



Ion heating from wave-particle interaction on Venus

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Abstract

We are using Venus Express observations of oxygen ions and magnetic fields inside the bowshock of Venus to investigate if waves at the oxygen cyclotron frequency are likely to result in perpendicular ion heating in a similar way to what happens at Earth.

We also compare cases with an undisturbed solar wind with cases when the Venusian induced magnetosphere is hit by a CIR (corotation interaction region) or a CME (coronal mass ejection). The initial results suggest that there is an increased wave activity on the dayside of Venus when the planet is impacted by CIRs and CMEs.