UNIVERSITÀ DI TRENTO
Dipartimento di Ingegneria Industriale

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SEMINAR ROOM - POLO FERRARI 2

Exsolution produces strongly anchored metal nanoparticles from oxide hosts, yielding catalysts with enhanced resistance to sintering and coking. This talk explores how oxide microstructure and reduction conditions can control nanoparticle formation and architecture in perovskite catalysts.

Examples include nanoporous nickel catalysts for biogas dry reforming and bimetallic iron-nickel catalysts for CO_2-mediated ethane conversion. The role of **nanoparticle architecture** in reaction selectivity and the reversibility of these transformations through redox cycling will also be discussed.



Speaker:
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From ions to nanoparticles: Design of heterogeneous catalysts by solid-state reactions

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