

CONTENTS



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Editorial

Gregory K.L. Goh page 1

Regular Articles

The concentration effect of capping agent for synthesis of silver nanowire by using the polyol method Jian-Yang Lin, Yu-Lee Hsueh and Jung-Jie Huang page 2



The FE-SEM image shows that nanostructures with considerable quantities of silver nanowires can also be produced when the PVP (Mw=360 K)/AgNO₃ molar ratio was 2.5.

Atomic and molecular layer deposition for surface modification

Mika Vähä-Nissi, Jenni Sievänen, Erkki Salo, Pirjo Heikkilä, Eija Kenttä, Leena-Sisko Johansson, Jorma T. Koskinen and Ali Harlin

page 7



Print quality of a polylactide film surface modified with atomic layer deposition prior to inkjet printing (360 dpi) with an aqueous ink. Number of printed dots illustrated as a function of 0, 5, 15 and 25 deposition cycles of trimethylaluminum and water.

Regular Articles—Continued

Nanocomposite films with magnetic field sensing properties M. Staruch and M. Jain page 12



The magnetic field dependent magnetoresistance values at 10 K for La_{0.67}Sr_{0.33}MnO₃ (LSMO) film on Al₂O₃ substrate are enhanced with addition of secondary phase in LSMO:ZnO nanocomposite films on SiO₂/Si and Al₂O₃ substrates. The field sensitivity further increases when the field is applied parallel to the current (H//I).

Low temperature grown ZnO@TiO2 core shell nanorod arrays for dye sensitized solar cell application

Gregory Kia Liang Goh, Hong Quang Le, Tang Jiao Huang and Benjamin Tan Tiong Hui

page 17



The synthesis process of coating TiO₂ shell onto ZnO nanorod core is shown schematically. A thin, uniform, and conformal shell had been grown on the surface of the ZnO core after immersing in the $(NH_4)_2$ ·TiF₆ solution for 5–15 min.

Magnetron sputtered nanostructured cadmium oxide films for ammonia sensing

P. Dhivya, A.K. Prasad and M. Sridharan *page 24*



Investigation of some new hydro(solvo)thermal synthesis routes to nanostructured mixed-metal oxides

David L. Burnett, Mohammad H. Harunsani,

Reza J. Kashtiban, Helen Y. Playford, Jeremy Sloan, Alex C. Hannon and Richard I. Walton *page 30*



New solvothermal synthesis approaches to spinel and rutile mixedmetal oxides are reported.

Growth and self-assembly of BaTiO₃ nanocubes for resistive switching memory cells

Dewei Chu, Xi Lin, Adnan Younis, Chang Ming Li, Feng Dang and Sean Li page 38



This work describes a novel resistive switching memory cell based on self-assembled ${\rm BaTiO}_3$ nanocubes.

Aqueous phase deposition of dense tin oxide films with nano-structured surfaces

Yoshitake Masuda, Tatsuki Ohji and Kazumi Kato page 42

Dense Tin Oxide Films



Dense tin oxide films of 65 nm were successfully fabricated in an aqueous solution. They had nano-structured surfaces. Concave-convex substrates were entirely-covered with the continuous films.

NO₂ gas sensing of flame-made Pt-loaded WO₃ thick films Thanittha Samerjai, Nittaya Tamaekong, Chaikarn Liewhiran, Anurat Wisitsoraat and Sukon Phanichphant page 47



The response of 0.25 wt% Pt-loaded WO_3 sensor was 637 towards $\rm NO_2$ concentration of 10 ppm at 150 °C.

Chemical vapour deposition of thermochromic vanadium dioxide thin films for energy efficient glazing Michael E.A. Warwick and Russell Binions

page 53



Schematic demonstration of the effect of thermochromic glazing on solar radiation (red arrow represents IR radiation, black arrow represents all other solar radiation).

One-pot solvothermal synthesis of dual-phase titanate/ titania Nanoparticles and their adsorption and photocatalytic Performances

Yu Hua Cheng, Dangguo Gong, Yuxin Tang, Jeffery Weng Chye Ho, Yee Yan Tay, Wei Siew Lau, Olivia Wijaya, Jiexiang Lim and Zhong Chen *page 67*



The effect of solvothermal synthesis temperature on the formation and dye removal performance of dual phase titanate/titania nanoparticles was unveiled and optimized.

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