

Second National Mars Science Seminar

Isidis Planitia: its regional and local characteristics

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[POSTER]

We consider the surface structures and geological history of Isidis Planitia on Mars. It is a plain located inside a large impact basin of ~1500 km in diameter. Its age is ~3.8 Ga ago. Geologic history of Isidis Planitia (or at least some of its parts) is quite complicated and many details remain unclear. We believe that better analysis of surface structures (especially chains of cones) and large deep structures (e.g. mascon) will allow a better understanding of the processes responsible for present structures of Isidis. Our analysis of chains of cones indicates that they can be grouped in larger systems. In this way Isidis Planitia has been divided into several characteristic regions. We are examining the system of cones on Isidis Planitia. Many of these chains forms have a characteristic furrow through the center, suggesting that fissure volcanism along circumferential dikes was common in the Isidis area.