Lecture Series
Heterogeneous Catalysis

Vorlesungsankündigung / Class Announcement WS 04 /05

Modern Methods in Heterogeneous Catalysis Research

A series of independent lectures on catalyst preparation, characterization, testing and related topics - for advanced students

Instructors: R. Schlögl, professors, staff scientists from Fritz Haber Institute & TU & HU Berlin, guest speakers

Location: Seminar room CP, Fritz Haber Institute (Max Planck Society),
Faradayweg 16, 14195 Berlin Dahlem, (U1 Thielplatz)

Time: Friday 9:00-10:30 h and 10:45-12:15 h (all times s.t.)

Program

22.10.04	Introduction (Jentoft) Adsorption (Christmann)
29.10.04	Chemical Analysis (R. Horn) Auger Electron Spectroscopy (Ranke)
05.11.04	Technology of Supported Catalyst Systems (Schubert) Temperature and Pressure Measurement (Ranke)
12.11.04	Preparation of Model Systems by Physical Methods (Knop-Gericke) Scanning Tunneling Microscopy (Nilius)
19.11.04	Structure Determination by Neutron Diffraction (Irran) Ab Initio Atomistic Thermodynamics and Statistical Mechanics of Surface Properties and Functions (Reuter)
26.11.04	Microkinetic Analysis (Breitkopf) Chromatographic Reactors (Seidel-Morgenstern)
03.12.04	In situ Raman Spectroscopy: Fundamentals and Applications (Mestl) Diffuse Reflectance IR and UV-vis spectroscopy (Jentoft)
10.12.04	ESR spectroscopy of catalytic systems: a primer (Risse) Photocatalysis (Bahnemann)
17.12.04	Solid State Kinetics I: Theory (Ressler) Solid State Kinetics II: Analysis of Examples with X-ray Diffraction, XAS and TA (Ressler)
07.01.05	Time-resolved Studies of Surface Reactions (Wolf) Dynamics on Surfaces (Imbihl)
14.01.05	Electron Microscopy in Catalysis Research (Schlögl) Why "In Situ" Methods are Compulsory (Schlögl)
21.01.05	Electrochemical Methods in Catalysis (Kolb) Atomic Force Microscopy - Principle of Operation, Instrumentation, and Probes (Heyde)
28.01.05	Catalysis in Fuel Cells (Schlögl) Vanadium Phosphate and Vanadium Phosphonate - Preparation, Structure and Catalysis (Meisel)
04.02.05	SEMINAR (Schlögl, Jentoft)
11.02.05	Nano-Structured Oxide Catalysts : Perspective for a Transfer from Lab to Technical Scale (Stelzer) Synthesis of highly dispersible aluminas from an industrial perspective (Niemeyer)
18.02.05	Acid-Base Catalysis (Trunschke) Catalysis in a Refinery (Schütter)

more information at http://w3.rz-berlin.mpg.de/cat

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