



With a staff of 4600, Forschungszentrum Jülich – a member of the Helmholtz Association – is one of the largest interdisciplinary research centres in Europe. Work with us on the grand challenges in the fields of health, energy & environment, and information technology, as well as on the many and varied tasks of research management.



The Peter Grünberg Institute is an interdisciplinary platform for basic research in the area of nanoelectronics that combines research and technology with the development of methods. Together with its partner institute at RWTH Aachen University, Electronic Materials (PGI-7) is investigating electronic phenomena in oxides and in electronically active organic molecules for applications in nanoelectronics, sensor technology and electrochemical energy conversion.

For our research in the **nanotechnology of oxides with memristive properties** we have a vacancy to be filled at the earliest possible date for a

RESEARCH SCIENTIST (PhD) in Physics, Physical Chemistry or Electrical Engineering

Job description:

- Research into novel nanotechnological processes
- Implementation of alternative concepts for memristive circuits and architectures (in cooperation with groups working on design and circuit simulation)
- Management of research projects, for example in cooperation with international semiconductor manufacturers, as well as with national and international research institutions

Qualifications and skills required:

- Outstanding university degree and PhD in physics, physical chemistry or electrical engineering (microelectronics/nanoelectronics)
- Wide experience and a strong research record in integration technology, particularly in the integration of new materials into a CMOS environment
- Extensive background knowledge of technical processes, integrated circuits and the physical and chemical properties of complex oxides demonstrated by publications in journals of international significance
- Experience ideally in the analysis of structure–property correlations in complex oxides and/or higher chalcogenides
- Willingness to contribute to teaching activities within the framework of the Jülich Aachen Research Alliance (JARA)
- Scientific creativity, organizational skills, and the ability to work in a team

The position is initially for a fixed term of 2 years, with possible tenure-track perspectives.

The position advertised is full-time but job sharing between several applicants is also possible.

Salary and social benefits will conform to the provisions of the Collective Agreement for the German Civil Service (TVöD).

The implementation of equal opportunities is a cornerstone of our staff policy at Forschungszentrum Jülich, for which we have received the „TOTAL E-QUALITY“ Award. Applications from women are therefore particularly welcome. We also welcome applications from disabled persons.

Please send your application quoting the **reference code 106/2011MR** to:

Forschungszentrum Jülich GmbH

Geschäftsbereich Personal
– Personalentwicklung –
52425 Jülich
Germany

contact:
Barbara Küppers
phone: +49 2461 61-5358
www.fz-juelich.de

Faculty Position - Biomaterials Engineering - Cornell University

Cornell University, located in Ithaca, New York, is an inclusive, dynamic, and innovative Ivy League university and New York's land-grant institution. Its staff, faculty, and students impart an uncommon sense of larger purpose and contribute creative ideas and best practices to further the university's mission of teaching, research, and outreach.

Position: Assistant Professor: Biomaterials Engineering. Tenure Track.

Location: Department of Biological and Environmental Engineering in the College of Agriculture and Life Sciences.

Responsibilities: This biological engineering tenure-track position requires a balanced effort between research (50%) and teaching (50%) on an academic year basis. The successful candidate is expected to develop a nationally recognized research program and become a leader in the field of biomaterials engineering. The department seeks a distinguished and productive junior scholar who shares our passion for outstanding teaching and advising in the context of a leading research university with a top-ranked, accredited undergraduate biological engineering program.

The ideal candidate will work in the area of biomaterials engineering with a focus on biologically-derived materials with broad applications in biological, environmental, agricultural or food systems. Innovative research may be focused at the nanoscale, molecular, cellular or organism level. Examples of possible research emphases include the following areas: bio-derived and bio-inspired materials and biomaterials engineering based on self-assembly, biomolecular engineering, and nanobiotechnology. We are looking for candidates who would excel in the multidisciplinary research environment which is a hallmark of Cornell University.

The successful candidate will also support the teaching of core courses at the undergraduate and graduate level.

Qualifications:

- A Ph.D. in an appropriate discipline is required with demonstrated capability and success in developing research and teaching programs at the interface of engineering and biological sciences.
- A strong background in engineering and biology is required and an engineering degree is preferred.
- Continuing with an already strong record of success, the department especially encourages women and underrepresented minorities to apply for this position.

Application: Submit online at: <https://academicjobsonline.org/ajo/jobs/721>

Reply by: Applications will be reviewed starting August 15, 2011 and will be accepted until this position is filled.

*College of Agriculture and Life Sciences
Developing Leaders. Improving Lives.
Shaping the Future.*



Cornell University

Cornell University is an affirmative action/ equal opportunity employer and educator.

**POSTDOCTORAL
POSITION****CZTS Photovoltaic Materials**

A postdoc position is available immediately at the University of Utah to work on synthesis and characterization of electronic defects in CZTS. **PhD-level or higher experimental experience including publications is required** in $\text{Cu}(\text{In}, \text{Ga})(\text{S}, \text{Se})_2$ or $\text{Cu}_2\text{ZnSn}(\text{S}, \text{Se})_4$ synthesis or electrical and/or optical characterization of defects in chalcopyrites or CdTe. Apply at http://scarpulla.eng.utah.edu/2011_Postdoc_Ad.pdf. For additional information, contact Prof. Mike Scarpulla at scarpulla@eng.utah.edu.

 THE UNIVERSITY OF UTAH.

EOE/AA Employer

**UNSW**
THE UNIVERSITY OF NEW SOUTH WALES**Never Stand Still****Materials Science and Engineering**

The School of Materials Science and Engineering at UNSW is seeking 4 dynamic academics to contribute to its internationally-leading research and education programs. These new positions form part of the School's well supported expansion strategy in line with continuous growth over recent years and the needs of external stakeholders and collaborators with whom it enjoys excellent relationships.

Applicants are sought for the following positions, in particular in the fields of focus:

Ref#7985**Lecturer/Senior Lecturer/Associate****Professor/Professor (joint position with ANSTO)**

Focus on nuclear materials science and materials for

extreme environments. Closing Date 12 August 2011

Ref#7986**Lecturer (joint position with OneSteel)**

In the area of particle science and technology and process metallurgy. Closing Date 15 July 2011

Ref#7987**Lecturer/Senior Lecturer (Process Metallurgy)**

Focus on sustainable materials processing, especially process metallurgy. Closing Date 12 August 2011

Ref#7988**Lecturer/Senior Lecturer (Functional Materials)**

Specialising in functional materials, in particular advanced electronic ceramics. Closing Date 12 August 2011

After reading details online, enquiries should be directed to the Head of School, Professor Mark Hoffman: mark.hoffman@unsw.edu.au

For more information, application procedures and other vacancies, visit: www.hr.unsw.edu.au

**3DICON****NANOCRYSTAL CHEMIST**

3DIcon Corporation is seeking a theoretical chemist or material scientist to develop models and specifications of microcrystal and nanocrystal colloids for use in two-frequency upconversion photoluminescent (PL) devices. The position requires expertise in modeling and simulation (M&S) of PL nanocrystalline colloids, utilizing methods in quantum mechanics, rate equations, and electromagnetic scattering and/or effective-medium theories, to predict bandstructures, lifetimes, and ensemble characteristics for the propagation of visible and infrared light through such materials as functions of the active ion or molecule species, the crystal host, the crystal coating (if any), the liquid host, and structural parameters including size, shape, and concentration. Analysis and interpretation of measured photoluminescence and x-ray dispersion (XRD) data due to these materials is also required. The nanocrystal chemist will apply the developed M&S to specify recipes for nanocrystalline colloids that satisfy device requirements on PL efficiency and spectrum, intermediate and luminescence lifetime, transparency, scattering, flash point, and toxicity. A computer-based PL simulator will be developed to predict PL in nanocrystalline colloids as a function of spatial and temporal modulation of the pump laser radiation. Visit www.3dicon.net for additional information.

To apply, send resume to jkeating@3dicon.net.

3DIcon Corporation is an equal opportunity employer.

**The Elite NANYANG**
ASSISTANT PROFESSORSHIP**The Elite Nanyang Assistant Professorship**

Singapore's science and technology university, the Nanyang Technological University (NTU), invites outstanding young researchers and exceptional scholars to apply for appointment as a **Nanyang Assistant Professor**. Up to 10 appointments will be made.

Successful candidates will receive start-up research grants of up to **SGD 1 million (EUR 569K / USD 806K / JPY 65M)** and an attractive remuneration package with competitive salary and benefits including assistance with accommodations. They will hold tenure track appointments and play lead roles in NTU's multi-disciplinary, integrative research. Candidates should be below 40 years of age, within 10 years of gaining their Ph.D, and ready to independently lead their own research groups.

NTU has attracted high caliber faculty and researchers to its ranks and will continue to consolidate its world-level teams in these areas.

We invite you to be a part of this through the Nanyang Assistant Professorship.

Applications now open for submission* till Saturday, 1 October 2011, 11:59 P.M. (UTC / GMT +8:00)

*** Kindly note that only online applications will be accepted.**

About Nanyang Technological University

NTU is ranked among the top 1% universities globally and the youngest university of the Top 100 ranked in the Quacquarelli Symonds World University Rankings 2010.

From 1 July 2011, Prof Bertil Andersson will take up the role of NTU's President and will lead on key global themes that will greatly impact the 21st century, including sustainability; water and environmental life science and engineering; earth science; clean energy; neuroscience; biomedical structural biology; asian culture and economics; cultural intelligence; linguistics; and interactive digital media. Prof Andersson was the Chairman of the Nobel Prize for Chemistry in 1997 and the Chief Executive of European Science Foundation (2004-2007).

NTU is launching the Lee Kong Chian School of Medicine, Singapore's newest medical school in partnership with Imperial College London to meet the demand of the 21st century healthcare and introduce innovations to medical research in Singapore.

For enquiries, please email us at: NanyangProfessorship@ntu.edu.sg

<http://www.ntu.edu.sg/NAP>



FACULTY POSITION

Polymer Science and Engineering

The Department of Materials Science & Engineering at Drexel University (www.mse.drexel.edu) is seeking applications for a tenured/tenure-track faculty position with a demonstrated record of excellence in original research in polymer science and engineering. While primary consideration will be given to candidates with areas of expertise in synthesis and processing of polymeric materials, the ideal applicant should possess research interests in applying principles of polymer science in emerging research areas such as advanced energy technologies, biomedical materials and devices, or environmental sustainability.

Outstanding students, an accomplished faculty, dedicated staff, and investments in infrastructure within a staffed materials characterization facility in recent years have contributed to enhancing the quality of our academic programs and the visibility of our research profile. Our graduate program was recently ranked #11 among all materials PhD programs in the US by the National Research Council. Applicants should submit a cover letter, a full curriculum vitae, statements of research and teaching plans, and references online at <http://www.materials.drexel.edu/faculty/positions/>. If a female candidate is selected at the Assistant Professor level, she will be eligible for the Anne Stevens Assistant Professorship. The position is available immediately and applications will be considered until the position is filled.

Drexel University is an Equal Opportunity Employer and encourages applications from qualified women and minorities.



Edgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Professor of Magnetic Materials

The Department of Materials of ETH Zurich (www.mat.ethz.ch) invites applications for a professorship in the area of functional properties of magnetic and electronic materials.

Areas of interest include, among others, novel interfacial magnetic coupling and spin-transport phenomena, data storage materials, magnetic electronic architectures, hierarchical assembly by chemical methods, and possibly biomagnetic systems. The candidate should have a strong background in the development of new magnetic materials, and should be familiar with using experimental and numerical methods to analyze and model the corresponding properties. Close collaborative relationships with other members of the department (both theoretical and experimental) will be expected. Persons working in the theory of magnetic and electronic materials are also encouraged to apply. The new professor will be expected to teach undergraduate level courses (German or English) and graduate level courses (English), as well as to offer specialized courses to students of other disciplines (e.g. Physics, Chemistry, and Mechanical or Electrical Engineering).

Please apply online at www.facultyaffairs.ethz.ch. Your application should include your curriculum vitae, a list of publications, and a statement of your research and teaching interests. The letter of application should be addressed to the **President of ETH Zurich, Prof. Dr. Ralph Eichler**. **The closing date for applications is 15 September 2011.** With a view towards increasing the number of women in leading academic positions, ETH Zurich specifically encourages women to apply.



Polymer Engineer/Materials Scientist Amyris, Inc.

Amyris is a rapidly growing bio-renewable chemicals company focused on bringing environmentally friendly solutions to market. As a member of the polymer team, you will be responsible for developing and leading R&D efforts toward the discovery and commercialization of new materials.

The ideal candidate will have a breadth of industrial polymer experience, a strong technical background in various polymer compounding methods, and a firm understanding of commercially relevant polymer properties.

Job Responsibilities:

- Initiate, plan, and execute critical scientific research and development projects
- Conduct laboratory experiments and manage internal project efforts
- Identify opportunities for new products; may act as a technical resource for our business development team
- Keep abreast of current scientific patents, literature and industry trends

Requirements:

- PhD degree with 5+ years of relevant industrial research experience
- Energetic, creative, highly self-motivated, and able to work efficiently and productively with minimal supervision, while also interacting in a team-based environment.
- Strong background in polymer compounding required, including hands-on experience with extrusion, mixing and milling; preference will be given to candidates with experience in reactive extrusion
- Hands-on experience with polymer property characterization (mechanical, rheological, thermal) a must; experience with product performance testing a plus

To apply, please submit a CV along with a one-page research summary to www.amyris.com, Polymer Engineer/Material Scientist, Job # PO11-001. Principles only please.