

MAPEX COMMUNITY

People

II INTERNATIONAL ADVISORY BOARD

The International Advisory Board (IAB) is composed of five internationally leading and highly distinguished scientists. Their role is to guide MAPEX with respect to the medium-term and long-term development of its research landscape, e.g. individuating key areas of investigation in which human and technical resources should be invested, or suggesting reduction of efforts in others. The IAB members are appointed by the Executive Board and hold a mandate of four years.



Prof. Stacey F. Bent

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Affiliations

- Stanford University
- Jagdeep and Roshni Singh Professor in the School of Engineering
- Chair: Chemical Engineering

Research Field

Surface and Interfacial Chemistry

Research Focus: Understanding surface and interfacial chemistry and materials synthesis, and applying this knowledge to a range of problems in sustainable energy, semiconductor processing, and nanotechnology.



Prof. Michael W. Finnis

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Affiliations

- Imperial College, London
- Faculty of Engineering
- Department of Materials
- Chair: Materials Theory and Simulation

Research Field

Materials Theory and Simulation

Research Focus: Current research themes include: (i) Properties of point defects and interfaces in alumina and strontium titanate; (ii) Free-energy of crystal-melt interfaces; (iii) Models of interatomic forces; (iv) Thermodynamic properties of charged point defects; (v) Thermodynamic properties of high-temperature ceramics; (vi) Theory of hydrogen embrittlement of metals.



Prof. Hani Henein

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Affiliations

- University of Alberta
- Faculty of Engineering
- Department of Chemical and Materials Engineering
- Head of Advanced Materials and Processing Laboratory

Research Field

Materials Processing

Research Focus: Processing of materials with special interest in particulate materials for powder metallurgy with emphasis on quantitative microstructural evolution of alloy system, metal-matrix composites, spraying and atomizing processing, rapid solidification, recycling of metals, alloys and composites also research on the manufacturing of micro-alloyed and low-alloyed steels for pipelines and SAGD (steam assisted gravity drainage) applications.



Prof. Sybrand van der Zwaag

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Affiliations

- TU Delft
- Faculty of Aerospace Engineering
- Chair: Novel Aerospace Materials

Research Field

Novel Aerospace Materials

Research Focus: Microstructure-property relations for novel, not yet existing, materials. Research lines include the computational design of novel high-performance metals, the development of self-healing materials (polymers, metals and ceramics) as well as the development of novel functional composites. The work is generally of a fundamental nature, but with a clear link to industrial relevance.



Prof. Hans-Conrad zur Loye

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Affiliations

- University of South Carolina
- Department of Chemistry and Biochemistry
- Inorganic Chemistry Division
- Associate Dean for Research and Graduate Education
- David W Robinson Palmetto Professor

Research Field

Inorganic Materials Chemistry

Research Focus: Synthesis of novel solid-state materials and characterization of their physical properties; investigation of cooperative structure-property relationships; crystal growth of complex oxides and investigation of their electronic and magnetic properties.
