



Media Statement

06/08/2007

Nanosurf, Swiss Manufacturer of Nano Microscopes, Proud to Contribute to NASA's Phoenix Mars Lander Mission

Liestal (Switzerland). – August 6, 2007 – Switzerland's Liestal-based Nanosurf AG is proud to make their own contribution to NASA's recent Mars Mission named Phoenix. The Phoenix probe is expected to study the history of water and the habitability of the Martian ice-rich soil. Nanosurf, the University of Neuchatel, and the University of Basel were part of a Swiss consortium challenged to equip the Phoenix' Mars Probe with the first atomic force microscope in space. This atomic force microscope was designed to be part of the Microscopy, Electrochemistry, and a Conductivity Analyzer (MECA) unit built by NASA's Jet Propulsion Laboratory. It will be a key component of the Phoenix probe's rich ensemble of on-board scientific instruments.

Nanosurf's atomic force microscope design was selected because of its outstanding lightweight of just 320 Gram (0.7 lb.), its low voltage requirements, and its varied robust features. The Mars-bound AFM is designed to achieve a resolution of 10 nanometers in an image range of 10 micrometers. For redundancy, it is equipped with 8 addressable sensors and cantilevers on a single chip. The AFM can be operated in static or dynamic mode, enabling it to image loose Martian soil particles without disturbing them. Phoenix will first locate water ice contained within Martian soil and send a sample to the AFM. The AFM will then image the sample and its micro computer system, backed-up by the Lander computer, will send results back to earth. The special tasks addressed by the Swiss consortium were diverse: to secure the AFM against shock waves during rocket launch and touchdown on Mars (expected end of May 2008), the prevention of atmospheric electrical discharges through AFM's limited voltage, cold resistance, and shielding against all kinds of radiation on the Martian surface.

Robert Sum, co-founder of Nanosurf AG said: "Our nano microscopes are closing the gap between theory and practical knowledge about surfaces in the range of nanometers. The Phoenix Mars Mission proves that our instruments are ready for all kinds of tasks." For

Nanosurf's chairman of the Board, Lukas Howald, Jet Propulsion's choice of the Swiss consortium "proves that big achievements in Switzerland's nano community have been duly recognized." Dominik Brändlin, Nanosurf's head of development is proud that his company's design "is excellent for every complex task you could possibly anticipate without any scientific constrictions. Nanosurf's instruments have the advantage of being both user friendly as well as easily manageable."

In 1997, three Swiss scientists Dominik Brändlin, Lukas Howald and Robert Sum founded the Switzerland based company Nanosurf AG (<http://www.nanosurf.com>) in the town of Liestal. They were committed to the aim of constructing and distributing easily operable atomic force microscopes as well as scanning tunneling microscopes, known as the "easyScan" AFM/STM series. Today, Nanosurf is the world's leading equipment supplier for nano microscopes in the areas of education and science with 1000 microscopes sold around the globe. The company has received many awards by Swiss institutions for their achievements, including the Swiss government's body for entrepreneurs (KTI) and several private and state bodies. Nanosurf's latest invention is the Nanite ® atomic force microscope, which addresses the industry's need for automated nano instruments that perform serial examinations.

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For illustrations to this media statement look under www.nanosurf.ch > Company > Press Statements

Further details see: <http://www.mars-afm.ch> - First Atomic Force Microscope on Mars (FAMARS)

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