

ONLINE LECTURE

By

Prof. Jiri Barek

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Introduction of the Speaker:

Professor Jiri Barek is an internationally recognized Professor of Electroanalytical Chemistry from Charles University, Prague, Czech Republic. He is the head of UNESCO Laboratory of Environmental Electrochemistry, author and co-author of more than 400 research papers in peer-reviewed journals and a number of monographs on applications of electroanalytical methods and development of new electrode materials and arrangements for both batch analysis and flow systems. Prof. Barek is also member of several Steering Committees and also on the Editorial Board of different journals in Physical and Analytical Chemistry.

Research Interests:

Electrochemical determination of trace amounts of biologically active organic substances, e.g. chemical carcinogens, biomarkers, drugs and their metabolites, pesticides, dyes and dye-industry intermediates, etc. High Performance Liquid Chromatography of the above mentioned substances with electrochemical detection. Development of new electrochemical sensors and detectors

Schedule of Lecture

S. No	Topic	Day& Date	Time
1.	Advances in Electroanalytical Methods for Determination of Biologically Active Organic Compounds	(Thursday) 10 th March, 2016	11:00 am-12:00pm

Abstract:

The aim of the lecture is to show possibilities of modern electroanalytical methods for batch determination (namely linear scan voltammetry, cyclic voltammetry, differential pulse voltammetry, square wave voltammetry, adsorptive stripping voltammetry) and flow determination (namely flow injection analysis and high performance liquid chromatography with electrochemical detection) of biologically active organic compounds containing electroactive functional groups. Biomarkers of illness, of exposure and of treatment will be used to demonstrate advantages and possibilities of electroanalytical methods in this field. Moreover, methods for monitoring of chemical carcinogens, pesticides and other important biologically active environmental pollutant will be briefly discussed as well. Attention will be paid to the application of new nontraditional electrode materials and arrangements recently investigated in UNESCO Laboratory of Environmental Electrochemistry in Prague and to their combination with a preliminary separation and preconcentration using solid phase extraction or membrane separation.

Venue: Video Conferencing room of the LEJ, ICCBS, University of Karachi