

Conference chair:

Professor Dr. Fritz Scholz
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Ernst-Moritz-Arndt-Universität Greifswald

Conference venue:

Alfried Krupp Wissenschaftskolleg
Greifswald
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**Alfried Krupp Wissenschaftskolleg
Greifswald**

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Alfried Krupp Wissenschaftskolleg
Greifswald

Hydrophobic Structures and Electrochemical Techniques

International conference of the
Alfried Krupp Graduate School
„Studies of the interaction
of free oxygen radicals with
molecules at electrodes and
applications to biochemical and
medical systems“

March 18–23, 2010

Thursday, March 18, 2010

Welcome addresses

8.00 – 8.30

Welcome addresses

Plenary lectures

8.30 – 10.00

Direct force measurements and electrochemistry

Georg Papastavrou (Bayreuth)

10.15 – 11.45

Chemistry and biology of ROS und NOS

Sigurd Lenzen (Hannover)

11.45 – 13.00

Lunch break

13.00 – 14.30

Electrochemically generated chemiluminescence, general background, and some applications

Jiří Ludvík (Prague)

14.45 – 16.15

Stripping voltammetric methods for the determination of elements and organic compounds in samples of clinical and environmental relevance

Leandro Carvalho (Prague)

16.15 – 17.00

Coffee break

Public evening lecture

Introduction: Fritz Scholz (Greifswald)

17.00 – 18.00

Typ 1 und Typ 2 Diabetes. Eine Krankheit, aber unterschiedliche Ursachen

Sigurd Lenzen (Hannover)

Friday, March 19, 2010

Plenary lectures

8.30 – 10.00

Electrochemically generated chemiluminescence, general background, and some applications

Jiří Ludvík (Prague)

10.15 – 11.45

The vulnerable pancreatic beta cell and reactive species

Sigurd Lenzen (Hannover)

11.45 – 13.00

Lunch break

Short lectures of the PhD students

13.00 – 13.30

Interaction of free oxygen radicals with noble metals

Gustav Sievers (Greifswald)

13.30 – 14.00

Development of analytical techniques for radical detection

Katja Vahl (Greifswald)

14.00 – 14.30

AFM measurements of the dynamics of structural changes of polycation covered surfaces induced by free radicals

Florian Berg (Greifswald)

14.30 – 15.00

The conformation of poly(styrene sulfonate) layers physisorbed from salt solutions of different concentration studied on two different length scales: superposition of electrostatic and steric forces

Stephan Block (Greifswald)

15.00 – 15.30

Enlarged mercaptoundecanoic acid capped silver colloids for the SERRS study of Cytochrome C on SAM/Au electrodes

Arumugam Sivanesan (Berlin)

15.30 – 16.00

Coffee break

16.00 – 16.30

The role of reactive oxygen species in the function and differentiation of monocytes

Nguyen Huu Hung (Greifswald)

16.30 – 17.00

Involvement of ROS in immune cell recruitment to inflammatory sites

Bich Thu Tran (Greifswald) 14.00 – 14.20

Saturday, March 20, 2010

Plenary lectures

8.30 – 10.00

AFM instrumentation

Georg Papastavrou (Bayreuth)

10.15 – 11.45

Stripping voltammetric methods for the determination of elements and organic compounds in samples of clinical and environmental relevance

Leandro Carvalho (Santa Maria)

11.45 – 13.00

Lunch break

Short lectures of the PhD students

13.00 – 13.30

The effects of oxidants and antioxidants on beta cell function

Carmen Härdtner (Greifswald)

13.30 – 14.00

Studies on the influence of reactive oxygen species (ROS) and nitric oxygen (NO) in the development of pancreatitis and pancreatic autophagy

Annegret Dummer (Greifswald)

Monday, March 22, 2010

Plenary lectures

8.30 – 10.00

Impedance analysis of polymer modified electrodes – films, membranes, and interfaces

Gyöző G. Láng (Budapest)

10.15 – 11.45

Adsorption of molecules at metal electrodes

Jacek Lipkowski (Guelph)

11.45 – 13.00

Lunch break

13.00 – 14.30

Thermodynamical treatment of membrane equilibria – Conducting polymers as versatile membranes

György Inzelt (Budapest)

14.30 – 17.00

Coffee break

Evening lecture

17.00 – 18.00

Ordered molecular films; from fundamentals to molecular electronics

Jacek Lipkowski (Guelph)

Tuesday, March 23, 2010

Plenary lectures

8.30 – 10.00

Issues related to the measurement of surface stress changes of solid electrodes

Gyöző G. Láng (Budapest)

10.15 – 11.45

Fundamentals of the electrochemical methods – The combination of electrochemical and non-electrochemical techniques to elucidate complex reaction mechanism

György Inzelt (Budapest)

11.45 – 13.00

Lunch break

13.00 – 14.30

Surface aggregation of surfactants at electrified interfaces

Jacek Lipkowski (Guelph)

14.30 – 15.00

Coffee break

Discussion forum

15.00 – 16.00

Discussion and concluding remarks

Graduate student roundtable

16.00 – 17.00

Progress report and organizational topics

Wednesday, March 24, 2010

Practical courses at the research institutes