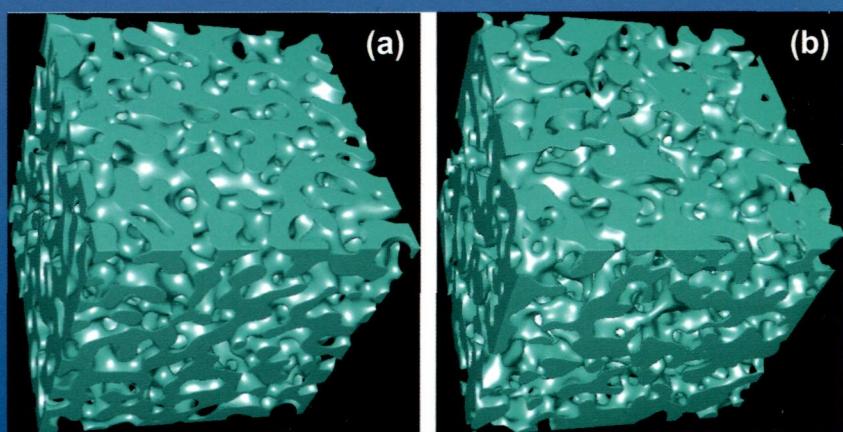
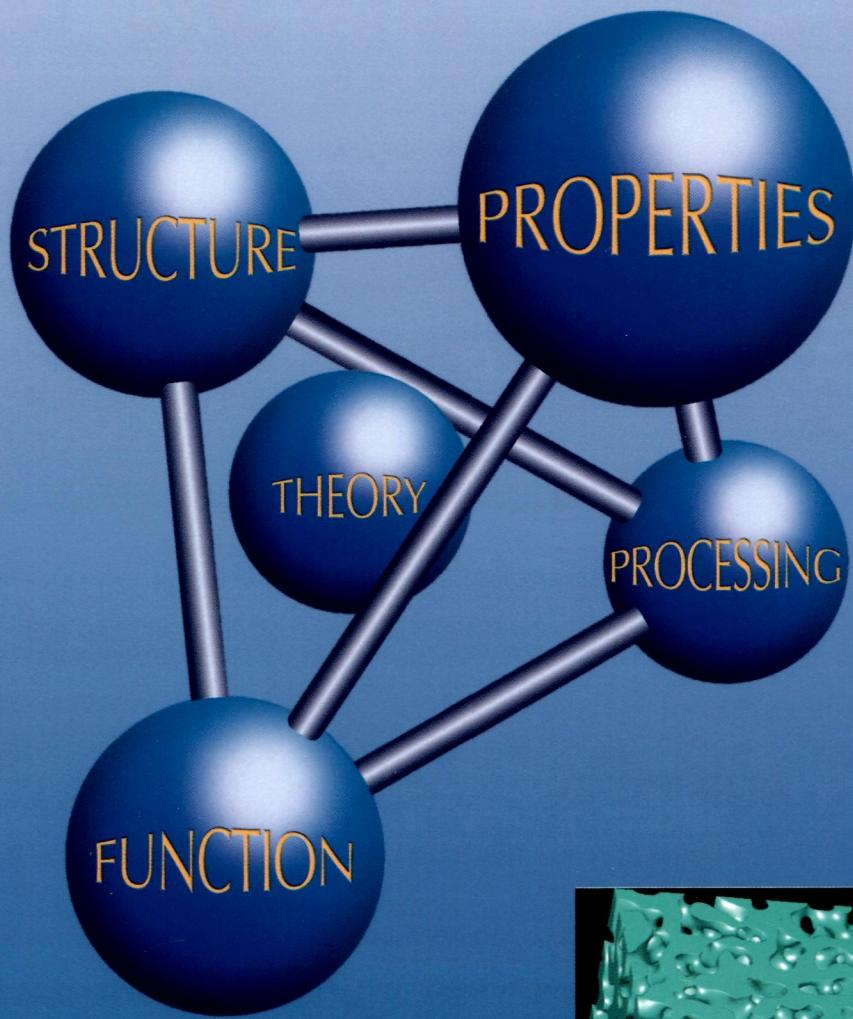




Acta MATERIALIA





www.elsevier.com/locate/actamat

Acta MATERIALIA

VOLUME 61

PUBLISHED 23 MAY 2013

ISSUE 12

V. I. Levitas

4305 Thermodynamically consistent phase field approach to phase transformations with interface stresses

D. P. Fenning, B. K. Newman, M. I. Bertoni,
S. Hudelson, S. Bernardis, M. A. Marcus,
S. C. Fakra and T. Buonassisi

4320 Local melting in silicon driven by retrograde solubility

L. S. Huo, J. F. Zeng, W. H. Wang, C. T. Liu
and Y. Yang

4329 The dependence of shear modulus on dynamic relaxation and evolution of local structural heterogeneity in a metallic glass

P. Palanisamy and J. M. Howe

4339 In situ observation of Cu segregation and phase nucleation at a solid-liquid interface in an Al alloy

H. Rodriguez-Alvarez, N. Barreau, C. A. Kaufmann,
A. Weber, M. Klaus, T. Painchaud,
H.-W. Schock and R. Mainz

4347 Recrystallization of Cu(In,Ga)Se₂ thin films studied by X-ray diffraction

S. Huang, F. Fan, J. Li, S. Zhang and T. Zhu

4354 Stress generation during lithiation of high-capacity electrode particles in lithium ion batteries

K. Hagihara, T. Tanaka, H. Izuno, Y. Umakoshi and
T. Nakano

4365 Non-basal slip in Ni₃(Ti, Nb) and Ni₃(Ti, Al) single crystals with various long-period stacking ordered structures

N. Vermaak, G. Parry, R. Estevez and Y. Bréchet

4374 New insight into crack formation during corrosion of zirconium-based metal-oxide systems

A. W. Richards, R. A. Lebensohn and
K. Bhattacharya

4384 Interplay of martensitic phase transformation and plastic slip in polycrystals

S. Li, X. Li and L. Yang

4398 Role of strain path change in grain refinement by severe plastic deformation: A case study of equal channel angular extrusion

B. Zheng, D. Ashford, Y. Zhou, S. N. Mathaudhu,
J.-P. Delplanque and E. J. Lavernia

4414 Influence of mechanically milled powder and high pressure on spark plasma sintering of Mg–Cu–Gd metallic glasses

A. Ruffini, J. Durinck, J. Colin, C. Coupeau and
J. Grilhé

4429 Interface step-induced thin-film delamination and buckling

[continued on inside back cover]

Available online at www.sciencedirect.com

SciVerse ScienceDirect



1359-6454(201307)61:12;1-Q

Acta mater. is Indexed/Abstracted in: Appl. Mech. Rev.; Res. Alert; Chem. Abstr. Serv.; Curr. Cont./Phys. Chem. Earth Sci.; Curr. Cont./Engng Tech. Appl. Sci.; Ed. Metals Abstr.; Engng Ind.; IBZ & IBR; INSPEC Data.; Metals Abstr.; PASCAL-CNRS Data.; Curr. Cont. Sci. Cit. Ind.; Curr. Cont. SCISEARCH Data.; SSSA/CISA/ECA/ISMEC; MSCI; Also covered in the abstract and citation database SciVerse Scopus®. Full text available on SciVerse ScienceDirect®.

ISSN 1359-6454

[CONTENTS—continued from outside back cover]

- S. Lotfan, M. Rodríguez, K. E. Yazzie, N. Chawla, J. Llorca and J. M. Molina-Aldareguía 4439 High temperature micropillar compression of Al/SiC nanolaminates
- B. M. Morrow, R. W. Kozar, K. R. Anderson and M. J. Mills 4452 An examination of the use of the Modified Jogged-Screw model for predicting creep behavior in Zircaloy-4
- H. M. Widatallah, T. M. Al-Shahumi, Z. Klencsár, M. Pekala, A. M. Gismelseed, I. A. Al-Omari, A. D. Al-Rawas and D. Seifu 4461 Structural, magnetic and ^{151}Eu Mössbauer studies of mechanosynthesized nanocrystalline $\text{EuCr}_{1-x}\text{Fe}_x\text{O}_3$ particles
- J. Ding, Y. Q. Cheng and E. Ma 4474 Quantitative measure of local solidity/liquidity in metallic glasses
- Q. Xu, D. Zhan, H.-X. Liu, W. Chen, D.-P. Huang and F. Zhang 4481 Evolution of dielectric properties in $\text{BaZr}_x\text{Ti}_{1-x}\text{O}_3$ ceramics: Effect of polar nano-regions
- L. Zhu, M. Seefeldt and B. Verlinden 4490 Three Nb single crystals processed by equal-channel angular pressing—Part I: Dislocation substructure
- L. Zhu, M. Seefeldt and B. Verlinden 4504 Three Nb single crystals processed by equal-channel angular pressing—Part II: Mesoscopic bands
- H. Chen, A. Borgenstam, J. Odqvist, I. Zuazo, M. Goune, J. Ågren and S. v. der Zwaag 4512 Application of interrupted cooling experiments to study the mechanism of bainitic ferrite formation in steels
- G. K. Rane, U. Welzel, S. R. Meka and E. J. Mittemeijer 4524 Non-monotonic lattice parameter variation with crystallite size in nanocrystalline solids
- R. Svoboda 4534 Relaxation processes in Se-rich chalcogenide glasses: Effect of characteristic structural entities
- R. Mirzaifar, R. DesRoches, A. Yavari and K. Gall 4542 A micromechanical analysis of the coupled thermomechanical superelastic response of textured and untextured polycrystalline NiTi shape memory alloys
- A. G. Murphy, D. J. Browne, W. U. Mirihanage and R. H. Mathiesen 4559 Combined in situ X-ray radiographic observations and post-solidification metallographic characterisation of eutectic transformations in Al–Cu alloy systems
- P. Wynblatt and D. Chatain 4572 Effects of anisotropy on the equilibrium shape of nanoscale pores at grain boundaries
- N. Lu, D. Yang and L. Li 4581 Interfacial reaction between Sn–Ag–Cu solder and Co–P films with various microstructures
- N. Jia, F. Roters, P. Eisenlohr, D. Raabe and X. Zhao 4591 Simulation of shear banding in heterophase co-deformation: Example of plane strain compressed Cu–Ag and Cu–Nb metal matrix composites
- M. Koyama, E. Akiyama, K. Tsuzaki and D. Raabe 4607 Hydrogen-assisted failure in a twinning-induced plasticity steel studied under in situ hydrogen charging by electron channeling contrast imaging
- H. Liu, F. Zeng, G. Tang, G. Wang, C. Song and F. Pan 4619 Significant enhancement in electromigration resistance and texture of aluminum films using an ultrathin titanium underlayer
- T. Vojtek, R. Pippan, A. Hohenwarter, L. Holáň and J. Pokluda 4625 Near-threshold propagation of mode II and mode III fatigue cracks in ferrite and austenite
- D. G. Morris and M. A. Muñoz-Morris 4636 Nanoprecipitation of oxide particles and related high strength in oxide-dispersion-strengthened iron–aluminium–chromium intermetallics
- H. Zheng, W. Wang, S. Xue, Q. Zhai, J. Frenzel and Z. Luo 4648 Composition-dependent crystal structure and martensitic transformation in Heusler Ni–Mn–Sn alloys

[CONTENTS—continued from inside back cover]

- L. Thijs, M. L. Montero Sistiaga, R. Wauthle, Q. Xie, J.-P. Kruth and J. Van Humbeeck 4657 Strong morphological and crystallographic texture and resulting yield strength anisotropy in selective laser melted tantalum
- I. Jozwik-Biala, J. Jagielski, B. Arey, L. Kovarik, G. Sattonnay, A. Debelle, S. Mylonas, I. Monnet and L. Thomé 4669 Effect of combined local variations in elastic and inelastic energy losses on the morphology of tracks in ion-irradiated materials
- V. Sánchez-Alarcos, J. I. Pérez-Landazábal, V. Recarte, I. Lucia, J. Vélez and J. A. Rodríguez-Velamazán 4676 Effect of high-temperature quenching on the magnetostructural transformations and the long-range atomic order of Ni–Mn–Sn and Ni–Mn–Sb metamagnetic shape memory alloys
- J. Palisaitis, C.-L. Hsiao, L. Hultman, J. Birch and P. O. Å. Persson 4683 Thermal stability of $\text{Al}_{1-x}\text{In}_x\text{N}$ (0 0 0 1) throughout the compositional range as investigated during *in situ* thermal annealing in a scanning transmission electron microscope
- Q. K. Jiang, P. Liu, Q. P. Cao, C. Wang, X. L. Li, X. Y. Gao, X. D. Wang, D. X. Zhang, X. D. Han, Z. Zhang and J. Z. Jiang 4689 The effect of size on the elastic strain limit in $\text{Ni}_{60}\text{Nb}_{40}$ glassy films
- K. G. Pradeep, N. Wanderka, P. Choi, J. Banhart, B. S. Murty and D. Raabe 4696 Atomic-scale compositional characterization of a nanocrystalline AlCrCuFeNiZn high-entropy alloy using atom probe tomography