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Journal of MATERIALS RESEARCH

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Cover: Electron backscatter diffraction (EBSD) mappings of solder joints subjected to multiple solder reflows. [Y. Wang, K.H. Lu, V. Gupta, L. Stiborek, D. Shirley, S-H. Chae, J. Im, and P.S. Ho: Effects of Sn grain structure on the electromigration of Sn–Ag solder joints. p. 1131.]

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INVITED FEATURE PAPER

Review

- 1097–1104 **Cu₂ZnSnS₄ thin-film solar cell absorbers illuminated by soft x-rays** M. Bär, B.-A. Schubert, B. Marsen, R.G. Wilks, M. Blum, S. Krause, S. Pookpanratana, Y. Zhang, T. Unold, W. Yang, L. Weinhardt, C. Heske, H.-W. Schock

ARTICLES

- 1105–1111 **Pressure-induced metallic phase transition and elastic properties of indium phosphide III-V semiconductor** Chenghua Hu, Feng Wang, Zhou Zheng
- 1112–1116 **Effects of different sulfurization conditions on the characterization of CuIn(S_xSe_{1-x})₂ thin films** Fei Yan, Weifeng Liu, Guoshun Jiang, Xinyi Li, Haibin Xie, Changfei Zhu
- 1117–1123 **Control of the morphology and chemical properties of carbon spheres prepared from glucose by a hydrothermal method** Min Li, Wei Li, Shouxin Liu
- 1124–1130 **Molecular dynamics study on the microstructure of dendrimers/graphite composites** Ruibin Guo, Weiwei Han, Zunli Mo, Li Li, Chao Feng
- 1131–1141 **Effects of Sn grain structure on the electromigration of Sn–Ag solder joints** Yiwei Wang, Kuan H. Lu, Vikas Gupta, Leon Stiborek, Dwayne Shirley, Seung-Hyun Chae, Jay Im, Paul S. Ho
- 1142–1148 **Diffusion of Cu and interfacial reactions during reflow of Sn–8.5Zn–0.5Ag–0.01Al–0.1Ga alloy on Ni/Cu substrate** Jagjiwan Mittal, Kwang Lung Lin
- 1149–1156 **Development of a Bi₂Te₃-based thermoelectric generator with high-aspect ratio, free-standing legs** D.E. Wesolowski, R.S. Goeke, A.M. Morales, S.H. Goods, P.A. Sharma, M.P. Saavedra, K.R. Reyes-Gil, W.C.G. Neel, N.Y.C. Yang, C.A. Applett
- 1157–1163 **Oscillatory thickness dependences of the Seebeck coefficient in nanostructures based on compounds IV–VI** Dmytro M. Freik, Igor K. Yurchyshyn, Volodymyr Yu. Potyak, Yuriy V. Lysiuk
- 1164–1168 **Investigation on the atomic structural evolution of as-prepared and annealed ZrCuAl metallic glasses** Liang Yang, Cai-Long Huang, Gu-Qing Guo
- 1169–1177 **Kinetic study of the intermetallic compound formation between eutectic Sn–3.5Ag alloys and electroplated Ni metallization in flip-chip solder joints** Hsiao-Yun Chen, Chih Chen
- 1178–1186 **Oxidation resistance of the supercooled liquid in Cu₅₀Zr₅₀ and Cu₄₆Zr₄₆Al₈ metallic glasses** Ka Ram Lim, Won Tae Kim, Eun-Sung Lee, Sang Soo Jee, Se Yun Kim, Do Hyang Kim, Annett Gebert, Jurgen Eckert

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- 1187–1192 **Abrasive waterjet machining of three-dimensional structures from bulk metallic glasses and comparison with other techniques** Victor Wessels, Anton Grigoryev, Claus Dold, Carl-Frederik Wyen, Raoul Roth, Eduardo Weingärtner, Frank Pude, Konrad Wegener, Jörg F. Löffler
- 1193–1197 **Neck formation in reactive sintering: A model 2-D experiment** Sukanya Murali, Dunbar P. Birnie, III
- 1198–1204 **A Q-DLTS investigation of aluminum nitride surface termination** Jason B. Rothenberger, Daniel E. Montenegro, Mark A. Prelas, Tushar K. Ghosh, Robert V. Tompson, Sudarshan K. Loyalka

COMMENTS AND REPLY

Commentary

- 1205–1207 **Comment to paper “Penetration depth and tip radius dependence on the correction factor in nanoindentation measurements” by J.M. Meza et al. [*J. Mater. Res.* 23(3), 725 (2008)]** Karsten Durst, Hamad ur Rehman, Benoit Merle

Reply

- 1208–1210 **A response to—“Comment on the evaluation of the constant β relating the contact stiffness to the contact area in nanoindentation for sphero-conical indenters:” Comment to paper “Penetration depth and tip radius dependence on the correction factor in nanoindentation measurements” by J.M. Meza et al. [*J. Mater. Res.* 23(3), 725 (2008)]** Juan Manuel Meza, Fazilay Abbas, Jaime Alexis Garcia Guzman, Michel Troyon