

Rubber Division, ACS

# 2<sup>nd</sup> Thermoplastic Elastomers Conference 2008

May 1-2, 2008  
Dearborn, Michigan, USA

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571  
**[www.proceedings.com](http://www.proceedings.com)**

**ISBN: 978-1-60560-308-7**

Some format issues inherent in the e-media version may also appear in this print version.

## TABLE OF CONTENTS

|                                                                                                                                              |     |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----|
| <b>Elastomeric Nanocomposites</b> .....                                                                                                      | 1   |
| <i>Volker Abetz</i>                                                                                                                          |     |
| <b>Baroplastic in Different Topologies and Used as Compatibilizer</b> .....                                                                  | 33  |
| <i>Mehmet Acar</i>                                                                                                                           |     |
| <b>Thermoplastic Elastomeric Nanocomposites</b> .....                                                                                        | 68  |
| <i>Anil K. Bhowmick</i>                                                                                                                      |     |
| <b>Analysis of Thermoplastic Elastomers by Conventional and Advanced 1H NMR</b> .....                                                        | 105 |
| <i>Bernhard Bluemich, Dan Demco</i>                                                                                                          |     |
| <b>175°C-Capable Thermoplastic Elastomers for Automotive Air Management and Sealing Applications</b> .....                                   | 141 |
| <i>Brian Cail</i>                                                                                                                            |     |
| <b>TPE Profiles Extrusion Optimization Using the PDM of the Virtual Extrusion Laboratory</b> .....                                           | 177 |
| <i>Ben Chouchaoui</i>                                                                                                                        |     |
| <b>TPE Profiles Extrusion Optimization Using the Profile Die Model (PDM) of the Virtual Extrusion Laboratory™ (VEL™)</b> .....               | 187 |
| <i>Ben Chouchaoui</i>                                                                                                                        |     |
| <b>TPEs at the Automotive Rubber Interface: Supply Chain Challenges</b> .....                                                                | 194 |
| <i>Robert Eller</i>                                                                                                                          |     |
| <b>Translucent Thermoplastic Elastomers</b> .....                                                                                            | 239 |
| <i>Maria Ellul, D.R. Hazelton</i>                                                                                                            |     |
| <b>Patent Trends in Thermoplastic Elastomers</b> .....                                                                                       | 258 |
| <i>Terry Finerman, Eric Dobrusin</i>                                                                                                         |     |
| <b>Green Technology and Emerging Governmental Incentives</b> .....                                                                           | 278 |
| <i>Michael Grubb</i>                                                                                                                         |     |
| <b>Extensional Flow Behavior of PP/EPDM Thermoplastic Vulcanizates</b> .....                                                                 | 288 |
| <i>Krishnamurthy Jayaraman</i>                                                                                                               |     |
| <b>Thermorheological Properties of Styrenic Thermoplastic Elastomers with Linear and Dendritic (Arborescent) Polyisobutylene Cores</b> ..... | 302 |
| <i>Marianna Kontopoulou, Matthew Tomkins, Judit Puskas</i>                                                                                   |     |
| <b>Innovations in Thermoplastic Elastomers for Overmolding</b> .....                                                                         | 328 |
| <i>Liang Xu, Krishna Venkataswamy</i>                                                                                                        |     |
| <b>Compounding and Processing of TPEs and TPV Materials in an Internal Mixer</b> .....                                                       | 360 |
| <i>Robert McNabb</i>                                                                                                                         |     |
| <b>Making it Green: Improving Tire Materials for a Better Tomorrow</b> .....                                                                 | 381 |
| <i>Hiroshi Mouri</i>                                                                                                                         |     |
| <b>Renewable and Sustainable Esters</b> .....                                                                                                | 401 |
| <i>Stephen O'Rourke</i>                                                                                                                      |     |

**Novel Filler-Reinforced Thermoplastic Elastomers ..... 425**  
*Judit Puskas*

**TPE Product Innovations to Create New Profit Opportunities for Users ..... 457**  
*Sachin Sakhalkar*

**Innovative Solutions for Achieving High Temperature Performance with Styrenic TPEs ..... 478**  
*Kathryn Wright, Henk de Groot*

**Author Index**