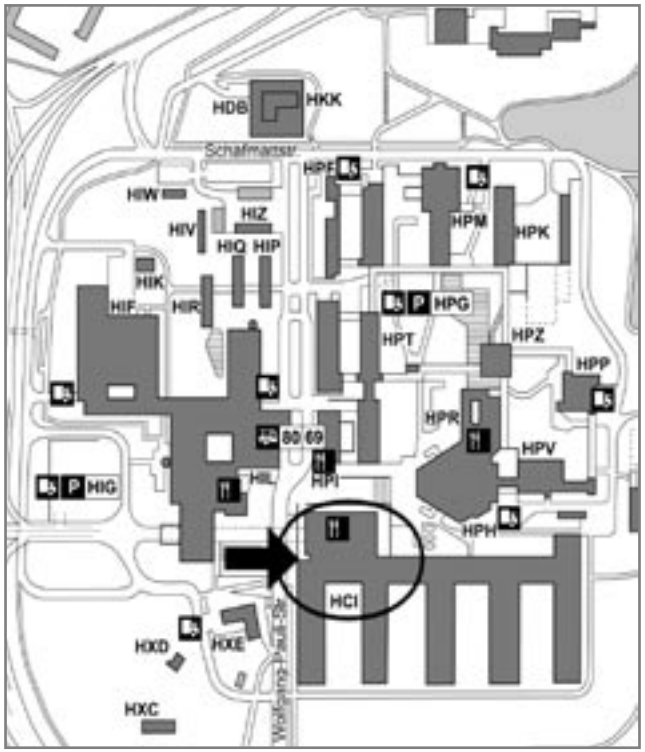
Venue

ETH Zürich
Hönggerberg Campus
Wolfgang-Pauli-Strasse 10
HCI Auditorium G7

From Zürich Main Station (Hauptbahnhof), Bahnhofquai
By tram and bus:
Tram 11 to Bucheggplatz;
change to Bus 69
to ETH Hönggerberg

From Oerlikon Station (Bahnhof Oerlikon)
By bus: Bus 80
to ETH Hönggerberg

By car
From Bucheggplatz
follow the signs to
ETH Hönggerberg;
use underground parking



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Materials and Life
Materials Day

Department of Materials, ETH Zürich

16 March 2005

ETH Zürich
Hönggerberg Campus
Zürich, Switzerland

HCI Auditorium G7

ETH
Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

About the Symposium

Improving our quality of life through advanced materials

Since historical times, the cultural evolution of humans has been tightly linked to the discovery of new materials with enhanced properties and functionalities. Not only were major technological revolutions triggered by new materials, but access to new materials and insights into how to manipulate their properties defined economic and military dominance and led to the rise and fall of empires. Examples from the 20th century range from automobiles to space exploration, from silicon manufacturing to computers and telecommunication. With the advances in nanotechnology, biosciences and computation, major discoveries are being made as to how the next generation of materials can be engineered with properties that were unimaginable just a few years ago.

This Symposium, which is organized by the Department of Materials, will discuss ongoing discoveries in materials science and the way in which emerging materials might soon affect our lives.

Attendance:

The Symposium is open to the public. We particularly invite those involved or interested in physical and life sciences, as well as engineering and technology. Attendance and refreshments are free of charge. Registration is appreciated if you wish to receive future announcements of events and activities from the Department of Materials. For additional information regarding the Symposium please contact our website:

www.materialsday.mat.ethz.ch

Program

09:00	Welcome ***Prof. Nicholas Spencer,*** Chairman, Department of Materials, ETH Zürich
09:15	***Dr. Manfred Heuberger,*** Laboratory for Surface Science and Technology, ETH Zürich ***«How the Last Nanometer of a Material Feels»***
09:45	***Prof. Ralph Spolenak,*** Laboratory for Nanometallurgy, ETH Zürich ***«Geckos, Spiders, Flies and Beetles Do It. Can Humans Do It, too? Adhesion at the Nanoscale: Finer is better»***
10:15	***Prof. Viola Vogel,*** Laboratory for Biologically Oriented Materials, ETH Zürich ***«Biological Nanotricks – Inspirations for New Technologies»***
10:45	Coffee Break
11:15	***Dr. Michelle Grandin,*** Laboratory for Surface Science and Technology, ETH Zürich ***«At the Interface between the Living and the Dead»***
11:45	***Prof. Ludwig J. Gauckler,*** Institute for Nonmetallic Inorganic Materials, ETH Zürich ***«Proteins on Metal Oxide Surfaces and the Impact on Biomedical Applications»***
12:15	Lunch Break and Poster Session
14:00	***Dr. André R. Studart,*** Institute for Nonmetallic Inorganic Materials, ETH Zürich ***«Indications and Lifetime of all Ceramic Teeth Bridges: A Materials Study for Dental Restoration»***
14:30	***Prof. Jörg Löffler,*** Laboratory of Metal Physics and Technology, ETH Zürich ***«Glassy Metals in Vascular Interventions»***
15:00	***Prof. Peter Niederer,*** Institute of Biomedical Engineering, ETH Zürich ***«Materials for Injury Prevention»***
15:30	Coffee Break
16:00	***Dr. Heike Hall,*** Laboratory for Biologically Oriented Materials, ETH Zürich ***«Biomimetic Matrices in Functional Tissue Engineering»***
16:30	***Prof. Ulrich W. Suter,*** Vice President Research, ETH Zürich ***«Life-sustaining Polymeric Materials»***