

In this issue

Jia Lin, Xiaolin Liu, Shu Zhu and
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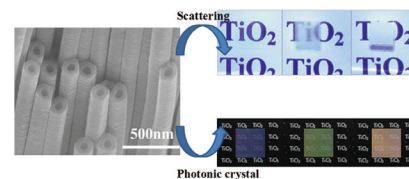
TiO₂ nanotube structures for the enhancement of photon utilization in sensitized solar cells

DOI 10.1515/ntrev-2014-0028

Nanotechnol Rev 2015; 4(3): 209–238

Review: Novel anodic TiO₂ nanotube structures are promising for the enhancement of photon conversion when incorporated in high-efficiency sensitized solar cells.

Keywords: light harvesting; light scattering; microstructure; photonic crystal; TiO₂ nanotubes.



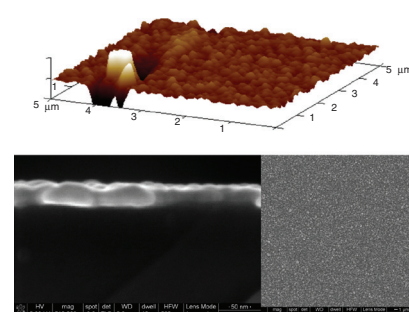
Radu Malureanu and Andrei Lavrinenko
**Ultra-thin films for plasmonics:
a technology overview**

DOI 10.1515/ntrev-2015-0021

Nanotechnol Rev 2015; 4(3): 259–275

Review: This article presents a general survey of the various possibilities for depositing ultra-thin and extremely smooth layers to be used for plasmonic applications in the visible and infra-red range, as well as the results obtained when applying these techniques.

Keywords: plasmonics; ultra-thin films; VIS/IR range.



Shiwei Tang, Qiong He, Shiyi Xiao,
Xueqin Huang and Lei Zhou
**Fractal plasmonic metamaterials:
physics and applications**

DOI 10.1515/ntrev-2014-0025

Nanotechnol Rev 2015; 4(3): 277–288

Review: The article reviews recent work by the author group on a particular type of metamaterials (MTMs) composed of metallic plates drilled with periodic arrays of sub-wavelength fractal-like apertures, which can be used as superlens or hyperlens and to enhance light-matter interactions.

Keywords: light-matter interaction; metamaterials; mode expansion; surface plasmon.

