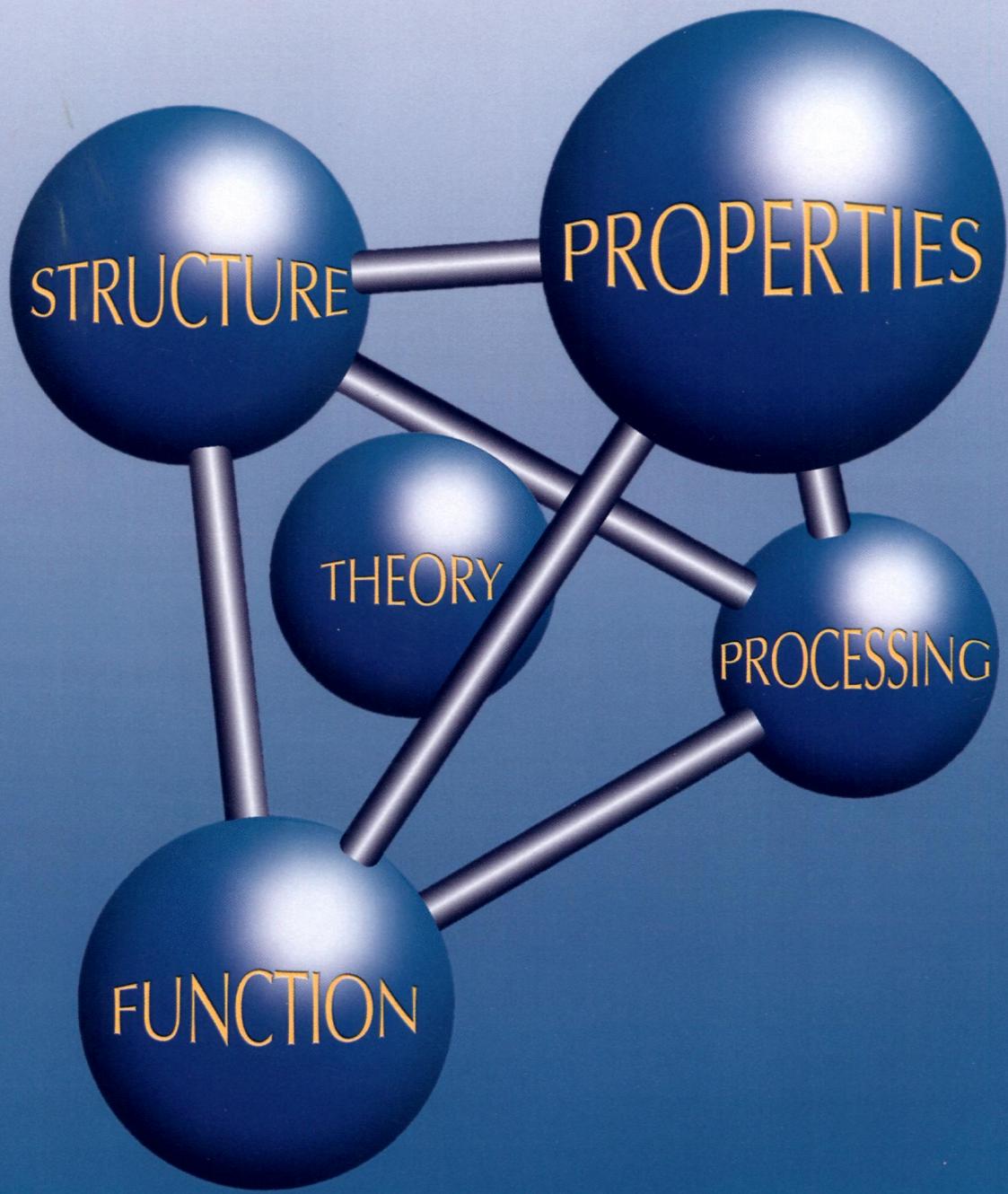


Volume 74, 1 August 2014

ISSN 1359-6454

Acta MATERIALIA





www.elsevier.com/locate/actamat

Acta MATERIALIA

VOLUME 74

PUBLISHED 21 MAY 2014

Regular Articles

J. Xiong, M. Z. Ghori, B. Henkel, T. Strunkus,
U. Schürmann, L. Kienle and F. Faupel

Z. Li, B. Yang, Y. Zhang, C. Esling, N. Zou,
X. Zhao and L. Zuo

E. M. Francis, B. M. B. Grant, J. Q. da Fonseca,
P. J. Phillips, M. J. Mills, M. R. Daymond and
M. Preuss

E. Rabkin, D. Amram and E. Alster

M. J. Rahman, H. S. Zurob and J. J. Hoyt

C. Peng, F. Rao, L. Wu, Z. Song, Y. Gu, D. Zhou,
H. Song, P. Yang and J. Chu

J. Yan, Y. Sun, H. Wu, Q. Huang, C. Wang, Z. Shi,
S. Deng, K. Shi, H. Lu and L. Chu

N. M. Bruno, C. Yegin, I. Karaman, J.-H. Chen,
J. H. Ross Jr., J. Liu and J. Li

H. Shi, J. Frenzel, G. T. Martinez, S. Van Rompaey,
A. Bakulin, S. Kulkova, S. Van Aert and
D. Schryvers

C. R. Hutchinson, F. de Geuser, Y. Chen and
A. Deschamps

S. Birocsa, F. Di Gioacchino, S. Stekovic and
M. Hardy

- 1 Controlling surface segregation of reactively sputtered Ag/TiO_x nanocomposites
- 9 Crystallographic insights into the intermartensitic transformation in Ni–Mn–Ga alloys
- 18 High-temperature deformation mechanisms in a polycrystalline nickel-base superalloy studied by neutron diffraction and electron microscopy
- 30 Solid state dewetting and stress relaxation in a thin single crystalline Ni film on sapphire
- 39 A comprehensive molecular dynamics study of low-angle grain boundary mobility in a pure aluminum system
- 49 Homogeneous phase W–Ge–Te material with improved overall phase-change properties for future nonvolatile memory
- 58 Phase transitions and magnetocaloric effect in Mn₃Cu_{0.89}N_{0.96}
- 66 The effect of heat treatments on Ni₄₃Mn₄₂Co₄Sn₁₁ meta-magnetic shape memory alloys for magnetic refrigeration
- 85 Site occupation of Nb atoms in ternary Ni–Ti–Nb shape memory alloys
- 96 Quantitative measurements of dynamic precipitation during fatigue of an Al–Zn–Mg–(Cu) alloy using small-angle X-ray scattering
- 110 A quantitative approach to study the effect of local texture and heterogeneous plastic strain on the deformation micromechanism in RR1000 nickel-based superalloy

[continued on inside back cover]

Available online at www.sciencedirect.com

ScienceDirect



1359-6454(20140801)74:C;1-#

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 Scopus®. Full text available on ScienceDirect®.

ISSN 1359-6454

[CONTENTS—continued from outside back cover]

- C. Shen, J. Li and Y. Wang
- A.-K. Maier, D. Mari, I. Tkalcec and R. Schaller
- N. Satyala, J. S. Krasinski and D. Vashaee
- R. Madhavan, R. K. Ray and S. Suwas
- D. J. Magagnosc, G. Kumar, J. Schroers, P. Felfer, J. M. Cairney and D. S. Gianola
- J. D. Ju and M. Atzmon
- F. Cioffi, J. I. Hidalgo, R. Fernández, T. Pirling, B. Fernández, D. Gesto, I. Puente Orench, P. Rey and G. González-Doncel
- X. H. An, S. D. Wu, Z. G. Wang and Z. F. Zhang
- J. Q. Li, Z. W. Lu, H. J. Wu, H. T. Li, F. S. Liu, W. Q. Ao, J. Luo and J. Q. He
- L. Zhou, M. K. Miller, P. Lu, L. Ke, R. Skomski, H. Dillon, Q. Xing, A. Palasyuk, M. R. McCartney, D. J. Smith, S. Constantinides, R. W. McCallum, I. E. Anderson, V. Antropov and M. J. Kramer
- S. Shimizu, H. T. Fujii, Y. S. Sato, H. Kokawa, M. R. Sriraman and S. S. Babu
- A. Nagao, M. L. Martin, M. Dadfarnia, P. Sofronis and I. M. Robertson
- J. Ghmadih, J.-M. Debierre, J. Deschamps, M. Georgelin, R. Guérin and A. Pocheau
- S. K. Yadav, R. Ramprasad, A. Misra and X.-Y. Liu
- O. D. Roshchupkina, T. Strache, J. McCord, A. Mücklich, C. Bähzt and J. Grenzer
- M. Song, Y. D. Wu, D. Chen, X. M. Wang, C. Sun, K. Y. Yu, Y. Chen, L. Shao, Y. Yang, K. T. Hartwig and X. Zhang
- Y. Amouyal, Z. Mao and D. N. Seidman
- 125 Predicting structure and energy of dislocations and grain boundaries
- 132 Theoretical modelling of grain boundary anelastic relaxations
- 141 Simultaneous enhancement of mechanical and thermoelectric properties of polycrystalline magnesium silicide with conductive glass inclusion
- 151 Texture transition in cold-rolled nickel–40 wt.% cobalt alloy
- 165 Effect of ion irradiation on tensile ductility, strength and fictive temperature in metallic glass nanowires
- 183 A comprehensive atomistic analysis of the experimental dynamic-mechanical response of a metallic glass
- 189 Analysis of the unstressed lattice spacing, d_0 , for the determination of the residual stress in a friction stir welded plate of an age-hardenable aluminum alloy – Use of equilibrium conditions and a genetic algorithm
- 200 Enhanced cyclic deformation responses of ultrafine-grained Cu and nanocrystalline Cu–Al alloys
- 215 High thermoelectric performance of $\text{Ge}_{1-x}\text{Pb}_x\text{Se}_{0.5}\text{Te}_{0.5}$ due to (Pb, Se) co-doping
- 224 Architecture and magnetism of alnico
- 234 Mechanism of weld formation during very-high-power ultrasonic additive manufacturing of Al alloy 6061
- 244 The effect of nanosized (Ti,Mo)C precipitates on hydrogen embrittlement of tempered lath martensitic steel
- 255 Directional solidification of inclined structures in thin samples
- 268 Core structure and Peierls stress of edge and screw dislocations in TiN: A density functional theory study
- 278 Structural modifications of thin magnetic Permalloy films induced by ion implantation and thermal annealing: A comparison
- 285 Response of equal channel angular extrusion processed ultrafine-grained T91 steel subjected to high temperature heavy ion irradiation
- 296 Combined atom probe tomography and first-principles calculations for studying atomistic interactions between tungsten and tantalum in nickel-based alloys