

Sulfur Hexafluoride (SF₆)

Z = 70

Molecular Mass : $M_A = 146.0554192$

$$\sigma_a(\text{Mb}) = 109.76097 \frac{df}{dE} (\text{eV}^{-1})$$

$$\mu_m = \sigma_a \cdot N_A \cdot M_A^{-1}$$

Table I. Oscillator-strength density, df/dE , photoabsorption cross section, σ_a , and mass absorption coefficient, μ_m .

| Energy (eV) | f_n (eV ⁻¹) | σ_a (Mb) | μ_m (cm ² g ⁻¹) | λ (Å) |
|-------------|---------------------------|-----------------|--|---------------|
| 9.5572E+00 | 1.3415E-02 | 1.4724E+00 | 6.0710E+03 | 1.2973E+03 |
| 9.9631E+00 | 2.6830E-02 | 2.9449E+00 | 1.2142E+04 | 1.2444E+03 |
| 1.0000E+01 | 2.9513E-02 | 3.2394E+00 | 1.3357E+04 | 1.2398E+03 |
| 1.0332E+01 | 5.0975E-02 | 5.5951E+00 | 2.3070E+04 | 1.2000E+03 |
| 1.0590E+01 | 9.6585E-02 | 1.0601E+01 | 4.3711E+04 | 1.1708E+03 |
| 1.0812E+01 | 1.5293E-01 | 1.6785E+01 | 6.9209E+04 | 1.1467E+03 |
| 1.0923E+01 | 2.0390E-01 | 2.2380E+01 | 9.2279E+04 | 1.1351E+03 |
| 1.0996E+01 | 2.5487E-01 | 2.7974E+01 | 1.1534E+05 | 1.1275E+03 |
| 1.1070E+01 | 2.7902E-01 | 3.0625E+01 | 1.2627E+05 | 1.1200E+03 |
| 1.1255E+01 | 2.9513E-01 | 3.2394E+01 | 1.3357E+05 | 1.1016E+03 |
| 1.1439E+01 | 3.0316E-01 | 3.3276E+01 | 1.3720E+05 | 1.0839E+03 |
| 1.1624E+01 | 2.9781E-01 | 3.2688E+01 | 1.3478E+05 | 1.0666E+03 |
| 1.1734E+01 | 2.7634E-01 | 3.0331E+01 | 1.2506E+05 | 1.0566E+03 |
| 1.1882E+01 | 2.3342E-01 | 2.5620E+01 | 1.0564E+05 | 1.0435E+03 |
| 1.2066E+01 | 1.7975E-01 | 1.9730E+01 | 8.1350E+04 | 1.0275E+03 |
| 1.2325E+01 | 1.3415E-01 | 1.4724E+01 | 6.0710E+04 | 1.0060E+03 |
| 1.2620E+01 | 9.3902E-02 | 1.0307E+01 | 4.2497E+04 | 9.8244E+02 |
| 1.2768E+01 | 9.1219E-02 | 1.0012E+01 | 4.1283E+04 | 9.7105E+02 |
| 1.2952E+01 | 1.1805E-01 | 1.2957E+01 | 5.3424E+04 | 9.5726E+02 |
| 1.3026E+01 | 1.8244E-01 | 2.0024E+01 | 8.2565E+04 | 9.5182E+02 |
| 1.3137E+01 | 1.6097E-01 | 1.7669E+01 | 7.2851E+04 | 9.4378E+02 |
| 1.3210E+01 | 1.2341E-01 | 1.3546E+01 | 5.5852E+04 | 9.3856E+02 |
| 1.3358E+01 | 9.3902E-02 | 1.0307E+01 | 4.2497E+04 | 9.2816E+02 |
| 1.3579E+01 | 8.0488E-02 | 8.8345E+00 | 3.6426E+04 | 9.1306E+02 |
| 1.3653E+01 | 1.1268E-01 | 1.2368E+01 | 5.0996E+04 | 9.0811E+02 |
| 1.3727E+01 | 1.6902E-01 | 1.8552E+01 | 7.6494E+04 | 9.0321E+02 |
| 1.3764E+01 | 2.2268E-01 | 2.4442E+01 | 1.0078E+05 | 9.0079E+02 |
| 1.3838E+01 | 2.7366E-01 | 3.0037E+01 | 1.2385E+05 | 8.9597E+02 |

Table I. Oscillator-strength density, df/dE , photoabsorption cross section, σ_a , and mass absorption coefficient, μ_m . (Continued)

| Energy (eV) | f_n (eV ⁻¹) | σ_a (Mb) | μ_m (cm ² g ⁻¹) | λ (Å) |
|-------------|---------------------------|-----------------|--|---------------|
| 1.3911E+01 | 2.8707E-01 | 3.1509E+01 | 1.2992E+05 | 8.9127E+02 |
| 1.4059E+01 | 2.9513E-01 | 3.2394E+01 | 1.3357E+05 | 8.8188E+02 |
| 1.4133E+01 | 2.8707E-01 | 3.1509E+01 | 1.2992E+05 | 8.7727E+02 |
| 1.4207E+01 | 2.6024E-01 | 2.8565E+01 | 1.1778E+05 | 8.7270E+02 |
| 1.4280E+01 | 2.1462E-01 | 2.3557E+01 | 9.7131E+04 | 8.6824E+02 |
| 1.4502E+01 | 1.9585E-01 | 2.1497E+01 | 8.8636E+04 | 8.5495E+02 |
| 1.4576E+01 | 2.1195E-01 | 2.3263E+01 | 9.5919E+04 | 8.5061E+02 |
| 1.4686E+01 | 2.2000E-01 | 2.4148E+01 | 9.9565E+04 | 8.4423E+02 |
| 1.4871E+01 | 2.3074E-01 | 2.5326E+01 | 1.0442E+05 | 8.3373E+02 |
| 1.4900E+01 | 2.3342E-01 | 2.5620E+01 | 1.0564E+05 | 8.3211E+02 |
| 1.4957E+01 | 2.5580E-01 | 2.8077E+01 | 1.1577E+05 | 8.2894E+02 |
| 1.5032E+01 | 2.7467E-01 | 3.0148E+01 | 1.2431E+05 | 8.2480E+02 |
| 1.5062E+01 | 2.7267E-01 | 2.9929E+01 | 1.2340E+05 | 8.2314E+02 |
| 1.5123E+01 | 2.9950E-01 | 3.2873E+01 | 1.3554E+05 | 8.1983E+02 |
| 1.5154E+01 | 3.0446E-01 | 3.3418E+01 | 1.3779E+05 | 8.1817E+02 |
| 1.5236E+01 | 3.5813E-01 | 3.9309E+01 | 1.6208E+05 | 8.1374E+02 |
| 1.5310E+01 | 4.2373E-01 | 4.6509E+01 | 1.9177E+05 | 8.0985E+02 |
| 1.5373E+01 | 4.9033E-01 | 5.3819E+01 | 2.2190E+05 | 8.0652E+02 |
| 1.5415E+01 | 5.4898E-01 | 6.0256E+01 | 2.4845E+05 | 8.0429E+02 |
| 1.5453E+01 | 5.8476E-01 | 6.4184E+01 | 2.6464E+05 | 8.0235E+02 |
| 1.5495E+01 | 6.0861E-01 | 6.6801E+01 | 2.7543E+05 | 8.0014E+02 |
| 1.5554E+01 | 6.2550E-01 | 6.8656E+01 | 2.8308E+05 | 7.9710E+02 |
| 1.5712E+01 | 6.2248E-01 | 6.8324E+01 | 2.8171E+05 | 7.8910E+02 |
| 1.5895E+01 | 6.3336E-01 | 6.9519E+01 | 2.8664E+05 | 7.8000E+02 |
| 1.5946E+01 | 6.2739E-01 | 6.8863E+01 | 2.8393E+05 | 7.7752E+02 |
| 1.6094E+01 | 5.5378E-01 | 6.0783E+01 | 2.5062E+05 | 7.7038E+02 |
| 1.6128E+01 | 5.3886E-01 | 5.9145E+01 | 2.4387E+05 | 7.6874E+02 |
| 1.6180E+01 | 5.2891E-01 | 5.8053E+01 | 2.3936E+05 | 7.6626E+02 |
| 1.6262E+01 | 5.2093E-01 | 5.7178E+01 | 2.3575E+05 | 7.6240E+02 |
| 1.6363E+01 | 5.1295E-01 | 5.6302E+01 | 2.3214E+05 | 7.5772E+02 |
| 1.6441E+01 | 5.1592E-01 | 5.6628E+01 | 2.3349E+05 | 7.5413E+02 |
| 1.6519E+01 | 5.3280E-01 | 5.8481E+01 | 2.4113E+05 | 7.5054E+02 |
| 1.6593E+01 | 5.6560E-01 | 6.2081E+01 | 2.5597E+05 | 7.4722E+02 |
| 1.6661E+01 | 6.0834E-01 | 6.6772E+01 | 2.7531E+05 | 7.4417E+02 |
| 1.6773E+01 | 6.9182E-01 | 7.5935E+01 | 3.1309E+05 | 7.3918E+02 |
| 1.6868E+01 | 7.7433E-01 | 8.4991E+01 | 3.5043E+05 | 7.3501E+02 |

Table I. Oscillator-strength density, df/dE , photoabsorption cross section, σ_a , and mass absorption coefficient, μ_m . (Continued)

| Energy (eV) | f_n (eV ⁻¹) | σ_a (Mb) | μ_m (cm ² g ⁻¹) | λ (Å) |
|-------------|---------------------------|-----------------|--|---------------|
| 1.6964E+01 | 8.4390E-01 | 9.2627E+01 | 3.8192E+05 | 7.3085E+02 |
| 1.7009E+01 | 8.5781E-01 | 9.4154E+01 | 3.8821E+05 | 7.2892E+02 |
| 1.7081E+01 | 8.6177E-01 | 9.4589E+01 | 3.9001E+05 | 7.2588E+02 |
| 1.7165E+01 | 8.5182E-01 | 9.3496E+01 | 3.8550E+05 | 7.2230E+02 |
| 1.7284E+01 | 8.4483E-01 | 9.2729E+01 | 3.8234E+05 | 7.1734E+02 |
| 1.7364E+01 | 8.4481E-01 | 9.2727E+01 | 3.8233E+05 | 7.1404E+02 |
| 1.7438E+01 | 8.3286E-01 | 9.1416E+01 | 3.7692E+05 | 7.1101E+02 |
| 1.7580E+01 | 7.8611E-01 | 8.6284E+01 | 3.5577E+05 | 7.0524E+02 |
| 1.7733E+01 | 7.5327E-01 | 8.2680E+01 | 3.4090E+05 | 6.9918E+02 |
| 1.7959E+01 | 7.0749E-01 | 7.7655E+01 | 3.2019E+05 | 6.9038E+02 |
| 1.8161E+01 | 6.7166E-01 | 7.3722E+01 | 3.0397E+05 | 6.8268E+02 |
| 1.8302E+01 | 6.5373E-01 | 7.1754E+01 | 2.9586E+05 | 6.7744E+02 |
| 1.8452E+01 | 6.3879E-01 | 7.0114E+01 | 2.8909E+05 | 6.7194E+02 |
| 1.8643E+01 | 6.2881E-01 | 6.9019E+01 | 2.8458E+05 | 6.6505E+02 |
| 1.9005E+01 | 6.1981E-01 | 6.8031E+01 | 2.8050E+05 | 6.5237E+02 |
| 1.9441E+01 | 6.1874E-01 | 6.7913E+01 | 2.8002E+05 | 6.3776E+02 |
| 1.9653E+01 | 6.2268E-01 | 6.8346E+01 | 2.8180E+05 | 6.3087E+02 |
| 1.9835E+01 | 6.3658E-01 | 6.9871E+01 | 2.8809E+05 | 6.2507E+02 |
| 1.9941E+01 | 6.3656E-01 | 6.9869E+01 | 2.8808E+05 | 6.2177E+02 |
| 2.0264E+01 | 6.0767E-01 | 6.6699E+01 | 2.7501E+05 | 6.1185E+02 |
| 2.0513E+01 | 5.8178E-01 | 6.3857E+01 | 2.6330E+05 | 6.0442E+02 |
| 2.0607E+01 | 5.7481E-01 | 6.3092E+01 | 2.6014E+05 | 6.0166E+02 |
| 2.0721E+01 | 5.7281E-01 | 6.2872E+01 | 2.5923E+05 | 5.9836E+02 |
| 2.0923E+01 | 5.9068E-01 | 6.4834E+01 | 2.6732E+05 | 5.9256E+02 |
| 2.1041E+01 | 5.9663E-01 | 6.5486E+01 | 2.7001E+05 | 5.8925E+02 |
| 2.1130E+01 | 5.9164E-01 | 6.4939E+01 | 2.6776E+05 | 5.8677E+02 |
| 2.1260E+01 | 5.9461E-01 | 6.5265E+01 | 2.6910E+05 | 5.8319E+02 |
| 2.1361E+01 | 6.0254E-01 | 6.6136E+01 | 2.7269E+05 | 5.8043E+02 |
| 2.1515E+01 | 6.3932E-01 | 7.0172E+01 | 2.8933E+05 | 5.7628E+02 |
| 2.1702E+01 | 6.8502E-01 | 7.5189E+01 | 3.1002E+05 | 5.7130E+02 |
| 2.2099E+01 | 8.1720E-01 | 8.9697E+01 | 3.6984E+05 | 5.6105E+02 |
| 2.2398E+01 | 9.4244E-01 | 1.0344E+02 | 4.2651E+05 | 5.5356E+02 |
| 2.2740E+01 | 1.1115E+00 | 1.2200E+02 | 5.0301E+05 | 5.4522E+02 |
| 2.2892E+01 | 1.1820E+00 | 1.2974E+02 | 5.3493E+05 | 5.4161E+02 |
| 2.3057E+01 | 1.2386E+00 | 1.3595E+02 | 5.6057E+05 | 5.3773E+02 |
| 2.3272E+01 | 1.2794E+00 | 1.4043E+02 | 5.7901E+05 | 5.3275E+02 |

Table I. Oscillator-strength density, df/dE , photoabsorption cross section, σ_a , and mass absorption coefficient, μ_m . (Continued)

| Energy (eV) | f_n (eV ⁻¹) | σ_a (Mb) | μ_m (cm ² g ⁻¹) | λ (Å) |
|-------------|---------------------------|-----------------|--|---------------|
| 2.3394E+01 | 1.2903E+00 | 1.4162E+02 | 5.8394E+05 | 5.2999E+02 |
| 2.3553E+01 | 1.2843E+00 | 1.4097E+02 | 5.8123E+05 | 5.2641E+02 |
| 2.3652E+01 | 1.2694E+00 | 1.3933E+02 | 5.7449E+05 | 5.2421E+02 |
| 2.3814E+01 | 1.2415E+00 | 1.3627E+02 | 5.6188E+05 | 5.2064E+02 |
| 2.3966E+01 | 1.2028E+00 | 1.3202E+02 | 5.4434E+05 | 5.1734E+02 |
| 2.4184E+01 | 1.1401E+00 | 1.2513E+02 | 5.1595E+05 | 5.1268E+02 |
| 2.4418E+01 | 1.0665E+00 | 1.1706E+02 | 4.8267E+05 | 5.0775E+02 |
| 2.4524E+01 | 1.0208E+00 | 1.1204E+02 | 4.6197E+05 | 5.0556E+02 |
| 2.4671E+01 | 9.3527E-01 | 1.0266E+02 | 4.2327E+05 | 5.0256E+02 |
| 2.4779E+01 | 9.3817E-01 | 1.0297E+02 | 4.2458E+05 | 5.0035E+02 |
| 2.5336E+01 | 8.4469E-01 | 9.2714E+01 | 3.8228E+05 | 4.8936E+02 |
| 2.5653E+01 | 7.9197E-01 | 8.6927E+01 | 3.5842E+05 | 4.8332E+02 |
| 2.5814E+01 | 7.4919E-01 | 8.2232E+01 | 3.3906E+05 | 4.8030E+02 |
| 2.5918E+01 | 7.4720E-01 | 8.2013E+01 | 3.3816E+05 | 4.7837E+02 |
| 2.6234E+01 | 7.0442E-01 | 7.7318E+01 | 3.1880E+05 | 4.7260E+02 |
| 2.6380E+01 | 6.8635E-01 | 7.5335E+01 | 3.1062E+05 | 4.6999E+02 |
| 2.6642E+01 | 6.6757E-01 | 7.3273E+01 | 3.0212E+05 | 4.6537E+02 |
| 2.6928E+01 | 6.6468E-01 | 7.2956E+01 | 3.0081E+05 | 4.6043E+02 |
| 2.7245E+01 | 6.6831E-01 | 7.3354E+01 | 3.0245E+05 | 4.5507E+02 |
| 2.7783E+01 | 6.9363E-01 | 7.6133E+01 | 3.1391E+05 | 4.4626E+02 |
| 2.8163E+01 | 7.1244E-01 | 7.8199E+01 | 3.2243E+05 | 4.4024E+02 |
| 2.8512E+01 | 7.2330E-01 | 7.9390E+01 | 3.2734E+05 | 4.3485E+02 |
| 2.8797E+01 | 7.2836E-01 | 7.9946E+01 | 3.2963E+05 | 4.3055E+02 |
| 2.9115E+01 | 7.2114E-01 | 7.9154E+01 | 3.2636E+05 | 4.2584E+02 |
| 2.9466E+01 | 7.0453E-01 | 7.7329E+01 | 3.1884E+05 | 4.2077E+02 |
| 2.9944E+01 | 6.8213E-01 | 7.4871E+01 | 3.0871E+05 | 4.1405E+02 |
| 3.0485E+01 | 6.5540E-01 | 7.1937E+01 | 2.9661E+05 | 4.0671E+02 |
| 3.0740E+01 | 6.4528E-01 | 7.0827E+01 | 2.9203E+05 | 4.0333E+02 |
| 3.1089E+01 | 6.3950E-01 | 7.0193E+01 | 2.8942E+05 | 3.9880E+02 |
| 3.1788E+01 | 6.4459E-01 | 7.0751E+01 | 2.9172E+05 | 3.9003E+02 |
| 3.2518E+01 | 6.4823E-01 | 7.1151E+01 | 2.9337E+05 | 3.8128E+02 |
| 3.3153E+01 | 6.4898E-01 | 7.1232E+01 | 2.9370E+05 | 3.7398E+02 |
| 3.3661E+01 | 6.4538E-01 | 7.0838E+01 | 2.9208E+05 | 3.6833E+02 |
| 3.4011E+01 | 6.4032E-01 | 7.0282E+01 | 2.8979E+05 | 3.6454E+02 |
| 3.4488E+01 | 6.3817E-01 | 7.0046E+01 | 2.8881E+05 | 3.5950E+02 |
| 3.4964E+01 | 6.3963E-01 | 7.0207E+01 | 2.8948E+05 | 3.5461E+02 |

Table I. Oscillator-strength density, df/dE , photoabsorption cross section, σ_a , and mass absorption coefficient, μ_m . (Continued)

| Energy (eV) | f_n (eV ⁻¹) | σ_a (Mb) | μ_m (cm ² g ⁻¹) | λ (Å) |
|-------------|---------------------------|-----------------|--|---------------|
| 3.5345E+01 | 6.3892E-01 | 7.0129E+01 | 2.8915E+05 | 3.5078E+02 |
| 3.5758E+01 | 6.3604E-01 | 6.9813E+01 | 2.8785E+05 | 3.4673E+02 |
| 3.6362E+01 | 6.2594E-01 | 6.8704E+01 | 2.8328E+05 | 3.4097E+02 |
| 3.7094E+01 | 6.0717E-01 | 6.6643E+01 | 2.7478E+05 | 3.3424E+02 |
| 3.7921E+01 | 5.8478E-01 | 6.4186E+01 | 2.6465E+05 | 3.2695E+02 |
| 3.8843E+01 | 5.6457E-01 | 6.1967E+01 | 2.5550E+05 | 3.1919E+02 |
| 3.9605E+01 | 5.5736E-01 | 6.1176E+01 | 2.5224E+05 | 3.1305E+02 |
| 4.0114E+01 | 5.5159E-01 | 6.0543E+01 | 2.4963E+05 | 3.0908E+02 |
| 4.0972E+01 | 5.3426E-01 | 5.8641E+01 | 2.4179E+05 | 3.0261E+02 |
| 4.1545E+01 | 5.1982E-01 | 5.7056E+01 | 2.3525E+05 | 2.9843E+02 |
| 4.2118E+01 | 5.0539E-01 | 5.5472E+01 | 2.2872E+05 | 2.9437E+02 |
| 4.2626E+01 | 4.9961E-01 | 5.4838E+01 | 2.2611E+05 | 2.9087E+02 |
| 4.3452E+01 | 4.9241E-01 | 5.4047E+01 | 2.2285E+05 | 2.8534E+02 |
| 4.4310E+01 | 4.7870E-01 | 5.2542E+01 | 2.1664E+05 | 2.7981E+02 |
| 4.5264E+01 | 4.6138E-01 | 5.0641E+01 | 2.0880E+05 | 2.7391E+02 |
| 4.6091E+01 | 4.4116E-01 | 4.8422E+01 | 1.9966E+05 | 2.6900E+02 |
| 4.6537E+01 | 4.2671E-01 | 4.6837E+01 | 1.9312E+05 | 2.6642E+02 |
| 4.6887E+01 | 4.1515E-01 | 4.5568E+01 | 1.8788E+05 | 2.6443E+02 |
| 4.7745E+01 | 4.0000E-01 | 4.3904E+01 | 1.8103E+05 | 2.5968E+02 |
| 4.9144E+01 | 3.8125E-01 | 4.1846E+01 | 1.7254E+05 | 2.5229E+02 |
| 5.0288E+01 | 3.7044E-01 | 4.0660E+01 | 1.6765E+05 | 2.4655E+02 |
| 5.1622E+01 | 3.6470E-01 | 4.0030E+01 | 1.6505E+05 | 2.4018E+02 |
| 5.2956E+01 | 3.6329E-01 | 3.9875E+01 | 1.6441E+05 | 2.3413E+02 |
| 5.4575E+01 | 3.6335E-01 | 3.9881E+01 | 1.6444E+05 | 2.2718E+02 |
| 5.5337E+01 | 3.6337E-01 | 3.9884E+01 | 1.6445E+05 | 2.2405E+02 |
| 5.6640E+01 | 3.5908E-01 | 3.9413E+01 | 1.6251E+05 | 2.1890E+02 |
| 5.8069E+01 | 3.5478E-01 | 3.8941E+01 | 1.6056E+05 | 2.1351E+02 |
| 5.9499E+01 | 3.4616E-01 | 3.7994E+01 | 1.5666E+05 | 2.0838E+02 |
| 6.1055E+01 | 3.3391E-01 | 3.6651E+01 | 1.5112E+05 | 2.0307E+02 |
| 6.2644E+01 | 3.2167E-01 | 3.5307E+01 | 1.4558E+05 | 1.9792E+02 |
| 6.4074E+01 | 3.1159E-01 | 3.4201E+01 | 1.4102E+05 | 1.9350E+02 |
| 6.5853E+01 | 3.0370E-01 | 3.3335E+01 | 1.3744E+05 | 1.8827E+02 |
| 6.8330E+01 | 2.9583E-01 | 3.2470E+01 | 1.3388E+05 | 1.8145E+02 |
| 7.0141E+01 | 2.9010E-01 | 3.1841E+01 | 1.3129E+05 | 1.7676E+02 |
| 7.0850E+01 | 2.8718E-01 | 3.1521E+01 | 1.2997E+05 | 1.7500E+02 |
| 8.0000E+01 | 2.3853E-01 | 2.6181E+01 | 1.0795E+05 | 1.5498E+02 |

Table I. Oscillator-strength density, df/dE , photoabsorption cross section, σ_a , and mass absorption coefficient, μ_m . (Continued)

| Energy (eV) | f_n (eV ⁻¹) | σ_a (Mb) | μ_m (cm ² g ⁻¹) | λ (Å) |
|-------------|---------------------------|-----------------|--|---------------|
| 9.0000E+01 | 1.9309E-01 | 2.1194E+01 | 8.7387E+04 | 1.3776E+02 |
| 1.0000E+02 | 1.5735E-01 | 1.7271E+01 | 7.1210E+04 | 1.2398E+02 |
| 1.2500E+02 | 9.9339E-02 | 1.0904E+01 | 4.4957E+04 | 9.9187E+01 |
| 1.5000E+02 | 6.7383E-02 | 7.3960E+00 | 3.0495E+04 | 8.2656E+01 |
| 1.7100E+02 | 3.8792E-02 | 4.2579E+00 | 1.7556E+04 | 7.2505E+01 |
| 1.7130E+02 | 3.9288E-02 | 4.3123E+00 | 1.7780E+04 | 7.2378E+01 |
| 1.7161E+02 | 4.3332E-02 | 4.7561E+00 | 1.9610E+04 | 7.2248E+01 |
| 1.7190E+02 | 5.1339E-02 | 5.6350E+00 | 2.3234E+04 | 7.2126E+01 |
| 1.7212E+02 | 5.9427E-02 | 6.5227E+00 | 2.6895E+04 | 7.2034E+01 |
| 1.7232E+02 | 6.1326E-02 | 6.7313E+00 | 2.7754E+04 | 7.1950E+01 |
| 1.7245E+02 | 6.0336E-02 | 6.6225E+00 | 2.7306E+04 | 7.1896E+01 |
| 1.7263E+02 | 5.7530E-02 | 6.3145E+00 | 2.6036E+04 | 7.1821E+01 |
| 1.7274E+02 | 5.6621E-02 | 6.2148E+00 | 2.5625E+04 | 7.1775E+01 |
| 1.7289E+02 | 5.6787E-02 | 6.2330E+00 | 2.5700E+04 | 7.1713E+01 |
| 1.7309E+02 | 6.1740E-02 | 6.7767E+00 | 2.7941E+04 | 7.1630E+01 |
| 1.7327E+02 | 6.6775E-02 | 7.3293E+00 | 3.0220E+04 | 7.1555E+01 |
| 1.7344E+02 | 6.8261E-02 | 7.4924E+00 | 3.0893E+04 | 7.1485E+01 |
| 1.7360E+02 | 6.7189E-02 | 7.3747E+00 | 3.0407E+04 | 7.1419E+01 |
| 1.7377E+02 | 6.3392E-02 | 6.9580E+00 | 2.8689E+04 | 7.1350E+01 |
| 1.7411E+02 | 5.2416E-02 | 5.7533E+00 | 2.3722E+04 | 7.1210E+01 |
| 1.7440E+02 | 4.5732E-02 | 5.0196E+00 | 2.0697E+04 | 7.1092E+01 |
| 1.7455E+02 | 4.3422E-02 | 4.7660E+00 | 1.9651E+04 | 7.1031E+01 |
| 1.7477E+02 | 4.2431E-02 | 4.6573E+00 | 1.9203E+04 | 7.0941E+01 |
| 1.7550E+02 | 4.2184E-02 | 4.6301E+00 | 1.9091E+04 | 7.0646E+01 |
| 1.7639E+02 | 4.2434E-02 | 4.6576E+00 | 1.9204E+04 | 7.0290E+01 |
| 1.7665E+02 | 4.3259E-02 | 4.7481E+00 | 1.9577E+04 | 7.0186E+01 |
| 1.7727E+02 | 4.2932E-02 | 4.7123E+00 | 1.9430E+04 | 6.9941E+01 |
| 1.7734E+02 | 4.3509E-02 | 4.7756E+00 | 1.9691E+04 | 6.9913E+01 |
| 1.7749E+02 | 4.9121E-02 | 5.3916E+00 | 2.2230E+04 | 6.9854E+01 |
| 1.7763E+02 | 4.3838E-02 | 4.8117E+00 | 1.9840E+04 | 6.9799E+01 |
| 1.7780E+02 | 4.3014E-02 | 4.7212E+00 | 1.9467E+04 | 6.9732E+01 |
| 1.7809E+02 | 4.2851E-02 | 4.7033E+00 | 1.9393E+04 | 6.9619E+01 |
| 1.7822E+02 | 4.3346E-02 | 4.7577E+00 | 1.9617E+04 | 6.9568E+01 |
| 1.7855E+02 | 4.2440E-02 | 4.6582E+00 | 1.9207E+04 | 6.9439E+01 |
| 1.7864E+02 | 4.5822E-02 | 5.0295E+00 | 2.0738E+04 | 6.9404E+01 |
| 1.7882E+02 | 4.5822E-02 | 5.0295E+00 | 2.0738E+04 | 6.9335E+01 |

Table I. Oscillator-strength density, df/dE , photoabsorption cross section, σ_a , and mass absorption coefficient, μ_m . (Continued)

| Energy (eV) | f_n (eV ⁻¹) | σ_a (Mb) | μ_m (cm ² g ⁻¹) | λ (Å) |
|-------------|---------------------------|-----------------|--|---------------|
| 1.7889E+02 | 4.4173E-02 | 4.8485E+00 | 1.9991E+04 | 6.9307E+01 |
| 1.7922E+02 | 4.1201E-02 | 4.5223E+00 | 1.8646E+04 | 6.9180E+01 |
| 1.7950E+02 | 4.3267E-02 | 4.7490E+00 | 1.9581E+04 | 6.9072E+01 |
| 1.7973E+02 | 4.1700E-02 | 4.5770E+00 | 1.8872E+04 | 6.8984E+01 |
| 1.7988E+02 | 4.1700E-02 | 4.5770E+00 | 1.8872E+04 | 6.8926E+01 |
| 1.8001E+02 | 4.3101E-02 | 4.7308E+00 | 1.9506E+04 | 6.8876E+01 |
| 1.8052E+02 | 4.1866E-02 | 4.5952E+00 | 1.8947E+04 | 6.8682E+01 |
| 1.8070E+02 | 4.2856E-02 | 4.7039E+00 | 1.9395E+04 | 6.8613E+01 |
| 1.8107E+02 | 4.2609E-02 | 4.6768E+00 | 1.9283E+04 | 6.8473E+01 |
| 1.8154E+02 | 4.3270E-02 | 4.7493E+00 | 1.9582E+04 | 6.8296E+01 |
| 1.8194E+02 | 4.4593E-02 | 4.8945E+00 | 2.0181E+04 | 6.8146E+01 |
| 1.8222E+02 | 4.6985E-02 | 5.1571E+00 | 2.1264E+04 | 6.8041E+01 |
| 1.8260E+02 | 5.1772E-02 | 5.6825E+00 | 2.3430E+04 | 6.7899E+01 |
| 1.8255E+02 | 5.1690E-02 | 5.6736E+00 | 2.3393E+04 | 6.7918E+01 |
| 1.8282E+02 | 5.8211E-02 | 6.3893E+00 | 2.6344E+04 | 6.7818E+01 |
| 1.8306E+02 | 7.4965E-02 | 8.2282E+00 | 3.3926E+04 | 6.7729E+01 |
| 1.8321E+02 | 9.2298E-02 | 1.0131E+01 | 4.1771E+04 | 6.7673E+01 |
| 1.8330E+02 | 1.0171E-01 | 1.1163E+01 | 4.6029E+04 | 6.7640E+01 |
| 1.8343E+02 | 1.0327E-01 | 1.1335E+01 | 4.6738E+04 | 6.7592E+01 |
| 1.8356E+02 | 9.9806E-02 | 1.0955E+01 | 4.5169E+04 | 6.7544E+01 |
| 1.8377E+02 | 8.8583E-02 | 9.7230E+00 | 4.0090E+04 | 6.7467E+01 |
| 1.8390E+02 | 8.6439E-02 | 9.4876E+00 | 3.9119E+04 | 6.7419E+01 |
| 1.8403E+02 | 9.2216E-02 | 1.0122E+01 | 4.1734E+04 | 6.7372E+01 |
| 1.8423E+02 | 1.0963E-01 | 1.2033E+01 | 4.9615E+04 | 6.7299E+01 |
| 1.8436E+02 | 1.2886E-01 | 1.4144E+01 | 5.8318E+04 | 6.7251E+01 |
| 1.8444E+02 | 1.3587E-01 | 1.4914E+01 | 6.1492E+04 | 6.7222E+01 |
| 1.8455E+02 | 1.4017E-01 | 1.5385E+01 | 6.3434E+04 | 6.7182E+01 |
| 1.8471E+02 | 1.3159E-01 | 1.4443E+01 | 5.9551E+04 | 6.7124E+01 |
| 1.8491E+02 | 1.0534E-01 | 1.1562E+01 | 4.7673E+04 | 6.7051E+01 |
| 1.8507E+02 | 8.3469E-02 | 9.1617E+00 | 3.7775E+04 | 6.6993E+01 |
| 1.8527E+02 | 6.7130E-02 | 7.3682E+00 | 3.0381E+04 | 6.6921E+01 |
| 1.8541E+02 | 6.0775E-02 | 6.6707E+00 | 2.7505E+04 | 6.6870E+01 |
| 1.8563E+02 | 5.4997E-02 | 6.0365E+00 | 2.4890E+04 | 6.6791E+01 |
| 1.8596E+02 | 5.0213E-02 | 5.5114E+00 | 2.2725E+04 | 6.6673E+01 |
| 1.8629E+02 | 4.7818E-02 | 5.2485E+00 | 2.1641E+04 | 6.6554E+01 |
| 1.8658E+02 | 4.6416E-02 | 5.0947E+00 | 2.1006E+04 | 6.6451E+01 |

Table I. Oscillator-strength density, df/dE , photoabsorption cross section, σ_a , and mass absorption coefficient, μ_m . (Continued)

| Energy (eV) | f_n (eV ⁻¹) | σ_a (Mb) | μ_m (cm ² g ⁻¹) | λ (Å) |
|-------------|---------------------------|-----------------|--|---------------|
| 1.8693E+02 | 4.6335E-02 | 5.0857E+00 | 2.0969E+04 | 6.6327E+01 |
| 1.8755E+02 | 4.5015E-02 | 4.9409E+00 | 2.0372E+04 | 6.6107E+01 |
| 1.8877E+02 | 4.4441E-02 | 4.8779E+00 | 2.0112E+04 | 6.5680E+01 |
| 1.8990E+02 | 4.4443E-02 | 4.8782E+00 | 2.0114E+04 | 6.5289E+01 |
| 1.9058E+02 | 4.5268E-02 | 4.9687E+00 | 2.0487E+04 | 6.5056E+01 |
| 1.9151E+02 | 4.7581E-02 | 5.2226E+00 | 2.1534E+04 | 6.4740E+01 |
| 1.9259E+02 | 5.2042E-02 | 5.7122E+00 | 2.3552E+04 | 6.4377E+01 |
| 1.9330E+02 | 5.7325E-02 | 6.2920E+00 | 2.5943E+04 | 6.4141E+01 |
| 1.9401E+02 | 6.4918E-02 | 7.1254E+00 | 2.9379E+04 | 6.3906E+01 |
| 1.9469E+02 | 7.4410E-02 | 8.1673E+00 | 3.3675E+04 | 6.3683E+01 |
| 1.9520E+02 | 8.1840E-02 | 8.9828E+00 | 3.7038E+04 | 6.3516E+01 |
| 1.9560E+02 | 8.7122E-02 | 9.5626E+00 | 3.9429E+04 | 6.3387E+01 |
| 1.9595E+02 | 9.0013E-02 | 9.8799E+00 | 4.0737E+04 | 6.3273E+01 |
| 1.9626E+02 | 9.0590E-02 | 9.9432E+00 | 4.0998E+04 | 6.3173E+01 |
| 1.9666E+02 | 8.9270E-02 | 9.7983E+00 | 4.0400E+04 | 6.3045E+01 |
| 1.9712E+02 | 8.4404E-02 | 9.2642E+00 | 3.8198E+04 | 6.2898E+01 |
| 1.9765E+02 | 7.7388E-02 | 8.4942E+00 | 3.5023E+04 | 6.2729E+01 |
| 1.9812E+02 | 7.1284E-02 | 7.8241E+00 | 3.2260E+04 | 6.2580E+01 |
| 1.9869E+02 | 6.5343E-02 | 7.1721E+00 | 2.9572E+04 | 6.2401E+01 |
| 1.9947E+02 | 6.0226E-02 | 6.6105E+00 | 2.7256E+04 | 6.2157E+01 |
| 2.0044E+02 | 5.5937E-02 | 6.1397E+00 | 2.5315E+04 | 6.1856E+01 |
| 2.0091E+02 | 5.5360E-02 | 6.0764E+00 | 2.5054E+04 | 6.1711E+01 |
| 2.0197E+02 | 5.3382E-02 | 5.8592E+00 | 2.4159E+04 | 6.1387E+01 |
| 2.0354E+02 | 5.2971E-02 | 5.8141E+00 | 2.3973E+04 | 6.0914E+01 |
| 2.0398E+02 | 5.3469E-02 | 5.8688E+00 | 2.4198E+04 | 6.0783E+01 |
| 2.0478E+02 | 5.3551E-02 | 5.8778E+00 | 2.4235E+04 | 6.0545E+01 |
| 2.0555E+02 | 5.3140E-02 | 5.8327E+00 | 2.4049E+04 | 6.0318E+01 |
| 2.0593E+02 | 5.2976E-02 | 5.8147E+00 | 2.3975E+04 | 6.0207E+01 |
| 2.0624E+02 | 5.2566E-02 | 5.7696E+00 | 2.3789E+04 | 6.0116E+01 |
| 2.0666E+02 | 5.2566E-02 | 5.7696E+00 | 2.3789E+04 | 5.9994E+01 |
| 2.0705E+02 | 5.2155E-02 | 5.7245E+00 | 2.3603E+04 | 5.9881E+01 |
| 2.0836E+02 | 5.1991E-02 | 5.7066E+00 | 2.3530E+04 | 5.9505E+01 |
| 2.1000E+02 | 5.1913E-02 | 5.6980E+00 | 2.3494E+04 | 5.9040E+01 |
| 2.1238E+02 | 5.7506E-02 | 6.3119E+00 | 2.6025E+04 | 5.8378E+01 |
| 2.1745E+02 | 5.6829E-02 | 6.2376E+00 | 2.5719E+04 | 5.7017E+01 |
| 2.2242E+02 | 5.6687E-02 | 6.2220E+00 | 2.5654E+04 | 5.5743E+01 |

Table I. Oscillator-strength density, df/dE , photoabsorption cross section, σ_a , and mass absorption coefficient, μ_m . (Continued)

| Energy (eV) | f_n (eV ⁻¹) | σ_a (Mb) | μ_m (cm ² g ⁻¹) | λ (Å) |
|-------------|---------------------------|-----------------|--|---------------|
| 2.2566E+02 | 5.6547E-02 | 6.2066E+00 | 2.5591E+04 | 5.4943E+01 |
| 2.2934E+02 | 5.6140E-02 | 6.1620E+00 | 2.5407E+04 | 5.4061E+01 |
| 2.3225E+02 | 5.6134E-02 | 6.1614E+00 | 2.5404E+04 | 5.3384E+01 |
| 2.3387E+02 | 5.6397E-02 | 6.1902E+00 | 2.5524E+04 | 5.3014E+01 |
| 2.3506E+02 | 5.6929E-02 | 6.2485E+00 | 2.5764E+04 | 5.2746E+01 |
| 2.3614E+02 | 5.7994E-02 | 6.3655E+00 | 2.6246E+04 | 5.2505E+01 |
| 2.3722E+02 | 5.9859E-02 | 6.5702E+00 | 2.7090E+04 | 5.2265E+01 |
| 2.3819E+02 | 6.2259E-02 | 6.8336E+00 | 2.8176E+04 | 5.2053E+01 |
| 2.3863E+02 | 6.3458E-02 | 6.9652E+00 | 2.8719E+04 | 5.1957E+01 |
| 2.3917E+02 | 6.4525E-02 | 7.0823E+00 | 2.9202E+04 | 5.1839E+01 |
| 2.4003E+02 | 6.4523E-02 | 7.0821E+00 | 2.9201E+04 | 5.1654E+01 |
| 2.4057E+02 | 6.3188E-02 | 6.9356E+00 | 2.8597E+04 | 5.1538E+01 |
| 2.4187E+02 | 5.8783E-02 | 6.4521E+00 | 2.6603E+04 | 5.1261E+01 |
| 2.4306E+02 | 5.5580E-02 | 6.1005E+00 | 2.5154E+04 | 5.1010E+01 |
| 2.4435E+02 | 5.3176E-02 | 5.8367E+00 | 2.4066E+04 | 5.0740E+01 |
| 2.4586E+02 | 5.2107E-02 | 5.7193E+00 | 2.3582E+04 | 5.0429E+01 |
| 2.4727E+02 | 5.1970E-02 | 5.7043E+00 | 2.3520E+04 | 5.0141E+01 |
| 2.5029E+02 | 5.1831E-02 | 5.6891E+00 | 2.3457E+04 | 4.9536E+01 |
| 2.5407E+02 | 5.2091E-02 | 5.7175E+00 | 2.3575E+04 | 4.8799E+01 |
| 2.5667E+02 | 5.2219E-02 | 5.7316E+00 | 2.3632E+04 | 4.8305E+01 |
| 2.5958E+02 | 5.3281E-02 | 5.8482E+00 | 2.4113E+04 | 4.7763E+01 |
| 2.6261E+02 | 5.3808E-02 | 5.9061E+00 | 2.4352E+04 | 4.7212E+01 |
| 2.6542E+02 | 5.3669E-02 | 5.8908E+00 | 2.4289E+04 | 4.6712E+01 |
| 2.6866E+02 | 5.3130E-02 | 5.8316E+00 | 2.4045E+04 | 4.6149E+01 |
| 2.7233E+02 | 5.1922E-02 | 5.6991E+00 | 2.3498E+04 | 4.5527E+01 |
| 2.7600E+02 | 5.0314E-02 | 5.5226E+00 | 2.2771E+04 | 4.4922E+01 |
| 2.7700E+02 | 4.9912E-02 | 5.4784E+00 | 2.2589E+04 | 4.4760E+01 |
| 3.0000E+02 | 4.8135E-02 | 5.2834E+00 | 2.1784E+04 | 4.1328E+01 |
| 3.5000E+02 | 2.3421E-02 | 2.5707E+00 | 1.0600E+04 | 3.5424E+01 |
| 4.0000E+02 | 1.7405E-02 | 1.9104E+00 | 7.8770E+03 | 3.0996E+01 |
| 4.5000E+02 | 1.3217E-02 | 1.4507E+00 | 5.9814E+03 | 2.7552E+01 |
| 5.0000E+02 | 1.0222E-02 | 1.1220E+00 | 4.6262E+03 | 2.4797E+01 |
| 6.0000E+02 | 6.4064E-03 | 7.0317E-01 | 2.8993E+03 | 2.0664E+01 |
| 6.8500E+02 | 4.4847E-03 | 4.9224E-01 | 2.0296E+03 | 1.8100E+01 |
| 6.8600E+02 | 9.1362E-03 | 1.0028E+00 | 4.1347E+03 | 1.8073E+01 |
| 6.8651E+02 | 1.0155E-02 | 1.1146E+00 | 4.5957E+03 | 1.8060E+01 |

Table I. Oscillator-strength density, df/dE , photoabsorption cross section, σ_a , and mass absorption coefficient, μ_m . (Continued)

| Energy (eV) | f_n (eV ⁻¹) | σ_a (Mb) | μ_m (cm ² g ⁻¹) | λ (Å) |
|-------------|---------------------------|-----------------|--|---------------|
| 6.8691E+02 | 1.2396E-02 | 1.3606E+00 | 5.6099E+03 | 1.8050E+01 |
| 6.8753E+02 | 2.0646E-02 | 2.2661E+00 | 9.3438E+03 | 1.8033E+01 |
| 6.8804E+02 | 3.2391E-02 | 3.5553E+00 | 1.4659E+04 | 1.8020E+01 |
| 6.8852E+02 | 4.2983E-02 | 4.7178E+00 | 1.9453E+04 | 1.8007E+01 |
| 6.8868E+02 | 4.5428E-02 | 4.9863E+00 | 2.0559E+04 | 1.8003E+01 |
| 6.8876E+02 | 4.6142E-02 | 5.0645E+00 | 2.0882E+04 | 1.8001E+01 |
| 6.8889E+02 | 4.6480E-02 | 5.1017E+00 | 2.1035E+04 | 1.7998E+01 |
| 6.8908E+02 | 4.6039E-02 | 5.0533E+00 | 2.0836E+04 | 1.7993E+01 |
| 6.8927E+02 | 4.4445E-02 | 4.8783E+00 | 2.0114E+04 | 1.7988E+01 |
| 6.8976E+02 | 3.5482E-02 | 3.8945E+00 | 1.6058E+04 | 1.7975E+01 |
| 6.9014E+02 | 2.6589E-02 | 2.9184E+00 | 1.2033E+04 | 1.7965E+01 |
| 6.9044E+02 | 2.0885E-02 | 2.2923E+00 | 9.4516E+03 | 1.7957E+01 |
| 6.9082E+02 | 1.5861E-02 | 1.7409E+00 | 7.1781E+03 | 1.7947E+01 |
| 6.9101E+02 | 1.4401E-02 | 1.5807E+00 | 6.5176E+03 | 1.7942E+01 |
| 6.9128E+02 | 1.4130E-02 | 1.5509E+00 | 6.3948E+03 | 1.7935E+01 |
| 6.9146E+02 | 1.4707E-02 | 1.6143E+00 | 6.6560E+03 | 1.7931E+01 |
| 6.9195E+02 | 1.9868E-02 | 2.1807E+00 | 8.9914E+03 | 1.7918E+01 |
| 6.9240E+02 | 2.5197E-02 | 2.7656E+00 | 1.1403E+04 | 1.7906E+01 |
| 6.9278E+02 | 2.9239E-02 | 3.2093E+00 | 1.3232E+04 | 1.7897E+01 |
| 6.9294E+02 | 3.0833E-02 | 3.3843E+00 | 1.3954E+04 | 1.7892E+01 |
| 6.9366E+02 | 3.4805E-02 | 3.8202E+00 | 1.5752E+04 | 1.7874E+01 |
| 6.9433E+02 | 3.9932E-02 | 4.3830E+00 | 1.8072E+04 | 1.7857E+01 |
| 6.9455E+02 | 4.0918E-02 | 4.4912E+00 | 1.8518E+04 | 1.7851E+01 |
| 6.9476E+02 | 4.1290E-02 | 4.5321E+00 | 1.8687E+04 | 1.7846E+01 |
| 6.9506E+02 | 4.0748E-02 | 4.4725E+00 | 1.8441E+04 | 1.7838E+01 |
| 6.9555E+02 | 3.8609E-02 | 4.2377E+00 | 1.7473E+04 | 1.7825E+01 |
| 6.9598E+02 | 3.5350E-02 | 3.8800E+00 | 1.5998E+04 | 1.7814E+01 |
| 6.9649E+02 | 3.2261E-02 | 3.5410E+00 | 1.4600E+04 | 1.7801E+01 |
| 6.9695E+02 | 3.0056E-02 | 3.2990E+00 | 1.3602E+04 | 1.7790E+01 |
| 6.9722E+02 | 2.9343E-02 | 3.2207E+00 | 1.3280E+04 | 1.7783E+01 |
| 6.9757E+02 | 2.8970E-02 | 3.1798E+00 | 1.3111E+04 | 1.7774E+01 |
| 6.9789E+02 | 2.9445E-02 | 3.2319E+00 | 1.3326E+04 | 1.7766E+01 |
| 6.9832E+02 | 3.1178E-02 | 3.4221E+00 | 1.4110E+04 | 1.7755E+01 |
| 6.9872E+02 | 3.4911E-02 | 3.8319E+00 | 1.5800E+04 | 1.7744E+01 |
| 6.9921E+02 | 4.1667E-02 | 4.5734E+00 | 1.8857E+04 | 1.7732E+01 |
| 6.9942E+02 | 4.4179E-02 | 4.8491E+00 | 1.9994E+04 | 1.7727E+01 |

Table I. Oscillator-strength density, df/dE , photoabsorption cross section, σ_a , and mass absorption coefficient, μ_m . (Continued)

| Energy (eV) | f_n (eV ⁻¹) | σ_a (Mb) | μ_m (cm ² g ⁻¹) | λ (Å) |
|-------------|---------------------------|-----------------|--|---------------|
| 6.9961E+02 | 4.6216E-02 | 5.0727E+00 | 2.0916E+04 | 1.7722E+01 |
| 6.9988E+02 | 4.7031E-02 | 5.1621E+00 | 2.1285E+04 | 1.7715E+01 |
| 7.0009E+02 | 4.6386E-02 | 5.0914E+00 | 2.0993E+04 | 1.7710E+01 |
| 7.0042E+02 | 4.3468E-02 | 4.7710E+00 | 1.9672E+04 | 1.7701E+01 |
| 7.0066E+02 | 4.0513E-02 | 4.4468E+00 | 1.8335E+04 | 1.7695E+01 |
| 7.0107E+02 | 3.4811E-02 | 3.8209E+00 | 1.5754E+04 | 1.7685E+01 |
| 7.0145E+02 | 2.9890E-02 | 3.2807E+00 | 1.3527E+04 | 1.7675E+01 |
| 7.0174E+02 | 2.7276E-02 | 2.9938E+00 | 1.2344E+04 | 1.7668E+01 |
| 7.0207E+02 | 2.5646E-02 | 2.8149E+00 | 1.1606E+04 | 1.7660E+01 |
| 7.0261E+02 | 2.4153E-02 | 2.6511E+00 | 1.0931E+04 | 1.7646E+01 |
| 7.0323E+02 | 2.3474E-02 | 2.5766E+00 | 1.0624E+04 | 1.7631E+01 |
| 7.0412E+02 | 2.3136E-02 | 2.5394E+00 | 1.0470E+04 | 1.7608E+01 |
| 7.0608E+02 | 2.3272E-02 | 2.5544E+00 | 1.0532E+04 | 1.7560E+01 |
| 7.0788E+02 | 2.3544E-02 | 2.5843E+00 | 1.0655E+04 | 1.7515E+01 |
| 7.0901E+02 | 2.4157E-02 | 2.6515E+00 | 1.0933E+04 | 1.7487E+01 |
| 7.0982E+02 | 2.5007E-02 | 2.7447E+00 | 1.1317E+04 | 1.7467E+01 |
| 7.1066E+02 | 2.6433E-02 | 2.9013E+00 | 1.1963E+04 | 1.7446E+01 |
| 7.1138E+02 | 2.8197E-02 | 3.0950E+00 | 1.2761E+04 | 1.7429E+01 |
| 7.1206E+02 | 2.9930E-02 | 3.2851E+00 | 1.3545E+04 | 1.7412E+01 |
| 7.1265E+02 | 3.1085E-02 | 3.4120E+00 | 1.4068E+04 | 1.7398E+01 |
| 7.1316E+02 | 3.1424E-02 | 3.4491E+00 | 1.4221E+04 | 1.7385E+01 |
| 7.1356E+02 | 3.1390E-02 | 3.4454E+00 | 1.4206E+04 | 1.7375E+01 |
| 7.1397E+02 | 3.0915E-02 | 3.3933E+00 | 1.3991E+04 | 1.7365E+01 |
| 7.1459E+02 | 2.9966E-02 | 3.2891E+00 | 1.3562E+04 | 1.7350E+01 |
| 7.1548E+02 | 2.8303E-02 | 3.1066E+00 | 1.2809E+04 | 1.7329E+01 |
| 7.1669E+02 | 2.6877E-02 | 2.9501E+00 | 1.2164E+04 | 1.7300E+01 |
| 7.1763E+02 | 2.6132E-02 | 2.8683E+00 | 1.1827E+04 | 1.7277E+01 |
| 7.1865E+02 | 2.5760E-02 | 2.8274E+00 | 1.1658E+04 | 1.7252E+01 |
| 7.1989E+02 | 2.5623E-02 | 2.8125E+00 | 1.1596E+04 | 1.7223E+01 |
| 7.2156E+02 | 2.5930E-02 | 2.8461E+00 | 1.1735E+04 | 1.7183E+01 |
| 7.2269E+02 | 2.5864E-02 | 2.8388E+00 | 1.1705E+04 | 1.7156E+01 |
| 7.2380E+02 | 2.5593E-02 | 2.8092E+00 | 1.1583E+04 | 1.7130E+01 |
| 7.2592E+02 | 2.5323E-02 | 2.7795E+00 | 1.1460E+04 | 1.7080E+01 |
| 7.2894E+02 | 2.5053E-02 | 2.7498E+00 | 1.1338E+04 | 1.7009E+01 |
| 7.2953E+02 | 2.4884E-02 | 2.7313E+00 | 1.1262E+04 | 1.6995E+01 |
| 7.3244E+02 | 2.4784E-02 | 2.7203E+00 | 1.1217E+04 | 1.6928E+01 |

Table I. Oscillator-strength density, df/dE , photoabsorption cross section, σ_a , and mass absorption coefficient, μ_m . (Continued)

| Energy (eV) | f_n (eV ⁻¹) | σ_a (Mb) | μ_m (cm ² g ⁻¹) | λ (Å) |
|-------------|---------------------------|-----------------|--|---------------|
| 7.3500E+02 | 2.4920E-02 | 2.7353E+00 | 1.1278E+04 | 1.6869E+01 |
| 8.0000E+02 | 1.9096E-02 | 2.0960E+00 | 8.6424E+03 | 1.5498E+01 |
| 9.0000E+02 | 1.4347E-02 | 1.5748E+00 | 6.4930E+03 | 1.3776E+01 |
| 1.0000E+03 | 1.1025E-02 | 1.2101E+00 | 4.9894E+03 | 1.2398E+01 |
| 1.2500E+03 | 6.1953E-03 | 6.8000E-01 | 2.8038E+03 | 9.9187E+00 |
| 1.5000E+03 | 3.8144E-03 | 4.1867E-01 | 1.7263E+03 | 8.2656E+00 |
| 1.7500E+03 | 2.5129E-03 | 2.7582E-01 | 1.1373E+03 | 7.0848E+00 |
| 2.0000E+03 | 1.7434E-03 | 1.9136E-01 | 7.8901E+02 | 6.1992E+00 |
| 2.2500E+03 | 1.2597E-03 | 1.3827E-01 | 5.7011E+02 | 5.5104E+00 |
| 2.4800E+03 | 9.6175E-04 | 1.0556E-01 | 4.3525E+02 | 4.9994E+00 |
| 2.4810E+03 | 1.4162E-03 | 1.5544E-01 | 6.4092E+02 | 4.9973E+00 |
| 2.4820E+03 | 1.6298E-03 | 1.7889E-01 | 7.3761E+02 | 4.9953E+00 |
| 2.4832E+03 | 1.6307E-03 | 1.7899E-01 | 7.3801E+02 | 4.9929E+00 |
| 2.4836E+03 | 1.9504E-03 | 2.1408E-01 | 8.8270E+02 | 4.9921E+00 |
| 2.4841E+03 | 3.1931E-03 | 3.5048E-01 | 1.4451E+03 | 4.9911E+00 |
| 2.4848E+03 | 5.7848E-03 | 6.3495E-01 | 2.6180E+03 | 4.9897E+00 |
| 2.4852E+03 | 1.0754E-02 | 1.1804E+00 | 4.8671E+03 | 4.9889E+00 |
| 2.4857E+03 | 1.5050E-02 | 1.6519E+00 | 6.8112E+03 | 4.9879E+00 |
| 2.4863E+03 | 1.6505E-02 | 1.8116E+00 | 7.4697E+03 | 4.9867E+00 |
| 2.4868E+03 | 1.2921E-02 | 1.4182E+00 | 5.8476E+03 | 4.9857E+00 |
| 2.4871E+03 | 6.9578E-03 | 7.6370E-01 | 3.1489E+03 | 4.9851E+00 |
| 2.4877E+03 | 5.2189E-03 | 5.7284E-01 | 2.3619E+03 | 4.9839E+00 |
| 2.4882E+03 | 2.7701E-03 | 3.0405E-01 | 1.2536E+03 | 4.9829E+00 |
| 2.4891E+03 | 2.2383E-03 | 2.4568E-01 | 1.0130E+03 | 4.9811E+00 |
| 2.4901E+03 | 1.8131E-03 | 1.9900E-01 | 8.2053E+02 | 4.9791E+00 |
| 2.4910E+03 | 1.6008E-03 | 1.7570E-01 | 7.2445E+02 | 4.9773E+00 |
| 2.4920E+03 | 1.5305E-03 | 1.6799E-01 | 6.9264E+02 | 4.9753E+00 |
| 2.4930E+03 | 1.7087E-03 | 1.8755E-01 | 7.7329E+02 | 4.9733E+00 |
| 2.4942E+03 | 1.5675E-03 | 1.7205E-01 | 7.0941E+02 | 4.9709E+00 |
| 2.4952E+03 | 1.5328E-03 | 1.6824E-01 | 6.9368E+02 | 4.9689E+00 |
| 2.4971E+03 | 1.6406E-03 | 1.8008E-01 | 7.4249E+02 | 4.9651E+00 |
| 2.4972E+03 | 1.4885E-03 | 1.6338E-01 | 6.7363E+02 | 4.9649E+00 |
| 2.4992E+03 | 1.5810E-03 | 1.7353E-01 | 7.1551E+02 | 4.9610E+00 |
| 2.5011E+03 | 1.6210E-03 | 1.7792E-01 | 7.3359E+02 | 4.9572E+00 |
| 2.5020E+03 | 1.6738E-03 | 1.8372E-01 | 7.5750E+02 | 4.9554E+00 |
| 2.5041E+03 | 1.8847E-03 | 2.0686E-01 | 8.5294E+02 | 4.9512E+00 |

Table I. Oscillator-strength density, df/dE , photoabsorption cross section, σ_a , and mass absorption coefficient, μ_m . (Continued)

| Energy (eV) | f_n (eV ⁻¹) | σ_a (Mb) | μ_m (cm ² g ⁻¹) | λ (Å) |
|-------------|---------------------------|-----------------|--|---------------|
| 2.5050E+03 | 2.0033E-03 | 2.1988E-01 | 9.0661E+02 | 4.9495E+00 |
| 2.5061E+03 | 2.2401E-03 | 2.4588E-01 | 1.0138E+03 | 4.9473E+00 |
| 2.5072E+03 | 2.2010E-03 | 2.4159E-01 | 9.9611E+02 | 4.9451E+00 |
| 2.5092E+03 | 1.9912E-03 | 2.1855E-01 | 9.0114E+02 | 4.9412E+00 |
| 2.5101E+03 | 1.9914E-03 | 2.1858E-01 | 9.0126E+02 | 4.9394E+00 |
| 2.5112E+03 | 2.0312E-03 | 2.2294E-01 | 9.1923E+02 | 4.9372E+00 |
| 2.5132E+03 | 1.9265E-03 | 2.1146E-01 | 8.7188E+02 | 4.9333E+00 |
| 2.5153E+03 | 1.8350E-03 | 2.0141E-01 | 8.3047E+02 | 4.9292E+00 |
| 2.5173E+03 | 1.8882E-03 | 2.0725E-01 | 8.5451E+02 | 4.9253E+00 |
| 2.5211E+03 | 1.9549E-03 | 2.1457E-01 | 8.8471E+02 | 4.9179E+00 |
| 2.5231E+03 | 1.9948E-03 | 2.1896E-01 | 9.0280E+02 | 4.9140E+00 |
| 2.5252E+03 | 1.9560E-03 | 2.1469E-01 | 8.8520E+02 | 4.9099E+00 |
| 2.5273E+03 | 1.9039E-03 | 2.0898E-01 | 8.6165E+02 | 4.9058E+00 |
| 2.5300E+03 | 1.7995E-03 | 1.9751E-01 | 8.1438E+02 | 4.9006E+00 |
| 2.5332E+03 | 1.8397E-03 | 2.0193E-01 | 8.3260E+02 | 4.8944E+00 |
| 2.5361E+03 | 1.8142E-03 | 1.9913E-01 | 8.2104E+02 | 4.8888E+00 |
| 2.5390E+03 | 1.7887E-03 | 1.9633E-01 | 8.0950E+02 | 4.8832E+00 |
| 2.5400E+03 | 1.8021E-03 | 1.9780E-01 | 8.1556E+02 | 4.8813E+00 |
| 2.5421E+03 | 1.9078E-03 | 2.0940E-01 | 8.6340E+02 | 4.8772E+00 |
| 2.5440E+03 | 1.9609E-03 | 2.1523E-01 | 8.8743E+02 | 4.8736E+00 |
| 2.5461E+03 | 2.0929E-03 | 2.2972E-01 | 9.4719E+02 | 4.8696E+00 |
| 2.5481E+03 | 2.2249E-03 | 2.4421E-01 | 1.0069E+03 | 4.8658E+00 |
| 2.5501E+03 | 2.3175E-03 | 2.5437E-01 | 1.0488E+03 | 4.8619E+00 |
| 2.5521E+03 | 2.3311E-03 | 2.5587E-01 | 1.0550E+03 | 4.8581E+00 |
| 2.5530E+03 | 2.3577E-03 | 2.5878E-01 | 1.0670E+03 | 4.8564E+00 |
| 2.5561E+03 | 2.3322E-03 | 2.5598E-01 | 1.0555E+03 | 4.8505E+00 |
| 2.5581E+03 | 2.2802E-03 | 2.5027E-01 | 1.0319E+03 | 4.8467E+00 |
| 2.5601E+03 | 2.2544E-03 | 2.4744E-01 | 1.0202E+03 | 4.8429E+00 |
| 2.5630E+03 | 2.1894E-03 | 2.4031E-01 | 9.9085E+02 | 4.8375E+00 |
| 2.5669E+03 | 2.1378E-03 | 2.3465E-01 | 9.6751E+02 | 4.8301E+00 |
| 2.5690E+03 | 2.1384E-03 | 2.3471E-01 | 9.6777E+02 | 4.8262E+00 |
| 2.5720E+03 | 2.1260E-03 | 2.3335E-01 | 9.6216E+02 | 4.8205E+00 |
| 2.5750E+03 | 2.0479E-03 | 2.2478E-01 | 9.2683E+02 | 4.8149E+00 |
| 2.5781E+03 | 2.0487E-03 | 2.2487E-01 | 9.2718E+02 | 4.8091E+00 |
| 2.5800E+03 | 2.0493E-03 | 2.2493E-01 | 9.2742E+02 | 4.8056E+00 |
| 2.7500E+03 | 1.4516E-03 | 1.5933E-01 | 6.5696E+02 | 4.5085E+00 |

Table I. Oscillator-strength density, df/dE , photoabsorption cross section, σ_a , and mass absorption coefficient, μ_m . (Continued)

| Energy (eV) | f_n (eV ⁻¹) | σ_a (Mb) | μ_m (cm ² g ⁻¹) | λ (Å) |
|-------------|---------------------------|-----------------|--|---------------|
| 3.0000E+03 | 1.1515E-03 | 1.2639E-01 | 5.2112E+02 | 4.1328E+00 |
| 3.5000E+03 | 7.5639E-04 | 8.3022E-02 | 3.4232E+02 | 3.5424E+00 |
| 4.0000E+03 | 5.2155E-04 | 5.7245E-02 | 2.3603E+02 | 3.0996E+00 |
| 4.5000E+03 | 3.7407E-04 | 4.1058E-02 | 1.6929E+02 | 2.7552E+00 |
| 5.0000E+03 | 2.7710E-04 | 3.0415E-02 | 1.2541E+02 | 2.4797E+00 |
| 6.0000E+03 | 1.6410E-04 | 1.8012E-02 | 7.4267E+01 | 2.0664E+00 |
| 7.0000E+03 | 1.0502E-04 | 1.1527E-02 | 4.7527E+01 | 1.7712E+00 |
| 8.0000E+03 | 7.1209E-05 | 7.8160E-03 | 3.2227E+01 | 1.5498E+00 |
| 9.0000E+03 | 5.0497E-05 | 5.5426E-03 | 2.2853E+01 | 1.3776E+00 |
| 1.0000E+04 | 3.6451E-05 | 4.0009E-03 | 1.6496E+01 | 1.2398E+00 |
| 1.2500E+04 | 1.8561E-05 | 2.0373E-03 | 8.4002E+00 | 9.9187E-01 |
| 1.5000E+04 | 1.0627E-05 | 1.1665E-03 | 4.8096E+00 | 8.2656E-01 |
| 1.7500E+04 | 6.6295E-06 | 7.2766E-04 | 3.0003E+00 | 7.0848E-01 |
| 2.0000E+04 | 4.4061E-06 | 4.8361E-04 | 1.9940E+00 | 6.1992E-01 |
| 2.2500E+04 | 3.0723E-06 | 3.3722E-04 | 1.3904E+00 | 5.5104E-01 |
| 2.5000E+04 | 2.2281E-06 | 2.4456E-04 | 1.0084E+00 | 4.9594E-01 |
| 2.7500E+04 | 1.6589E-06 | 1.8208E-04 | 7.5076E-01 | 4.5085E-01 |
| 3.0000E+04 | 1.2597E-06 | 1.3826E-04 | 5.7009E-01 | 4.1328E-01 |
| 3.5000E+04 | 7.7351E-07 | 8.4901E-05 | 3.5006E-01 | 3.5424E-01 |
| 4.0000E+04 | 5.0705E-07 | 5.5654E-05 | 2.2947E-01 | 3.0996E-01 |
| 4.5000E+04 | 3.4937E-07 | 3.8348E-05 | 1.5811E-01 | 2.7552E-01 |
| 5.0000E+04 | 2.5042E-07 | 2.7486E-05 | 1.1333E-01 | 2.4797E-01 |
| 6.0000E+04 | 1.4010E-07 | 1.5378E-05 | 6.3405E-02 | 2.0664E-01 |
| 7.0000E+04 | 8.5623E-08 | 9.3981E-06 | 3.8750E-02 | 1.7712E-01 |
| 8.0000E+04 | 5.5888E-08 | 6.1343E-06 | 2.5293E-02 | 1.5498E-01 |
| 9.0000E+04 | 3.8354E-08 | 4.2097E-06 | 1.7358E-02 | 1.3776E-01 |
| 1.0000E+05 | 2.7378E-08 | 3.0050E-06 | 1.2390E-02 | 1.2398E-01 |

When photon energy, E , is higher than 10^5 eV, the photoabsorption cross section of each atom, σ_a , in Mb is given by

$$\sigma_a = 680 (Z_c - 0.3)^6 \left(\frac{Ry}{E} \right)^4 \frac{\exp[-4\chi \arctan(\chi^{-1})]}{1 - \exp(-2\pi\chi)} .$$

Here Z_c denotes the atomic number of constituent atoms and E is photon energy in eV. The quantity χ is given by

$$\chi = \sqrt{\frac{E_K}{E - E_K}} ,$$

where $E_K = 696.7$ and 2472.0 eV for fluorine and sulfur atoms, respectively.

