

ION PICKUP AND MASS LOADING IN THE SOLAR SYSTEM AND BEYOND?

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Pickup ions are important in several plasma environments in the solar system. In particular, the plasma interaction with non-magnetized objects usually provides conditions where plasma interacts with neutral particles atmospheres or exospheres and ion pickup is likely here. Ion pickup is the mechanism by which comets interact with the solar wind, and this process is also important at Titan, Venus, Mars, and icy satellites notably Enceladus, Io and Europa. In this talk, we review the plasma interaction with these objects, focusing on the common process ion pickup. We use examples from space missions to illustrate the process. We also consider other astrophysical contexts where ion pickup may be important.