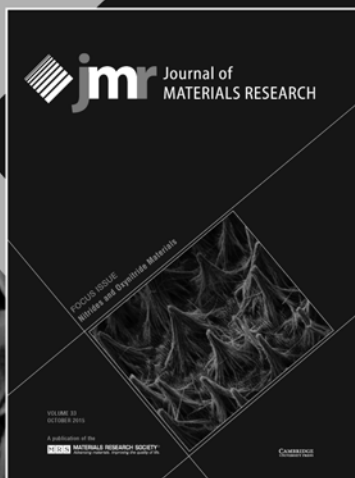


Submission Deadline—February 15, 2015



Nitrides and Oxynitride Materials

As a result of intensive research during the last several decades, nitride-based compounds have established themselves as inevitable materials with wide ranging applications in solid state lighting, displays, power electronics, and photovoltaics, thanks to their unique properties and capabilities beyond those of other electronic materials. Despite the fact that many nitride-based devices are already on the market, numerous challenges remain to be resolved in order to fully explore and implement their potential. It has been shown recently that the unique features of these materials, such as polarity, can lead to new device modes or improved device performance. Furthermore, the convergence of nitride materials and nanomaterials could lead to additional functionalities when combined with organics and polymers. Fundamental understanding of underlying mechanisms of surface, interface, doping, and defect-related properties will determine their full utilization and will result in exciting opportunities for further improvements, inventions, and commercialization.

This Focus Issue seeks to collect papers from research groups with diverse backgrounds in nitride and oxynitride materials and nanomaterials to discuss recent scientific and technological achievements. Submissions may cover experimental and theoretical aspects, as well as applications of these materials.

Contributed articles are sought in the following areas:

- ◆ Nitrides of different polarities
- ◆ Advances in nitride nanostructures
- ◆ Surface science of nitrides
- ◆ *In-situ* functionalization of nitrides
- ◆ Wide and ultra-wide bandgap nitrides (e.g., high Al-content AlGaN, BN)
- ◆ Bulk growth and epitaxy
- ◆ Crystal chemistry of (oxy)nitrides (e.g., high-pressure phases, single crystals)
- ◆ (Oxy)nitrides for energy conversion and storage (e.g., photocatalysts, hydrogen storage)
- ◆ (Oxy)nitrides for biomedical applications
- ◆ Luminescent (oxy)nitrides for lighting and displays
- ◆ Nitride ceramics

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To be considered for this issue, new and previously unpublished results significant to the development of this field should be presented. The manuscripts must be submitted via the *JMR* electronic submission system by February 15, 2014. Manuscripts submitted after this deadline will not be considered for the issue due to time constraints on the review process. **Submission instructions may be found at www.mrs.org/jmr-instructions.** Please select "Focus Issue: *Nitrides and Oxynitride Materials*" as the manuscript type. **Note our manuscript submission minimum length of 6000 words.** All manuscripts will be reviewed in a normal but expedited fashion. Papers submitted by the deadline and subsequently accepted will be published in the Focus Issue. Other manuscripts that are acceptable but cannot be included in the issue will be scheduled for publication in a subsequent issue of *JMR*.

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- KK Nanomaterials in Translational Medicine
- LL Soft Electronics—From Electronic Skin to Reliable Neural Interfaces
- MM Crystal Engineering—Design, New Materials and Applications

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- OO Metal-Assisted Chemical Etching of Silicon and Other Semiconductors
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- RR Solution Syntheses of Inorganic Functional/Multifunctional Materials
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- TT Metal Oxides—From Advanced Fabrication and Interfaces to Energy and Sensing Applications
- UU Titanium Oxides—From Fundamental Understanding to Applications
- VV Science and Technology of Superconducting Materials
- WW Ultrafast Dynamics in Complex Functional Materials
- XX Multiscale Modeling and Experiments on Microstructural Evolution in Nuclear Materials
- YY Insights for Energy Materials Using *In Situ* Characterization
- ZZ Materials Information Using Novel Techniques in Electron Microscopy

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