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# Hybrid simulations of H+ and O+ escape from the Venusian atmosphere

R. Jarvinen (1), E. Kallio (1), S. Barabash (2), T. L. Zhang (3), S. Dyadechkin (1), P. Janhunen (1), and I. Sillanpää (4)

(1) Finnish Meteorological Institute, Helsinki, Finland (riku.jarvinen@fmi.fi), (2) Swedish Institute of Space Physics, Kiruna, Sweden, (3) Space Research Institute, Austrian Academy of Sciences, Graz, Austria, (4) Southwest Research Institute, San Antonio, Texas

We study the solar wind induced escape of the ionic hydrogen and oxygen from Venus. This non-thermal atmospheric erosion process has been observed in detail by the Venus Express spacecraft in recent years. We use our global hybrid simulation (HYB-Venus) to study properties of the escaping planetary ions, concentrating on the escape rates and energization processes. In the simulation the planetary ions include the thermal and hot populations of the H+ and O+ species. Especially, we study how the relative escape fluxes and energies of the two species vary with regions of the Venusian induced magnetosphere.