

### The 2014 Cahn Prize Finalists

- January 2014 “The control of crack arrays in thin films”  
Jiexi Huang, Byoung Choul Kim, Shuichi Takayama, M.D. Thouless  
J Mater Sci (2014) 49:255–268  
DOI 10.1007/s10853-013-7700-3 <https://rdcu.be/bZXWC>
- February 2014 Evolution of tin whiskers and subsiding grains in thermal cycling  
Ying Wang, John E. Blendell, Carol A. Handwerker  
J Mater Sci (2014) 49:1099–1113  
DOI 10.1007/s10853-013-7788-5 <https://rdcu.be/b0cbX>
- March 2014 Mechanical characterization of hollow ceramic nanolattices  
Lucas R. Meza • Julia R. Greer  
J Mater Sci (2014) 49:2496–2508  
DOI 10.1007/s10853-013-7945-x <https://rdcu.be/b0cb1>
- April 2014 Impact of different coating processes of microfibrillated cellulose on the mechanical and barrier properties of paper  
Nathalie Lavoine, Isabelle Desloges, Bertine Khelifi, Julien Bras  
J Mater Sci (2014) 49:2879–2893  
DOI 10.1007/s10853-013-7995-0 <https://rdcu.be/b0cb5>
- May 2014 Localized strain and heat generation during plastic deformation in nanocrystalline Ni and Ni–Fe  
T. Chan, Y. Zhou, I. Brooks, G. Palumbo, U. Erb  
J Mater Sci (2014) 49:3847–3859  
DOI 10.1007/s10853-014-8099-1 <https://rdcu.be/b0cb7>
- June 2014 The effect of nanoparticle on microdomain alignment in block copolymer thin films under an electric field  
Joonwon Bae, Seon Joo Park, Oh Seok Kwon, Jyongsik Jang  
J Mater Sci (2014) 49:4323–4331  
DOI 10.1007/s10853-014-8128-0 <https://rdcu.be/b0cb9>
- July 2014 Critical conditions for the occurrence of quench cracking in an Al–Zn–Mg–Cu alloy  
D. K. Xu, P. A. Rometsch, L. Li, L. M. Shen, N. Birbilis  
J Mater Sci (2014) 49:4687–4697  
DOI 10.1007/s10853-014-8103-9 <https://rdcu.be/b0cce>
- August 2014 Multi-scale 3D imaging of absorbing porous materials for solid oxide fuel cells  
Julie Villanova • Peter Cloetens • Heikki Suhonen • Je’ro’me Laurencin, Franc, ois Usseglio-Viretta • Elisa Lay • Ge’rard Delette • Pierre Bleuet, David Jauffre’s • Denis Roussel • Aaron Z. Lichtner • Christophe Louis Martin  
J Mater Sci (2014) 49:5626–5634  
DOI 10.1007/s10853-014-8275-3 <https://rdcu.be/b0ccb>
- September 2014 Phase stabilization principle and precipitate-host lattice influences for Al–Mg–Si–Cu alloy precipitates  
F. J. H. Ehlers • S. Wenner • S. J. Andersen, C. D. Marioar, W. Lefebvre, C. B. Boothroyd, R. Holmestad  
J Mater Sci (2014) 49:6413–6426  
DOI 10.1007/s10853-014-8371-4 <https://rdcu.be/b0ccg>
- October 2014 Electrophoretic deposition of alumina, yttria, yttrium aluminium garnet and lutetium aluminium garnet  
Michael Bredol • Joanna Micior • Stephan Klemme  
J Mater Sci (2014) 49:6975–6985  
DOI 10.1007/s10853-014-8403-0 <https://rdcu.be/b0ccj>
- November 2014 Influence of moisture on the vibro-mechanical properties of bio-engineered wood  
Marjan Sedighi Gilani • Philippe Tingaut, Markus Heeb • Francis Willis Mathew Robert Schwarze  
J Mater Sci (2014) 49:7679–7687  
DOI 10.1007/s10853-014-8476-9 <https://rdcu.be/b0cci>
- December 2014 Fabrication of two-dimensional zinc oxide nanorod patterns and their application for optical diffraction grating effect  
Un Jeong Kim, Sun Il Kim, Sungwoo Hwang, Jaehyun Hur  
J Mater Sci (2014) 49:8328–8334  
DOI 10.1007/s10853-014-8541-4 <https://rdcu.be/b0ccr>