HUMBOLDT-UNIVERSITÄT ZU BERLIN

Mathematisch-Naturwissenschaftliche Fakultät • Institut für Chemie Sonderforschungsbereich 1109

Sprecher: Prof. Dr. Christian Limberg



Institutskolloquium/Kolloquium des SFB 1109

Prof. Mamoru Senna Keio University, Yokohama, Japan

Smart solid state processes and elucidation of the real structure toward functional complex oxides and oxifluorides

Freitag, 20.03.2015, 10:15 Uhr

Hörsaal 0'05, Lehrraumgebäude Newtonstr. 14, 12489 Berlin

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Abstract:

Upon sound scientific bases, affordable solid state processes have been explored and developed. Basic concept includes to obtain well-defined oxide-based nanocomposites by starting from homogeneous precursor, to utilize phenomena at the interface between inorganic – organic solids and to spare energy exerted. The body of the talk comprises experimental case studies recently carried out by the author with a number of co-workers in Europe and Japan, among others: (1) fluorination of oxide nanoparticles, (2) solid state reduction of fumed silica to SiO via a solid state route, and (3) low temperature solid state synthesis of cubic Li₇La₃Zr₂O₁₂ for all solid state Liion battery.