NANOKHOD

A Micro-Rover for Scientific Exploration in Extreme Environments

- "In-situ" geochemical analysis of various samples on a planetary surface
- Current development optimise for Mercury night side:

  Surface temperature -183°C:

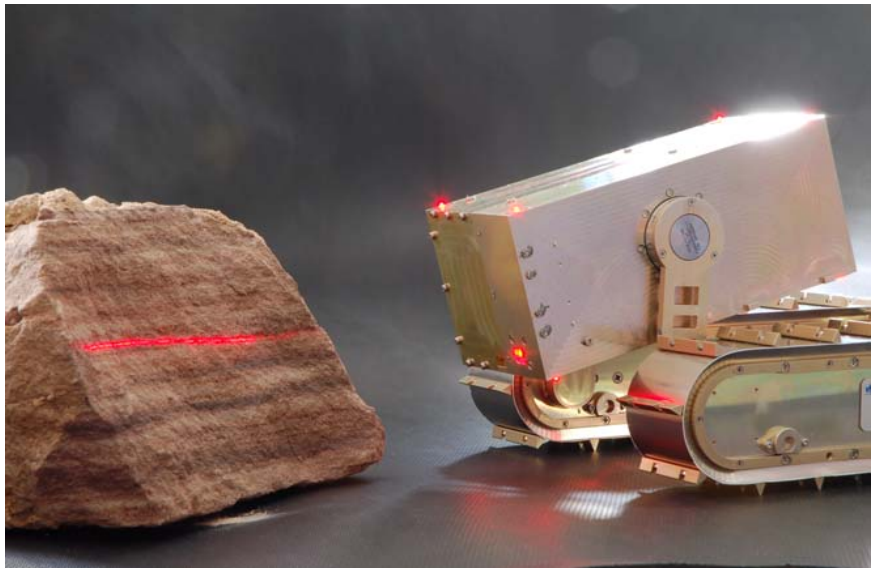
  High Vacuum.

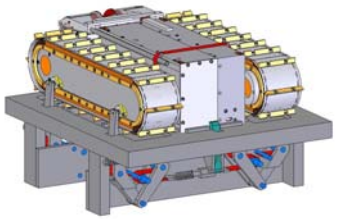
  Fine regolith surface

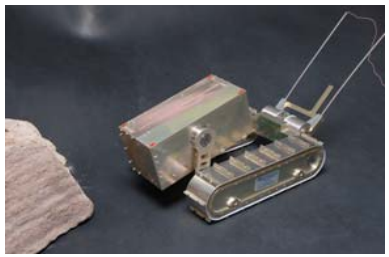
  Landing shock 200g in 20ms
- On-surface life time: >14 days
- 2 DOF Payload cabin for climbing & instrument placement
- Payload: Geochemistry Instrument Package Facility (see separate GIPF flyer):

  APX & Mössbauer Spectrometers:

  Miniature Imaging system
- Autonomy concept in conjunction with Lander







- Mobility:

  Overcome obstacles up to: 0.1 m

  Locomotion speed: 2.7 m/h

  Total travel distance: >50 m
- Customised locomotion & articulation drives by Harmonic Drive AG
- Electrical Power:

  During movement: 5.7W peak

  Other modes: 1.3-3.4W

  Extendable power & comms tether
- Mass including P/L and module on Lander: <3.2 kg
- Size: < 250 x 160 x 65 mm
- Status:

  ESA Contract "Mercury Robotic Payload": EM-Model manufacture for Mercury in progress. Environmental testing Q4 2005

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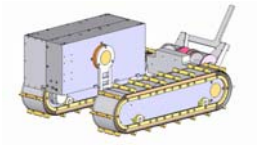

NANOKHOD and other enquiries

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About the company:

von Hoerner & Sulger GmbH is a SME company excelling in the system & detail design and manufacture of specialised scientific instrumentation. For over 30 years the company has built numerous instruments for universities, industries and national & international agencies, 10 of which have successfully flown in space. Please feel free to contact us to discuss any furture application that you may have.