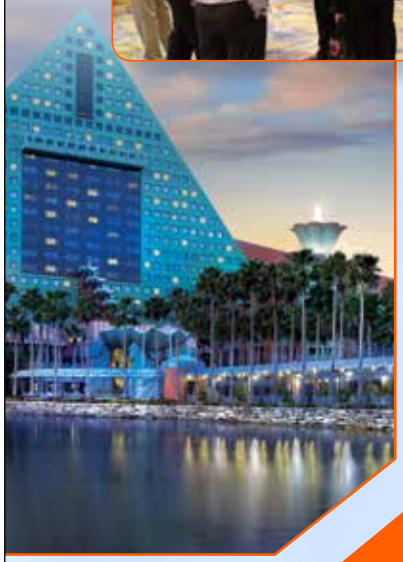
TMS2015

144th Annual Meeting & Exhibition

March 15-19, 2015 • Walt Disney World
Orlando, Florida, USA

Connecting the global minerals, metals, and materials community.



Plan Now to Attend:

Advanced Materials for Power Electronics, Power Conditioning, and Power Conversion III

Independent of the means by which electrical power is generated (conventional fossil, advanced fossil, nuclear, solar, wind, etc.), power conditioning and conversion is required to transform power into an appropriate form for efficient and cost-effective integration into the grid. By 2030, it is also projected that 80% of all electricity will flow through power electronics. Advanced materials including soft magnetic materials, semiconductors, and dielectric materials for capacitors are crucial for enabling the next generation of advanced power electronics technologies.

These technical communities have historically worked independent of one another, and materials development efforts have often been carried out in the absence of frequent and meaningful interactions with the power electronics community. The proposed symposium aims to bridge these historical gaps through a number of technical symposia devoted to relevant materials systems including soft magnets, dielectric materials for capacitors, and semiconductor materials. The primary focus of the proposed symposium will be in the area of advanced materials for power electronics and power conditioning systems. A range of invited and contributed talks will be presented by the top materials scientists in each field. To supplement the traditional technical sessions, a selected group of technical experts from the power electronics community will also be invited to present and to engage the materials community. These invited talks are intended to promote interactions between the materials and power electronics communities, to educate the materials community about critical materials needs, and to educate the power electronics community about state-of-the-art material developments.

Sponsored by:

- TMS Functional Materials Division (formerly EMPMD)
- Energy Conversion and Storage Committee; Magnetic Materials Committee

Organized by:

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Michael Lanagan, Penn State University (USA)
Michael McHenry, Carnegie Mellon University (USA)
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Clive Randall, Penn State University (USA)
Matthew Willard, Case Western Reserve University (USA)

For more information on how to participate, visit:

www.tms.org/TMS2015

Questions? Contact ***programming@tms.org***