



FACULTY OF
SCIENCE
Charles University

Department of Physical and Macromolecular chemistry

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Department of Physical and Macromolecular Chemistry
invites you for a seminar
and
a habilitation lecture

Application of spectroelectrochemistry in determination of oxidation and reduction mechanisms

Lecture hall CH 3, Faculty of Science, Hlavova 8, Praha 2
on February 15th, 2023 at 14:00

speaker: RNDr. Romana Sokolová, Ph.D.

Department of Electrochemistry at the Nanoscale, J. Heyrovský Institute of Physical
Chemistry of the CAS, v. v. i.



The lecture deals with determination of oxidation and reduction mechanisms of bioactive compounds. Since electron transfer reactions occur in biological processes, understanding the relationship between the chemical structure of a bioactive compound and its electrochemical properties may provide fundamental information on its antioxidant and pharmaceutical efficiency. These processes involve an electron transfer and coupled chemical reactions. Electrochemical and spectroelectrochemical methods can effectively explain the fundamental reaction schemes. The presentation will be focused on the importance and application of in situ UV-Vis and IR spectroelectrochemistry in the determination of electroactive site in molecule and in identification of short living intermediates and

products formed during reaction. Significant contribution of spectroelectrochemical techniques in the research of complex reaction schemes will be shown on examples of important biologically active compounds.

Organizers: Prof. Tomáš Obšil, Dr. Ondřej Sedláček

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