

## *The Peculiar Habits of Niobates and Tantalates*

**Prof. May Nyman**

**Department of Chemistry, Oregon State University, Oregon (USA)**

**Friday 7th September, 2012. ICIQ Auditorium, 12 p.m.**

### **Professional career**



May Nyman was born in August 1967 in Kansas, USA and grew up in Virginia, USA. May's first scientific interest was geology; she obtained her bachelor of science in geology from Virginia Tech in Virginia, USA. Interest in mineralogy steered her towards inorganic chemistry, and she carried out her Master's of science research in the department of Materials Science and Engineering also at Virginia Tech, studying precursor chemistry and chemical vapor deposition of oxide thin films for semiconductor industry applications. She then obtained her PhD from University of New Mexico Department of Chemistry, researching metal sulfide clusters and thin film materials. She remained in New Mexico for fifteen years post-graduation working as a staff chemist and Sandia National Laboratories, eventually becoming Distinguished Member of the Technical Staff. Here she researched oxide clusters and materials for a variety of energy and environmental applications including water treatment, nuclear waste remediation, and phosphors for solid-state lighting, as well as pioneered the development of heteropolyniobate chemistry, which continues to be her scientific passion. In August 2012, May and her family moved 2000 km to the Pacific Northwest to join the Chemistry faculty at Oregon State University in Oregon, USA. There she will be teaching and continuing studying aqueous cluster chemistry in her own research program as well as in collaboration with the Center for Sustainable Materials Chemistry at Oregon State.

### **Research Interests**

Aqueous alkaline cluster chemistry including niobates, tantalates and uranyl species; structure-function relationship; aqueous ion-pairing; X-ray scattering and diffraction; corroborating experiment and theory, ion separations and sequestration for environmental applications.