



catalysts



an Open Access Journal by MDPI

New Advances in Self-Catalysis Technology

Guest Editors:

Prof. Dr. Shanthi Iyer

Nanoengineering, Joint School of
Nanoscience and
Nanoengineering, North Carolina
A&T State University,
Greensboro, NC 27401, USA

Prof. Dr. Lew Reynolds

Department of Materials Science
and Engineering, North Carolina
State University, 27695 Raleigh,
NC, USA

Deadline for manuscript
submissions:

closed (31 December 2021)

Message from the Guest Editors

Dear Colleagues,

Recent years have seen a systematic shift from the catalyzed growth of NWs to a self-catalyzed growth approach to alleviate the detrimental effects of the catalyst, impacting subsequent device performance. Integration of these NWs on a variety of substrates during either synthesis or post-growth transfer of nanowires with an ability to recycle substrates and less material consumption has made this an attractive, cost-effective approach. As a result, the application of semiconductor NWs has broadened to a large field of interest ranging from simple optoelectronic devices to photonic integrated circuits, and single photon detection in quantum information science to automotive LIDAR.

This Special Issue therefore aims to capture one small segment of this exciting field and is focused on the most recent progress and advances in the field of semiconductor nanowires grown by self-catalyzed epitaxy with emphasis on growth, modeling, fabrication of nanoscale optoelectronic devices, and applications thereof.

Prof. Dr. Shanthi Iyer
Prof. Dr. Lew Reynolds
Guest Editors



mdpi.com/si/56923

Special Issue