Selected Publications of TPI principles

"Chemical Recycling of Mixed Polyurethane Foam Stream Recovered from Shredder Residue into Polyurethane Polyols," **2007.** *Journal of Cellular Plastics*, **43**, 31-46.

"Shape Memory Foams: Applications in Packaging." October 17-19, 2005. Proceedings of the Polyurethanes Conference **2005**, Sponsored by the Alliance for the Polyurethanes Industry, Houston, Texas, p.p. 502-508

"Novel C12™ Chain Extenders for Polyurethanes," October 18-20, 2004. Proceedings of the Polyurethanes Conference **2004**, Sponsored by the Alliance for the Polyurethanes Industry, Las Vegas, Nevada, p.p. 481-487.

"Polymeric Foams and Foam Technology," 2nd Edition, Hanser Publishers / Hanser Gardener Publications, Inc., Cincinnati (**2004**)

"Hydrolytic Stability of Toluene Diisocyanate and Polymeric Methylenediphenyl Diisocyanate Based Polyureas under Environmental Conditions." **2004**. Environ. Sci. Technol., *38*, 1066-1072.

"Novel Co-Polymer Polycarbonate Diols for Polyurethane Elastomer Applications." October 1-3, 2003. Proceeding of the Polyurethanes Conference **2003**, Sponsored by the Alliance for the Polyurethanes Industry, Orlando, Florida, p.p. 241-248.

"Roles of Molecular Architecture and End-Group Functionality on the Surface Properties of Branched Polymers", *Langmuir;* **2002**; *18*(25); 9990-9995.

"The Role of Alkyl End Groups on the Miscibility of Hyperbranched Polymers with Polyolefins", *Polym. Eng. Sci;* **2002**.

"Polyurethane Elastoplastics for Load Bearing Applications." October 13-16**, 2002.** *Proceedings of the API Polyurethane Conference 2002*, Salt Lake City, Utah, p.p. 307-315.

"Utilization of Polyurethane Foam Scrap as a Sole Binder for Recycling of Automotive Interior Trim Products." **2000.** *Journal of Cellular Plastics*, **36**(5), 386.

"Synthesis and Characterization of Hyperbranched Aromatic Poly(ether imide)s with Varying Degrees of Branching", Macromolecules; 2000; 33(17); 6412-6415.

"Effects of Molecular Variables and Architecture on the Rheological Behavior of Dendritic Polymers", *Macromolecules*; **2000**; *33(2)*; 590-596.

"Polyurethane Elastomers Based on Poly(1,3-Propanediol Carbonate) Glycols." October 8-11, **2000.** *Proceedings of the Polyurethanes Conference 2000, Sponsored by the Alliance for the Polyurethanes Industry of the American Plastics Council*, Boston, Massachusetts, p. 303-309.

"Utilization of Isocyanate-based Binders in Recycling of Scrap Automotive Headliners." **1999.** *Advances in Plastics Recycling* - Recycling of Polyurethanes; K.C. Frisch, Daniel Klempner, and Geoffrey Prentice, eds., Technomic Publishing Co., Inc., Lancaster, Pennsylvania, Vol. 1, p.p. 241-250.

"Recycling of Mixed Color Automotive Thermoplastics." **1998.** *InternationalCongress & Exposition, Society of Automotive Engineers,* February 23-26, 1998, Detroit, Michigan, SAE Technical Paper Series 981155.

"Shredding Late Model Chrysler Vehicles, ASR Sample Collection and Characterization of ASR." **1998.** *International Congress & Exposition, Society of Automotive Engineers,* February 23-26, 1998, Detroit, Michigan, SAE Technical Paper Series 980480.

"Polyurethane Elastomers Based Upon Novel Hydrocarbon-Based Diols." **1998.** *Advances in Urethane Science and Technology;* Frisch, K.C., Klempner, D., and Prentice G., eds., Technomic: Lancester, PA, 14**,** p.p. 287-307.

"Structure-Property Relationships of Polyurethane Elastomers Based on New Saturated Hydrocarbon Diols." **1998.** *Advances in Urethane Science and Technology;* Frisch, K.C., Klempner, D., and Prentice, G., eds., Technomic: Lancester, PA, 14**,** p.p.267-285.

"Novel Delayed Action Catalysts for Polyurethane Applications." **1997.** *Proceedings of the Polyurethanes World Congress '97,* The Society of the Plastics Industry, Inc, UTECH, and European Isocyanate Producers Association, Amsterdam, The Netherlands, Sept. 29-Oct.1, 1997, p. 338.

"Recent Developments in Shredder Downstream Separation Processes and Recycling Options for Automotive Shredder Residue." **1997.** *New Plastics Applications for Automotive Industr (SP1253), SAE Technical Paper Series 970663, Society of Automotive Engineers, Inc.*, p. 163.

"Novel Isocyanate-Based Matrix Resins for High Temperature Composite Applications." **1996**. *Polymer Composites,* 17(2), 180.

"Polyoxazolidones for High Temperature Applications." **1996**. *Journal of Elastomers and Plastics,* 28, 63.

"Hazardous Waste Stabilization with Isocyanate-Based Binders." **May 23-25, 1995**. *Proceedings of the UTECH Asia "95 Conference,* Suntec City, Singapore, paper 45.

"Urethane-Modified Asphalt for Pavement Overlays/Wearing Courses for Road Applications." **September 26-29, 1995**. *Proceedings of the SPI Polyurethanes 1995 Conference*, Chicago, Illinois, p. 418.

"Photostability of Polyurethane Elastomers Based on Various Types of Diisocyanates." **1994**. *Journal of Elastomers and Plastics,* 26(2), 143.

"Interpenetrating Polymer Networks as Energy-Absorbing Materials." **1994**. *Interpenetrating Polymer Networks;* Klempner, D., Sperlings, L.H. and Utracki, L.A., Editors. *Advances in Chemistry Series 239, American Chemical Society*, Washington, DC, pp. 39-75.

"Clear Nonionic Polyurethane Hydrogels for Biomedical Applications." **1994**. *Journal of Elastomers and Plastics*, 26(1),41-57.

"New Heat Resistant Isocyanate Based Foams for Structural Applications." **1992**. *Journal of Cellular Plastics*, 28(4), 316.

"Effect of Morphology on Sound Attenuation of Flexible Polymeric Foams." **1991**. *J. Cell. Plastics*, 27, 135.

"Novel Heat Resistant Isocyanate-Based Polymers." **1991**. *Journal of Elastomers and Plastics*, 23 (3), 192.

"Synthesis and Properties of Urethane-Modified Polyimides." **1990**. *J. Polymer. Sci., Chem. Ed.*, 28, 3603.

"Studies in the Formation of Poly(oxazolidones) I. Kinetics and Mechanism of the Model Oxazolidone Formation from Phenyl Isocyanate and Phenyl Ether. Selectivity of Catalysts." **1987.** *J. Polym. Sci., Chem.Ed.*, 25, 151.

"Poly-2-Oxazolidone-Urethane Coatings." **1987**. *J. Coatings Tech.*, 59(747) 29.

"Synthesis of Model 2-Oxazolidone and Polyoxazolidones Using Aliminium Cloride-Triphenylphosphine Oxide as Catalyst." **1986.** *Polymei*, 7(6), 159