

10 LUGLIO 2025, ORE 11:30
SEMINAR ROOM, POLO FERRARI 2 - VIA SOMMARIVE 9, TRENTO

Flash sintering rapidly densifies ceramics using an electric field at high temperatures, drastically cutting processing time and energy.

This seminar explores the diverse physical and electrochemical phenomena involved, beyond simple heating. It examines light emission, electrochemical reduction, and plasma formation in materials like yttria-stabilized zirconia, hafnia, and boron carbide, highlighting the creation of reduced oxide phases and the first successful flash sintering of B_4C .

The insights gained impact material structure, conductivity, and optical properties, with implications for fuel cells and advanced ceramic manufacturing.

Speaker: Christian Bechteler
Department of Materials – University of Oxford (UK)

Flash Sintering - Densification and Beyond

DII SEMINAR

