

Rubber Division ACS

171st Technical Meeting of the
Rubber Division, American
Chemical Society
2007

April 30 – May 2, 2007
Akron, Ohio, USA

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571
www.proceedings.com

ISBN: 978-1-60560-090-1

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

Rubber Division ACS
171st Technical Meeting of the Rubber
Division, American Chemical Society
2007

TABLE OF CONTENTS

Rubber Friction in Relation to Tire Traction	1
<i>Karl-Alfred Grosch</i>	
Elastomers - An Engineering Material	41
<i>Daniel Hertz</i>	
Fatigue Life Prediction for Elastomer Structures	105
<i>Will Mars</i>	
Thermoplastic Elastomers	125
<i>Dale Meier</i>	
Can We Build Intelligent Polymer Networks?	139
<i>Burak Erman</i>	
3D Image Analysis of Electron Tomograms of Clay/Rubber Nanocomposites	161
<i>Cedric Gommès</i>	
Adaptive and Responsive Nanocomposite Elastomers	184
<i>Richard Vaia</i>	
Advanced DVA Tire Innerliner Technology	214
<i>Yasu Hatano</i>	
Evolution of High Performance Organic Fibers	243
<i>Vlodek Gabara</i>	
Improving Wet Traction Through the Use of High Performance Silica Tread Compounds	266
<i>Philippe Cochet</i>	
The Influence of Dynamic Vulcanization on Phase Inversion and Co-continuous Morphologies in Polymer Blends	291
<i>Basil Favis</i>	
Nanoscope Investigation of Rubbers	314
<i>Hidehiko Dohi</i>	
Crystallinity Studies of the Sulfide Layer Formed at the Rubber-Steel Tire Cord Interface Using Grazing Incidence Angle Spectroscopy	328
<i>W. Van Ooij</i>	
Polymer Nanocomposites for Shape Memory Applications	383
<i>Sadhan Jana</i>	
Properties of Rubber Approaching its Glass Transition	419
<i>Mike Roland</i>	
Q-Flex QDI Quinone Diimine Antidegradant and Evidence of Competitive Chemistries During Mixing...	441
<i>Frederick Ignatz-Hoover</i>	

Responsive Binders for Controlling Dispersion Behavior of Silica Clusters	458
<i>Ica Manas-Zloczower</i>	
Shearographic Analysis of Tire Aging	489
<i>Walter Waddell</i>	
Tack at Interfaces Between Immiscible Uncrosslinked Elastomers	532
<i>Costantino Cretin</i>	
Innovation in the Tire Industry	574
<i>Joseph Walter</i>	
Author Index	