

1 $\text{Fe}_{0.4}\text{Mg}_{0.6}\text{O}$

Table 1: $\text{Fe}_{0.4}\text{Mg}_{0.6}\text{O}$ dust temperatures and corresponding vapor pressures as function of distance from the sun (R)

R[km]	Temperature[K]			vapor pressure[Pa]		
	r=1 nm	r=5nm	r=20nm	r=1 nm	r=5nm	r=20nm
1.496e+09	3.462e+03	3.464e+03	3.490e+03	1.106e+05	1.116e+05	1.254e+05
1.567e+09	3.403e+03	3.405e+03	3.432e+03	8.454e+04	8.533e+04	9.659e+04
1.642e+09	3.345e+03	3.347e+03	3.374e+03	6.435e+04	6.497e+04	7.384e+04
1.720e+09	3.288e+03	3.290e+03	3.317e+03	4.880e+04	4.928e+04	5.624e+04
1.802e+09	3.231e+03	3.234e+03	3.261e+03	3.668e+04	3.724e+04	4.268e+04
1.888e+09	3.176e+03	3.178e+03	3.206e+03	2.760e+04	2.789e+04	3.227e+04
1.978e+09	3.121e+03	3.124e+03	3.151e+03	2.058e+04	2.091e+04	2.418e+04
2.072e+09	3.068e+03	3.070e+03	3.098e+03	1.537e+04	1.554e+04	1.815e+04
2.170e+09	3.015e+03	3.017e+03	3.045e+03	1.137e+04	1.150e+04	1.350e+04
2.274e+09	2.962e+03	2.965e+03	2.992e+03	8.322e+03	8.473e+03	9.940e+03
2.382e+09	2.911e+03	2.913e+03	2.941e+03	6.106e+03	6.181e+03	7.335e+03
2.495e+09	2.860e+03	2.863e+03	2.890e+03	4.433e+03	4.519e+03	5.358e+03
2.614e+09	2.811e+03	2.813e+03	2.841e+03	3.226e+03	3.269e+03	3.924e+03
2.739e+09	2.762e+03	2.764e+03	2.792e+03	2.323e+03	2.355e+03	2.844e+03
2.869e+09	2.714e+03	2.716e+03	2.743e+03	1.666e+03	1.690e+03	2.040e+03
3.006e+09	2.666e+03	2.669e+03	2.696e+03	1.182e+03	1.208e+03	1.467e+03
3.149e+09	2.620e+03	2.622e+03	2.649e+03	8.405e+02	8.533e+02	1.043e+03
3.299e+09	2.574e+03	2.576e+03	2.603e+03	5.910e+02	6.003e+02	7.390e+02
3.456e+09	2.529e+03	2.531e+03	2.558e+03	4.139e+02	4.206e+02	5.214e+02
3.620e+09	2.485e+03	2.487e+03	2.514e+03	2.887e+02	2.935e+02	3.666e+02
3.793e+09	2.441e+03	2.444e+03	2.470e+03	1.989e+02	2.041e+02	2.546e+02
3.973e+09	2.399e+03	2.401e+03	2.427e+03	1.377e+02	1.401e+02	1.762e+02
4.163e+09	2.357e+03	2.359e+03	2.385e+03	9.410e+01	9.585e+01	1.214e+02
4.361e+09	2.316e+03	2.318e+03	2.343e+03	6.408e+01	6.532e+01	8.265e+01
4.569e+09	2.275e+03	2.277e+03	2.303e+03	4.306e+01	4.392e+01	5.658e+01
4.786e+09	2.236e+03	2.238e+03	2.263e+03	2.913e+01	2.973e+01	3.824e+01
5.014e+09	2.197e+03	2.199e+03	2.224e+03	1.944e+01	1.985e+01	2.575e+01
5.253e+09	2.159e+03	2.161e+03	2.185e+03	1.293e+01	1.321e+01	1.711e+01
5.503e+09	2.121e+03	2.123e+03	2.147e+03	8.480e+00	8.674e+00	1.134e+01
5.765e+09	2.084e+03	2.086e+03	2.110e+03	5.544e+00	5.675e+00	7.485e+00
6.039e+09	2.048e+03	2.050e+03	2.074e+03	3.615e+00	3.703e+00	4.930e+00
6.327e+09	2.013e+03	2.015e+03	2.038e+03	2.352e+00	2.411e+00	3.202e+00
6.628e+09	1.978e+03	1.980e+03	2.003e+03	1.507e+00	1.547e+00	2.074e+00
6.944e+09	1.944e+03	1.946e+03	1.969e+03	9.640e-01	9.901e-01	1.341e+00
7.274e+09	1.911e+03	1.913e+03	1.935e+03	6.156e-01	6.329e-01	8.543e-01
7.621e+09	1.878e+03	1.880e+03	1.902e+03	3.872e-01	3.984e-01	5.433e-01
7.984e+09	1.846e+03	1.848e+03	1.869e+03	2.432e-01	2.505e-01	3.402e-01
8.364e+09	1.815e+03	1.816e+03	1.838e+03	1.526e-01	1.550e-01	2.159e-01
8.762e+09	1.784e+03	1.786e+03	1.806e+03	9.430e-02	9.733e-02	1.329e-01
9.179e+09	1.754e+03	1.755e+03	1.776e+03	5.826e-02	5.921e-02	8.307e-02
9.616e+09	1.724e+03	1.726e+03	1.746e+03	3.541e-02	3.662e-02	5.110e-02
1.007e+10	1.695e+03	1.696e+03	1.716e+03	2.152e-02	2.190e-02	3.092e-02
1.055e+10	1.666e+03	1.668e+03	1.687e+03	1.287e-02	1.334e-02	1.871e-02
1.106e+10	1.638e+03	1.640e+03	1.659e+03	7.700e-03	7.992e-03	1.134e-02
1.158e+10	1.611e+03	1.612e+03	1.631e+03	4.616e-03	4.705e-03	6.754e-03
1.213e+10	1.584e+03	1.585e+03	1.604e+03	2.721e-03	2.775e-03	4.031e-03
1.271e+10	1.557e+03	1.559e+03	1.577e+03	1.575e-03	1.641e-03	2.365e-03
1.332e+10	1.531e+03	1.533e+03	1.551e+03	9.142e-04	9.539e-04	1.391e-03
1.395e+10	1.506e+03	1.507e+03	1.525e+03	5.326e-04	5.444e-04	8.043e-04
1.462e+10	1.481e+03	1.482e+03	1.500e+03	3.048e-04	3.118e-04	4.666e-04
1.531e+10	1.457e+03	1.458e+03	1.475e+03	1.753e-04	1.794e-04	2.659e-04
1.604e+10	1.433e+03	1.434e+03	1.451e+03	9.898e-05	1.014e-04	1.522e-04
1.680e+10	1.409e+03	1.410e+03	1.427e+03	5.484e-05	5.623e-05	8.555e-05
1.760e+10	1.386e+03	1.387e+03	1.403e+03	3.057e-05	3.137e-05	4.717e-05

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Table 1 – *Continued from previous page*

d[km]	Temperature[K]			vapor pressure[Pa]		
	r=1 nm	r=5nm	r=20nm	r=1 nm	r=5nm	r=20nm
1.844e+10	1.363e+03	1.364e+03	1.380e+03	1.671e-05	1.716e-05	2.616e-05
1.932e+10	1.341e+03	1.342e+03	1.358e+03	9.204e-06	9.461e-06	1.462e-05
2.024e+10	1.319e+03	1.320e+03	1.335e+03	4.971e-06	5.115e-06	7.796e-06
2.121e+10	1.297e+03	1.298e+03	1.314e+03	2.631e-06	2.709e-06	4.310e-06
2.221e+10	1.276e+03	1.277e+03	1.292e+03	1.405e-06	1.448e-06	2.270e-06
2.327e+10	1.255e+03	1.256e+03	1.271e+03	7.348e-07	7.582e-07	1.206e-06
2.438e+10	1.235e+03	1.236e+03	1.250e+03	3.885e-07	4.013e-07	6.278e-07
2.554e+10	1.214e+03	1.216e+03	1.230e+03	1.946e-07	2.081e-07	3.302e-07
2.676e+10	1.195e+03	1.196e+03	1.210e+03	1.020e-07	1.056e-07	1.702e-07
2.803e+10	1.175e+03	1.176e+03	1.190e+03	5.055e-08	5.239e-08	8.578e-08
2.937e+10	1.156e+03	1.157e+03	1.171e+03	2.538e-08	2.633e-08	4.381e-08
3.076e+10	1.137e+03	1.138e+03	1.152e+03	1.246e-08	1.294e-08	2.189e-08
3.223e+10	1.119e+03	1.120e+03	1.133e+03	6.210e-09	6.458e-09	1.069e-08
3.376e+10	1.100e+03	1.101e+03	1.115e+03	2.906e-09	3.027e-09	5.304e-09
3.537e+10	1.082e+03	1.083e+03	1.096e+03	1.382e-09	1.441e-09	2.469e-09
3.706e+10	1.065e+03	1.066e+03	1.079e+03	6.695e-10	6.990e-10	1.218e-09
3.882e+10	1.047e+03	1.048e+03	1.061e+03	3.030e-10	3.169e-10	5.626e-10
4.067e+10	1.030e+03	1.031e+03	1.044e+03	1.398e-10	1.464e-10	2.648e-10
4.261e+10	1.013e+03	1.014e+03	1.026e+03	6.283e-11	6.590e-11	1.161e-10
4.463e+10	9.962e+02	9.972e+02	1.009e+03	2.777e-11	2.917e-11	5.185e-11
4.676e+10	9.797e+02	9.807e+02	9.928e+02	1.212e-11	1.276e-11	2.346e-11
4.899e+10	9.634e+02	9.643e+02	9.763e+02	5.199e-12	5.452e-12	1.018e-11
5.132e+10	9.473e+02	9.482e+02	9.600e+02	2.191e-12	2.301e-12	4.342e-12
5.376e+10	9.313e+02	9.323e+02	9.440e+02	9.010e-13	9.533e-13	1.828e-12
5.632e+10	9.156e+02	9.165e+02	9.281e+02	3.657e-13	3.855e-13	7.516e-13
5.900e+10	9.001e+02	9.010e+02	9.125e+02	1.456e-13	1.538e-13	3.050e-13
6.181e+10	8.847e+02	8.856e+02	8.970e+02	5.653e-14	5.979e-14	1.207e-13
6.476e+10	8.695e+02	8.704e+02	8.816e+02	2.150e-14	2.278e-14	4.654e-14
6.784e+10	8.544e+02	8.553e+02	8.665e+02	7.952e-15	8.446e-15	1.769e-14
7.107e+10	8.395e+02	8.404e+02	8.515e+02	2.879e-15	3.064e-15	6.543e-15
7.446e+10	8.248e+02	8.256e+02	8.366e+02	1.019e-15	1.080e-15	2.352e-15
7.800e+10	8.101e+02	8.110e+02	8.219e+02	3.476e-16	3.717e-16	8.269e-16
8.171e+10	7.956e+02	7.965e+02	8.073e+02	1.157e-16	1.240e-16	2.819e-16
8.561e+10	7.812e+02	7.821e+02	7.928e+02	3.727e-17	4.005e-17	9.312e-17
8.968e+10	7.670e+02	7.678e+02	7.785e+02	1.170e-17	1.250e-17	3.000e-17
9.395e+10	7.528e+02	7.536e+02	7.642e+02	3.516e-18	3.767e-18	9.263e-18
9.843e+10	7.387e+02	7.395e+02	7.501e+02	1.018e-18	1.093e-18	2.783e-18
1.031e+11	7.247e+02	7.255e+02	7.360e+02	2.834e-19	3.053e-19	7.984e-19
1.080e+11	7.108e+02	7.116e+02	7.221e+02	7.576e-20	8.185e-20	2.223e-19
1.132e+11	6.970e+02	6.978e+02	7.082e+02	1.940e-20	2.103e-20	5.885e-20
1.186e+11	6.832e+02	6.840e+02	6.944e+02	4.703e-21	5.114e-21	1.492e-20
1.242e+11	6.695e+02	6.703e+02	6.807e+02	1.087e-21	1.186e-21	3.616e-21
1.301e+11	6.559e+02	6.567e+02	6.670e+02	2.388e-22	2.615e-22	8.264e-22
1.363e+11	6.423e+02	6.431e+02	6.534e+02	4.920e-23	5.409e-23	1.795e-22
1.428e+11	6.287e+02	6.296e+02	6.398e+02	9.462e-24	1.058e-23	3.653e-23
1.496e+11	6.153e+02	6.161e+02	6.263e+02	1.735e-24	1.924e-24	7.021e-24

Table 2: Sputtering yield for Fe_{0.4}Mg_{0.6}O

Ion	fast SW conditions			slow SW conditions			CME conditions		
	Y Fe	Y Mg	Y O	Y Fe	Y Mg	Y O	Y Fe	Y Mg	Y O
H	0.0058	0.0168	0.0224	0.0083	0.0288	0.0379	0.0077	0.0261	0.0353
He	0.0297	0.0865	0.1158	0.0621	0.1663	0.2293	0.0533	0.1498	0.1910
C	0.1682	0.4592	0.6273	0.2878	0.7942	1.0600	0.2482	0.6800	0.9350
O	0.2643	0.7043	0.9621	0.3812	1.0600	1.4400	0.3546	0.9845	1.3200
N	0.2002	0.5531	0.7485	0.3505	0.9414	1.2700	0.2949	0.8078	1.1000
Fe	0.8645	2.3300	3.1900	0.9622	2.6800	3.6600	0.9612	2.6600	3.6000
Ne	0.3295	0.8883	1.2000	0.4828	1.3400	1.8000	0.4438	1.2100	1.6600
Mg	0.3966	1.0700	1.4500	0.5667	1.5700	2.1200	0.5240	1.4400	1.9400
Si	0.4718	1.2600	1.7000	0.6210	1.7300	2.3400	0.5878	1.6000	2.1600
S	0.5632	1.5300	2.1000	0.6807	1.9100	2.5900	0.6482	1.7800	2.4300

2 Silicate

Table 3: Silicate dust temperatures and corresponding vapor pressures as function of distance from the sun (R)

R[km]	Temperature[K]			vapor pressure[Pa]		
	r=1 nm	r=5nm	r=20nm	r=1 nm	r=5nm	r=20nm
1.496e+09	3.185e+03	3.187e+03	3.215e+03	4.284e+04	4.324e+04	4.926e+04
1.567e+09	3.124e+03	3.126e+03	3.154e+03	3.215e+04	3.246e+04	3.704e+04
1.642e+09	3.064e+03	3.066e+03	3.094e+03	2.415e+04	2.438e+04	2.788e+04
1.720e+09	3.005e+03	3.007e+03	3.035e+03	1.815e+04	1.833e+04	2.100e+04
1.802e+09	2.947e+03	2.949e+03	2.977e+03	1.364e+04	1.378e+04	1.582e+04
1.888e+09	2.891e+03	2.892e+03	2.920e+03	1.031e+04	1.036e+04	1.193e+04
1.978e+09	2.835e+03	2.837e+03	2.864e+03	7.744e+03	7.824e+03	8.986e+03
2.072e+09	2.780e+03	2.782e+03	2.809e+03	5.812e+03	5.874e+03	6.767e+03
2.170e+09	2.726e+03	2.728e+03	2.755e+03	4.357e+03	4.404e+03	5.091e+03
2.274e+09	2.673e+03	2.675e+03	2.702e+03	3.259e+03	3.296e+03	3.824e+03
2.382e+09	2.621e+03	2.623e+03	2.650e+03	2.433e+03	2.460e+03	2.867e+03
2.495e+09	2.570e+03	2.572e+03	2.598e+03	1.811e+03	1.832e+03	2.132e+03
2.614e+09	2.519e+03	2.521e+03	2.548e+03	1.336e+03	1.352e+03	1.590e+03
2.739e+09	2.470e+03	2.472e+03	2.498e+03	9.875e+02	9.999e+02	1.175e+03
2.869e+09	2.421e+03	2.423e+03	2.449e+03	7.228e+02	7.322e+02	8.650e+02
3.006e+09	2.374e+03	2.375e+03	2.401e+03	5.304e+02	5.339e+02	6.344e+02
3.149e+09	2.326e+03	2.328e+03	2.354e+03	3.823e+02	3.876e+02	4.634e+02
3.299e+09	2.280e+03	2.282e+03	2.307e+03	2.761e+02	2.801e+02	3.346e+02
3.456e+09	2.235e+03	2.236e+03	2.261e+03	1.984e+02	1.999e+02	2.405e+02
3.620e+09	2.190e+03	2.192e+03	2.216e+03	1.409e+02	1.431e+02	1.720e+02
3.793e+09	2.146e+03	2.147e+03	2.172e+03	9.945e+01	1.003e+02	1.224e+02
3.973e+09	2.103e+03	2.104e+03	2.128e+03	6.983e+01	7.042e+01	8.591e+01
4.163e+09	2.060e+03	2.061e+03	2.085e+03	4.835e+01	4.877e+01	5.998e+01
4.361e+09	2.018e+03	2.019e+03	2.043e+03	3.327e+01	3.357e+01	4.163e+01
4.569e+09	1.976e+03	1.978e+03	2.001e+03	2.254e+01	2.297e+01	2.848e+01
4.786e+09	1.936e+03	1.937e+03	1.960e+03	1.532e+01	1.548e+01	1.935e+01
5.014e+09	1.896e+03	1.897e+03	1.920e+03	1.025e+01	1.036e+01	1.307e+01
5.253e+09	1.856e+03	1.858e+03	1.880e+03	6.741e+00	6.887e+00	8.687e+00
5.503e+09	1.817e+03	1.819e+03	1.841e+03	4.402e+00	4.501e+00	5.734e+00
5.765e+09	1.779e+03	1.780e+03	1.803e+03	2.854e+00	2.888e+00	3.760e+00
6.039e+09	1.741e+03	1.743e+03	1.765e+03	1.816e+00	1.861e+00	2.422e+00
6.327e+09	1.704e+03	1.705e+03	1.727e+03	1.147e+00	1.162e+00	1.530e+00
6.628e+09	1.667e+03	1.669e+03	1.690e+03	7.102e-01	7.293e-01	9.593e-01
6.944e+09	1.631e+03	1.633e+03	1.654e+03	4.362e-01	4.484e-01	5.970e-01
7.274e+09	1.595e+03	1.597e+03	1.618e+03	2.621e-01	2.697e-01	3.638e-01
7.621e+09	1.560e+03	1.562e+03	1.582e+03	1.561e-01	1.609e-01	2.168e-01
7.984e+09	1.526e+03	1.527e+03	1.548e+03	9.231e-02	9.378e-02	1.300e-01
8.364e+09	1.491e+03	1.493e+03	1.513e+03	5.242e-02	5.418e-02	7.504e-02

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Table 3 – *Continued from previous page*

d[km]	Temperature[K]			vapor pressure[Pa]		
	r=1 nm	r=5nm	r=20nm	r=1 nm	r=5nm	r=20nm
8.762e+09	1.458e+03	1.459e+03	1.479e+03	2.999e-02	3.052e-02	4.291e-02
9.179e+09	1.424e+03	1.426e+03	1.445e+03	1.643e-02	1.703e-02	2.390e-02
9.616e+09	1.391e+03	1.393e+03	1.412e+03	8.908e-03	9.252e-03	1.319e-02
1.007e+10	1.359e+03	1.360e+03	1.380e+03	4.785e-03	4.881e-03	7.218e-03
1.055e+10	1.327e+03	1.328e+03	1.347e+03	2.496e-03	2.549e-03	3.762e-03
1.106e+10	1.295e+03	1.297e+03	1.316e+03	1.262e-03	1.318e-03	1.982e-03
1.158e+10	1.264e+03	1.265e+03	1.284e+03	6.309e-04	6.455e-04	9.903e-04
1.213e+10	1.233e+03	1.234e+03	1.253e+03	3.050e-04	3.124e-04	4.894e-04
1.271e+10	1.203e+03	1.204e+03	1.222e+03	1.458e-04	1.495e-04	2.336e-04
1.332e+10	1.173e+03	1.174e+03	1.192e+03	6.719e-05	6.899e-05	1.102e-04
1.395e+10	1.143e+03	1.144e+03	1.162e+03	2.978e-05	3.062e-05	5.010e-05
1.462e+10	1.114e+03	1.115e+03	1.133e+03	1.303e-05	1.342e-05	2.250e-05
1.531e+10	1.085e+03	1.086e+03	1.104e+03	5.466e-06	5.637e-06	9.706e-06
1.604e+10	1.056e+03	1.057e+03	1.075e+03	2.191e-06	2.263e-06	4.009e-06
1.680e+10	1.028e+03	1.029e+03	1.047e+03	8.648e-07	8.947e-07	1.633e-06
1.760e+10	1.001e+03	1.002e+03	1.019e+03	3.368e-07	3.491e-07	6.349e-07
1.844e+10	9.732e+02	9.743e+02	9.910e+02	1.211e-07	1.262e-07	2.346e-07
1.932e+10	9.464e+02	9.475e+02	9.639e+02	4.280e-08	4.472e-08	8.494e-08
2.024e+10	9.200e+02	9.211e+02	9.373e+02	1.453e-08	1.522e-08	2.969e-08
2.121e+10	8.941e+02	8.951e+02	9.110e+02	4.746e-09	4.962e-09	9.917e-09
2.221e+10	8.686e+02	8.696e+02	8.853e+02	1.483e-09	1.554e-09	3.200e-09
2.327e+10	8.436e+02	8.446e+02	8.600e+02	4.443e-10	4.668e-10	9.870e-10
2.438e+10	8.192e+02	8.202e+02	8.352e+02	1.280e-10	1.349e-10	2.918e-10
2.554e+10	7.952e+02	7.962e+02	8.109e+02	3.507e-11	3.707e-11	8.250e-11
2.676e+10	7.718e+02	7.728e+02	7.872e+02	9.207e-12	9.765e-12	2.239e-11
2.803e+10	7.490e+02	7.499e+02	7.640e+02	2.315e-12	2.448e-12	5.793e-12
2.937e+10	7.268e+02	7.277e+02	7.414e+02	5.565e-13	5.906e-13	1.434e-12
3.076e+10	7.051e+02	7.060e+02	7.193e+02	1.269e-13	1.352e-13	3.372e-13
3.223e+10	6.841e+02	6.849e+02	6.979e+02	2.782e-14	2.952e-14	7.620e-14
3.376e+10	6.637e+02	6.645e+02	6.771e+02	5.814e-15	6.193e-15	1.643e-14
3.537e+10	6.439e+02	6.447e+02	6.569e+02	1.158e-15	1.239e-15	3.377e-15
3.706e+10	6.247e+02	6.255e+02	6.373e+02	2.200e-16	2.362e-16	6.618e-16
3.882e+10	6.061e+02	6.069e+02	6.183e+02	3.981e-17	4.294e-17	1.236e-16
4.067e+10	5.882e+02	5.890e+02	6.000e+02	6.941e-18	7.522e-18	2.221e-17
4.261e+10	5.710e+02	5.717e+02	5.823e+02	1.169e-18	1.259e-18	3.813e-18
4.463e+10	5.543e+02	5.550e+02	5.652e+02	1.865e-19	2.019e-19	6.257e-19
4.676e+10	5.382e+02	5.389e+02	5.488e+02	2.855e-20	3.105e-20	9.946e-20
4.899e+10	5.228e+02	5.234e+02	5.329e+02	4.254e-21	4.591e-21	1.501e-20
5.132e+10	5.079e+02	5.085e+02	5.177e+02	6.042e-22	6.551e-22	2.209e-21
5.376e+10	4.936e+02	4.942e+02	5.030e+02	8.309e-23	9.052e-23	3.101e-22
5.632e+10	4.799e+02	4.804e+02	4.889e+02	1.112e-23	1.199e-23	4.221e-23
5.900e+10	4.666e+02	4.672e+02	4.753e+02	1.408e-24	1.550e-24	5.511e-24
6.181e+10	4.539e+02	4.544e+02	4.623e+02	1.749e-25	1.903e-25	7.039e-25
6.476e+10	4.417e+02	4.422e+02	4.498e+02	2.106e-26	2.302e-26	8.698e-26
6.784e+10	4.300e+02	4.305e+02	4.377e+02	2.471e-27	2.714e-27	1.026e-26
7.107e+10	4.187e+02	4.192e+02	4.261e+02	2.784e-28	3.074e-28	1.178e-27
7.446e+10	4.079e+02	4.083e+02	4.150e+02	3.086e-29	3.354e-29	1.327e-28
7.800e+10	3.975e+02	3.979e+02	4.043e+02	3.314e-30	3.618e-30	1.444e-29
8.171e+10	3.875e+02	3.879e+02	3.940e+02	3.463e-31	3.799e-31	1.523e-30
8.561e+10	3.778e+02	3.782e+02	3.842e+02	3.455e-32	3.808e-32	1.602e-31
8.968e+10	3.685e+02	3.689e+02	3.746e+02	3.382e-33	3.747e-33	1.573e-32
9.395e+10	3.596e+02	3.600e+02	3.655e+02	3.269e-34	3.640e-34	1.558e-33
9.843e+10	3.510e+02	3.514e+02	3.567e+02	3.055e-35	3.420e-35	1.489e-34
1.031e+11	3.428e+02	3.431e+02	3.482e+02	2.854e-36	3.119e-36	1.377e-35
1.080e+11	3.348e+02	3.351e+02	3.400e+02	2.525e-37	2.772e-37	1.237e-36
1.132e+11	3.271e+02	3.274e+02	3.321e+02	2.188e-38	2.412e-38	1.085e-37
1.186e+11	3.197e+02	3.200e+02	3.245e+02	1.866e-39	2.066e-39	9.332e-39
1.242e+11	3.125e+02	3.128e+02	3.172e+02	1.521e-40	1.692e-40	7.915e-40
1.301e+11	3.056e+02	3.059e+02	3.101e+02	1.232e-41	1.377e-41	6.426e-41

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Table 3 – *Continued from previous page*

d[km]	Temperature[K]			vapor pressure[Pa]		
	r=1 nm	r=5nm	r=20nm	r=1 nm	r=5nm	r=20nm
1.363e+11	2.989e+02	2.992e+02	3.033e+02	9.601e-43	1.079e-42	5.195e-42
1.428e+11	2.924e+02	2.927e+02	2.967e+02	7.222e-44	8.159e-44	4.050e-43
1.496e+11	2.862e+02	2.864e+02	2.903e+02	5.487e-45	5.973e-45	3.054e-44

Table 4: Sputtering yield for astronomical silicate (MgFeSiO₄)

Ion	fast SW conditions				slow SW conditions				CME conditions			
	Y Mg	Y Fe	Y Si	Y O	Y Mg	Y Fe	Y Si	Y O	Y Mg	Y Fe	Y Si	Y O
H	0.0059	0.0034	0.0030	0.0209	0.0109	0.0047	0.0040	0.0346	0.0103	0.0049	0.0391	0.0305
He	0.0316	0.0179	0.0158	0.0997	0.0643	0.0354	0.0334	0.2199	0.0540	0.0281	0.0254	0.1696
C	0.1809	0.0999	0.0875	0.5699	0.3014	0.1603	0.1469	0.9641	0.2663	0.1440	0.1341	0.8738
O	0.2526	0.1401	0.1245	0.8138	0.4103	0.2171	0.1974	1.3400	0.3605	0.2008	0.1814	1.1800
N	0.2159	0.1183	0.1096	0.7044	0.3614	0.1924	0.1759	1.1600	0.3209	0.1748	0.1613	1.0400
Fe	0.8735	0.4798	0.4412	2.8600	0.9772	0.5234	0.4762	3.1800	0.9751	0.5217	0.4816	3.1700
Ne	0.3213	0.1784	0.1634	1.0600	0.4925	0.2704	0.2458	1.6000	0.4367	0.2343	0.2133	1.4100
Mg	0.3964	0.2142	0.1924	1.2800	0.5636	0.3010	0.2769	1.8200	0.5222	0.2875	0.2575	1.7100
Si	0.4783	0.2589	0.2393	1.5700	0.6416	0.3502	0.3141	2.0900	0.5772	0.3054	0.2834	1.8700
S	0.5407	0.2945	0.2688	1.7500	0.7136	0.3899	0.3431	2.3100	0.6676	0.3534	0.3217	2.1300

3 Carbon

Table 5: Carbon dust temperatures and corresponding vapor pressures as function of distance from the sun (R)

R[km]	Temperature[K]			vapor pressure[Pa]		
	r=1 nm	r=5nm	r=20nm	r=1 nm	r=5nm	r=20nm
1.496e+09	3.276e+03	3.278e+03	3.314e+03	8.910e+02	9.070e+02	1.240e+03
1.643e+09	3.157e+03	3.160e+03	3.195e+03	2.960e+02	3.050e+02	4.250e+02
1.805e+09	3.043e+03	3.045e+03	3.080e+03	9.530e+01	9.730e+01	1.390e+02
1.983e+09	2.933e+03	2.935e+03	2.969e+03	2.930e+01	3.000e+01	4.360e+01
2.179e+09	2.827e+03	2.829e+03	2.863e+03	8.640e+00	8.850e+00	1.320e+01
2.393e+09	2.724e+03	2.727e+03	2.760e+03	2.410e+00	2.500e+00	3.800e+00
2.629e+09	2.626e+03	2.628e+03	2.661e+03	6.490e-01	6.680e-01	1.050e+00
2.888e+09	2.531e+03	2.533e+03	2.565e+03	1.660e-01	1.710e-01	2.730e-01
3.173e+09	2.439e+03	2.442e+03	2.473e+03	3.980e-02	4.180e-02	6.830e-02
3.486e+09	2.351e+03	2.353e+03	2.384e+03	9.180e-03	9.500e-03	1.610e-02
3.829e+09	2.267e+03	2.269e+03	2.299e+03	2.030e-03	2.110e-03	3.660e-03
4.206e+09	2.185e+03	2.187e+03	2.216e+03	4.180e-04	4.350e-04	7.710e-04
4.621e+09	2.106e+03	2.108e+03	2.137e+03	8.090e-05	8.450e-05	1.560e-04
5.076e+09	2.030e+03	2.032e+03	2.060e+03	1.480e-05	1.550e-05	2.940e-05
5.576e+09	1.957e+03	1.959e+03	1.986e+03	2.550e-06	2.680e-06	5.210e-06
6.126e+09	1.887e+03	1.889e+03	1.915e+03	4.170e-07	4.400e-07	8.740e-07
6.730e+09	1.819e+03	1.821e+03	1.846e+03	6.270e-08	6.640e-08	1.350e-07
7.393e+09	1.754e+03	1.756e+03	1.780e+03	8.940e-09	9.510e-09	1.980e-08
8.121e+09	1.691e+03	1.693e+03	1.717e+03	1.170e-09	1.250e-09	2.760e-09
8.921e+09	1.630e+03	1.632e+03	1.655e+03	1.410e-10	1.520e-10	3.430e-10
9.801e+09	1.572e+03	1.573e+03	1.596e+03	1.620e-11	1.690e-11	4.050e-11
1.077e+10	1.516e+03	1.517e+03	1.539e+03	1.720e-12	1.790e-12	4.410e-12
1.183e+10	1.461e+03	1.463e+03	1.484e+03	1.600e-13	1.750e-13	4.410e-13
1.299e+10	1.409e+03	1.410e+03	1.431e+03	1.430e-14	1.500e-14	4.050e-14
1.427e+10	1.359e+03	1.360e+03	1.380e+03	1.180e-15	1.240e-15	3.430e-15
1.568e+10	1.310e+03	1.311e+03	1.330e+03	8.470e-17	8.950e-17	2.540e-16

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Table 5 – *Continued from previous page*

d[km]	Temperature[K]			vapor pressure[Pa]		
	r=1 nm	r=5nm	r=20nm	r=1 nm	r=5nm	r=20nm
1.722e+10	1.263e+03	1.264e+03	1.283e+03	5.600e-18	5.950e-18	1.820e-17
1.892e+10	1.218e+03	1.219e+03	1.237e+03	3.420e-19	3.640e-19	1.140e-18
2.079e+10	1.174e+03	1.175e+03	1.193e+03	1.800e-20	1.930e-20	6.590e-20
2.283e+10	1.132e+03	1.133e+03	1.150e+03	8.780e-22	9.460e-22	3.290e-21
2.509e+10	1.092e+03	1.093e+03	1.109e+03	3.980e-23	4.310e-23	1.520e-22
2.756e+10	1.053e+03	1.054e+03	1.069e+03	1.550e-24	1.690e-24	6.050e-24
3.027e+10	1.015e+03	1.016e+03	1.031e+03	5.190e-26	5.700e-26	2.240e-25
3.326e+10	9.780e+02	9.790e+02	9.940e+02	1.470e-27	1.630e-27	7.100e-27
3.653e+10	9.430e+02	9.440e+02	9.590e+02	3.910e-29	4.350e-29	2.120e-28
4.013e+10	9.100e+02	9.110e+02	9.240e+02	9.890e-31	1.110e-30	4.860e-30
4.409e+10	8.770e+02	8.780e+02	8.910e+02	1.900e-32	2.150e-32	1.050e-31
4.843e+10	8.450e+02	8.460e+02	8.590e+02	3.060e-34	3.490e-34	1.930e-33
5.320e+10	8.150e+02	8.160e+02	8.280e+02	4.740e-36	5.480e-36	2.990e-35
5.845e+10	7.860e+02	7.870e+02	7.990e+02	6.260e-38	7.300e-38	4.530e-37
6.421e+10	7.580e+02	7.580e+02	7.700e+02	7.000e-40	7.000e-40	5.000e-39
7.053e+10	7.300e+02	7.310e+02	7.420e+02	5.540e-42	6.630e-42	4.610e-41
7.748e+10	7.040e+02	7.050e+02	7.160e+02	4.400e-44	5.330e-44	4.280e-43
8.512e+10	6.790e+02	6.790e+02	6.900e+02	2.960e-46	2.960e-46	2.800e-45
9.351e+10	6.540e+02	6.550e+02	6.650e+02	1.360e-48	1.700e-48	1.530e-47
1.027e+11	6.310e+02	6.310e+02	6.410e+02	6.600e-51	6.600e-51	7.020e-50
1.128e+11	6.080e+02	6.090e+02	6.180e+02	0.000e+00	0.000e+00	2.730e-52
1.240e+11	5.860e+02	5.870e+02	5.960e+02	0.000e+00	0.000e+00	0.000e+00
1.362e+11	5.650e+02	5.660e+02	5.740e+02	0.000e+00	0.000e+00	0.000e+00
1.496e+11	5.450e+02	5.450e+02	5.540e+02	0.000e+00	0.000e+00	0.000e+00

Table 6: Sputtering yield for carbon.

Ion	Y fast SW	Y slow SW	Y CME
H	0.0034	0.0076	0.0055
He	0.0211	0.0567	0.0365
C	0.1063	0.2389	0.1706
O	0.1728	0.3614	0.2689
N	0.1204	0.2606	0.1902
Fe	1.3500	1.3500	1.3500
Ne	0.3303	0.4620	0.4267
Mg	0.6000	0.6000	0.6000
Si	0.7200	0.7200	0.7200
S	0.8300	0.8300	0.8300