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New Members of the Board

Dr. Keith J. Kociba

Dr. Kociba joined The Lubrizol Corporation as a research chemist in July, 2000. His responsibilities include general analytical/physical chemistry with emphasis on thermoanalytical, calorimetric and infrared techniques. His interests include the bulk properties of fluids over a wide temperature range and liquid/solid interfacial interactions at high temperatures and pressures, e.g., engine operating conditions. Dr. Kociba also serves as technical editor for B&K Publishing, publishers of the Thermal Analysis, Calorimetry and Rheology Buyer's Guide and the web site Thermal Analysis, Calorimetry and Rheology Information Central. Previous work experiences include industrial chemical, pharmaceutical and instrument development work at Dow Chemical, Dow Corning, BAS, and the MSU/NIH Regional Mass Spectrometry Facility.

Dr. Kociba earned his Ph.D. (1998) and Master of Science (1995) degrees at the Ohio State University, USA, under the guidance of Prof. Patrick K. Gallagher. Emphasis of his studies was characterization of solid-state chemistry and phase transitions at extreme temperatures. His undergraduate studies were completed at Michigan State University, USA, where he graduated Cum Laude in 1992.

Dr. Kociba's current scientific affiliations include ICTAC (International Confederation for Thermal Analysis and Calorimetry), CALCON (Calorimetry Conference), NATAS (North American Thermal Analysis Society), NCTAS (North Coast Thermal Analysis Society), and the ACS (American Chemical Society).

NATAS honored Dr. Kociba in 1998 with the NATAS Perkin Elmer Student Award in Thermal Analysis. He was also recognized as the American Chemical Society Analytical Chemistry Undergraduate of the Year at Michigan State University in 1991. That same year he was designated the Warren Crummett Summer in Analytical Science at Dow

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Chemical Award Alternate, awarded by the chemistry faculty at Michigan State University. Also at Michigan State University he was elected to membership in the MSU Tower Guard Honors Society, open to the top 4% of MSU sophomores. Dr. Kociba received several scholarships to attend MSU: American Society of Metals Engineering Scholarship, Auburn Area Service Scholarship, Daughters of the American Revolution Good Citizenship Award and the Dow Chemical Distinguished Student Science Award.

Recent publications and presentations include 'Power-modulated *vs*. Temperature-Modulated TGA and DSC', a poster at the 28th NATAS Conference, 'Temperature Calibration in TMAs Using Modulated Temperature and Curie Temperature Reference Standards' K. J. Kociba, J. Therm. Anal. Cal., 60 (2000) 779 and 'Expedient Construction of Solid-Solid and Solid-Liquid Phase Diagrams Using MTDSC and Simultaneous TG/DTA' a poster at the 1st International Symposium on Pharmaceutical and Food Science Applications of Modulated Temperature Differential Scanning Calorimetry, 1998.

Dr. Wei-Ping Pan

Dr. Wei-Ping Pan was born on September 9, 1954 in Taipei, Taiwan. He received his B.S. degree in Chemical Engineering from Chung Yuan University, Taiwan and his Ph.D. in Physical Chemistry from Michigan Technological University in 1986. Dr. Pan has taught at Western Kentucky University since 1986. Dr. Pan was named the Sumpter Professor of Chemistry at Western in 1993 and was named a Fellow of the North American Thermal Analysis Society in 1997. He served as President-Elect of NATAS in 2000 and as President this year. Dr. Pan has published 74 peer-reviewed papers in the last 14 years, the majority of which are related to thermal analysis. He has pioneered work in the area of thermal analysis involving effluent gas analysis and has used the TG /FTIR/MS technique extensively in the study of many different types of materials.

Dr. Pan has been the project director of 19 projects supported by external agencies, including NSF, TVA, the US DOD, the US DOE, EPRI, TA Instruments, Seiko Instruments, Shimadzu Instruments and the LECO Coporation. Some examples of the research projects are as follows.

The goal of the US DOE-sponsored project 'Co-firing High Sulfur Coal with Refuse Derived Fuels' was to find solutions to municipal solid waste problems using the TG/FTIR/MS technique to study the mechanism for the formation of polychlorinated hydrocarbons during combustion. By knowing the way these materials are formed, steps can be taken to minimize their production during the combustion of different fuels. The goal of the EPRI-sponsored projects 'Behavior of Chlorine During Combustion in an AFBC System' and 'A Study of Chlorine in High Temperature Corrosion of Alloys in an AFBC System' was to help the Paducah, Kentucky TVA Power Plant determine what levels of high chlorine coals, which are readily available in the area, may be combusted without causing corrosion of heat exchange tubes in the boiler. The NSF-sponsored project 'Acquisition of a Quadrupole Mass Spectrometer' was designed to develop an on-line technique for industry to use to monitor flue gas emissions. The project 'Applications of DSC and FTIR to Planetary Surface Exploration' was in collaboration with NASA to identify the mineral contents of geological samples on Mars. The project 'Studies of Processing Chemistry and Stability of High Temperature Polyimides Using TG/FTIR/MS' was conducted to help understand the processing chemistry and thermal stability of polyimide polymers used in aerospace applications for DOD. The project 'Synthesis and Characterization of Electron-Beam Cured BT Copolymers for Aerospace Applications' was again in collaboration

with NASA to develop new materials for aerospace applications. The goal of the project 'A Study of the Thermal Stability and Degradation Mechanisms of Organically Modified Layered Silicates' is being conducted to develop new polymer-layered silicates nanocomposite materials whose properties can be greatly improved compared to homopolymers, and to also systematically study the thermal stability of a variety of organic modified layered silicates using evolved gas analysis techniques.

Dr. Pan, along with his research students and colleagues, has presented a total of 212 research papers, about half at national and international meetings and the rest at regional meetings.

The Thermal Analysis Laboratory at Western Kentucky University was established by Dr. Pan in 1986 and has been developed into an internationally recognized facility. The lab is used as an instructional lab for physical chemistry and polymer chemistry courses, as a research facility for 10-15 students each year, and has provided analytical services to over 130 companies, universities and agencies in 30 different states. Dr. Pan has earned an international reputation for his work in thermal analysis research.

By involving students in all aspects of his work, Dr. Pan has been successful in coordinating his research and public service efforts with his teaching. This has provided tremendous opportunities for the training and professional development of his students. Dr. Pan is a very popular and yet demanding teacher in all his classes, including freshmen through the graduate courses. The wealth of experiences he has gained in his public service and research activities allow him to offer many practical applications of classroom concepts. He wins the students trust, and develops a very strong student-teacher relationship with them. He involves students in everything he does at the University. Dr. Pan's energy and enthusiasm in working with students on public service and research projects makes him extraordinarily effective in introducing the students to the excitement and challenge of science, especially in the area of thermal analysis.

Dr. Bruce Prime

Dr. Bruce Prime is a consultant in polymeric materials and thermal characterization and Affiliate Professor of Chemical Engineering at the University of Washington. He received a B.S. in chemistry from Loyola-Marymount University and a Ph.D. in Chemistry from Rensselaer Polytechnic Institute with Professor Bernhard Wunderlich. He recently retired as a Senior Scientist from the IBM Materials Laboratory in San Jose, CA. During his 30 years at IBM he contributed extensively to the advancement of materials and processes for printer and disk drive technologies. Dr. Prime has authored over 50 publications on thermal analysis and materials and process characterization. He is also the author of the chapter on 'Thermosets' in Thermal Characterization of Polymeric Materials (Edith Turi, Ed., Academic Press, 1981 and 1997). He is a Fellow of NATAS and SPE and was the recipient of the 1989 international Mettler Award in Thermal Analysis. Dr. Prime's publications on thermosets focus on the characterization of process kinetics as well as the coupling of analytical techniques.

It is an honour for us to welcome you to our Board!