

Vanadium Processing Expertise

Mineral Processing & Hydrometallurgical Services:

- ◆ Mineralogy studies
- ◆ Magnetic upgrading
- ◆ Flotation schemes
- ◆ V content analysis & speciation
- ◆ Salt roasting
- ◆ Heap leaching
- ◆ Atmospheric leaching
- ◆ Pressure oxidation
- ◆ Leach modelling studies
- ◆ Oxidation & reduction for V species control
- ◆ Solvent extraction
- ◆ Ion exchange
- ◆ Analysis of battery-grade electrolyte

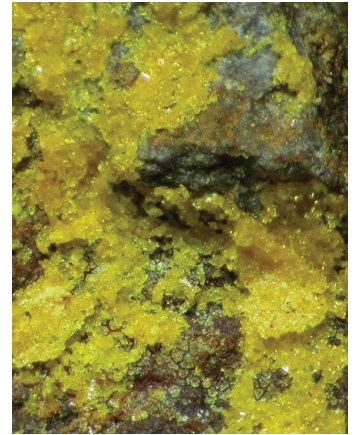
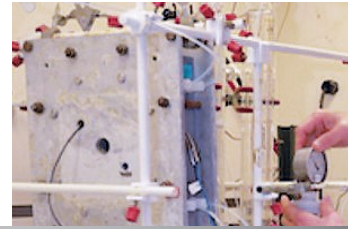
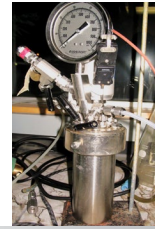
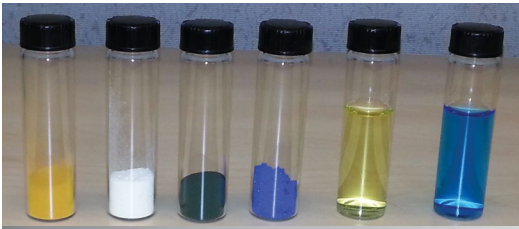


Photo: Schoderite, Leon Hupperichs



Past Projects:

- ◆ Built a 60 kW Vanadium Redox Flow Battery (VRB) Energy Storage System
- ◆ Developed analytical methods for battery-grade VRB electrolyte solutions
- ◆ V flowsheet development for Gibellini mine, Nevada
- ◆ V recovery from oil residues using salt roasting
- ◆ Recovery & purification of V from waste salt
- ◆ Process development to recover V from fly ash
- ◆ Solvent extraction study for selective recovery of V over Fe, Al, Mo, and U
- ◆ Fundamental development of V behaviour during leach & purification
- ◆ Atmospheric leach modelling of V_2O_5 & V_2O_3
- ◆ V extraction by alkaline pressure leaching

