



## **Magnetotellurics at Venus: What Venus Express and Pioneer Venus Tell Us about the Possibility of Electromagnetic Sounding of the Venus Crust**

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In late 2014, the Venus Express mission was allowed to drop its periapsis altitude into the Venus atmosphere, sufficiently low to penetrate below the maximum electron density of the ionosphere into the neutral atmosphere below. In this paper, we examine the observations in this region and assess if such observations could be used to sound the interior electrical conductivity of Venus. We conclude that the fluctuating field would only be useful for sounding with landers on the surface. However, it might be possible to sound the core using the draped magnetic field, an essentially static signature.