

The 2016 Cahn Prize Finalists

- December 2016 Crystalline coherence length effects on the thermal conductivity of MgO thin films
Kelsey E. Meyer, Ramez Cheaito, Elizabeth Paisley, Christopher T. Shelton, Jeffrey L. Braun, Jon-Paul Maria, Jon F. Ihlefeld, and Patrick E. Hopkins
J Mater Sci (2016) 51:10408–10417
DOI 10.1007/s10853-016-0261-5 <https://rdcu.be/b0cdw>
- November 2016 Quality by design approach for SrTiO₃ perovskite nanomaterials synthesis
Fabio Zaza, Giovanna Orio, Emanuele Serra
J Mater Sci (2016) 51:9649–9668
DOI 10.1007/s10853-016-0198-8 <https://rdcu.be/b0cdI>
- October 2016 New colloidal fabrication of bioceramics with controlled porosity for delivery of antibiotics
Lydie Ploux, Mihaela Mateescu, Lise Guichaoua, Jules Valentin, Judith Böhmler, Karine Anselme, Eric Champion, Nathalie Pécout, Roxana Chotard-Ghodsniya, and Marylène Viana
J Mater Sci (2016) 51:8861–8879
DOI 10.1007/s10853-016-0133-z <https://rdcu.be/b0cdK>
- September 2016 Biocompatible silk fibroin scaffold prepared by reactive inkjet printing
Patrick Rider, Yu Zhang, Christopher Tse, Yi Zhang, Dharana Jayawardane, Jonathan Stringer, Jill Callaghan, I.M. Brook, Cheryl A. Miller, Xiubo Zhao, Patrick J. Smith
J Mater Sci (2016) 51:8625–8630
DOI 10.1007/s10853-016-0121-3 <https://rdcu.be/b0cdP>
- August 2016 Modeling contrary size effects of tensile- and torsionloaded oligocrystalline gold microwires
E. Bayerschen, A. Prahs, S. Wulfinghoff, M. Ziemann, P.A. Gruber, M. Walter, T. Böhlke
J Mater Sci (2016) 51:7451–7470
DOI 10.1007/s10853-016-0020-7 <https://rdcu.be/b0cdV>
- July 2016 Exploration of the mechanisms of temperature dependent grain boundary mobility: search for the common origin of ultrafast grain boundary motion
C. J. O'Brien, S. M. Foiles
J Mater Sci (2016) 51:6607–6623
DOI 10.1007/s10853-016-9944-1 <https://rdcu.be/b0cd5>
- June 2016 Effect of alloying on the stabilities and catalytic properties of Ag–Au bimetallic subnanoclusters: a theoretical investigation
Yuhua Chi, Lianming Zhao, Xiaoqing Lu, Changhua An, Wenyue Guo, Chi-Man Lawrence Wu
J Mater Sci (2016) 51:5046–5060
DOI 10.1007/s10853-016-9808-8 <https://rdcu.be/b0ceb>
- May 2016 Flexographic printing of nanoparticulate tin-doped indium oxide inks on PET foils and glass substrates
Moritz Wegener, Dieter Spiehl, Hans Martin Sauer, Florian Miksch, Xinxin Liu, Nadja Kölpin, Michael Schmidt, Michael P. M. Jank, Edgar Dörsam, Andreas Roosen
J Mater Sci (2016) 51:4588–4600
DOI 10.1007/s10853-016-9772-3 <https://rdcu.be/b0cef>
- April 2016 Cu–Ga–In thermodynamics: experimental study, modeling, and implications for photovoltaics
Christopher P. Muzzillo, Carelyn E. Campbell, Timothy J. Anderson
J Mater Sci (2016) 51:3362–3379
DOI 10.1007/s10853-015-9651-3 <https://rdcu.be/b0cel>
- March 2016 Simultaneous optimisation of orientation and constituent volume in piezoelectric composites
K. P. Jayachandran, J. M. Guedes, H. C. Rodrigues
J Mater Sci (2016) 51:3069–3079
DOI 10.1007/s10853-015-9617-5 <https://rdcu.be/b0ceo>
- February 2016 Synthesis of brush-like ZnO nanowires and their enhanced gas-sensing properties
Yongjiao Sun, Zihan Wei, Wendong Zhang, Pengwei Li, Kun Lian, Jie Hu
J Mater Sci (2016) 51:1428–1436
DOI 10.1007/s10853-015-9462-6 <https://rdcu.be/b0ceu>
- January 2016 In situ X-ray synchrotron tomographic imaging during the compression of hyper-elastic polymeric materials
Brian M. Patterson, Nikolaus L. Cordes, Kevin Henderson, Jason J. Williams, Tyler Stannard, Sudhanshu S. Singh, Angel Rodriguez Ovejero, Xianghui Xiao., Mathew Robinson, Nikhilesh Chawla
J Mater Sci (2016) 51:171–187
DOI 10.1007/s10853-015-9355-8 <https://rdcu.be/b0cey>