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Modelling of the Hermean Exosphere

P. Wurz (1), H. Lammer(2), J.A. Whitby(1), U. Rohner(3)

(1) Physics Institute, University of Bern, Switzerland, (2) Space Research Institute, Austrian Academy of Sciences, Austria, (3) Lawrence Livermore National Laboratory, USA

We have developed a two-dimensional model of the hermean exosphere using Monte Carlo integration techniques to incorporate a variety of physical source processes. In particular, we model ion-induced sputtering of the surface as a result of impinging energetic solar wind ions and photon-stimulated desorption aB initio. For sputter yields we use the TRIM code. The resulting steady-state velocity distributions of released species define the vertical structure of the exosphere. We developed a hermean model surface composition, based on the few available observational data. We will present a comparison of our model results with experimental measurements of the hermean exosphere. Furthermore, we will present comparisons with results from a 3-D exospheric code.