0.36636D+11
$1s^22p8f\ ^1F_3$	$1s^22p13g\ ^3G_4$	176.91115	0.48271D+11	0.71916D+11	0.88698D+12	0.44651D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^22p9f\ ^1F_3$	$1s^22p13g\ ^3G_4$	267.15131	0.35833D+11	0.71916D+11	0.88698D+12	0.33146D+11
$1s^22p10f\ ^1F_3$	$1s^22p13g\ ^3G_4$	420.56637	0.27276D+11	0.71916D+11	0.88698D+12	0.25230D+11
$1s^22p8f\ ^3F_4$	$1s^22p13g\ ^3G_5$	176.99967	0.56856D+11	0.71636D+11	0.95406D+12	0.52885D+11
$1s^22p9f\ ^3F_4$	$1s^22p13g\ ^3G_5$	267.28413	0.42249D+11	0.71636D+11	0.95406D+12	0.39298D+11
$1s^22p10f\ ^3F_4$	$1s^22p13g\ ^3G_5$	420.78492	0.31935D+11	0.71636D+11	0.95406D+12	0.29705D+11
$1s^22p8f\ ^3F_2$	$1s^22p13g\ ^3G_3$	177.08684	0.32619D+11	0.14195D+12	0.17643D+12	0.18076D+11
$1s^22p9f\ ^3F_2$	$1s^22p13g\ ^3G_3$	267.41414	0.24507D+11	0.14195D+12	0.17643D+12	0.13581D+11
$1s^22p10f\ ^3F_2$	$1s^22p13g\ ^3G_3$	421.04253	0.18661D+11	0.14195D+12	0.17643D+12	0.10341D+11
$1s^22p8f\ ^3D_3$	$1s^22p13g\ ^3F_4$	177.10064	0.46101D+11	0.14023D+12	0.13299D+12	0.22439D+11
$1s^22p9f\ ^3D_3$	$1s^22p13g\ ^3F_4$	267.43038	0.34429D+11	0.14023D+12	0.13299D+12	0.16758D+11
$1s^22p10f\ ^3D_3$	$1s^22p13g\ ^3F_4$	421.05050	0.26407D+11	0.14023D+12	0.13299D+12	0.12853D+11
$1s^22p8f\ ^1G_4$	$1s^22p13g\ ^1H_5$	177.26690	0.60027D+11	0.70110D+11	0.33463D+13	0.58795D+11
$1s^22p9f\ ^1G_4$	$1s^22p13g\ ^1H_5$	267.68258	0.45454D+11	0.70110D+11	0.33463D+13	0.44521D+11
$1s^22p10f\ ^1G_4$	$1s^22p13g\ ^1H_5$	421.47997	0.34935D+11	0.70110D+11	0.33463D+13	0.34218D+11
$1s^22p8f\ ^3D_1$	$1s^22p13g\ ^3F_2$	177.23574	0.22409D+11	0.70775D+11	0.98431D+11	0.13036D+11
$1s^22p8f\ ^1D_2$	$1s^22p13g\ ^3F_3$	177.39501	0.34703D+11	0.70445D+11	0.21772D+12	0.26219D+11
$1s^22p9f\ ^1D_2$	$1s^22p13g\ ^3F_3$	267.87338	0.26458D+11	0.70445D+11	0.21772D+12	0.19990D+11
$1s^22p10f\ ^1D_2$	$1s^22p13g\ ^3F_3$	421.79908	0.20469D+11	0.70445D+11	0.21772D+12	0.15465D+11
$1s^22p8f\ ^3G_5$	$1s^22p13g\ ^3H_6$	177.11576	0.77982D+11	0.71102D+11	0.33385D+13	0.76356D+11
$1s^22p9f\ ^3G_5$	$1s^22p13g\ ^3H_6$	267.43710	0.58505D+11	0.71102D+11	0.33385D+13	0.57285D+11
$1s^22p10f\ ^3G_5$	$1s^22p13g\ ^3H_6$	420.99644	0.44862D+11	0.71102D+11	0.33385D+13	0.43926D+11
$1s^22s13g\ ^1G_4$	$1s^22p13g\ ^3H_5$	253.48671	0.11745D+11	0.68288D+11	0.24732D+13	0.11429D+11
$1s^22s13g\ ^3G_3$	$1s^22p13g\ ^3G_4$	192.23948	0.15964D+11	0.71916D+11	0.88698D+12	0.14767D+11
$1s^22s13g\ ^3G_4$	$1s^22p13g\ ^3G_4$	192.24200	0.19566D+11	0.71916D+11	0.88698D+12	0.18099D+11
$1s^22s13g\ ^3G_5$	$1s^22p13g\ ^3G_5$	192.23934	0.25831D+11	0.71636D+11	0.95406D+12	0.24027D+11
$1s^22s13g\ ^1G_4$	$1s^22p13g\ ^3G_5$	192.24466	0.12183D+11	0.71636D+11	0.95406D+12	0.11332D+11
$1s^22s13g\ ^3G_3$	$1s^22p13g\ ^3G_3$	192.22171	0.22258D+11	0.14195D+12	0.17643D+12	0.12334D+11
$1s^22s13g\ ^1G_4$	$1s^22p13g\ ^3F_4$	192.22936	0.24925D+11	0.14023D+12	0.13299D+12	0.12132D+11
$1s^22s13g\ ^3G_4$	$1s^22p13g\ ^1H_5$	192.19526	0.36198D+11	0.70110D+11	0.33463D+13	0.35455D+11
$1s^22s13g\ ^3G_5$	$1s^22p13g\ ^3H_6$	192.19914	0.56249D+11	0.71102D+11	0.33385D+13	0.55076D+11
$1s^22s13g\ ^3G_3$	$1s^22p13g\ ^3F_2$	192.18137	0.21868D+11	0.70775D+11	0.98431D+11	0.12721D+11
$1s^22s13g\ ^1G_4$	$1s^22p13g\ ^3F_3$	192.18440	0.27172D+11	0.70445D+11	0.21772D+12	0.20529D+11
$1s^22p5g\ ^3H_4$	$1s^22p13h\ ^3I_5$	50.47259	0.86967D+11	0.43059D+11	0.23425D+13	0.85397D+11
$1s^22p6g\ ^3H_4$	$1s^22p13h\ ^3I_5$	78.68253	0.97282D+11	0.43059D+11	0.23425D+13	0.95526D+11
$1s^22p7g\ ^3H_4$	$1s^22p13h\ ^3I_5$	118.73100	0.85678D+11	0.43059D+11	0.23425D+13	0.84132D+11
$1s^22p5g\ ^3G_3$	$1s^22p13h\ ^3H_4$	50.48371	0.69065D+11	0.88850D+11	0.12501D+12	0.40372D+11
$1s^22p6g\ ^3G_3$	$1s^22p13h\ ^3H_4$	78.71170	0.78059D+11	0.88850D+11	0.12501D+12	0.45629D+11
$1s^22p7g\ ^3G_3$	$1s^22p13h\ ^3H_4$	118.74695	0.68117D+11	0.88850D+11	0.12501D+12	0.39818D+11
$1s^22p5g\ ^3F_4$	$1s^22p13h\ ^3G_5$	50.49846	0.86966D+11	0.88750D+11	0.14655D+12	0.54165D+11
$1s^22p6g\ ^3F_4$	$1s^22p13h\ ^3G_5$	78.73108	0.98170D+11	0.88750D+11	0.14655D+12	0.61143D+11
$1s^22p7g\ ^3F_4$	$1s^22p13h\ ^3G_5$	118.77228	0.85896D+11	0.88750D+11	0.14655D+12	0.53498D+11
$1s^22p5g\ ^3G_4$	$1s^22p13h\ ^3H_5$	50.44293	0.82530D+11	0.45734D+11	0.90314D+12	0.78552D+11
$1s^22p6g\ ^3G_4$	$1s^22p13h\ ^3H_5$	78.66195	0.92808D+11	0.45734D+11	0.90314D+12	0.88335D+11
$1s^22p7g\ ^3G_4$	$1s^22p13h\ ^3H_5$	118.67243	0.80520D+11	0.45734D+11	0.90314D+12	0.76639D+11
$1s^22p5g\ ^3G_3$	$1s^22p13h\ ^3H_4$	50.46923	0.64347D+11	0.88850D+11	0.12501D+12	0.37614D+11
$1s^22p6g\ ^3G_3$	$1s^22p13h\ ^3H_4$	78.69131	0.72520D+11	0.88850D+11	0.12501D+12	0.42392D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2p7g\ ^3G_3$	$1s^2 2p13h\ ^3H_4$	118.71777	0.63035D+11	0.88850D+11	0.12501D+12	0.36847D+11
$1s^2 2p5g\ ^3F_4$	$1s^2 2p13h\ ^3G_5$	50.48345	0.81841D+11	0.88750D+11	0.14655D+12	0.50973D+11
$1s^2 2p6g\ ^3F_4$	$1s^2 2p13h\ ^3G_5$	78.71033	0.92404D+11	0.88750D+11	0.14655D+12	0.57551D+11
$1s^2 2p7g\ ^3F_4$	$1s^2 2p13h\ ^3G_5$	118.74320	0.80347D+11	0.88750D+11	0.14655D+12	0.50042D+11
$1s^2 2p5g\ ^3F_2$	$1s^2 2p13h\ ^3G_3$	50.52345	0.48753D+11	0.45338D+11	0.13061D+12	0.36191D+11
$1s^2 2p6g\ ^3F_2$	$1s^2 2p13h\ ^3G_3$	78.76428	0.55452D+11	0.45338D+11	0.13061D+12	0.41164D+11
$1s^2 2p7g\ ^3F_2$	$1s^2 2p13h\ ^3G_3$	118.81714	0.48683D+11	0.45338D+11	0.13061D+12	0.36139D+11
$1s^2 2p5g\ ^3F_3$	$1s^2 2p13h\ ^3G_4$	50.54033	0.66148D+11	0.45324D+11	0.15172D+12	0.50932D+11
$1s^2 2p6g\ ^3F_3$	$1s^2 2p13h\ ^3G_4$	78.78912	0.75215D+11	0.45324D+11	0.15172D+12	0.57914D+11
$1s^2 2p7g\ ^3F_3$	$1s^2 2p13h\ ^3G_4$	118.85232	0.66081D+11	0.45324D+11	0.15172D+12	0.50881D+11
$1s^2 2p5g\ ^3H_5$	$1s^2 2p13h\ ^3I_6$	50.49001	0.10493D+12	0.42998D+11	0.23631D+13	0.10305D+12
$1s^2 2p6g\ ^3H_5$	$1s^2 2p13h\ ^3I_6$	78.70757	0.11750D+12	0.42998D+11	0.23631D+13	0.11540D+12
$1s^2 2p7g\ ^3H_5$	$1s^2 2p13h\ ^3I_6$	118.76724	0.10344D+12	0.42998D+11	0.23631D+13	0.10159D+12
$1s^2 2p5g\ ^3G_5$	$1s^2 2p13h\ ^3H_6$	50.45818	0.99326D+11	0.45692D+11	0.93115D+12	0.94680D+11
$1s^2 2p6g\ ^3G_5$	$1s^2 2p13h\ ^3H_6$	78.68365	0.11196D+12	0.45692D+11	0.93115D+12	0.10672D+12
$1s^2 2p7g\ ^3G_5$	$1s^2 2p13h\ ^3H_6$	118.70244	0.96923D+11	0.45692D+11	0.93115D+12	0.92389D+11
$1s^2 2p5g\ ^1H_5$	$1s^2 2p13h\ ^1I_6$	50.48830	0.10326D+12	0.45324D+11	0.32603D+13	0.10184D+12
$1s^2 2p6g\ ^1H_5$	$1s^2 2p13h\ ^1I_6$	78.74411	0.11713D+12	0.45324D+11	0.32603D+13	0.11552D+12
$1s^2 2p7g\ ^1H_5$	$1s^2 2p13h\ ^1I_6$	118.77623	0.10250D+12	0.45324D+11	0.32603D+13	0.10109D+12
$1s^2 2p5g\ ^3H_6$	$1s^2 2p13h\ ^3I_7$	50.50111	0.12040D+12	0.45339D+11	0.32758D+13	0.11876D+12
$1s^2 2p6g\ ^3H_6$	$1s^2 2p13h\ ^3I_7$	78.75959	0.13635D+12	0.45339D+11	0.32758D+13	0.13449D+12
$1s^2 2p7g\ ^3H_6$	$1s^2 2p13h\ ^3I_7$	118.79514	0.11942D+12	0.45339D+11	0.32758D+13	0.11779D+12
$1s^2 2p8g\ ^3H_4$	$1s^2 2p13h\ ^3I_5$	177.23065	0.69628D+11	0.43059D+11	0.23425D+13	0.68371D+11
$1s^2 2p9g\ ^3H_4$	$1s^2 2p13h\ ^3I_5$	267.64131	0.55529D+11	0.43059D+11	0.23425D+13	0.54527D+11
$1s^2 2p10g\ ^3H_4$	$1s^2 2p13h\ ^3I_5$	421.37731	0.44208D+11	0.43059D+11	0.23425D+13	0.43410D+11
$1s^2 2p8g\ ^3G_3$	$1s^2 2p13h\ ^3H_4$	177.24525	0.55301D+11	0.88850D+11	0.12501D+12	0.32326D+11
$1s^2 2p9g\ ^3G_3$	$1s^2 2p13h\ ^3H_4$	267.66165	0.44105D+11	0.88850D+11	0.12501D+12	0.25782D+11
$1s^2 2p10g\ ^3G_3$	$1s^2 2p13h\ ^3H_4$	421.42633	0.35110D+11	0.88850D+11	0.12501D+12	0.20524D+11
$1s^2 2p8g\ ^3F_4$	$1s^2 2p13h\ ^3G_5$	177.28108	0.69847D+11	0.88750D+11	0.14655D+12	0.43502D+11
$1s^2 2p9g\ ^3F_4$	$1s^2 2p13h\ ^3G_5$	267.71303	0.55683D+11	0.88750D+11	0.14655D+12	0.34681D+11
$1s^2 2p10g\ ^3F_4$	$1s^2 2p13h\ ^3G_5$	421.50715	0.44303D+11	0.88750D+11	0.14655D+12	0.27593D+11
$1s^2 2p8g\ ^3G_4$	$1s^2 2p13h\ ^3H_5$	177.15222	0.66427D+11	0.45734D+11	0.90314D+12	0.63225D+11
$1s^2 2p9g\ ^3G_4$	$1s^2 2p13h\ ^3H_5$	267.51458	0.52661D+11	0.45734D+11	0.90314D+12	0.50123D+11
$1s^2 2p10g\ ^3G_4$	$1s^2 2p13h\ ^3H_5$	421.17357	0.41738D+11	0.45734D+11	0.90314D+12	0.39726D+11
$1s^2 2p8g\ ^3G_3$	$1s^2 2p13h\ ^3H_4$	177.20759	0.51533D+11	0.88850D+11	0.12501D+12	0.30124D+11
$1s^2 2p9g\ ^3G_3$	$1s^2 2p13h\ ^3H_4$	267.60049	0.40982D+11	0.88850D+11	0.12501D+12	0.23956D+11
$1s^2 2p10g\ ^3G_3$	$1s^2 2p13h\ ^3H_4$	421.32814	0.32510D+11	0.88850D+11	0.12501D+12	0.19004D+11
$1s^2 2p8g\ ^3F_4$	$1s^2 2p13h\ ^3G_5$	177.24318	0.65751D+11	0.88750D+11	0.14655D+12	0.40951D+11
$1s^2 2p9g\ ^3F_4$	$1s^2 2p13h\ ^3G_5$	267.65213	0.52256D+11	0.88750D+11	0.14655D+12	0.32546D+11
$1s^2 2p10g\ ^3F_4$	$1s^2 2p13h\ ^3G_5$	421.40839	0.41521D+11	0.88750D+11	0.14655D+12	0.25860D+11
$1s^2 2p8g\ ^3F_2$	$1s^2 2p13h\ ^3G_3$	177.33801	0.38906D+11	0.45338D+11	0.13061D+12	0.28881D+11
$1s^2 2p9g\ ^3F_2$	$1s^2 2p13h\ ^3G_3$	267.79655	0.31210D+11	0.45338D+11	0.13061D+12	0.23168D+11
$1s^2 2p10g\ ^3F_2$	$1s^2 2p13h\ ^3G_3$	421.64026	0.24990D+11	0.45338D+11	0.13061D+12	0.18551D+11
$1s^2 2p8g\ ^3F_3$	$1s^2 2p13h\ ^3G_4$	177.38749	0.52769D+11	0.45324D+11	0.15172D+12	0.40631D+11
$1s^2 2p9g\ ^3F_3$	$1s^2 2p13h\ ^3G_4$	267.87238	0.42356D+11	0.45324D+11	0.15172D+12	0.32613D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2p10g\ ^3F_3$	$1s^2 2p13h\ ^3G_4$	421.76457	0.33932D+11	0.45324D+11	0.15172D+12	0.26127D+11
$1s^2 2p8g\ ^3H_5$	$1s^2 2p13h\ ^3I_6$	177.28328	0.83942D+11	0.42998D+11	0.23631D+13	0.82442D+11
$1s^2 2p9g\ ^3H_5$	$1s^2 2p13h\ ^3I_6$	267.72185	0.66998D+11	0.42998D+11	0.23631D+13	0.65801D+11
$1s^2 2p10g\ ^3H_5$	$1s^2 2p13h\ ^3I_6$	421.51283	0.53345D+11	0.42998D+11	0.23631D+13	0.52392D+11
$1s^2 2p8g\ ^3G_5$	$1s^2 2p13h\ ^3H_6$	177.19503	0.79894D+11	0.45692D+11	0.93115D+12	0.76157D+11
$1s^2 2p9g\ ^3G_5$	$1s^2 2p13h\ ^3H_6$	267.57829	0.63289D+11	0.45692D+11	0.93115D+12	0.60329D+11
$1s^2 2p10g\ ^3G_5$	$1s^2 2p13h\ ^3H_6$	421.27773	0.50107D+11	0.45692D+11	0.93115D+12	0.47763D+11
$1s^2 2p8g\ ^1H_5$	$1s^2 2p13h\ ^1I_6$	177.30666	0.82440D+11	0.45324D+11	0.32603D+13	0.81310D+11
$1s^2 2p9g\ ^1H_5$	$1s^2 2p13h\ ^1I_6$	267.74163	0.65969D+11	0.45324D+11	0.32603D+13	0.65064D+11
$1s^2 2p10g\ ^1H_5$	$1s^2 2p13h\ ^1I_6$	421.54446	0.52651D+11	0.45324D+11	0.32603D+13	0.51929D+11
$1s^2 2p8g\ ^3H_6$	$1s^2 2p13h\ ^3I_7$	177.33059	0.96308D+11	0.45339D+11	0.32758D+13	0.94993D+11
$1s^2 2p9g\ ^3H_6$	$1s^2 2p13h\ ^3I_7$	267.77296	0.77055D+11	0.45339D+11	0.32758D+13	0.76003D+11
$1s^2 2p10g\ ^3H_6$	$1s^2 2p13h\ ^3I_7$	421.58658	0.61513D+11	0.45339D+11	0.32758D+13	0.60673D+11
$1s^2 2s13h\ ^3H_4$	$1s^2 2p13h\ ^3I_5$	253.48562	0.12477D+11	0.43059D+11	0.23425D+13	0.12252D+11
$1s^2 2s13h\ ^1H_5$	$1s^2 2p13h\ ^3I_6$	253.48581	0.15014D+11	0.42998D+11	0.23631D+13	0.14746D+11
$1s^2 2s13h\ ^3H_4$	$1s^2 2p13h\ ^3H_5$	192.23025	0.19004D+11	0.45734D+11	0.90314D+12	0.18088D+11
$1s^2 2s13h\ ^3H_5$	$1s^2 2p13h\ ^3H_5$	192.23047	0.28396D+11	0.45734D+11	0.90314D+12	0.27027D+11
$1s^2 2s13h\ ^3H_4$	$1s^2 2p13h\ ^3H_4$	192.22304	0.28236D+11	0.88850D+11	0.12501D+12	0.16505D+11
$1s^2 2s13h\ ^3H_6$	$1s^2 2p13h\ ^3H_6$	192.23062	0.32724D+11	0.45692D+11	0.93115D+12	0.31193D+11
$1s^2 2s13h\ ^1H_5$	$1s^2 2p13h\ ^3H_6$	192.23087	0.20400D+11	0.45692D+11	0.93115D+12	0.19446D+11
$1s^2 2s13h\ ^1H_5$	$1s^2 2p13h\ ^3G_5$	192.22371	0.34177D+11	0.88750D+11	0.14655D+12	0.21286D+11
$1s^2 2s13h\ ^3H_5$	$1s^2 2p13h\ ^1I_6$	192.20531	0.53025D+11	0.45324D+11	0.32603D+13	0.52298D+11
$1s^2 2s13h\ ^3H_4$	$1s^2 2p13h\ ^3G_3$	192.19855	0.30499D+11	0.45338D+11	0.13061D+12	0.22640D+11
$1s^2 2s13h\ ^3H_6$	$1s^2 2p13h\ ^3I_7$	192.20568	0.65154D+11	0.45339D+11	0.32758D+13	0.64265D+11
$1s^2 2s13h\ ^1H_5$	$1s^2 2p13h\ ^3G_4$	192.19884	0.38410D+11	0.45324D+11	0.15172D+12	0.29575D+11
$1s^2 2p6h\ ^3I_5$	$1s^2 2p13i\ ^3K_6$	78.75687	0.54735D+11	0.28183D+11	0.20126D+13	0.53979D+11
$1s^2 2p7h\ ^3I_5$	$1s^2 2p13i\ ^3K_6$	118.79906	0.76182D+11	0.28183D+11	0.20126D+13	0.75130D+11
$1s^2 2p6h\ ^3H_4$	$1s^2 2p13i\ ^3I_5$	78.76001	0.45434D+11	0.58904D+11	0.72216D+11	0.25023D+11
$1s^2 2p7h\ ^3H_4$	$1s^2 2p13i\ ^3I_5$	118.80386	0.63260D+11	0.58904D+11	0.72216D+11	0.34841D+11
$1s^2 2p6h\ ^3G_5$	$1s^2 2p13i\ ^3H_6$	78.77462	0.54778D+11	0.58880D+11	0.89023D+11	0.32971D+11
$1s^2 2p7h\ ^3G_5$	$1s^2 2p13i\ ^3H_6$	118.82393	0.76283D+11	0.58880D+11	0.89023D+11	0.45915D+11
$1s^2 2p6h\ ^3H_5$	$1s^2 2p13i\ ^3I_6$	78.73260	0.52597D+11	0.30726D+11	0.80411D+12	0.50661D+11
$1s^2 2p7h\ ^3H_5$	$1s^2 2p13i\ ^3I_6$	118.76555	0.72982D+11	0.30726D+11	0.80411D+12	0.70296D+11
$1s^2 2p6h\ ^3H_4$	$1s^2 2p13i\ ^3I_5$	78.74623	0.43319D+11	0.58904D+11	0.72216D+11	0.23859D+11
$1s^2 2p7h\ ^3H_4$	$1s^2 2p13i\ ^3I_5$	118.78450	0.60220D+11	0.58904D+11	0.72216D+11	0.33167D+11
$1s^2 2p6h\ ^3G_5$	$1s^2 2p13i\ ^3H_6$	78.76028	0.52562D+11	0.58880D+11	0.89023D+11	0.31637D+11
$1s^2 2p7h\ ^3G_5$	$1s^2 2p13i\ ^3H_6$	118.80389	0.73052D+11	0.58880D+11	0.89023D+11	0.43970D+11
$1s^2 2p6h\ ^3G_3$	$1s^2 2p13i\ ^3H_4$	78.78868	0.35216D+11	0.30574D+11	0.71992D+11	0.24718D+11
$1s^2 2p7h\ ^3G_3$	$1s^2 2p13i\ ^3H_4$	118.84307	0.49214D+11	0.30574D+11	0.71992D+11	0.34544D+11
$1s^2 2p6h\ ^3G_4$	$1s^2 2p13i\ ^3H_5$	78.80312	0.44369D+11	0.30561D+11	0.72684D+11	0.31236D+11
$1s^2 2p7h\ ^3G_4$	$1s^2 2p13i\ ^3H_5$	118.86310	0.62003D+11	0.30561D+11	0.72684D+11	0.43650D+11
$1s^2 2p6h\ ^3I_6$	$1s^2 2p13i\ ^3K_7$	78.77159	0.64078D+11	0.28169D+11	0.20244D+13	0.63199D+11
$1s^2 2p7h\ ^3I_6$	$1s^2 2p13i\ ^3K_7$	118.81949	0.89191D+11	0.28169D+11	0.20244D+13	0.87967D+11
$1s^2 2p6h\ ^3H_6$	$1s^2 2p13i\ ^3I_7$	78.74657	0.61608D+11	0.30712D+11	0.82831D+12	0.59405D+11
$1s^2 2p7h\ ^3H_6$	$1s^2 2p13i\ ^3I_7$	118.78486	0.85484D+11	0.30712D+11	0.82831D+12	0.82428D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/\mathrm{s})$	$\sum Ar$	$Aa(1/\mathrm{s})$	Qd
$1s^2 2p6h\ ^1I_6$	$1s^2 2p13i\ ^1K_7$	78.77287	0.63587D+11	0.30573D+11	0.28208D+13	0.62905D+11
$1s^2 2p7h\ ^1I_6$	$1s^2 2p13i\ ^1K_7$	118.82114	0.88676D+11	0.30573D+11	0.28208D+13	0.87725D+11
$1s^2 2p6h\ ^3I_7$	$1s^2 2p13i\ ^3K_8$	78.78696	0.72489D+11	0.30561D+11	0.28370D+13	0.71716D+11
$1s^2 2p7h\ ^3I_7$	$1s^2 2p13i\ ^3K_8$	118.84043	0.10109D+12	0.30561D+11	0.28370D+13	0.10001D+12
$1s^2 2p8h\ ^3H_4$	$1s^2 2p13i\ ^3I_5$	177.32439	0.63630D+11	0.58904D+11	0.72216D+11	0.35045D+11
$1s^2 2p9h\ ^3H_4$	$1s^2 2p13i\ ^3I_5$	267.77038	0.57226D+11	0.58904D+11	0.72216D+11	0.31518D+11
$1s^2 2p10h\ ^3H_4$	$1s^2 2p13i\ ^3I_5$	421.58552	0.49096D+11	0.58904D+11	0.72216D+11	0.27040D+11
$1s^2 2p8h\ ^3H_4$	$1s^2 2p13i\ ^3I_5$	177.29953	0.60830D+11	0.58904D+11	0.72216D+11	0.33503D+11
$1s^2 2p9h\ ^3H_4$	$1s^2 2p13i\ ^3I_5$	267.73152	0.54601D+11	0.58904D+11	0.72216D+11	0.30072D+11
$1s^2 2p10h\ ^3H_4$	$1s^2 2p13i\ ^3I_5$	421.52207	0.46781D+11	0.58904D+11	0.72216D+11	0.25765D+11
$1s^2 2p8h\ ^3G_3$	$1s^2 2p13i\ ^3H_4$	177.37676	0.49085D+11	0.30574D+11	0.71992D+11	0.34453D+11
$1s^2 2p9h\ ^3G_3$	$1s^2 2p13i\ ^3H_4$	267.84820	0.44296D+11	0.30574D+11	0.71992D+11	0.31092D+11
$1s^2 2p10h\ ^3G_3$	$1s^2 2p13i\ ^3H_4$	421.71121	0.38126D+11	0.30574D+11	0.71992D+11	0.26761D+11
$1s^2 2p8h\ ^3G_4$	$1s^2 2p13i\ ^3H_5$	177.40490	0.61840D+11	0.30561D+11	0.72684D+11	0.43535D+11
$1s^2 2p9h\ ^3G_4$	$1s^2 2p13i\ ^3H_5$	267.88982	0.55805D+11	0.30561D+11	0.72684D+11	0.39287D+11
$1s^2 2p10h\ ^3G_4$	$1s^2 2p13i\ ^3H_5$	421.77773	0.48029D+11	0.30561D+11	0.72684D+11	0.33812D+11
$1s^2 2p8h\ ^3I_5$	$1s^2 2p13i\ ^3K_6$	177.32223	0.76565D+11	0.28183D+11	0.20126D+13	0.75508D+11
$1s^2 2p9h\ ^3I_5$	$1s^2 2p13i\ ^3K_6$	267.77138	0.68909D+11	0.28183D+11	0.20126D+13	0.67957D+11
$1s^2 2p10h\ ^3I_5$	$1s^2 2p13i\ ^3K_6$	421.57965	0.59142D+11	0.28183D+11	0.20126D+13	0.58325D+11
$1s^2 2p8h\ ^3G_5$	$1s^2 2p13i\ ^3H_6$	177.35248	0.76757D+11	0.58880D+11	0.89023D+11	0.46200D+11
$1s^2 2p9h\ ^3G_5$	$1s^2 2p13i\ ^3H_6$	267.81169	0.69040D+11	0.58880D+11	0.89023D+11	0.41555D+11
$1s^2 2p10h\ ^3G_5$	$1s^2 2p13i\ ^3H_6$	421.65093	0.59234D+11	0.58880D+11	0.89023D+11	0.35653D+11
$1s^2 2p8h\ ^3I_6$	$1s^2 2p13i\ ^3K_7$	177.35097	0.89644D+11	0.28169D+11	0.20244D+13	0.88414D+11
$1s^2 2p9h\ ^3I_6$	$1s^2 2p13i\ ^3K_7$	267.81398	0.80700D+11	0.28169D+11	0.20244D+13	0.79592D+11
$1s^2 2p10h\ ^3I_6$	$1s^2 2p13i\ ^3K_7$	421.64773	0.69249D+11	0.28169D+11	0.20244D+13	0.68299D+11
$1s^2 2p8h\ ^3H_5$	$1s^2 2p13i\ ^3I_6$	177.27869	0.73979D+11	0.30726D+11	0.80411D+12	0.71256D+11
$1s^2 2p9h\ ^3H_5$	$1s^2 2p13i\ ^3I_6$	267.69719	0.66346D+11	0.30726D+11	0.80411D+12	0.63904D+11
$1s^2 2p10h\ ^3H_5$	$1s^2 2p13i\ ^3I_6$	421.46132	0.56785D+11	0.30726D+11	0.80411D+12	0.54695D+11
$1s^2 2p8h\ ^3H_6$	$1s^2 2p13i\ ^3I_7$	177.30584	0.86668D+11	0.30712D+11	0.82831D+12	0.83569D+11
$1s^2 2p9h\ ^3H_6$	$1s^2 2p13i\ ^3I_7$	267.73719	0.77713D+11	0.30712D+11	0.82831D+12	0.74935D+11
$1s^2 2p10h\ ^3H_6$	$1s^2 2p13i\ ^3I_7$	421.52492	0.66510D+11	0.30712D+11	0.82831D+12	0.64132D+11
$1s^2 2p8h\ ^3G_5$	$1s^2 2p13i\ ^3H_6$	177.32666	0.73842D+11	0.58880D+11	0.89023D+11	0.44446D+11
$1s^2 2p9h\ ^3G_5$	$1s^2 2p13i\ ^3H_6$	267.77146	0.66277D+11	0.58880D+11	0.89023D+11	0.39892D+11
$1s^2 2p10h\ ^3G_5$	$1s^2 2p13i\ ^3H_6$	421.58516	0.56784D+11	0.58880D+11	0.89023D+11	0.34178D+11
$1s^2 2p8h\ ^1I_6$	$1s^2 2p13i\ ^1K_7$	177.36371	0.88692D+11	0.30573D+11	0.28208D+13	0.87741D+11
$1s^2 2p9h\ ^1I_6$	$1s^2 2p13i\ ^1K_7$	267.81735	0.79994D+11	0.30573D+11	0.28208D+13	0.79136D+11
$1s^2 2p10h\ ^1I_6$	$1s^2 2p13i\ ^1K_7$	421.65413	0.68770D+11	0.30573D+11	0.28208D+13	0.68033D+11
$1s^2 2p8h\ ^3I_7$	$1s^2 2p13i\ ^3K_8$	177.39051	0.10112D+12	0.30561D+11	0.28370D+13	0.10004D+12
$1s^2 2p9h\ ^3I_7$	$1s^2 2p13i\ ^3K_8$	267.85652	0.91201D+11	0.30561D+11	0.28370D+13	0.90229D+11
$1s^2 2p10h\ ^3I_7$	$1s^2 2p13i\ ^3K_8$	421.71584	0.78403D+11	0.30561D+11	0.28370D+13	0.77567D+11
$1s^2 2s13i\ ^3I_5$	$1s^2 2p13i\ ^3K_6$	253.48761	0.15016D+11	0.28183D+11	0.20126D+13	0.14809D+11
$1s^2 2s13i\ ^3I_7$	$1s^2 2p13i\ ^3H_6$	253.48761	0.17635D+11	0.58880D+11	0.89023D+11	0.10615D+11
$1s^2 2s13i\ ^1I_6$	$1s^2 2p13i\ ^3K_7$	253.48761	0.17551D+11	0.28169D+11	0.20244D+13	0.17310D+11
$1s^2 2s13i\ ^3I_5$	$1s^2 2p13i\ ^3I_6$	192.22526	0.21903D+11	0.30726D+11	0.80411D+12	0.21097D+11
$1s^2 2s13i\ ^3I_6$	$1s^2 2p13i\ ^3I_6$	192.22526	0.34480D+11	0.30726D+11	0.80411D+12	0.33211D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2s13i\ ^3I_5$	$1s^2 2p13i\ ^3I_5$	192.22167	0.34226D+11	0.58904D+11	0.72216D+11	0.18850D+11
$1s^2 2s13i\ ^1I_6$	$1s^2 2p13i\ ^3I_7$	192.22548	0.23691D+11	0.30712D+11	0.82831D+12	0.22844D+11
$1s^2 2s13i\ ^1I_6$	$1s^2 2p13i\ ^3H_6$	192.22178	0.40295D+11	0.58880D+11	0.89023D+11	0.24254D+11
$1s^2 2s13i\ ^3I_6$	$1s^2 2p13i\ ^1K_7$	192.21007	0.62172D+11	0.30573D+11	0.28208D+13	0.61505D+11
$1s^2 2s13i\ ^3I_5$	$1s^2 2p13i\ ^3H_4$	192.20667	0.39213D+11	0.30574D+11	0.71992D+11	0.27524D+11
$1s^2 2s13i\ ^1I_6$	$1s^2 2p13i\ ^3H_5$	192.20675	0.47427D+11	0.30561D+11	0.72684D+11	0.33388D+11
$1s^2 2s13i\ ^3I_7$	$1s^2 2p13i\ ^3K_7$	253.48761	0.10854D+11	0.28169D+11	0.20244D+13	0.10705D+11
$1s^2 2s13i\ ^3I_7$	$1s^2 2p13i\ ^3I_7$	192.22548	0.38598D+11	0.30712D+11	0.82831D+12	0.37218D+11
$1s^2 2s13i\ ^3I_7$	$1s^2 2p13i\ ^3K_8$	192.21022	0.73820D+11	0.30561D+11	0.28370D+13	0.73033D+11
$1s^2 2p7i\ ^3H_4$	$1s^2 2p13k\ ^3I_5$	118.86558	0.27028D+11	0.20979D+11	0.32047D+11	0.16335D+11
$1s^2 2p7i\ ^3K_6$	$1s^2 2p13k\ ^3L_7$	118.84058	0.38628D+11	0.18538D+11	0.15129D+13	0.38160D+11
$1s^2 2p7i\ ^3I_5$	$1s^2 2p13k\ ^3K_6$	118.84322	0.33042D+11	0.39586D+11	0.32266D+11	0.14838D+11
$1s^2 2p7i\ ^3K_7$	$1s^2 2p13k\ ^3L_8$	118.85529	0.44244D+11	0.18533D+11	0.15195D+13	0.43711D+11
$1s^2 2p7i\ ^3H_6$	$1s^2 2p13k\ ^3I_7$	118.85791	0.38659D+11	0.39575D+11	0.44429D+11	0.20446D+11
$1s^2 2p7i\ ^3I_6$	$1s^2 2p13k\ ^3K_7$	118.82084	0.37433D+11	0.21033D+11	0.62122D+12	0.36207D+11
$1s^2 2p7i\ ^3I_5$	$1s^2 2p13k\ ^3K_6$	118.83039	0.31897D+11	0.39586D+11	0.32266D+11	0.14324D+11
$1s^2 2p7i\ ^3I_7$	$1s^2 2p13k\ ^3K_8$	118.83499	0.42871D+11	0.21027D+11	0.64418D+12	0.41516D+11
$1s^2 2p7i\ ^3H_6$	$1s^2 2p13k\ ^3I_7$	118.84472	0.37488D+11	0.39575D+11	0.44429D+11	0.19827D+11
$1s^2 2p7i\ ^1K_7$	$1s^2 2p13k\ ^1L_8$	118.85425	0.44051D+11	0.20958D+11	0.21292D+13	0.43622D+11
$1s^2 2p7i\ ^3K_8$	$1s^2 2p13k\ ^3L_9$	118.86855	0.49442D+11	0.20952D+11	0.21462D+13	0.48964D+11
$1s^2 2p7i\ ^3H_5$	$1s^2 2p13k\ ^3I_6$	118.88007	0.32584D+11	0.20974D+11	0.32045D+11	0.19694D+11
$1s^2 2p8i\ ^3H_4$	$1s^2 2p13k\ ^3I_5$	177.41443	0.44477D+11	0.20979D+11	0.32047D+11	0.26880D+11
$1s^2 2p9i\ ^3H_4$	$1s^2 2p13k\ ^3I_5$	267.90582	0.50695D+11	0.20979D+11	0.32047D+11	0.30638D+11
$1s^2 2p10i\ ^3H_4$	$1s^2 2p13k\ ^3I_5$	421.80584	0.49963D+11	0.20979D+11	0.32047D+11	0.30196D+11
$1s^2 2p8i\ ^3K_6$	$1s^2 2p13k\ ^3L_7$	177.38428	0.63811D+11	0.18538D+11	0.15129D+13	0.63039D+11
$1s^2 2p9i\ ^3K_6$	$1s^2 2p13k\ ^3L_7$	267.86298	0.72642D+11	0.18538D+11	0.15129D+13	0.71763D+11
$1s^2 2p10i\ ^3K_6$	$1s^2 2p13k\ ^3L_7$	421.72935	0.71479D+11	0.18538D+11	0.15129D+13	0.70614D+11
$1s^2 2p8i\ ^3I_5$	$1s^2 2p13k\ ^3K_6$	177.38438	0.54630D+11	0.39586D+11	0.32266D+11	0.24532D+11
$1s^2 2p9i\ ^3I_5$	$1s^2 2p13k\ ^3K_6$	267.86090	0.62151D+11	0.39586D+11	0.32266D+11	0.27910D+11
$1s^2 2p10i\ ^3I_5$	$1s^2 2p13k\ ^3K_6$	421.73273	0.61141D+11	0.39586D+11	0.32266D+11	0.27456D+11
$1s^2 2p8i\ ^3K_7$	$1s^2 2p13k\ ^3L_8$	177.40439	0.73097D+11	0.18533D+11	0.15195D+13	0.72216D+11
$1s^2 2p9i\ ^3K_7$	$1s^2 2p13k\ ^3L_8$	267.89254	0.83224D+11	0.18533D+11	0.15195D+13	0.82221D+11
$1s^2 2p10i\ ^3K_7$	$1s^2 2p13k\ ^3L_8$	421.77596	0.81877D+11	0.18533D+11	0.15195D+13	0.80890D+11
$1s^2 2p8i\ ^3H_6$	$1s^2 2p13k\ ^3I_7$	177.40446	0.63926D+11	0.39575D+11	0.44429D+11	0.33810D+11
$1s^2 2p9i\ ^3H_6$	$1s^2 2p13k\ ^3I_7$	267.89039	0.72726D+11	0.39575D+11	0.44429D+11	0.38464D+11
$1s^2 2p10i\ ^3H_6$	$1s^2 2p13k\ ^3I_7$	421.77934	0.71545D+11	0.39575D+11	0.44429D+11	0.37839D+11
$1s^2 2p8i\ ^3I_6$	$1s^2 2p13k\ ^3K_7$	177.35877	0.62146D+11	0.21033D+11	0.62122D+12	0.60111D+11
$1s^2 2p9i\ ^3I_6$	$1s^2 2p13k\ ^3K_7$	267.81864	0.70596D+11	0.21033D+11	0.62122D+12	0.68284D+11
$1s^2 2p10i\ ^3I_6$	$1s^2 2p13k\ ^3K_7$	421.66089	0.69340D+11	0.21033D+11	0.62122D+12	0.67069D+11
$1s^2 2p8i\ ^3I_5$	$1s^2 2p13k\ ^3K_6$	177.36796	0.52880D+11	0.39586D+11	0.32266D+11	0.23746D+11
$1s^2 2p9i\ ^3I_5$	$1s^2 2p13k\ ^3K_6$	267.83557	0.60093D+11	0.39586D+11	0.32266D+11	0.26985D+11
$1s^2 2p10i\ ^3I_5$	$1s^2 2p13k\ ^3K_6$	421.69129	0.59061D+11	0.39586D+11	0.32266D+11	0.26522D+11
$1s^2 2p8i\ ^3I_7$	$1s^2 2p13k\ ^3K_8$	177.37821	0.71171D+11	0.21027D+11	0.64418D+12	0.68921D+11
$1s^2 2p9i\ ^3I_7$	$1s^2 2p13k\ ^3K_8$	267.84705	0.80857D+11	0.21027D+11	0.64418D+12	0.78301D+11
$1s^2 2p10i\ ^3I_7$	$1s^2 2p13k\ ^3K_8$	421.70570	0.79419D+11	0.21027D+11	0.64418D+12	0.76909D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2p8i\ ^3H_6$	$1s^2 2p13k\ ^3I_7$	177.38756	0.62176D+11	0.39575D+11	0.44429D+11	0.32884D+11
$1s^2 2p9i\ ^3H_6$	$1s^2 2p13k\ ^3I_7$	267.86427	0.70645D+11	0.39575D+11	0.44429D+11	0.37363D+11
$1s^2 2p10i\ ^3H_6$	$1s^2 2p13k\ ^3I_7$	421.73647	0.69425D+11	0.39575D+11	0.44429D+11	0.36718D+11
$1s^2 2p8i\ ^1K_7$	$1s^2 2p13k\ ^1L_8$	177.41176	0.72521D+11	0.20958D+11	0.21292D+13	0.71814D+11
$1s^2 2p9i\ ^1K_7$	$1s^2 2p13k\ ^1L_8$	267.89075	0.82702D+11	0.20958D+11	0.21292D+13	0.81896D+11
$1s^2 2p10i\ ^1K_7$	$1s^2 2p13k\ ^1L_8$	421.77471	0.81464D+11	0.20958D+11	0.21292D+13	0.80670D+11
$1s^2 2p8i\ ^3K_8$	$1s^2 2p13k\ ^3L_9$	177.43134	0.81444D+11	0.20952D+11	0.21462D+13	0.80657D+11
$1s^2 2p9i\ ^3K_8$	$1s^2 2p13k\ ^3L_9$	267.91939	0.92834D+11	0.20952D+11	0.21462D+13	0.91936D+11
$1s^2 2p10i\ ^3K_8$	$1s^2 2p13k\ ^3L_9$	421.81972	0.91444D+11	0.20952D+11	0.21462D+13	0.90560D+11
$1s^2 2p8i\ ^3H_5$	$1s^2 2p13k\ ^3I_6$	177.43420	0.53625D+11	0.20974D+11	0.32045D+11	0.32411D+11
$1s^2 2p9i\ ^3H_5$	$1s^2 2p13k\ ^3I_6$	267.93482	0.61120D+11	0.20974D+11	0.32045D+11	0.36941D+11
$1s^2 2p10i\ ^3H_5$	$1s^2 2p13k\ ^3I_6$	421.85157	0.60238D+11	0.20974D+11	0.32045D+11	0.36408D+11
$1s^2 2s13k\ ^3K_6$	$1s^2 2p13k\ ^3L_7$	253.48857	0.17536D+11	0.18538D+11	0.15129D+13	0.17324D+11
$1s^2 2s13k\ ^3K_6$	$1s^2 2p13k\ ^3K_7$	192.22260	0.24777D+11	0.21033D+11	0.62122D+12	0.23966D+11
$1s^2 2s13k\ ^3K_6$	$1s^2 2p13k\ ^3K_6$	192.22056	0.40155D+11	0.39586D+11	0.32266D+11	0.18032D+11
$1s^2 2s13k\ ^3K_6$	$1s^2 2p13k\ ^3I_5$	192.21081	0.47943D+11	0.20979D+11	0.32047D+11	0.28975D+11
$1s^2 2s13k\ ^1K_7$	$1s^2 2p13k\ ^3I_6$	192.21085	0.56274D+11	0.20974D+11	0.32045D+11	0.34012D+11
$1s^2 2s13k\ ^3K_7$	$1s^2 2p13k\ ^3L_7$	253.48857	0.10852D+11	0.18538D+11	0.15129D+13	0.10721D+11
$1s^2 2s13k\ ^1K_7$	$1s^2 2p13k\ ^3L_8$	253.48857	0.20065D+11	0.18533D+11	0.15195D+13	0.19823D+11
$1s^2 2s13k\ ^3K_8$	$1s^2 2p13k\ ^3L_8$	253.48857	0.12107D+11	0.18533D+11	0.15195D+13	0.11961D+11
$1s^2 2s13k\ ^3K_8$	$1s^2 2p13k\ ^3I_7$	253.48857	0.20190D+11	0.39575D+11	0.44429D+11	0.10678D+11
$1s^2 2s13k\ ^3K_7$	$1s^2 2p13k\ ^3K_7$	192.22260	0.40377D+11	0.21033D+11	0.62122D+12	0.39055D+11
$1s^2 2s13k\ ^1K_7$	$1s^2 2p13k\ ^3K_8$	192.22274	0.26410D+11	0.21027D+11	0.64418D+12	0.25575D+11
$1s^2 2s13k\ ^3K_8$	$1s^2 2p13k\ ^3K_8$	192.22274	0.44148D+11	0.21027D+11	0.64418D+12	0.42752D+11
$1s^2 2s13k\ ^1K_7$	$1s^2 2p13k\ ^3I_7$	192.22064	0.46192D+11	0.39575D+11	0.44429D+11	0.24430D+11
$1s^2 2s13k\ ^3K_8$	$1s^2 2p13k\ ^3I_7$	192.22064	0.19050D+11	0.39575D+11	0.44429D+11	0.10075D+11
$1s^2 2s13k\ ^3K_7$	$1s^2 2p13k\ ^1L_8$	192.21269	0.70384D+11	0.20958D+11	0.21292D+13	0.69698D+11
$1s^2 2s13k\ ^3K_8$	$1s^2 2p13k\ ^3L_9$	192.21281	0.82448D+11	0.20952D+11	0.21462D+13	0.81651D+11

Table IV (continue)

lower level	upper level	$\lambda(\mathring{A})$	$gAr(1/s)$	$\sum Ar$	$Aa(1/s)$	Qd
$1s^2 2p8k\ ^3L_7$	$1s^2 2p13l\ ^3M_8$	177.41424	0.31372D+11	0.11823D+11	0.96110D+12	0.30991D+11
$1s^2 2p9k\ ^3L_7$	$1s^2 2p13l\ ^3M_8$	267.90740	0.60035D+11	0.11823D+11	0.96110D+12	0.59305D+11
$1s^2 2p10k\ ^3L_7$	$1s^2 2p13l\ ^3M_8$	421.80567	0.76000D+11	0.11823D+11	0.96110D+12	0.75076D+11
$1s^2 2p9k\ ^3K_6$	$1s^2 2p13l\ ^3L_7$	267.90532	0.52469D+11	0.26145D+11	0.12686D+11	0.17142D+11
$1s^2 2p10k\ ^3K_6$	$1s^2 2p13l\ ^3L_7$	421.80869	0.66408D+11	0.26145D+11	0.12686D+11	0.21695D+11
$1s^2 2p8k\ ^3L_8$	$1s^2 2p13l\ ^3M_9$	177.42986	0.35357D+11	0.11821D+11	0.96440D+12	0.34929D+11
$1s^2 2p9k\ ^3L_8$	$1s^2 2p13l\ ^3M_9$	267.92958	0.67652D+11	0.11821D+11	0.96440D+12	0.66833D+11
$1s^2 2p10k\ ^3L_8$	$1s^2 2p13l\ ^3M_9$	421.83930	0.85631D+11	0.11821D+11	0.96440D+12	0.84594D+11
$1s^2 2p8k\ ^3I_7$	$1s^2 2p13l\ ^3K_8$	177.42746	0.31411D+11	0.26140D+11	0.19400D+11	0.13381D+11
$1s^2 2p9k\ ^3I_7$	$1s^2 2p13l\ ^3K_8$	267.92757	0.60079D+11	0.26140D+11	0.19400D+11	0.25593D+11
$1s^2 2p10k\ ^3I_7$	$1s^2 2p13l\ ^3K_8$	421.84250	0.76042D+11	0.26140D+11	0.19400D+11	0.32393D+11
$1s^2 2p8k\ ^3K_7$	$1s^2 2p13l\ ^3L_8$	177.39605	0.30723D+11	0.14296D+11	0.40323D+12	0.29671D+11
$1s^2 2p9k\ ^3K_7$	$1s^2 2p13l\ ^3L_8$	267.87841	0.58718D+11	0.14296D+11	0.40323D+12	0.56707D+11
$1s^2 2p10k\ ^3K_7$	$1s^2 2p13l\ ^3L_8$	421.76261	0.74237D+11	0.14296D+11	0.40323D+12	0.71695D+11
$1s^2 2p9k\ ^3K_6$	$1s^2 2p13l\ ^3L_7$	267.88781	0.51154D+11	0.26145D+11	0.12686D+11	0.16712D+11
$1s^2 2p10k\ ^3K_6$	$1s^2 2p13l\ ^3L_7$	421.78005	0.64698D+11	0.26145D+11	0.12686D+11	0.21137D+11
$1s^2 2p8k\ ^3K_8$	$1s^2 2p13l\ ^3L_9$	177.41132	0.34550D+11	0.14293D+11	0.42518D+12	0.33426D+11
$1s^2 2p9k\ ^3K_8$	$1s^2 2p13l\ ^3L_9$	267.90001	0.66069D+11	0.14293D+11	0.42518D+12	0.63920D+11
$1s^2 2p10k\ ^3K_8$	$1s^2 2p13l\ ^3L_9$	421.79535	0.83541D+11	0.14293D+11	0.42518D+12	0.80824D+11
$1s^2 2p8k\ ^3I_7$	$1s^2 2p13l\ ^3K_8$	177.41598	0.30757D+11	0.26140D+11	0.19400D+11	0.13102D+11
$1s^2 2p9k\ ^3I_7$	$1s^2 2p13l\ ^3K_8$	267.90970	0.58776D+11	0.26140D+11	0.19400D+11	0.25038D+11
$1s^2 2p10k\ ^3I_7$	$1s^2 2p13l\ ^3K_8$	421.81314	0.74332D+11	0.26140D+11	0.19400D+11	0.31665D+11
$1s^2 2p8k\ ^1L_8$	$1s^2 2p13l\ ^1M_9$	177.43102	0.35109D+11	0.10531D+12	0.13524D+13	0.32573D+11
$1s^2 2p9k\ ^1L_8$	$1s^2 2p13l\ ^1M_9$	267.92549	0.67306D+11	0.10531D+12	0.13524D+13	0.62444D+11
$1s^2 2p10k\ ^1L_8$	$1s^2 2p13l\ ^1M_9$	421.83520	0.85270D+11	0.10531D+12	0.13524D+13	0.79110D+11
$1s^2 2p8k\ ^3I_6$	$1s^2 2p13l\ ^3K_7$	177.44595	0.27079D+11	0.14288D+11	0.12472D+11	0.12621D+11
$1s^2 2p9k\ ^3I_6$	$1s^2 2p13l\ ^3K_7$	267.95535	0.51844D+11	0.14288D+11	0.12472D+11	0.24163D+11
$1s^2 2p10k\ ^3I_6$	$1s^2 2p13l\ ^3K_7$	421.88752	0.65696D+11	0.14288D+11	0.12472D+11	0.30619D+11
$1s^2 2s13l\ ^3L_7$	$1s^2 2p13l\ ^3M_8$	253.48877	0.20043D+11	0.11823D+11	0.96110D+12	0.19799D+11
$1s^2 2s13l\ ^3L_8$	$1s^2 2p13l\ ^3M_8$	253.48877	0.12106D+11	0.11823D+11	0.96110D+12	0.11959D+11
$1s^2 2s13l\ ^1L_8$	$1s^2 2p13l\ ^3M_9$	253.48877	0.22567D+11	0.11821D+11	0.96440D+12	0.22294D+11
$1s^2 2s13l\ ^3L_9$	$1s^2 2p13l\ ^3M_9$	253.48877	0.13364D+11	0.11821D+11	0.96440D+12	0.13202D+11
$1s^2 2s13l\ ^3L_7$	$1s^2 2p13l\ ^3L_8$	192.22082	0.27640D+11	0.14296D+11	0.40323D+12	0.26694D+11
$1s^2 2s13l\ ^3L_8$	$1s^2 2p13l\ ^3L_8$	192.22082	0.46244D+11	0.14296D+11	0.40323D+12	0.44661D+11
$1s^2 2s13l\ ^3L_7$	$1s^2 2p13l\ ^3L_7$	192.21960	0.46057D+11	0.26145D+11	0.12686D+11	0.15047D+11
$1s^2 2s13l\ ^1L_8$	$1s^2 2p13l\ ^3L_9$	192.22097	0.28860D+11	0.14293D+11	0.42518D+12	0.27921D+11
$1s^2 2s13l\ ^3L_9$	$1s^2 2p13l\ ^3L_9$	192.22097	0.49261D+11	0.14293D+11	0.42518D+12	0.47659D+11
$1s^2 2s13l\ ^1L_8$	$1s^2 2p13l\ ^3K_8$	192.21968	0.52056D+11	0.26140D+11	0.19400D+11	0.22175D+11
$1s^2 2s13l\ ^3L_8$	$1s^2 2p13l\ ^1M_9$	192.21399	0.77876D+11	0.10531D+12	0.13524D+13	0.72250D+11
$1s^2 2s13l\ ^1L_8$	$1s^2 2p13l\ ^3K_7$	192.21292	0.65107D+11	0.14288D+11	0.12472D+11	0.30344D+11