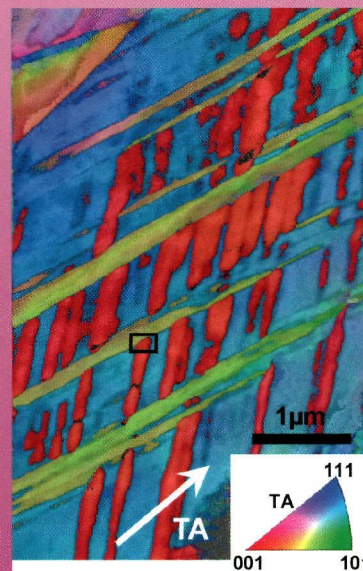
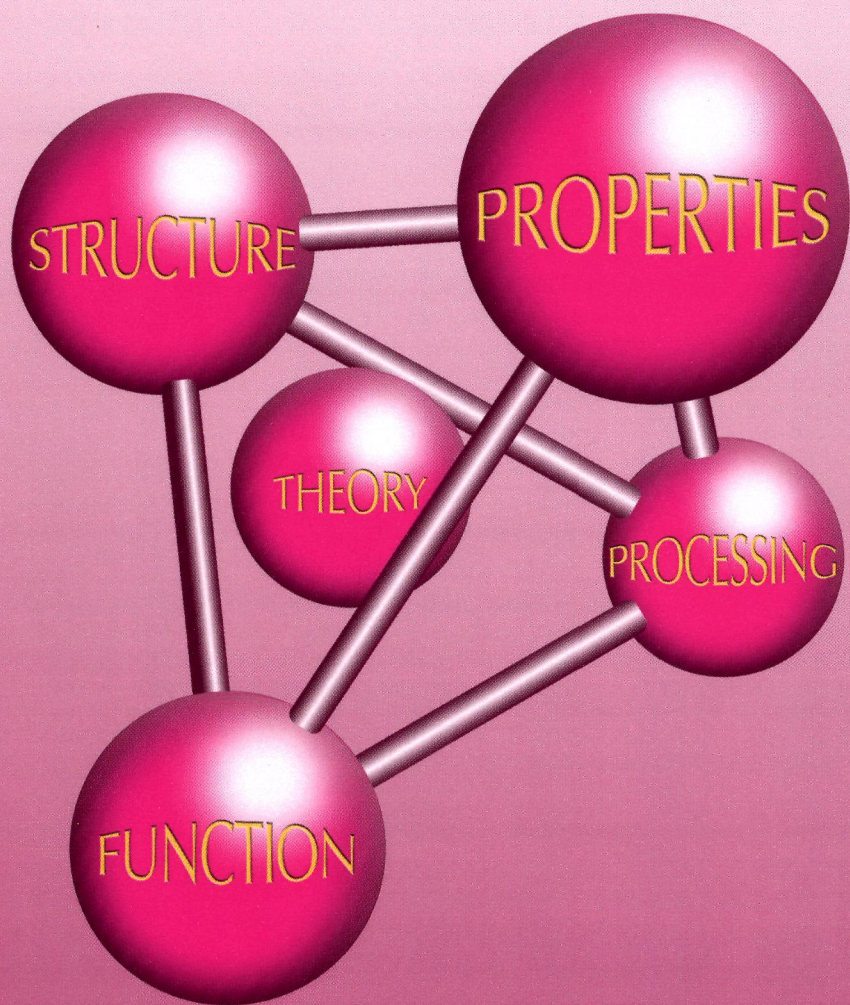


Scripta MATERIALIA

A LETTERS JOURNAL



Scripta MATERIALIA

Volume 69, Issue 5
(Published 25 June 2013)

CONTENTS

- Y. Gao, S.J. Widgeon, T.B. Tran, A.H. Tavakoli, G. Mera, S. Sen, R. Riedel & A. Navrotsky 347 Effect of demixing and coarsening on the energetics of poly(boro)silazane-derived amorphous Si-(B-)C-N ceramics
- J. Wang, D. Yang & H. Conrad 351 Transient-regime grain growth in nanocrystalline yttria-stabilized zirconia annealed without and with a DC electric field
- A. Evirgen, I. Karaman, R.D. Noebe, R. Santamarta & J. Pons 354 Effect of precipitation on the microstructure and the shape memory response of the Ni_{50.3}Ti_{29.7}Zr₂₀ high temperature shape memory alloy
- W. Wu, K. An, L. Huang, S.Y. Lee & P.K. Liaw 358 Deformation dynamics study of a wrought magnesium alloy by real-time in situ neutron diffraction
- N. Nishiyama, T. Taniguchi, H. Ohfuji, K. Yoshida, F. Wakai, B.-N. Kim, H. Yoshida, Y. Higo, A. Holzheid, O. Beermann, T. Irifune, Y. Sakka & K.-i. Funakoshi 362 Transparent nanocrystalline bulk alumina obtained at 7.7 GPa and 800 °C
- B.-N. Kim, E. Prajatelista, Y.-H. Han, H.-W. Son, Y. Sakka & S. Kim 366 Transparent hydroxyapatite ceramics consolidated by spark plasma sintering
- M. Patel, V. Singh, J.J. Reddy, V.V. Bhanu Prasad & V. Jayaram 370 Densification mechanisms during hot pressing of ZrB₂-20 vol.% SiC composite
- J. Dong, J. Han, W. Qiu, S. Huang & W. Gao 374 TiO₂ with hybrid nanostructures via anodization: fabrication and its mechanism
- X. Li, X. Zhao, B. Ren, H. Luo, W. Ge, Z. Jiang & S. Zhang 377 Microstructure and dielectric relaxation of dipolar defects in Mn-doped (1 - x)Pb(Mg_{1/3}Nb_{2/3})O₃-xPbTiO₃ single crystals
- M.M. Abdullah, P. Singh, M. Hasmuddin, G. Bhagavannarayana & M.A. Wahab 381 In situ growth and ab initio optical characterizations of amorphous Ga₃Se₄ thin film: A new chalcogenide compound semiconductor thin film
- K.Y. Yu, D. Bufford, F. Khatkhatay, H. Wang, M.A. Kirk & X. Zhang 385 *In situ* studies of irradiation-induced twin boundary migration in nanotwinned Ag
- L. Qu, Y. Yang, Y.F. Lu, L. Feng, J.H. Ju, P. Ge, W. Zhou, D. Han & D.H. Ping 389 A detwinning process of {3 3 2}⟨1 1 3⟩ twins in beta titanium alloys
- X. Min, X. Chen, S. Emura & K. Tsuchiya 393 Mechanism of twinning-induced plasticity in β-type Ti-15Mo alloy
- D.-B. Xiong, N.L. Okamoto & H. Inui 397 Enhanced thermoelectric figure of merit in p-type Ag-doped ZnSb nanostructured with Ag₃Sb

(Continued on inside back cover)

INDEXED IN Current Contents, BIOSIS/CAS Selects, Camb. Sci. Abstr., Eng. Ind. Monthly and Author Ind., IBZ, Energy Res. Abstr., Energy Data Base, Metals Abstr., World Alum. Abstr., and the MSCI. Also covered in the abstract and citation database SciVerse Scopus®. Full text available on SciVerse ScienceDirect®

Printed by Polestar Wheatons Ltd, Exeter, UK

ISSN 1359-6462

Available online at www.sciencedirect.com

SciVerse ScienceDirect



1359-6462(201309)69:5;1-6

Scripta MATERIALIA

(Contents continued from outside back cover)

J. Feng, B. Xiao, R. Zhou & W. Pan	401	Thermal expansion and conductivity of RE ₂ Sn ₂ O ₇ (RE = La, Nd, Sm, Gd, Er and Yb) pyrochlores
D.H. Hong, T.W. Lee, S.H. Lim, W.Y. Kim & S.K. Hwang	405	Stress-induced hexagonal close-packed to face-centered cubic phase transformation in commercial-purity titanium under cryogenic plane-strain compression
C.N. Hulme-Smith, I. Lonardelli, A.C. Dippel & H.K.D.H. Bhadeshia	409	Experimental evidence for non-cubic bainitic ferrite
X. Liu, D. Choi, H. Beladi, N.T. Nuhfer, G.S. Rohrer & K. Barmak	413	The five-parameter grain boundary character distribution of nanocrystalline tungsten
F. Tian & Y. Liu	417	Synthesis of p-type NiO/n-type ZnO heterostructure and its enhanced photocatalytic activity
K.H. Kwon, I.-C. Yi, Y. Ha, K.-K. Um, J.-K. Choi, K. Hono, K. Oh-ishi & N.J. Kim	420	Origin of intergranular fracture in martensitic 8Mn steel at cryogenic temperatures
T. Kresse, Y.J. Li, T. Boll, C. Borchers, P. Choi, T. Al-Kassab, D. Raabe & R. Kirchheim	424	Influence of supersaturated carbon on the diffusion of Ni in ferrite determined by atom probe tomography
J.L. Sun, P.W. Trimby, F.K. Yan, X.Z. Liao, N.R. Tao & J.T. Wang	428	Grain size effect on deformation twinning propensity in ultrafine-grained hexagonal close-packed titanium