

**Papers**

- Development of environmentally friendly, antifouling coatings based on tethered quaternary ammonium salts in a crosslinked polydimethylsiloxane matrix  
*Partha Majumdar, Elizabeth Lee, Nehal Patel, Shane J. Stafslien, Justin Daniels, and Bret J. Chisholm* ..... 405
- Scratch behavior of nano-alumina/polyurethane coatings  
*Li-Piin Sung, Jeffrey Comer, Aaron M. Forster, Haiqing Hu, Bryce Floryancic, Lukas Brickweg, and Raymond H. Fernando* ..... 419
- Water sorption and diffusional properties of a cured epoxy resin measured using alternating ionic liquids/aqueous electrolytes in electrochemical impedance spectroscopy  
*Brian R. Hinderliter, Kerry N. Allahar, Gordon P. Bierwagen, Dennis E. Tallman, and Stuart G. Croll* ..... 431
- Molecular design and application of divinyl monomers to synthesis of UV-curable latex  
*Song Chen and Xiao Yu Li* ..... 439
- Influence of added surfactant on particle flocculation in waterborne polymer-particle systems  
*L. Karlson, M. Olsson, G. Boström, and L. Piculell* ..... 447
- High chroma pearlescent pigments designed by optical simulation  
*Hiroyuki Shiomi, Eiichiro Misaki, Maoya Adachi, and Fukuji Suzuki* ..... 455
- Fabrication of fine microencapsulated red phosphorus particles by SCF-RESS with a new structure nozzle  
*Ya-qing Liu, Fa-xing Zhang, You-yi Sun, and Guizhe Zhao* ..... 465
- Corrosion protection of magnesium alloy ZM21 by polyaniline-blended coatings  
*S. Sathiyanarayanan, S. Syed Azim, and G. Venkatachari* ..... 471
- High barrier sustainable co-polymerized coatings  
*Lokendra Pal, Margaret K. Joyce, Paul D. Fleming, Stéphanie A. Cretté, and Charles Ruffner* ..... 479
- Hybrid coatings as transducers in optical biosensors  
*K. Rose, S. Dzyadevych, R. Fernández-Lafuente, N. Jaffrezic, G. Kuncová, V. Matějec, and P. Scully* ..... 491
- Study of bipolar pulsed nanocrystalline plasma electrolytic carbonitriding on nanostructure of compound layer for CP-Ti  
*M. Aliofkhazraei, Alireza Sabour Rouhaghdam, A. Denshmaslak, H. R. Jafarian, and M. Sabouri* ..... 497
- TiN-coating formation by pulsed Nd:YAG laser irradiation of titanium in nitrogen  
*Daniel Höche, Hendrik Schikora, Hayo Zutz, Andreas Emmel, Robert Queitsch, and Peter Schaaf* ..... 505
- Cracking analysis of HVOF coatings under Vickers indentation  
*A. P. Buang, R. Liu, X. J. Wu, and M. X. Yao* ..... 513