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## SEMINAR NOTICE

**TITLE:** Electrochemically self organized nanomaterials for Li-ion microbatteries

**PRESENTER:** Dr.Ilie Hanzu, post-doctoral fellow at Leibniz  
Universität Hannover, Germany

**LOCATION:** *Hall A25, 2-nd floor, Faculty of Sciences building, Str. Dr. Ion Rațiu 7-9.*

**DATE:** *Thursday, January 27, 2011, 11:30.*

### **Abstract**

Abstract: The results of the fabrication of an alternative electrode for lithium-ion batteries are presented during the seminar. The active material consists of self-organized TiO<sub>2</sub> nanotube layers prepared by a simple anodization process. The performances of this type of nanostructured electrode are studied by the combination of structural techniques (Scanning electron microscopy and X-ray diffraction) and electrochemical tests. The discharge/charge properties and cycling performance characteristics are studied for both amorphous and crystalline titania nanotubes. With a maximum areal capacity of 77 μAh/cm<sup>2</sup>, a good capacity retention up to 90% over 50 cycles, nanotubular TiO<sub>2</sub> is a promising electrode for rechargeable Li-ion microbatteries.