

## Contents

### Papers

- The physical chemistry of organic coatings revisited—viewing coatings as a materials scientist  
*Gordon Bierwagen* 133
- The onset of polymer diffusion in a drying acrylate latex: how water initially retards coalescence but ultimately enhances diffusion  
*Jeffrey C. Haley, Yuanqin Liu, Mitchell A. Winnik, and Willie Lau* 157
- Core-shell and other multiphase latex particles—confirming their morphologies and relating those to synthesis variables  
*Jeffrey M. Stubbs and Donald C. Sundberg* 169
- Considerations for characterizing moisture effects in coatings weathering studies  
*Henry K. Hardcastle and William L. Meeks* 181
- Enhancing exterior performance of clear coatings through photostabilization of wooden surfaces.  
Part 1: Treatment and characterization  
*Bernard S. W. Dawson, Adya P. Singh, Hank W. Kroese, Michael A. Schwitzer, Suzanne Gallagher, Stephen J. Riddiough, and Shuhong Wu* 193
- Enhancing exterior performance of clear coatings through photostabilization of wood.  
Part 2: coating and weathering performance  
*Bernard S. W. Dawson, Adya P. Singh, Hank W. Kroese, Michael A. Schwitzer, Suzanne Gallagher, Stephen J. Riddiough, and Shuhong Wu* 207
- Experimental and theoretical behavior of exterior wood coatings subjected to artificial weathering  
*Jan Van den Bulcke, Joris Van Acker, and Marc Stevens* 221
- Assessment of UV-permeability in nano-ZnO filled coatings via high throughput experimentation  
*Michael S. Lowry, David R. Hubble, Amy L. Wressell, Menas S. Vratsanos, Frank R. Pepe, and Charles R. Hegedus* 233
- Structure, properties and corrosion resistivity of polymeric nanocomposite coatings based on layered silicates  
*Davood Zaarei, Ali Asghar Sarabi, Farhad Sharif, and Seid Mahmood Kassiriha* 241
- Synthesis of UV crosslinkable waterborne siloxane–polyurethane dispersion PDMS-PEDA-PU and the properties of the films  
*Chenyang Bai, Xingyuan Zhang, Jiabing Dai, and Jinhua Wang* 251
- Preparation of light color antistatic and anticorrosive waterborne epoxy coating for oil tanks  
*Zhong-Hua Chen, Ying Tang, Fei Yu, Jian-Hua Chen, and Hai-Hong Chen* 259