

Characteristics of dust particles detected by Nozomi/MDC between Earth and Mars

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The dust experiment MDC (Mars Dust Counter) is a small impact ionization detector designed and developed by the Institute of Astronautics at the Technische Universität München. From launch in July 1998 on Japan's first deep space mission NOZOMI until the end of data transmission in April 2002, 98 dust particle impacts were identified in the MDC data stream. Particle mass, impact speed and orbital elements were determined for the majority of these dust particles. Further analysis showed that the MDC detected different populations of interplanetary dust particles like apex particles and possibly beta-meteoroids, as well as particles of presumable interstellar origin.