



CV of Prof. Karel Kolomazník

Professor at Tomas Bata University in Zlín, Faculty of Applied Informatics, Czech Republic

Professional Experience

- 2006 - present - Professor, Tomas Bata University in Zlín, Faculty of Applied Informatics
- 2001 – 2005 Professor, Tomas Bata University in Zlín, Faculty of Technology,
- 1991 – 2001 Professor, Associate Professor, Brno University of Technology, Faculty of Technology in Zlín
- 1976 – 1991 Associate Professor, Brno University of Technology, Faculty of Technology in Zlín
- 1970 – 1976 Assistant Professor, Brno University of Technology, Faculty of Technology in Zlín
- 1967 – 1970 Researcher, University of Chemistry and Technology Prague
- 1959 – 1962 Part-time assistant, University of Chemistry and Technology Prague

Education and Training

- 1991 Brno University of Technology, Faculty of Civil Engineering, Brno, Czech Republic, Professor in Leather technology
- 1988 Brno University of Technology, Faculty of Civil Engineering, Brno, Czech Republic, Doctor of Science (the highest scientific degree in the Czech Republic) in Chemical engineering – Automated control systems
- 1976 University of Chemistry and Technology Prague, Faculty of Organic Technology, Prague, Czech Republic, Associate Professor in Organic technology
- 1963 - 1967 University of Chemistry and Technology Prague, Faculty of Organic Technology, Prague, Czech Republic, Candidate of Science (equivalent of Ph.D.) in Organic technology
- 1957 – 1962 University of Chemistry and Technology Prague, Faculty of Organic Technology, Prague, Czech Republic, Master of Engineering in Technical heterogeneous catalysis

Research Fellowships

- 1983-4, 1992, 1996, 2003 - U.S. Department of Agriculture, Eastern Regional Research Center, Wyndmoor, PA, USA
- 1994, 1996 - British Leather Association Northampton, UK
- 2003 - Consejo Superior de Investigaciones Cientificas, Spain
- 2003 – NIKE Inc., Ho-Chi-Minh City, Vietnam
- 2004 - University College Northampton, UK

Scientific and Research Activities

- Indirect modeling of manufacturing processes for natural and synthetic polymers in view of their rationalization and optimization.
- Development and implementation of recycling technologies for potentially hazardous waste of the meat, food and leather industries.
- Control algorithms of chemical reactors in the production of regenerated tanning salts through oxidation-reduction reactions.
- Transport phenomena in polymer systems.
- Optimization of manufacturing processes in the leather and textile industries.
- Development of modified aminoplasts from protein hydrolyzates.
- Production of biodiesel from waste fats and oils generated by the tanning, food and textile industries.

Publication Activities

Author or co-author of more than 70 papers in journals with impact factor, many patents and utility models (12 patents and utility models currently active, including two European patents), more than 40 conference proceedings papers (indexed, recognized on WoS), 5 international monograph chapters, textbooks and others.

Educational activities

- Long-term teaching experience – courses in Theory of Technological Processes, Process Engineering, Modelling of Dynamic Systems, Bioengineering
- Member of advisory and executive panels for study programmes
- Member of committees for doctoral state exams, habilitations and professorships
- Supervisor of more than 15 doctoral theses and numerous Master Degree theses

Membership

- Long-time active member of the American Leather Chemists Association (ALCA)
- Active member of the American Chemical Society (ACS)
- Former member of the International Union of Environment (IUE) Commission of International Union of Leather Technologists and Chemists Societies (IULTCS)
- Member of the Czech Chemical Society, Expert Group for Chemical Engineering
- Member of Klub českých hlav (Czech Brain Club) – the club gathers distinguished personalities from the scientific and technological areas with a mission to enhance the

development of Czech science and democratically share opinions across scientists, technologists, businessman, politicians and others

International Research Projects

- 1) EU Programme COPERNICUS 1994, Project No. ERB3512PL940974 "Recovery and Recycling of Chromium and Protein from Liquid and Solid Wastes from the Leather Industry".
- 2) USA – Asia Environmental Partnership, project No. USA-AEP 2096 Recycling and utilization of chrome-titanium sludge from manipulation waste of NIKE Inc.
- 3) USA for International Development No. 2002-015-UN Exchange program for sustainable growth.
- 4) 5th Framework Programme of the European Union, project No. G1RD-CT-2002-00772 RTD - Radically Environmentally Sustainable Tannery Operation by Resource Management – RESTORM (coordinated by the BLC Leather Technology Centre, Ltd., Northampton, UK).
- 5) 7th Framework Programme of the European Union, EUREKA-Eurostars No. E!4829 „LIPIDIESEL - Adding value to lipid waste streams through a new production process for biodiesel“ (coordinated by the BLC Leather Technology Centre, Ltd., Northampton, UK).
- 6) Foreign Talents Science, Technology and Innovation Grants; Sub-component 1.a/FIRST Project „Recycling of waste containing chromium produced by Vietnam tanning industry“, realized by the Center for Application Research and New Technology Transfer (A&T Center) – Leather and Shoe Research Institute, Hanoi, Vietnam.
- 7) Project INTER-EUREKA E!12610 FERTI-MAIZE- „Innovative Foliar Fertilizer Based on Proteins By-Products for Maize Treatment“ (coordinated by Probstdorfer Saatzuch Romania, SRL)

Awards and Honors

- **EUREKA “Médaille d`or avec mention“** for the technology “Hydrolyse des enzymes résiduelles du tannage, leur visualization et controle par ordinateur”, Brussels, 11/11/1997.
- **EUREKA “Prix Special” accorde par M. Karel Pinxten, Ministre de l`Agriculture et des Petites et Moyennes Entreprises“** for the invention of “Hydrolyse des enzymes résiduelles du tannage, leur visualization et controle par ordinateur”, Brussels, 11/11/1997.
- **Rolex Award for Enterprise** for the processing and recycling of potentially hazardous chrome-tanned waste produced by the leather industry using innovative technology based on low-boiling alkyl amines, 1998. An industrial unit was built in Hrádek n. Nisou (Czech Republic) with the load capacity of 15 tons. The unit is still active, operated by the company Kortan Ltd.
- **City of Zlín Award** for excellent representation of the city of Zlín in the world scientific community, 2000.
- **Certificate of Member in good standing** for the year 2003, commemorating the 100th Anniversary year of The American Leather Chemists Association, 2003.

- **Honorary Doctorate of Engineering** awarded by The Yorker International University, Florence, Italy, 2008.
- **Alsop Award of the American Leather Chemists Association** for outstanding contribution for the American Leather Chemists Association. Complex recycling of chromium from solid and liquid wastes of the leather industry including proposal of automatic control algorithms of technological processes, 2009.
- **Werner von Siemens Excellence Award 2012**, Czech Republic (top free finalist) in category „Most significant achievement in the field of development and innovation“– proposal of a technology for complex processing of tannery waste fats (head of the research team), 2012.
- **Czech Innovation**, Czech Republic (top three finalists) in category Innovative Idea for the "Innovative catalytic-recycling system for biodiesel production from waste fats and oils", 2012
- **Czech Brain Award (Česká hlava)**, category Invention Prize for Natural Sciences for Total processing of chromium waste produced by the Leather Industry, 2014.
- **The Medal of Merit by the President of the Czech Republic** in the field of Science and Education, 2018.