Plasma Chemistry and Catalysis in Gases and Liquids
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DESCRIPTION

Filling the gap for a book that covers not only plasma in gases but also in liquids, this is all set to become the standard reference for this topic. It provides a broad-based overview of plasma-chemical and plasmacatalytic processes generated by electrical discharges in gases, liquids and gas/liquid environments in both fundamental and applied aspects by focusing on their environmental and green applications and also taking into account their practical and economic viability.

With the topics addressed by an international group of major experts, this is a must-have for scientists, engineers, students and postdoctoral researchers specializing in this field.

ABOUT THE AUTHOR

Vasile I. Parvulescu received his master's degree in Catalysis from the Polytechnic University of Bucharest in 1979 and in 1986 gained his PhD in Chemistry from the same university, where he investigated the selectivity of bi- and multimetal catalysts in hydrogenation of aromatic hydrocarbons. After several years as high-senior researcher at the Institute of Inorganic Chemistry and Rare Metals, in 1992 he joined the University of Bucharest, where he became full professor in 1999. His current interest concerns the study of heterogeneous catalysts for green and fine chemistry and environmental protection. He authored more than 230 papers, 25 patents, and 4 books. He was awarded in 1990 with the prize of the Romanian Academy and in 2008 Proclaimed Knight of the National Order for Merit by the Romanian President.
Dr. Monica Magureanu is a senior researcher in the National Institute for Laser, Plasma and Radiation Physics (NILPRP) in Bucharest, Romania. She received her M.Sc. degree from the University of Bucharest, Faculty of Physics in 1996. In 1995 she joined NILPRP. Between 2000 and 2002 she was with the Institute for Low Temperature Plasma Physics (INP) Greifswald, Germany for her PhD studies on methane conversion into higher hydrocarbons in microwave plasma and she received her PhD degree from Ernst-Moritz-Arndt University, Greifswald in 2002. Her present research interests include non-equilibrium plasma at atmospheric pressure and applications to air and water pollution abatement.

Dr. Petr Lukes is a senior researcher at the Institute of Plasma Physics, Academy of Sciences of the Czech Republic in Prague, Czech Republic. He has over 15 years research experience in the field of chemical and physical processes induced by non-thermal plasma in water and gas/liquid environments and their environmental and biomedical applications. He received his M.Sc. and Ph.D. degrees in chemical and environmental engineering from the Institute of Chemical Technology, Prague, Czech Republic, in 1995 and 2002, respectively. In 2003 he was awarded a NSF-NATO Postdoctoral Fellowship in Science and Engineering and performed postdoctoral research at Florida State University, Tallahassee, USA. He is the author of numerous journal papers and conference presentations in the field of plasmachemistry in water. In 1995 he received the Czech Chemical Society Award, and in 2006 the Otto Wichterle Award from the Academy of Sciences CR.