

Submission Deadline—April 1, 2017



Jan van der Merwe: Epitaxy and the Computer Age

Fabrication of well-ordered semiconductor thin films by precise deposition control of atomic layers is known to semiconductor engineers and device physicists as epitaxy and Frank-van der Merwe growth. Understanding and mastering this process was the precondition for the modern computer technology and has led mankind into the digital era and information age. The theoretical foundations for this quantum leap in human and technological civilization were laid by the South African physicist Jan H. van der Merwe, who passed away on February 28, 2016, on his 94th birthday.

To honor the contributions of Dr. van der Merwe, the *Journal of Materials Research* will publish a Focus Issue in 2017 to present latest developments in epitaxy, with the focus on the fundamental materials science and the past (historic perspective), present, and future of the field.

Contributed papers are solicited in the following areas:

- ◆ Fundamental studies in epitaxy
- ◆ Semiconductor materials, advanced structures and systems
- ◆ Growth of single crystalline materials
- ◆ Surface and interface properties of semiconductor/electrolyte junctions
- ◆ Nanomaterials and heterostructures
- ◆ Overlayers, underlayers, and the like
- ◆ Modeling and simulation of semiconductors, interfaces and transport processes
- ◆ Short reviews of materials and structures

Application properties may be related, in particular, to wear-, corrosion-, thermal shock-resistance, structural integrity under mechanical and thermal loads, ballistic performance of armor ceramics, particular electrical properties related to fuel cells, insulators, supercapacitors, semiconductors, conductors and sputtering targets, optical transmittance, catalytic properties, permeation of porous structures, and biomedical applications. The papers on the proposed topic will be of interest and importance to specialists from academia, research centers, and industry.

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MANUSCRIPT SUBMISSION

To be considered for this issue, new and previously unpublished results significant to the development of this field should be presented. If you would prefer to write a review, please submit a short proposal to one of the Guest Editors outlining the review for approval. The manuscripts must be submitted via the *JMR* electronic submission system by **April 1, 2017**. 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: *Jan van der Merwe: Epitaxy and the Computer Age*" as the manuscript type. **Note our manuscript submission minimum length of 6,000 words, with a maximum of 8 figures.** 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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Cambridge University Press
One Liberty Plaza, 20th Floor,
New York, NY 10006

A publication of the
MRS MATERIALS RESEARCH SOCIETY
Advancing materials. Improving the quality of life.

Periodical Rate Postage Paid at New York, NY
and Additional Mailing Offices

ISSN: 0884-2914