Electrodeposition of 1Dimensional ZnO Nanostructures

by Mohammad Reza Khajavi

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Abstract

Zinc Oxide nanostructures demand particular attention due to their wide potential applications in the current and next generation of photonic and electronic devices. In the interest of an efficient, economical and well-suited fabrication method for large-scale production of one dimensional (1D) ZnO nanostructures, the electrodeposition method has been indicated as a promising avenue. In view of this promising avenue, the growth mechanism of 1D ZnO nanostructures from nitrate based solutions by both conventional and pulsed current electrodeposition methods was systematically studied. Moreover, a three-step fully electrochemical strategy was developed for electrodeposition of hierarchical 1D ZnO nanostructures. Finally, a single-step strategy was proposed for deposition of ZnO nanotubes.

Speaker Mohammad Reza Khajavi

Biography

Mr. Mohammad Reza Khajavi has received his bachelor degree in Metallurgy from Shiraz University, Iran, and obtained his master degree in Corrosion from Shiraz University, Iran. Now, he is doing his PhD under the supervision of Associate Prof. D.J. Blackwood in Materials Science and Engineering department, NUS.

ALL ARE WELCOME!

Assoc Prof Gong Hao Host