

Microbial Ecology of Deep-sea Sulfide Minerals

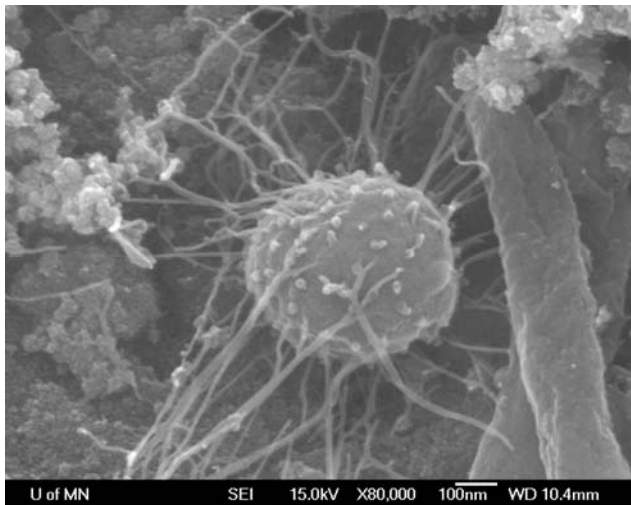
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NNIN Facility utilized – Characterization Facility

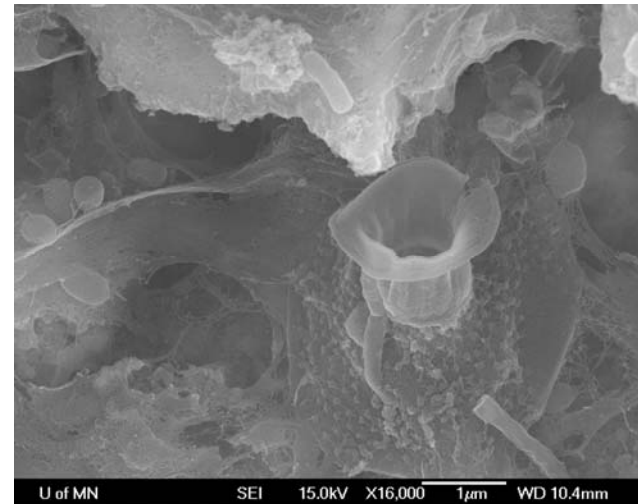
DESCRIPTION OF WORK

- ◆ Mid-Ocean Ridge sites of hydrothermal venting
- ◆ Low-temperature weathering of iron-sulfide minerals at the seafloor



Research Approach

- ◆ Micro-probe X-ray Absorption Spectroscopy
- ◆ Micro-probe isotope geochemistry
- ◆ Microbial ecology (DNA-based)



This is new research! Related pubs from our group

- ◆ Toner et al. 2009. Biogenic iron oxide formation at Mid-Ocean Ridge hydrothermal vents: Juan de Fuca Ridge. *Geochim. Cosmochim. Acta* **73**, 388-403
- ◆ Toner et al. 2009. Preservation of Iron(II) by Carbon-Rich Matrices in Hydrothermal Plumes. *Nature Geoscience* **2**, 197-201