Advanced Ceramics

**Thin-Film Technology, Creating New Opportunities**
Robert Nolan
NanoMarkets LC, Sterling, Va.

A just-released report analyzes and forecasts the new commercial opportunities that analysts believe thin films will find in the electronics and semiconductor sectors in the coming decade.

Nanodesign of Fine Particles and Thin Films
Vukoman Jokanovic
Institute of Nuclear Sciences Vinca, Belgrade, Serbia and Montenegro
Bojan Jokanovic
Institute fur Metallurgie, Dept. of Termochemie und Mikrokinetik, Clausthal, Germany

Powders and thin films of controlled microstructure and phase composition can be obtained using spray pyrolysis.

Construction Ceramics

**Linear Programming Used to Minimize Cost in Wet Processing of Triaxial Ceramics**
C.M. Gomes
Graduate Program in Materials Science and Engineering, Federal University of Santa Catarina, Florianópolis, SC, Brazil
A.P.N. Oliveira and O.E. Alarcon
Graduate Program in Materials Science and Engineering, and Dept. of Mechanical Engineering, Federal University of Santa Catarina, Florianópolis, SC, Brazil
D. Hotza
Graduate Program in Materials Science and Engineering, and Dept. of Chemical Engineering, Federal University of Santa Catarina, Florianópolis, SC, Brazil

Linear programming is used to minimize the cost of ceramic bodies as a function of the raw materials, considering rheological properties, optimum amount of deflocculant and settling stabilization.
**Glass & Optical Materials**

**Relationship Between PL Intensity and Tin Permeated in Float**

Shimin Liu, Guoqiang Qin, Dongli Yu, Zhefeng Xu, Zhijun Feng and Dongchun Li

Key Laboratory of Metastable Materials Science & Technology, Yanshan University, Hebei, Qinhuangdao, People's Republic of China

An effective method using the photoluminescence of tin ions has been developed for the quantitative measurement of tin content in float glass.

**Refractory Ceramics**

**AMC, MAC Refractories for Steelmaking**

N.M. Khalil, A.G.M. Othman and M.M.S. Wahsh

Refractories Dept., National Research Center, Cairo, Egypt

H. El-Didamony

Chemistry Dept., Faculty of Science, Zagazig University, Zagazig, Egypt

The presence of a limited amount of MgO-Al₂O₃ spinel phase improved the properties of Al₂O₃-MgO-carbon and MgO-Al₂O₃-carbon refractories and had no negative effect on their strength.

**Polymeric Fiber Geometry Affects Refractory Castable Permeability**

R. Salom•o, A.M. Zambon and V.C. Pandolfelli

Federal University of São Carlos, São Carlos, S.P., Brazil

Selected values of polymeric fiber length and diameter maximize the permeability level of castable refractories, which decreases destructive spalling.

**ACerS News & Activities**

**Member News**

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**Materials Edge**

**ACT Preview**

**Ceramic Science Online**

**Obituaries**

**MS&T '06: Materials Science & Technology 2006 Conference & Exhibition and ACerS 108th Annual Meeting**

**1st International Congress on Ceramics**

**Structural Clay Products Division Meeting**

**Glass & Optical Materials Division Meeting**