

Non-thermal Atmospheric Erosion Processes

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Atmospheric loss processes may be grouped in thermal loss to space by Jeans or hydrodynamic escape, in non-thermal loss to space by pickup or chemical processes, and in loss to surface by sequestration. Examples are discussed and the relevance of the loss processes is estimated. Non-thermal loss gets important especially for atmospheres and ionospheres which are not protected by an intrinsic magnetic field. Hybrid code simulation studies are applied to such non-magnetic obstacles like comets, Mars, Venus, Titan, Pluto and the non-thermal pickup is estimated.