Seminar

UNIVERSITÀ DI TRENTO
Dipartimento di Ingegneria Industriale

A non-classical electromechanical effect in highly defective bulk cerium oxides

July 28th, h. 2:30 – 3.30 pm

Girasole Room, Polo Ferrari 2, Via Sommarive 9, Trento

Info
DII - Dipartimento di Ingegneria Industriale
tel. +39 0461 282500
dii.supportstaff@unitn.it

Speaker

Ahsanul Kabir
Department of Energy Conversion and Storage, Technical University of Denmark, Denmark
Advanced Materials Centre, Faculty of Electronics, Telecommunications and Informatics, Gdańsk University of Technology, Poland

In recent times, a new class of environmentally friendly electromechanically active materials, "**non-classical ionic electrostrictors (iES)**" based on highly defective cerium and bismuth oxides are discovered. These materials demonstrate an anomalously large and uncapped electromechanical behaviors that are even superior to state-of-the-art lead-based electrostrictors used in industry.

In this collaborative research, we investigate the role of different dopants on the electro-chemo-mechanical properties of bulk ceria ceramics.