

## Initial results of observation of interplanetary dust by NOZOMI Mars Dust Counter

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<http://www.geol.s.u-tokyo.ac.jp/~sho/index-j.html>

To discover Martian dust ring/torus, Mars Dust Counter (MDC) is on board ISAS spacecraft NOZOMI (PLANET-B). NOZOMI, which was launched successfully on July 4th, 1998. MDC NOZOMI is an improved version of impact-ionization dust detectors on board HITEN and BREMSAT. It weighs only 730g with the sensor aperture area of 140cm<sup>2</sup>. Detectable velocity ( $v$ ) range is between 1km/s and more than 70km/s, which will cover circummartian (low  $v$ ), interplanetary (mid  $v$ ), and interstellar (high  $v$ ) particles. MDC has already detected more than 20 interplanetary dust particles including two particles at the Leonids event. MDC will continue observing interplanetary dust by NOZOMI arrival at Mars in 2004.

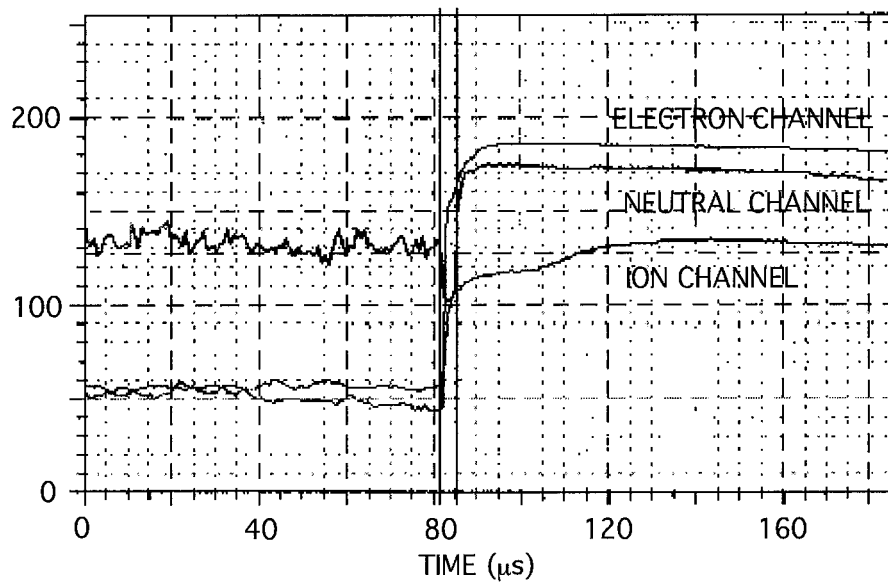


図1 MDC の記録したダスト衝突(98年7月13日).

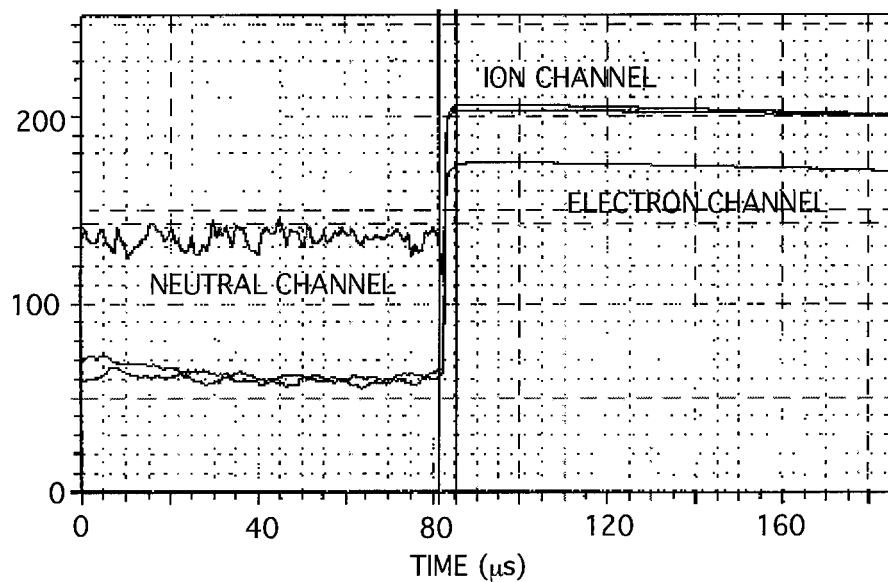


図2 Leonids 流星群遭遇時の衝突シグナル(98年11月18日). 電荷の立ち上がりが早い.