

NEWSLETTER GEOBRASIL

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- **AMAZINGS**

NUEVO METEORITO MARCIANO DESCUBIERTO EN LA ANTARTIDA

Al mismo tiempo que los robots Spirit y Opportunity exploran la superficie marciana estudiando las rocas que encuentran a su paso, científicos terrestres hacen lo propio con un fragmento del Planeta Rojo hallado en uno de los lugares menos hospitalarios de la Tierra, la Antártida. No es frecuente encontrar meteoritos procedentes de Marte, de hecho hay muy pocos que hayan sido identificados como tales. Gracias a las características de la Antártida, éste es un lugar en el que los especialistas localizan muchos meteoritos. Durante la más reciente expedición, fueron además lo bastante afortunados como para encontrar uno de origen marciano. El espécimen fue recogido por un equipo perteneciente al programa U.S. Antarctic Search for Meteorites (ANSMET), el pasado 15 de diciembre de 2003, en un campo de hielo del Miller Range, en las Transantarctic Mountains, a unos 750 km del polo sur. Durante la expedición se hallaron 1.358 meteoritos, los cuales fueron analizados durante los meses siguientes. Uno de ellos, una roca negra de 715,2 gramos, designada oficialmente como MIL 03346, no procede del cinturón de asteroides, sino de la superficie marciana. Los expertos creen que la mineralogía, la textura y la naturaleza oxidada de la roca la hacen indudablemente marciana. Estamos pues ante el séptimo espécimen de un grupo de meteoritos procedentes de Marte llamados nakhlitos, por el lugar en el que se encontró el primero, en Nakhla, Egipto, en 1911. Los nakhlitos son meteoritos que se habrían originado dentro de los densos flujos de lava que cristalizaron en Marte hace unos 1.300 millones de años. Posteriormente, hace 11 millones de años, el impacto de un meteorito lanzó fragmentos al espacio. Desde entonces, algunos han conseguido caer sobre la Tierra. En ellos encontramos información importante sobre la historia volcánica y ambiental del Planeta Rojo. A los científicos les es muy útil tener material marciano en el laboratorio porque de esta forma pueden interpretar mejor los datos obtenidos por los robots. Información adicional en: <http://www.amazings.com/ciencia/noticias/300704a.html>

- **NATURE**

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PALEOBIOLOGY: Sushi to Go Andrew M. Sugden *Science* 30 July 2004; 305(5684): p. 575c <http://www.sciencemag.org/cgi/content/summary/305/5684/575c?ct>

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Foundering Lithosphere Imaged Beneath the Southern Sierra Nevada, California, USA Oliver S. Boyd, Craig H. Jones, and Anne F. Sheehan *Science* 30 July 2004; 305(5684): p. 660-662 <http://www.sciencemag.org/cgi/content/abstract/305/5684/660?ct>

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Interactions between selenium and sulphur nutrition in *Arabidopsis thaliana* P. J. White, H. C. Bowen, P. Parmaguru, M. Fritz, W. P. Spracklen, R. E. Spiby, M. C. Meacham, A. Mead, M. Harriman, L. J. Trueman, B. M. Smith, B. Thomas, and M. R. Broadley *J. Exp. Bot.* published 16 July 2004, 10.1093/jxb/erh192 <http://jxb.oupjournals.org/cgi/content/abstract/erh192v1?ct>

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- **IAPC**

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I. S. Guliev, D. A. Huseynov, and A. A. Feizullaev p. 688 [abstract](#)

• ESA PORTAL

FRACTURED CRATER ON MARS

Summary - (Jul 27, 2004) This perspective image of a fractured crater near the Valles Marineris was taken by the European Space Agency's Mars Express spacecraft during its 61st orbit in January, 2004. The image was obtained using its High Resolution Stereo Camera (HRSC), which enables scientists to build a realistic 3D model of the surface of Mars which can then be tilted and rotated to examine from different angles. Scientists aren't sure why the floor of this crater is broken up like this, but it could be from cooled lava, dried clay, or frozen ground.

Full Story - <http://www.universetoday.com/am/uploads/2004-0727crater-full.jpg>
<http://www.universetoday.com/am/uploads/2004-0727crater-full.jpg>

This perspective image of a fractured crater near Valles Marineris on Mars was obtained by the High Resolution Stereo Camera (HRSC) on board the ESA Mars Express spacecraft.

The image was taken during orbit 61 in January 2004 with a resolution of 12.5 metres per pixel. It shows part of a cratered landscape to the north of the Valles Marineris, at 0.6° S latitude and 309° E longitude, with this crater having a fractured base.

This crater has a rim diameter of 27.5 kilometres and is about 800 metres deep. It is not known yet how these fractures are generated. On Earth, polygonal fractures may occur in contracting material, which breaks at weak zones. For example, we may see this appearing in cooled lava, dried clay or frozen ground.

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