GEOLOŠKO-PALEONTOLOŠKI ZAVOD
GEOLOŠKI ODSJEK SVEUČILIŠTE U ZAGREBU
PRIRODOSLOVNO-MATEMATIČKI FAKULTET

# GPZ Bulletin

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IZ SADRŽAJA OVOG BROJA



Dragi čitatelji,

Svibanj je, a vrijeme je prosinačko, ili tako nekako. Od prošlog broja se naizgled ništa nije promijenilo. Priloga za Bulletin jednostavno nema, pa njegovo održavanje na životu ovisi samo o nadahnuću urednika i kolege Jungwirtha koji nam donosi crtice iz povijesti naše struke, pa je tako i u ovom broju. Po opsegu najveći prilog u ovom broju Bulletina je pregled trenutno otvorenih natječaja, koji su svojevrsna dopuna burzi poslova koja je nedavno održana na PMF-u. Studenti ali i naši znanstveni novaci trebaju znati koji su profili geologa danas traženi na tržištu rada, i koje se kvalifikacije očekuju od kandidata.
U izvođenju nastave bavili smo se za ovo godišnje doba uobičajenim aktivnostima - nastojanjem da na vrijeme dovršimo započetu nastavu i planiranjem terenske nastave. Tu su još i problemi s nedovršenom nastavom iz prošlog semestra, te promišljanje pojedinih kolegija koji su tek sada došli na red za izvođenje. Mnogo je zadataka koji su se pojavili kao prateće aktivnosti "bolonjskog procesa" i koji se još uvijek uhodavaju. Vjerujem da će krajem semestra, to jest do kraja rujna, diplomirati i prvi "bolonjski" studenti koji su ovih dana započeli izradu svojih ocjenskih radova, čime će se dovršiti prvi ciklus obrazovanja po novom programu. Želim im mnogo sreće i da postignu čim bolji uspjeh! Veliko "pospremanje" bilo je i na postdiplomskom studiju, koji se odvija nekako u sjeni dodiplomskog i diplomskog studija, ali nije ništa manje važan. Tako je sređena evidencija, a mnogi "zaspali" studenti bili su primorani da se odluče žele li nastavit studij ili ne.
U interesu studenata obavljeno je preseljenje računala iz svjetlarnika u Zbirku, pa je sada za rad studentima raspoloživo 6 računala, a tri radna stola su postavljena i u hodniku na visokom prizemlju, prvenstveno kako bi ih za rad mogli koristiti diplomandi.
Pošto tijekom ljetnih mjeseci Bulletin u pravilu ne izlazi, ovom prilikom želim svim čitateljima uspješnu ljetnu terensku i kongresnu sezonu, studentima želim puno uspjeha na ispitima i dobro vrijeme tijekom terenskih nastava, a svim pristupnicima želim uspješne obrane njihovih ocjenskih radova.

Srdačno, vaš urednik

# Ponuda poslova i stipendija za 2010.

Tihomir Marjanac

U svijetu se gotovo svakodnevno oglašava velik broj natječaja za geologe. Naravno, nisu to natječaji "sa slikom" na koje smo navikli, nego otvoreni međunarodni natječaji na kojima se ogleda kvaliteta kandidata. U nas se o tim mogućnostima uglavnom malo zna, pa ovom prilikom donosimo odabir još trenutno važećih natječaja koji su oglašeni na internetskoj stranici http://www.earthworks-jobs.com/

Ovaj popis je, naravno, različit od popisa koji možete naći na drugim stranicama, npr. Nature-Jobs, EOS, AGI, geology.com i drugima, ali studentima može poslužiti kao orijentir za odabir specijalnosti, odnosno usmjerenja karijere. Prema podatcima Američke geološke unije, plaće geologa su (u odnosu na prošlu godinu) u porastu od 5%, što je ohrabrujuće.

Na žalost, havarija BP-jeve platforme The Deepwater Horizon u Meksičkom zaljevu (pri čemu je poginulo 11 članova posade) podsjetila nas je na sličnu havariju platforme Piper Alpha koja je izgorila u južnom Sjevernom moru 1988 godine pri čemu je poginulo 167 članova njene posade. Te havarije, premda u razmaku od 22 godine, podsjetile su nas i na rizike kojima su geolozi izloženi na pojedinim radilištima.

Izbor ponude poslova koji ovdje donosimo nije napravljen subjektivno, nego su s većeg popisa izostavljene ponude kojima je rok za prijavu već istekao, ili će isteći do očekivanog vremena izlaska Bulletina iz tiska, pa samim time više ne predstavljaju relevantnu informaciju. Zainteresirani čitatelji pak mogu provjeriti najnoviju ponudu poslova na stranicama http://www.earthworks-jobs.com/.

Na popisu se nalazi i određeni broj ponuda za geofizičare, jer se u njima navodi da je natječaj otvoren i za geologe.

Velik broj ponuda odnosi se na doktorske i postdoktorske pozicije, ali ima i ponuda kod kojih to nije uvijet. Kao što se iz popisa vidi, većina ponuđenih poslova neuklapa se u uobičajena "usmjerenja" nego su interdisciplinarna, pa se mogu prijaviti različiti profili istraživača. Većina ponuda dolazi iz Europe, njih 19, a 10 je iz ostalog svijeta. Tu se nalaze i ponude za nastavak školovanja na diplomskom nivou, ali se na internetu traženjem mogućnosti za nastavak školovanja može naći daleko više informacija.

JOB MARKET

Prvostupnici geologije koji žele raditi u naftnoj industriji mogu se prijaviti na strancie međunarodnih servisnih firmi koje pružaju potporu naftnim istraživanjima, kao npr. Geoservices, koja trenutno ima preko 6000 zaposlenih na radilištima širom svijeta.

Brzo pretraživanje poslova za pojedine grane geologije dalo je sljedeće rezultate:

GPZ Bulletin je glasilo Geološko-paleontološkog zavoda Geološkog odsjeka Prirodoslovno-matematičkog fakulteta Sveučilišta u Zagrebu, 10.000 Zagreb, Horvatovac 102a

Izlazi mjesečno

**Urednk:**
dr.sc. Tihomir Marjanac

**Naklada:** 100 kom i u PDF.
on-line izdanje na:
http://www.geol.pmf.hr/gpz/

ISSN 1846-6842

| vrsta posla | A | B | C | D | E |
|---|---|---|---|---|---|
| geologist | 198 | 5 | 1 | 219 | 34 |
| paleontologist | 2 | 0 | 0 | 4 | 0 |
| stratigrapher | 7 | 0 | 0 | 31 | 0 |
| mineralogist | 0 | 0 | 0 | 7 | 0 |
| petrographer | 1 | 0 | 0 | 7 | 0 |
| geochemist | 8 | 22 | 0 | 64 | 0 |
| hydrogeologist | 37 | 4 | 0 | 61 | 4 |
| engineering geologist | 141 | 5 | 333* | 878* | 20 |
| environmental geologist | 125 | 4 | 139 | 729* | 23 |
| petroleum geologist | 47 | 0 | 3 | 704* | 11 |

Legenda:
* = na popisu su se našle i druge profesije s "engineering", "environment" i "petroleum" u nazivu, pa broj nije posve realan

A = www.geologistjobs.com
B = www.naturejobs.com
C = www.newscientistjobs.com
D = www.earthworks-jobs.com
E = www.ggrweb.com

Popis ponuđenih poslova za svibanj, na stranici http://www.earthworks-jobs.com/geoscience/

**Postdoctoral Research Fellow in Microseismicity**

The University of Alberta, Department of Physics

The Department of Physics at the University Of Alberta invites applications for a postdoctoral researcher in microseismicity. The successful candidate will carry out research in the group of Professor Mirko van der Baan in the topic of exploration seismology. The successful applicant will work on theory and applications of microseismic monitoring, including hydraulic fracture stimulation of tight reservoirs, carbon capture and storage, and reservoir monitoring of for instance heavy-oil fields. Projects may involve field work, close interaction with industry and/or adaptation of seismological computer algorithms.

Applicants should hold a PhD and have research experience in earthquake seismology and/or microseismicity.

Applicants should submit a CV, list of publications, and a statement of research interests, and should arrange for three letters of reference to be sent directly to the Department. All application materials should be sent by email or by post to Professor Mirko van der Baan, Department of Physics, 11322 - 89 Avenue, University of Alberta, Edmonton, Alberta, T6G 2G7, Canada.

Email: Mirko.vanderBaan@ualberta.ca.

(http://www.earthworks-jobs.com/geoscience/alberta10051.html)

**PhD project: Monitoring tropical cave environmental parameters: how does the cave hydrology and atmosphere respond to ENSO and hurricanes?**

Supervisor: Dr James Baldini, Department of Earth Sciences, Durham University

Department of Earth Sciences, Durham University

Applications are sought for a PhD studentship to begin August 1, 2010, working on a cave-science related research project.

The HURRICANE Project will use geochemical proxies in stalagmites to develop a high-resolution Atlantic hurricane activity record for at least 500 years, significantly lengthening existing datasets. The record produced would overcome the limitations imposed by the brevity of existing datasets to permit statistically robust comparisons of hurricane activity between the pre- and post-anthropogenic greenhouse climate states.

The PhD student would be responsible for initiating a cave environment monitoring scheme within cave sites in Belize and Turks and Caicos Islands and then use this information to aid with the selection of appropriate samples for palaeoclimate reconstructions. The cave monitoring would involve measuring drip hydrochemistry, cave air carbon dioxide, soil air carbon dioxide, and both cave and soil temperature; this information will be used partly to aid in sample selection. The PhD student would continue monitoring the two sites to develop long term hydrochemical and cave air PCO2 datasets, which could then be linked to shifts in climate systems, such as El Niño Southern Oscillation (ENSO) and North Atlantic Oscillation (NAO). The environmental information will also be used to help interpret the palaeoclimate records produced by other members of the research team. Although the PhD student would not be directly responsible for creating the geochemical palaeo-hurricane records, it is anticipated that the PhD student would closely work with others to help create these records.

Candidates must have, or expect to gain, a first or strong upper second class degree (or equivalent), and ideally should have a demonstrable interest in cave and/or climate science. Extensive travel to the field sites in the Caribbean will be required, and some field experience (preferably working in caves) is highly desirable.

Funding notes: The studentship is part of the large European Research Council funded-HURRICANE Project and is therefore fully funded (including a stipend and travel to international conferences).

For further details contact:
durham10051@earthworks-jobs.com.

(http://www.earthworks-jobs.com/geoscience/durham10051.html)

**Postdoctoral Scientist**
**University Assistant in Mineralogy**

available from September 2010

University of Innsbruck, Institute of Mineralogy

The Institute of Mineralogy and Petrography, University of Innsbruck/Austria invites applications for the position of a university assistant. The initial contract will be for 4 years, permanent employment after the initial period is not excluded.

The successful applicant is expected to work within the existing research pro-

gram "Historical Mining Activities in the Tyrol (HIMAT)" and to develop her/his own externally funded research projects in the fields of petrology/geochemistry of ore deposits and/or archaeometry. Duties include the maintenance of the institute's ore mineral collection and teaching within the existing B.Sc. and M.Sc., and Ph.D. curricula.

Applicants must hold a Master and PhD degree in geosciences, preferentially with focus on petrology/geochemistry of ore deposits and/or archaeometry. Her/his previous scientific experience in one of the fields above should be documented by scientific publications. Profound knowledge of thermodynamics of ore-forming systems proficiency in written and spoken English is indispensable. Postdoctoral experience, experience with trace element analytics and knowledge of German would be advantageous.

Salary will be according to B1 position - currently approximately 45500 € per year before taxes.

Further details about the Institute of Mineralogy and Innsbruck University may be obtained at http://www.uibk.ac.at/mineralogie. Requests also by email to: uibk10051@earthworks-jobs.com

Applications with CV, publication list, a brief description of future research activities, and a list of two referees should be sent not later than 09.06.2010 to:

Posteinlaufstelle der zentralen Dienste, Leopold-Franzens-Universität Innsbruck, Chiffre GEO-6046, Innrain 52, A-6020 Innsbruck, Austria

(http://www.earthworks-jobs.com/geoscience/innsbruck10051.html)

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**Visiting Professor/ Post-Doctoral Fellow Positions: in the research fields of earthquakes, volcanoes, and physics of the earth's interior**

University of Tokyo, Earthquake Research Institute

The Earthquake Research Institute, the University of Tokyo, invites applications for Visiting Professor/Post-Doctoral Fellow positions in the research fields of earthquakes, volcanoes, and physics of the earth's interior.

The period of each position will be three through twelve months during the period from April 1, 2011 to March 31, 2012.

Candidates are requested to submit the following set of documents:

* CV with birth date and detailed account of academic activity.

* List of academic publications.

* Summary of research that the candidate has conducted (300-500 words).

* Title of research and research proposal at ERI (300-500 words).

* Desired length of stay; from three to twelve months.

Candidates are also requested to nominate a host researcher of ERI. If you need detailed information on host researchers, please visit our website at http://www.eri.u-tokyo.ac.jp/eng/

The appointed candidates are expected to carry out research at ERI as an employee of the University of Tokyo. Monthly salary, ancillary expenses including partial housing costs and commuting allowance will be paid based on the rules of the University and ERI.

The deadline for this application is July 9 (Friday), 2010.

If you need further information regarding this position, please feel free to contact:

Professor Teruyuki Kato, Head, International Research Promotion, Office Earthquake Research Institute, The University of Tokyo 1-1, Yayoi 1, Bunkyo-ku, Tokyo 113-0032 JAPAN

Phone: +81-3-5841-5730, Fax: +81-3-5802-8644, E-mail: teru@eri.u-tokyo.ac.jp

(http://www.earthworks-jobs.com/seismo/tokyo10051.html)

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**Post-Doc in Geological Storage of Carbon Dioxide**

(2 yr)

Uppsala University, Department of Earth Sciences

The position is linked to a large-scale EU FP7 financed project MUSTANG (www.co2mustang.eu) coordinated by Uppsala University, focusing on site characterization and modeling of CO2 storage in saline formations.

For further information about the position and how to apply please see http://www.personalavd.uu.se/ledigaplatser/928postdok_eng.html

Further information is also provided by Professor Auli Niemi, e-mail auli.niemi@geo.uu.se

Application deadline is May 20th, 2010

(http://www.earthworks-jobs.com/geoscience/uppsala10051.html)

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**Senior Consultant for Multi Spectral Imaging On-Site Inspection Division**

The Preparatory Commission for the Comprehensive

Nuclear-Test-Ban Treaty Organization (CTBTO)

The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) is currently seeking a senior consultant to start-up the Remote Sensing Element within the framework of the On-Site Inspection Division.

The Senior Consultant will mainly work at CTBTO Headquarters with some time devoted to at least one field test and one visit to an international fair on remote sensing.

The successful candidate will possess a PhD in Image Processing, Remote Sensing, Cartography or Geography and have comprehensive work experience as a Senior Scientist in processing and interpretation of remote sensing data. Experience in academia

or in governmental offices as well as in a pure commercial environment and/or in the service providing industry will be highly regarded.

This consultancy will be for a period of 9 months.

For detailed information about the PTS and this consultancy post and to submit an application please visit our website www.ctbto.org

(http://www.earthworks-jobs.com/seismo/ctbto10051.pdf)

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**Position for a Post-doc**

with experience in planetary remote sensing data, data assimilation, and spectral reflectance theory with background in planetary geosciences, in particular with respect to the photometric

response of planetary surfaces

The Department of Earth Sciences, Institute of Geological Sciences, Planetary Science and Remote Sensing at Freie Universität Berlin

Current funding is available for up to three years.

Vgr. IIa BAT (i.d.F.d. Anw.-TV FUB), full-time positon

*Description of Position:*

The position is advertised in the context of the High-Resolution Stereo Camera (HRSC) experiment on Mars Express. It will be part of the current efforts to generate a Mars-global photometrically corrected high-resolution color-orthoimage mosaic on the basis of data obtained by the High Resolution Stereo Camera (HRSC) onboard Mars Express. The particular work for this position is dedicated to the investigation of systematically applicable correction routines for the conduct of large-scale image-mosaicking.

*Specific Tasks:*

* Evaluation of HRSC remote sensing color-image data with respect to applicable photometric corrections and assessments of output results.

* Development of software algorithms for systematically correcting color-orthoimage data.

* Derivation of model parameters and applicability to Mars surface analysis.

* Application in terms of generating photometrically corrected large-scale mosaics. This will be supported by technical staff.

*Requirements:*

Candidates must have a recent University degree in either Earth and planetary sciences, physics, or related disciplines and experience in numerical methods, programming languages and must have a sound understanding of spectral reflectance theory and photometric response of planetary surfaces.Very good knowledge of English or German as working languages in the research department. In any case a good knowledge of English at the scientific- technical level is mandatory. The Freie Universitat Berlin is an equal opportunity employer.

Applications will be evaluated continuously until the position is filled. Interested candidates should send their application, including a CV, a short statement of their research interests, and the name and address of 2 referees, preferably by e-mail (gerhard.neukum@fu-berlin.de with cc to plansec@zedat.fu-berlin.de), or by mail to:

Prof. Dr. Gerhard Neukum, Freie Universitat Berlin, Department of Earth Sciences, Institute of Geosciences, Planetary Sciences and Remote Sensing, Malteserstr. 74-100, Building D, D-12249 Berlin GERMANY

(http://www.earthworks-jobs.com/geoscience/berlin10041.html)

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**Postdoctoral Investigator**

Woods Hole Oceanographic Institution, The Geology & Geophysics Department

The Geology & Geophysics Department is searching for a Postdoctoral Investigator to join their team. The initial appointment will be full-time for at least 18 months and is eligible for benefits. There is a possibility of an extension past the 18 month appointment.

*Job summary:*

The G&G Department invites applications for a Postdoctoral Investigator position in earthquake mechanics. The successful applicant will work a project to develop 3D finite element subduction fault models of earthquake cycles, and constrain key model parameters with available geodetic measurements, with a focus in the Cascadia margin. These models will explore a wide range of problems in the subduction zone; extent of megathrust ruptures, occurence of episodic slow slip events and non-volcanic tremors, and effects of pore fluid pressure.

*Education desired:*

A recent Ph.D. in Geophysics or a related discipline is required. Knowledge of fault mechanics and experience in earthquake rupture modeling is highly preferred. Experience with finite element modeling is encouraged.

Please visit http://jobs.whoi.edu for a detailed job description and to apply online today!

(http://www.earthworks-jobs.com/seismo/whoi10041.html)

**Research Associate in the field of Geodynamics and Geochemistry**

School of Earth and Ocean Sciences, Cardiff University

This project will model mantle convection in spherical geometry at Earth-like vigour constrained by lithophile radiogenic isotopes and noble gas isotopes. This is a Natural Environment Research Council funded project, with Dr Huw Davies (Cardiff University) leading the geodynamics aspects of the project with co-Investigators Professor Tim Elliott (University of Bristol) and Dr Don Porcelli (University of Oxford) leading the lithophile radiogenic isotopes and noble gas isotopes aspects respectively. You will have a PhD in Geophysics, Applied Mathematics, Earth Sciences, Engineering or similar field (or equivalent). Evidence of ability to program in Fortran or another scientific programming language (e.g. C, C++) and evidence of ability to understand geochemical and geophysical processes and modelling, (higher skill level in one skill can counter-balance weaker skill level in the other) is essential.

This post is fixed-term for 3 years. Salary: £29853 - £35646 per annum

Informal enquiries can be made to Dr J Huw Davies, email: daviesjh2@cardiff.ac.uk

To work for an employer that values and promotes equality of opportunity, visit www.cardiff.ac.uk/jobs telephone + 44 (0) 29 2087 4017 or email vacancies@cardiff.ac.uk for an application form quoting vacancy number 181.

Closing date: Tuesday, 1 June 2010.

(http://www.earthworks-jobs.com/geoscience/cardiff10041.html)

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**Post Doctoral Position in Isotope Biogeochemistry**

University of California, Riverside, Environmental Sciences Department

The Environmental Sciences Department of the University of California, Riverside, is seeking a post doctoral researcher. Experience with the application of environmental isotopes, includ-

ing 14C, and knowledge of the biogeochemistry of dissolved organic matter is desired. This position will assess the flux and age of DOC in rivers draining agricultural regions in California and assess the origin of old carbon carried in California's major rivers.

Applicants should e-mail a cover letter describing their education, research experience and interests, a curriculum vita, and names and contact information for three professional references to Dr. James Sickman: jsickman@ucr.edu.

For highest priority please apply by May 28, 2010.

(http://www.earthworks-jobs.com/geoscience/ucr10041.html)

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**Interpretation Geophysicist: Gravity & Magnetics**

GETECH

We are currently looking to recruit a Potential Fields Geophysicist. The successful candidate will work within a growing group of geophysicists and other geoscientists. The role will include providing expertise in gravity and magnetic processing and interpretation on a range of projects; integration of gravity and magnetic data to generate new GETECH products; and working closely with GETECH's geologists as part of multi-disciplinary studies. Based in our head office in Leeds, the position may require travel to interact with our international clients. A competitive salary, commensurate with industry standards and the individual's experience, will be offered.

The ideal candidate will:

* Hold a good degree or post graduate qualification in Geophysics, Geology or a related subject

* Have demonstrable experience of the application of gravity and magnetic methods to oil and gas exploration

* Have good understanding of structural and sedimentary geology

* Have strong numeracy and IT skills

* Be flexible and able to work as part of a multi-disciplinary team

* Possess excellent communications skills and be fluent in English, both written and orally

In addition, the following skills will be beneficial:

* Several years experience in the interpretation of potential field data in oil industry applications

* Experience of geophysical data acquisition and quality control

* Ability to mentor junior staff and disseminate technical knowledge as appropriate to your level of experience

* Use of Geosoft Oasis Montaj and ESRI ArcGIS software

* Programming/software development experience

If you wish to apply or for further details, please send your CV and a covering letter outlining how your experience and interests match our requirements, to: Mrs. Sarah Wilkinson, GETECH Group plc, Kitson House, Elmete Hall, Elmete Lane, Leeds, LS8 2LJ. Tel: 0113 322 2200. Email: saw@getech.com

(http://www.earthworks-jobs.com/oil/getech10042.html)

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**Petroleum Geochemist**

GETECH

We are currently looking to recruit an additional Petroleum Geochemist. The successful candidate will work within a growing team of geologists and other geoscientists. The role will include providing expertise in geochemical interpretation, basin modelling and petroleum geology as part of GETECHs petroleum systems workflow. Based in our head office in Leeds, the position may require travel to interact with our international clients. A competitive salary, commensurate with industry standards and the individual's experience, will be offered.

The ideal candidate will:

* Hold a higher degree in Geology or Geochemistry (at least MSc level)

* Have demonstrable post degree experience in petroleum geochemistry

* Demonstrate a working knowledge of 1-D basin modelling

* Have strong numeracy and IT skills

* Possess excellent communications skills and be fluent in English, both written and orally

In addition, the following skills will be beneficial:

* Demonstrable post-qualification experience in the oil and gas industry

* Knowledge of 2-D and 3-D basin modelling techniques and application

* Understanding of molecular biomarkers in maturity and palaeoenvironmental studies and oil-source rock and oil-oil correlation

* Knowledge of play fairways mapping methodologies and concepts

* Be flexible and able to work as part of a multi-disciplinary team

* Use of ArcGIS software

* Be able to present clearly and confidently to varied audiences

If you wish to apply or for further details, please send your CV and a covering letter outlining how your experience and interests match our requirements, to: Mrs. Sarah Wilkinson, GETECH Group plc, Kitson House, Elmete Hall, Elmete Lane, Leeds, LS8 2LJ. Tel: 0113 322 2200. Email: saw@getech.com.

(http://www.earthworks-jobs.com/oil/getech10043.html)

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**OCE Postdoctoral Fellowship 2010 - Natural transport and deposition of gold in nanoparticulate gold colloids**

The OCE Postdoctoral Fellowship Scheme provides an opportunity to undertake postdoctoral research projects aligned with the best research teams across CSIRO. Applications are invited for a Postdoctoral Fellow to plan and conduct research into gold transport and deposition in mineral systems with a strong emphasis on very high grade gold accumulations.

You will join a team that works closely with the industry and is focussed on researching many facets of the geochemistry of Australian gold deposits and issues in gold exploration. We are developing new approaches to directly image gold in all settings and to determine and experimentally mimic the controls on gold deposition, including the role of nanoparticulate colloidal gold processes.

Candidates must hold a PhD in a relevant scientific discipline, or will shortly satisfy the requirements for a PhD degree, with no more than three years experience since graduation and must have excellent written, oral and interpersonal communication skills.

Apply now by visiting our website: 2010/207 - Controls on the deposition of gold

(http://www.earthworks-jobs.com/geoscience/csiro10041.html)

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**Research Associate/ Fellow - NERC Cosmogenic Isotope Analysis Facility**

Faculty of Physical Sciences, Scottish Universities Environmental Research Centre (SUERC)

Ref: 00093-6

Salary: £31,671 - £35,646 (grade7) / £38,951 - £45,155 (grade 8) per annum

The NERC Cosmogenic Isotope Analysis Facility (CIAF), housed at SUERC, seeks a Research Associate/Fellow to join the Facility. CIAF is funded by the Natural Environment Research Council as a UK national facility to provide access, through competitive application, to terrestrial cosmogenic nuclide analyses (10Be, 26Al and 36Cl). Operating from recently refurbished laboratories, the CIAF collaborates on projects judged by an external Steering Committee to represent the strongest applications of cosmogenic isotopes from the UK geoscience community. In addition to supporting the work of the Facility, the Research Associate/Fellow will pursue a vigorous personal research programme underpinned by the SUERC preparation laboratories and our 5 MeV AMS. This appointment is part of the continued expansion of the CIAF which is leading and nurturing the growth of cosmogenic isotope applications in the UK (http://www.gla.ac.uk/departments/suerc/nercfacilities)

This appointment is initially for three years but has potential for extension dependent on the outcome of a funding review in 2014.

Informal enquiries can be directed to the Head of Facility, Prof. Rob Ellam +44(0)1355270130 or r.ellam@suerc.gla.ac.uk .

Apply online at www.glasgow.ac.uk/jobs

If you are unable to apply online please contact us on 0141 330 3898 for an application pack.

Closing Date: 31 May 2010

(http://www.earthworks-jobs.com/geoscience/glasgow10042.html)

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**PhD position in subduction zone geochemistry**

Institute of Geological Sciences, University of Bern

Applications are invited for a PhD position that focuses on cycling of chemical elements by fluids in subduction zones, starting as soon as possible. The aim is to comprehensively quantify element compositions of fluid inclusions and minerals, to understand the chemical evolution of fluids released upon subduction of serpentinite, and to trace fluid migration paths in subducted oceanic lithosphere.

Visit http://www.geo.unibe.ch/snf/geochemistry.htm for more details.

Samples will be collected from several field localities in Europe. Central will be Laser Ablation (LA-)ICPMS analysis of high-pressure fluid inclusions preserved in prograde minerals, complemented by the chemical analysis of minerals and bulk rocks (e.g. via ICP-MS, EPMA and SIMS). Radiogenic isotopes will be measured to help understand the fluid migration processes. The acquired geochemical evidence will then be used to shed light on which elements subducted in serpentinites return to the Earth's surface and which migrate to the deep Earth.

We seek a person with strong interest in element- and isotope-geochemistry and analytical methods; independent analytical work and methods development with strong emphasis on LA-ICP-MS are required in this project. A MSc degree in Earth Sciences (or equivalent) and excellent communication skills in English are a prerequisite. Experience in petrology and field work is desirable.

The Institute of Geological Sciences houses an electron probe (JEOL JXA8200), LA-ICP-MS, MC-ICPMS, TIMS and RAMAN, besides basic infrastructure. In-house research groups include those investigating rock-water interaction, metamorphic petrology and isotope geochemistry.

Visit the institute at http://www.geo.unibe.ch/english/index.htm. The position is fully funded for three years, including benefits for social security.

Applications should include CV with details about research experience, educational and personal expectations of conducting this PhD, date and abstract of MSc thesis (whether completed or expected), and full contact details of at least three referees who agree to provide references upon request.

Send only complete applications, preferably by e-mail.

Evaluation of applications will start immediately, and the position must be filled by September 2010.

Contact and further information (preferably by e-mail):

Prof. Thomas Pettke, University of Bern, Rock–Water Interaction Group, Institute of Geological Sciences, Baltzerstrasse 1+3, CH-3012 Bern, Switzerland, Email: pettke@geo.unibe.ch

(http://www.earthworks-jobs.com/geoscience/bern10042.html)

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**PhD-position in geophysics/planetary sciences**

Swiss Federal Institute of Technology Zurich

The laboratory of Geophysical Fluid Dynamics (GFD) of ETH Zürich, Switzerland, is looking for a PhD student in the fields of geophysics/planetary sciences.

*Job description:*

This PhD project aims to better understand the dynamics and the thermal evolution of the large icy moons orbiting around giant planets through a multidisciplinary approach. It combines an experimental approach (spectroscopy, high pressure apparatus) to determine the properties of ices under the conditions of temperature and pressure of icy moons' interiors, and numerical modeling of thermal convection to explore the dynamics of these interiors. The duration of the project is three years.

*Qualifications:*

Applicants for the position should have a M.Sc. in the fields of geophysics, physics, material sciences, planetary sciences, or related fields, and strong interest in experimental work and numerical modeling.

*How to apply:*

Interested candidates should send their application in a single pdf file, including a CV, a short statement of their research interests, and the name and address of 2 referees, to Dr. Frédéric Deschamps, preferably by e-mail (frederic.deschamps@erdw.ethz.ch), or by mail to the address: Institut für Geophysik, ETH NO H9.3, Sonnegstrasse 5, CH-8092 Zürich, Switzerland

Deadline for sending application is June 15th, 2010.

*Contact information:*

For more information, contact Dr. Frédéric Deschamps: frederic.deschamps@erdw.ethz.ch.

(http://www.earthworks-jobs.com/geoscience/ethz10042.html)

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**Postgraduate Study Opportunities in Geosciences at the University of Aberdeen**

**MSc Integrated Petroleum Geoscience**

This programme has achieved an excellent reputation as one of the world's top vocational training pathways in this area. You will learn the geoscience skills needed for hydrocarbon exploration and production, so that you are ready to embark upon a petroleum industry career; develop the knowledge needed to communicate with and work alongside specialists in the other engineering and scientific disciplines involved in hydrocarbon exploration and production, in small, multi-disciplinary teams; and enhance your inter-personal and transferable skills relevant to the hydrocarbon industry today; to develop presentation and report-writing skills; to encourage team work; to stimulate creative thinking and problem-solving ability; and to foster initiative and self-discipline. www.abdn.ac.uk/ipg

**MSc Oil & Gas Enterprise Management**

In studying on this programme you will be provided with a broad training in oil industry matters; especially those pertaining to how relatively small oil companies can work with National Oil Companies and energy ministries to better exploit their hydrocarbon resources. In this respect the training provided in commercialisation, economics and law is important, as is the understanding you will develop of how science and technology can be applied at the cutting edge to improve hydrocarbon exploration success and recovery.

www.abdn.ac.uk/ogem

(http://www.abdn.ac.uk/cops/graduate/ext/earthworks)

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**PhD scholarships in Climate, Water Resources, Ecosystems, and Energy**

Faculty of Science, Department of Geography & Geology, University of Copenhagen

Applications are invited for full-funded PhD scholarships within the following subject areas:

1. Assimilation of hydraulic head observations in distributed hydrological models

2. Stream hydrology

3. Parameterization of land surfaces using satellite remote sensing

4. Management and climate control of the water and energy budget in the Skjern basin

5. Temperature effects on microbial turnover of organic matter and release of greenhouse gases in the soil aggregate and plant rhizosphere

6. Impacts of sea-level changes and human activity in the coastal zone

7. Understanding the dynamics, potentials and limitations in future renewable energy production systems and climate change interactions

8. Why can't the reactivity of oxygenated hydrocarbons (biofuels) be predicted?

The scholarships are offered for promoting mobilization among universities and thus applications are only accepted from applicants holding an academic degree from outside the University of Copenhagen.

More detailed information on the individual projects and guidelines on how to apply can be found at http://www.fiva.dk/.

The deadline for receipt of applications is May 25, 2010 at noon.

(http://www.earthworks-jobs.com/geoscience/copenhagen10041.html)

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**PhD project: Serbo-Macedonian massif, an enigmatic terrain within the Eastern Mediterranean Alpine orogen**

Basel University

Supervisors: Dr. Alexandre Kounov (Institute of Geology and Paleontology, Basel University), Dr. Richard Spikings (Geneva University) and Dr. Albrecht von Quadt (ETH, Zurich).

We are inviting applications for one PhD project (Swiss National Science Foundation) at the Institute of Geology and Paleontology, at Basel University.

This project aims to reconstruct the geological evolution of the Serbo-Macedonian massif through defining its deformation history, relationship with the neighbouring units and the final cooling and exhumation. For this purpose detailed structural studies and mapping will be combined with a wide range of geochronological methods including U/Pb, 40Ar/39Ar and fission-track analyses of basement rocks as well as clastic sediments. These methods provide an opportunity to investigate the thermal evolution of the rocks in the temperature range between 900º and ~60ºC. This approach will allow us to determine the protolith age of the rocks together with their thermotectonic evolution. The low-temperature apatite fission-track method combined with structural investigation will help to constrain the rates of exhumation of the crystalline rocks throughout the upper 4-5 km of the earth's crust. Most importantly, these methods will help to decipher the mechanisms responsible for the final exhumation of the high-grade metamorphics rocks of the Serbo-Macedonian massif. Investigations will focus on the character of the major tectonic boundaries already recognised within the Serbo-Macedo-

nian massif together with its relationship with neighbouring tectonic units such as Vardar zone in Serbia and Macedonia and Rhodope complex in southwest Bulgaria.

The successful candidate will complete extensive field work including detailed structural studies along the Serbo-Macedonian massif and its boundaries in Serbia, Macedonia and Bulgaria. In addition, key transects across the main tectonic units will be sampled for geochronological analysis. Fission track dating will be performed in the fission track laboratory at Basel University under the supervision of Dr. Alexandre Kounov. The 40Ar/39Ar analysis will be performed at Geneva University, under supervision of Dr. Richard Spikings and the U/Pb, trace element and geochemical analyses at ETH Zurich, with Dr. Albrecht von Quadt.

We are seeking a highly motivated candidate with a strong interest in structural geology and geochronology. Good field geology skills are highly appreciated. Previous experience in the fields of petrology would be also beneficial but are not essential. Good knowledge of spoken and written English is essential. Employment will be according to standard regulations of Basel University (funding secured from Swiss National Science Foundation for 2 years plus one year possible extension). The project will begin as soon as possible.

Applicants should submit a letter of application, CV and contact details of 2 potential referees to Dr. Alexandre Kounov, (a.kounov@unibas.ch). Dead line: May, 15th.

For further details on the project please contact Dr. Alexandre Kounov, (a.kounov@unibas.ch)

Visit us at: http://pages.unibas.ch/earth/tecto/

(http://www.earthworks-jobs.com/geoscience/basel10041.html)

**Postdoctoral position in process-based modelling of coastal dynamics at MARUM**

Universität Bremen

We are currently searching for a highly motivated and excellently qualified young scientist on postdoctoral level to develop his/her research program in the area of the Numerical Modelling of Hydro- and Sediment Dynamics and Water Quality / Ecosystem Processes.

The position is part of the interdisciplinary project WIMO ("Scientific concepts to German Bight monitoring") in which several German research institutions aim towards an analysis of dynamic states of the German Bight in the North Sea and the understanding of the interaction of hydrodynamics, sediment dynamics and coastal ecosystems.

The successful candidate will contribute to a model and data based assessment of the natural and anthropogenically influenced dynamics of hydrological, sedimentological and geobiochemical processes. A focus should be set towards the evaluation of the impact of extreme events (storm surges) in contrast to average forcing conditions. He/she should have a background in geosciences, biology or coastal engineering and ample knowledge on coastal ecosystems. The position will focus on the process-based numerical modelling, e.g. with the modelling system Delft3D. Experiences with data assimilation techniques and/or remote sensing data are beneficial.

Initially the contract duration will be 1 year, although a longer period (up to 3 years) can be negotiated depending on the experience and the career state of the candidate. Excellent knowledge of English, both in speaking and writing, is a requirement. Knowledge of the German language is beneficial. Salary and benefits are linked to the German employee scale TVL. International candidates are highly encouraged to apply. Applications should include a CV, list of publications, a short (1-page max.) synopsis of previous research achievements and research plans, and the names of at least two referees.

Applications and inquiries should be sent electronically to Christian Winter (acwinter@uni-bremen.de). Deadline is May 15, 2010. However applications will be reviewed until the position is filled. As the University of Bremen intends to increase the proportion of female employees in science, women are particularly encouraged to apply. In case of equal personal aptitudes and qualification priority will be given to disabled persons.

(http://www.earthworks-jobs.com/marine/bremen10041.html)

**PhD studentskip: Quantifying the Importance of Anthropogenic vs. Natural Sources of Selected Micronutrients in the South Atlantic**

Imperial College, London

Duration of Studentship: 36 months

Supervisors: Dr Tina van de Flierdt, Dr Dominik Weiss, Dr Mark Rehkämper and Dr Alex Baker (University of East Anglia).

Applications are invited for a PhD studentship to join the MAss Spectrometry and Isotope Geochemistry Group at Imperial College London (MAGIC) and the Department of Earth Science & Engineering.

In pristine natural settings, continental soil dust is the principal atmospheric source of dissolved Fe in seawater. Recent studies, however, suggest that in areas downwind of major human activity, combustion aerosols become very important. The South Atlantic is bordered by a number of fast-growing urban agglomerations, including Sa~o Paulo and Cape Town. The impact of such megacities on marine micronutrient budgets and the potential implications for global change are currently not constrained but may be significant. Hence, it is important to develop a quantitative understanding of how the ocean system will react to increased urban emissions, particularly in the light of variable future emission scenarios.

This PhD project aims to quantify the importance of anthropogenic vs. natural aerosol sources for micronutrient budgets (Fe, Cu, Zn, Cd) in the South Atlantic. This will be accomplished by partnering measurements of provenance tracers (Pb and Nd isotopes) and micronutrient isotopes (Zn, Cd) with laboratory leaching experiments. The project will take advantage of the unique suite of aerosols that will be collected during the UK GEOTRACES cruise in the Southern Atlantic and at the Falkland Islands time-series station, as well as samples collected by others in South America.

Applications for this project are invited from recently graduated undergraduates or MSc students with an interest in chemical oceanography and atmospheric sciences. Experience in mass spectrometry and analytical chemistry

and an active interest in multidisciplinary research and a possible future in academia are is desirable. The successful applicant will join the MAGIC laboratories, a leading centre of research in the Earth Sciences.

*General Details:*

The project is funded by the Department of Earth Science & Engineering and offers a tax-free stipend of approximately ?15,000 per annum, rising annually with inflation. It is open to UK and non-UK EU nationals who have spent the previous three years in the UK undertaking education (undergraduate study or masters). Application forms and instructions can be obtained from our website (http://www3.imperial.ac.uk/earthscienceandengineering/) or from Ms Samantha Delamaine (E-mail: sam.delamaine@imperial.ac.uk, Tel: +44 (0) 207 594 7339). Further information about the project can be obtained from Drs van de Flierdt, Weiss and Rehkämper (e-mail: tina.vandeflierdt@imperial.ac.uk; d.weiss@imperial.ac.uk; markrehk@imperial.ac.uk).

Applications are accepted until the post is filled.

(http://www.earthworks-jobs.com/marine/ic10041.html)

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**PhD Project: The long-term multi-decadal variance of the North Atlantic Oscillation (NAO); a critical assessment of recent variability**

University Dublin

This project will use speleothems to address the question of whether the multidecadal variance in the North Atlantic Oscillation (NAO) has changed significantly during the last 100 yearsrelative to its long-term pre-industrial average. We propose to extend the NAO record through the last 1,000 years using oxygen isotope and growth-rate thickness proxies in selected U-series dated speleothems from caves in N. Spain, Croatia and Bosnia. The overall goal of the project is to evaluate suggestions that the NAO may be influenced by anthropogenic forcing. Currently, its pre-anthropogenic variance is too poorly constrained to assess this possibility.

This project is fully funded for four years with an annual stipend of €18,000. In addition, funding is available for fieldwork and laboratory consumables. EU student PhD fee costs will also be covered. Due to funding restrictions, the project is open to EU citizens only.

If you have, or are expecting to achieve an Upper Second or First Class degree in Geology or Earth Sciences and you are interested in this PhD, please send an electronic copy of your c.v., including the names of two academic referees to Professor Frank McDermott, UCD School of Geological Sciences, Belfield, Dublin 4. (frank.mcdermott@ucd.ie) before Friday May 14th 2010.

(http://www.earthworks-jobs.com/geoscience/ucd10041.html)

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**Oil Sands Geologist**

ERCB, Alberta

*Purpose of role:*

Maintain and enhance the mineable oil sands geological database and perform geological appraisals of oil sands bitumen and fines for mineable oil sands schemes.

*Responsibilities/ Duties:*

* Incorporate oil sands fines measurement into the mineable oil sands geological database for tailings regulation.

* Analyze and load new corehole data into surface minable area geological database.

* Evaluate, appraise and tabulate oil sands reserves for yearly reserves reports.

* Review and evaluate geology and oil sands resource components of oil sands applications and provide support and possibly coordinate the related ERCB hearing/decision process.

* Liaise with Industry, Government, and other stakeholders in committees and initiatives tasked with developing recommendations related to operational practices and regulatory requirements for oil sands development and associated infrastructure.

* Identify and evaluate emerging issues relevant to the ERCB's mandate and prepare recommendations for appropriate responses to management.

* Mentor junior staff with respect to skills development.

*Qualifications:*

* Bachelor's Degree in Geology, or Mining Engineering with 4 or more years of progressive related experience or an equivalent Technical Diploma and 8 or more years of progressive related experience.

* Experience in block modelling using Datamine or equivalent mine modelling software

* Proficient in Datamine or equivalent mine modelling software.

* Ability to analyze complex proposals and present ideas and recommendations to senior management on their applicability to ERCB policy development and compliance assurance processes.

* Mineable oil sands geology and/or operations experience is a benefit to the role of this position.

* Self-disciplined, self-motivated, with special attention to detail and technical accuracy.

* Strong skills in evaluation of large and medium scale project economics.

* Excellent written and verbal communication skills.

* Excellent analytical and project management skills.

* Must be committed to a team approach and be able to work independently within a team environment

*How to apply:*

Please go to the ERCB Web site www.ercb.ca, click on the "Careers" tab, "Search Career Opportunities" Select the job you are applying for, click on the APPLY NOW link and follow the instructions to submit your application.

Applications are being accepted until May 26, 2010.

(http://www.earthworks-jobs.com/geoscience/ercb10043.html)

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**Research Assistant/Associate - Water-rock interaction on Mars**

Faculty of Physical Sciences, Scottish Universities Environmental Research Centre (SUERC), University of Glasgow

Ref: 00019-5

Salary: £25,751 - £28,983 (grade6) / £31,671 - £35,646 (grade7) per annum

The primary aim of the project is to identify, separate and characterize products of aqueous alteration in Martian meteorites.

State-of-art analytical techniques will be used to determine the composition and timing of fluid movement through the Martian crust. Results will provide detailed information on when water was present, where it originated, and the scale of the Martian hydrologic system. This aim will be achieved by a combination of high-resolution petrography of alteration mineral assemblages, fluid inclusion studies, 40Ar/39Ar geochronology as well as noble gas and stable isotope determinations.

The position will entail preparation of samples from existing collections. Much of this work will be carried out in close collaboration with research partners at the University of Glasgow and the Natural History Museum, London.

The candidate should possess excellent knowledge and experience of mineralogy and isotope geochemistry techniques and ideally have laboratory experience of both. Additional knowledge and expertise relating to fluid inclusion petrography and meteorite petrology would also be an advantage.

This is a 36 month position, starting on 1st September 2010, or as soon as possible thereafter.

Apply online at www.glasgow.ac.uk/jobs

If you are unable to apply online please contact us on 0141 330 3898 for an application pack.

Closing Date: 14 May 2010

(http://www.earthworks-jobs.com/geoscience/glasgow10041.html)

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**PhD Studentships: "Impact of Mass Transport Complexes on Reservoir Heterogeneity"**

UCL - Nexen Petroleum UK Ltd

London (UCL), two 3-year PhD research studentships are available to start on 01 August 2010. Both projects will involve fieldwork and laboratory work, including work on core material and in-house data from various hydrocarbon fields, to investigate the characteristics and likely origin of chaotic sedimentary deposits (mass transport complexes) in proximal and distal deep-marine basinal environments in the Tertiary of the Spanish Pyrenees and Haute Provençe, France.

If you have, or are expecting to attain an Upper Second or First Class degree in Geology/Earth Sciences and you are interested in applying for one of these PhDs, send an electronic copy of your cv. together with the names of two academic referees that can be immediately contacted to Professor Kevin Pickering, Dept. of Earth Sciences, University College London, via email ( ucfbktp@ucl.ac.uk ).

(http://www.earthworks-jobs.com/geoscience/ucl10041.html)

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**Ph.D. or Postdoctoral Research Position in Engineering Geology**

Karlsruhe Institute of Technology

Salary grade TV-L E13 or TV-L E13/2 depending on qualification. The research focus in the department of engineering geology is currently on shallow geothermal energy, nuclear waste disposal, aquifer heat and gas storage as well as mass movements and geo-hazards.

Candidates should hold a graduate (Master or Diplom) for the Ph.D. position (E13/2) and a post-graduate degree (Ph. D.) for the postdoctoral position (E13) in a relevant field such as geology, geosciences, geotechnical engineering or in a related discipline. A strong academic record and high motivation for creative research is required. Candidates must have willingness to team-work, independent thinking and self-learning. Professional experience is desired, but no prerequisite.

Your tasks will be to handle research projects in the area of engineering geology and the outlined research focus. Experience and profound knowledge in the application of GIS and numerical models in engineering geology is very desirable. In addition you will be integrated into the academic teaching (mainly in German). KIT is pursuing a gender equality policy. Women are therefore particularly encouraged to apply. If qualified, handicapped applicants will be preferred.

Review of the applications will start immediately and will continue until the position is filled. Please send your application, including CV, publications and acquired third party funds until May 15th, 2010 to:

Karlsruher Institut für Technologie (KIT), Institut für Angewandte Geowissenschaften (AGW)

Herrn Jun.-Prof. Dr. habil. Philipp Blum, Kaiserstraße 12, D-76131 Karlsruhe

For additional information please directly contact Jun. Prof. Dr. habil. Philipp Blum, Tel.: +49 721/608-7612, E-Mail: philipp.blum@kit.edu.

(http://www.earthworks-jobs.com/geoscience/karlsruhe10041.html)

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**Postdoctoral Fellow in Hydrogeology/Hydrogeochemistry**

The University of Melbourne

The Melbourne Energy Institute and The University of Melbourne's School of Earth Sciences invite applications for a two-year postdoctoral research fellowship in Hydrogeology/Hydrogeochemistry. The Fellow will investigate targeted groundwater systems in Victoria and Australia with regards to potential for carbon dioxide capture and storage. Experience in groundwater chemical analyses, flow analysis and modelling, and well logging/testing is preferred. Remuneration includes a generous salary (AUD 65,368 p.a.) with yearly cost-of-living increases, plus benefits and relocation reimbursement (up to AUD 5000). Opportunities exist for the Fellow to gain teaching experience if desired. We anticipate submitting a highly competitive proposal by the end of the first year to the Australian Research Council to extend the duration of the two-year Fellowship by another 2-3 years.

Applicants should electronically submit a cover letter, CV and contact information for three references to jmoreau@unimelb.edu.au. Review of applications will begin May 15, 2010, and continue until the position is filled.

(http://www.earthworks-jobs.com/geoscience/melbourne10041.html)

**Postgraduate taught courses**

School of Environment and Technology, University of Brighton

The School of Environment and Technology offers a range of programmes from foundation degrees to PhDs and taught postgraduate courses. Our applied research and consultancy activity ensures these courses are up to date, relevant and serve the needs of both students and employers.

**Environmental Assessment and Management MSc**

A comprehensive overview of the methods for quantifying and managing the environmental impacts of policies, plans and projects within organisations. Develop the theoretical knowledge and practical skills needed by environmental managers in today's employment climate.

http://courses.brighton.ac.uk/course.php?cnum=603

**Environmental Geology MSc**

Designed to train students in the applications of geology in engineering, geotechnics, construction, hydrogeology and environmental investigations, this course is ideal for those who enjoy the challenge of applied geology and who may be wishing to enhance their professional qualifications or to change their career emphasis. Informed by our research and consultancy activity, this course deals with the application of geology in engineering, hydrogeology and the environment.

http://courses.brighton.ac.uk/course.php?cnum=1274

**Water and Environmental Management MSc**

Explore this multidisciplinary field and develop the technical and managerial skills needed to tackle modern water resource and pollution management issues in a broad range of contexts. Suitable for graduates in the earth and environmental sciences, geography, engineering or other related disciplines. http://courses.brighton.ac.uk/course.php?cnum=291

Find out more:

entec@brighton.ac.uk, www.brighton.ac.uk/set

(http://www.earthworks-jobs.com/environs/brighton10041.html)

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**PhD position**

University of Stockholm

The Department of Geology & Geochemistry, Stockholm University, and the Swedish Museum of Natural History invites applications for the following PhD position. The position will be jointly funded by the Swedish Research Council and the Department of Geology & Geochemistry.

*The Project:*

This is a fully funded four year studentship under the joint supervision of Assoc. Prof. V. Pease and Dr. M. J. Whitehouse, Swedish Museum of Natural History. The project will focus on constraining the crustal evolution of the Arabian Shield, one of the largest regions of Neoproterozoic crustal growth on Earth. Late Neoproterozoic crustal growth occurred against a backdrop of increasing biological diversification on Earth and coincided with significant periods of glaciation and dramatic climate change. Thus, a better understanding of the timing and processes of crustal growth at this critical time is highly desirable.

The successful applicant will apply high spatial Hf- and O-isotope analysis to U-Pb dated zircons in order to assess the relative mantle and crustal contributions directly linked to a dated event(s). In particular, in complex polyphase zircon or in metasedimentary rocks containing detrital zircon, source reservoir information is uniquely obtainable using these methods where older bulk methods would yield mixed signatures. The supervisors have an extensive collection of material from the Arabian Shield, but fieldwork in Saudi Arabia will also be performed in cooperation with the Saudi Geological Survey in order to provide additional material from critical locations. The O-isotope work will be performed in Stockholm using NORDSIM, the Nordic secondary ion mass-spectrometry facility. The Hf- isotopic work will be performed in collaboration with Dr. T. Kemp at James Cook University, Townsville, Queensland, Australia. For additional information please contact Dr. Martin Whitehouse at martin.whitehouse@nrm.se or Dr. Victoria Pease at vicky.pease@geo.su.se.

*Requirements:*

Admission Requirements for Stockholm University and the Geology Program: Applicants must have completed a research degree (e.g. Masters) or the equivalent of university study of 240 ECTS points (corresponding to 4 years). This must include at least 90 ECTS points (3 terms) of Natural Science, 30 ECTS points (1 term) of chemistry, math, physics or biology, and 60 ECTS points (1 year) at the advanced level, including a 30 ECTS point independent project in geoscience. Applicants with degrees in another geology-related science such as math, chemistry, physics or biology may also apply for this project.

Interested candidates should be willing to travel for up to 1 month at a time.

*Conditions:*

This is a four year position and expected to begin in the fall of 2010.

*Applications:*

Applications, including curriculum vitae, course transcripts and copies of degrees, two referees (with fax and/or e-mail contact info) and a description of motivation and experience relevant to the research project, should be sent to:

Dr. Martin Whitehouse, NRM, Frescativ. 40, Box 50007, SE-104 05 Stockholm, SWEDEN

The deadline for applications is 15 June 2010.

(http://www.earthworks-jobs.com/geoscience/stockholm10041.html)

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**MSc Petroleum Geoscience by Distance Learning**

**Postgraduate Diploma Petroleum Geoscience by Distance Learning**

Royal Holloway University of London

Duration: up to 5 years

*Programme Outline:*

• An on-line version of a well established programme with an international reputa-

tion for

excellence in the petroleum industry.

• Primarily suited to hydrocarbon industry professionals who wish to further develop knowledge and skills whilst continuing full-time work.

• Comprehensive learning materials delivered via a dedicated web portal: video clips,

animations, audio-visual presentations, fully-illustrated manuals, self-assessment quizzes,

exercises and computer-based practicals.

• Field trips and intensive study seminars held at various locations worldwide.

• An option to be awarded a Postgraduate Diploma (PGDip) in Petroleum Geoscience is available if a project is not undertaken.

Hydrocarbons are a precious resource. Finding new reserves is becoming ever more challenging and the enhanced recovery of reserves from existing fields is becoming increasingly important. Well trained Petroleum Geoscientists with the ability to integrate geological and geophysical data, and to apply it on a variety of scales, have a vital role to play. The MSc in Petroleum Geoscience provides graduates with training in the practical and technical skills required to address a range of questions, from understanding the distribution of hydrocarbons in sedimentary basins to quantifying the complex structural, stratigraphic and sedimentological architecture of individual reservoirs.

Studying Petroleum Geoscience at Royal Holloway:

• The programme has the same curriculum as the MSc Petroleum Geoscience offered in London at the Royal Holloway campus and at Tyumen Oil and Gas State University in Russia.

• The department is ranked highly in national research assessment exercises as having a research output of international excellence.

• The programme has been developed by and is supported by a team of 13 academic staff, all active researchers and tutors in the field of Petroleum Geoscience.

• Tutorial support provided for each module by Royal Holloway staff

• With experience of supervising hundreds of independent projects for masters students, Royal Holloway staff can provide expert advice for the planning of projects to be carried out using industry data.

*Course Content:*

The programme comprises six taught modules (MSc and PGDip) and an Independent Research Project (MSc only).

**Geodynamics of Sedimentary Basins**

Tectonics and geodynamic evolution of sedimentary basins, subsidence analysis, thermal histories.

**Geophysical Analysis**

Seismic acquisition and processing, interpretation techniques, seismic mapping, attribute analysis and reservoir characterisation.

**Structural Analysis**

Structural interpretation of seismic data, fault and fracture analysis.

**Sedimentology and Stratigraphy**

Siliciclastic and carbonate depositional systems, facies analysis, seismic and sequence stratigraphy, and palaeogeographic analysis and mapping.

**Reservoir Geoscience**

Well log analysis, rock mechanics, reservoir geology and geophysics, reservoir modelling.

**Petroleum Systems**

Petroleum systems, basin modelling, play analysis, petroleum economics.

**Independent Project (MSc only)**

An independent research project focussed on some aspect of Petroleum Geoscience, designed to meet individual training needs & carried out in association with industry.

*Tuition and Assessment:*

Fully illustrated course materials provided through a web portal, with interactive coursework exercises and on-line tutorials. A two-week residential study period with team projects and incorporating a field course forms part of the programme. On-line quizzes and tutorsupported coursework provide feedback on learning; assessment is by coursework exercises submitted on-line and written examinations for each module.

*Programme fees:*

MSc: Total £10,370 divided into initial registration fee, module fees and project fee.

PGDip: Total £8,520 divided into initial registration fee and module fees

Applications: www.londonexternal.ac.uk/geoscience

For further information contact the Postgraduate Coordinator, Johanna Lindholm

(j.lindholm@es.rhul.ac.uk), Department of Earth Sciences, Royal Holloway University of London, Egham, Surrey TW20 0EX, UK, Tel: +44 (0) 1784 443581, Fax: +44 (0) 1784 471780

Deadline: Ongoing, apply now

(http://www.earthworks-jobs.com/geoscience/rhul10041.pdf)

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**PhD position in Historical geology and Palaeontology, Marine phytoplankton evolution and climate change**

Uppsala University, Department of Earth Sciences

Starting date: 15 September 2010 or as agreed upon.

Unicellular phytoplankton form the base of the marine food chain and play fundamental roles in biogeochemical cycles on Earth. There is growing concern that climate change will disrupt algal productivity and calcification due to rising ocean temperatures and lowering of ocean pH ('ocean acidification'). However, very little is known about the mechanisms and rates of climatic adaptation by phytoplankton.

The PhD student will participate in a project, which is a collaboration between Dr Jorijntje Henderiks (Uppsala University) and colleagues at the Centre for Ecological and Evolutionary Synthesis (University of Oslo). We want to understand why different species within a prominent group of marine calcifying algae (the coccolithophores) respond differently to environmental change, and what environmental factor acts as the main influence on algal evolution. This research aims to bridge the gap between short-term experimental observations of living marine algae, and long-term patterns of

phenotypic (i.e., size, shape) variability observed in the fossil record.

The PhD candidate will collect fossil time series data of phenotypic evolution in key lineages using geological samples from various ocean drilling sites. The microfossil data will be paired with reconstructions of past oceanographic and climatic change using geochemical proxy methods. The project offers training in cross-disciplinary research between the fields of geology and biology. Analytical techniques will include (automated) biometry and time series analysis. The fossil analyses will be integrated with parallel-running subprojects that focus on culture experiments and evolutionary modeling.

The applicant must have a university degree with a strong component of geology and/or biology, with keen interests in (micro)paleontology, marine geology/biology, evolutionary biology, and/or ecology. Experience in biometry and statistical methods as well as knowledge of marine microfossils/phytoplankton are welcomed. Good communication skills and ability to work in a team are essential.

The holder of a PhD-student position shall primarily devote her/his time to own research studies. Other departmental work, such as educational or administrative can be part of the position (max 20%). The applicant must be eligible for PhD studies. Priority is given to those who are deemed to show the greatest aptitude for a successful completion of graduate studies.

The rules governing this process can be found in Higher Education Ordinance (Högskoleförordningen) 5 kap §§ 1-7. Local guidelines at Uppsala University determine the salary.

The application shall consist of CV, copies of exams and list of courses including the grades obtained, a copy of the Master thesis (or a draft thereof), as well as names of two persons that can be used as reference.

More information can be obtained from Dr. Jorijntje Henderiks, tel. +46-18-471 23 16, jorijntje.henderiks@geo.uu.se. Union representatives are Anders Grundström, Saco-rådet, tel +46-18-471 53 80, Carin Söderhäll, TCO/ST, tel +4618-471 19 96, Stefan Djurström, Seko, tel +46-18-471 33 15.

The application should be sent, preferably by e-mail to: registrator@uu.se, or by fax +46-18-471 20 00, or by mail to: Registrator, Uppsala University, Box 256, 751 05 UPPSALA, Sweden. In any correspondence, please use the reference number UFV-PA 2010/966.

Application deadline on 31 May, 2010.

(http://www.earthworks-jobs.com/geoscience/uppsala10041.html)

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**The dynamics of continental collision and slab break-off**

Fully funded Earth Sciences Charles Waites PhD studentship

Durham University

*Project background and description:*

Continental collision is the final stage of the plate-tectonic cycle, and plays an important role in continent formation and preservation. Closure of an oceanic basin can lead to a break-off of the subducted oceanic plate (Figure 1). Dynamics and observables of this break-off process are poorly understood, and many open questions remain. When and how deep do slabs break? Does it occur with a propagating tear? Does slab break-off produce magmatism? If so, with which geochemical characteristics? How important are the subduction history and characteristics of the colliding continents for this break-off process? What kind of up-lift/subsidence patterns can we expect?

Due to these uncertainties, slab break-off has been proposed to explain many enigmatic observations in orogenies around the world. Examples from the Alpine-Himalayan system include Cenozoic magmatism in the Turkish-Iranian and Tibetan plateaux.

In this PhD project, the main objectives are:

* To constrain slab break-off dynamics using numerical models,

* To predict the volume and geochemistry of any related magmatism, and

* To investigate the occurrence and importance of slab break-off both today and during the early days of plate tectonics.

This project will provide valuable insight in the final stages of the plate-tectonic cycle, the closure of oceanic basins, and subsequent formation of larger continents. Furthermore, continental crust is primarily produced at convergence zones. These processes contribute to much of the continental lithosphere we observe today, which makes this project highly relevant for our understanding of Earth dynamics, both today and in its distant past.

*Aims and methods:*

This multi-disciplinary project will have numerical, geodynamical, geological, and geochemical components. The project will consist of further elaboration and extension of existing numerical models for continental collision, slab break-off, slab/mantle (de)hydration, and any associated magmatism. Such models will be used to determine under which circumstances volcanism can be expected, and what the likely geochemical characteristics will be. These results will be compared with geological observations (e.g. topography, uplift/subsidence rates), geochemical data of volcanism (e.g. HREE element patterns for depth information on the source, presence of water in the source, and melting temperature indicators), and tomographic images for various orogenies to determine the occurrence and importance of slab break-off.

*Application:*

Suitable candidates will have a degree in geoscience, physical sciences, or engineering. Experience in programming and numerical modelling is essential, and a background in geochemistry and tectonics is appreciated.

For more information, please contact Jeroen van Hunen, jeroen.van-hunen@durham.ac.uk.

The application deadline is May, 31, 2010. Complete applications will include a CV, a short motivation letter including research interests and accomplishments, and the names and contact details, including e-mail address, of at least two potential referees. Information on the application: http://www.dur.ac.uk/earth.sciences/postgraduate/

(http://www.earthworks-jobs.com/geoscience/durham10032.html)

# GPZ LEGENDE I ANEGDOTE (17)

**pribilježio T. M.**

*Profesorica Vanda Kochansky-Devidé bila ja posebna osoba. Uvijek susretljiva, dobro raspoložena i - jako zaposlena, premda se činilo da to nije tako. Njen ogroman angažman lijepo ilustrira karikatura prof. Stjepana Bahuna koja profesoricu prikazuje kao znanstvenicu, nastavnicu, urednicu Geološkog vjesnika i domaćicu. Sve je te poslove obavljala "sa sto ruku". Profesorica Kochansky bila je zaljubljenica u Velebit, na kojem je istraživala, ali i ljetovala. U ovom broju Bulletina donosimo jednu anegdotu koja se zbila vjerojatno negdje 1960-tih godina, a zabilježena je po njenom osobnom kazivanju.*

*Prof. Vanda Kochansky-Devidé viđena očima prof. Stjepana Bahuna.*

## Astronomska noć na Velebitu

Profesorica Vanda Kochansky-Devidé redovito je ljetni odmor provodila u planinskoj idili srednjeg Velebita, na Baškim Oštarijama, koje niti tada, a niti danas ne odzvanjaju životom. Upravo suprotno! Ako ima neko mjesto za odmaranje u osami, to su Baške Oštarije i hotel "Velebno".

Noći su na srednjem Velebitu mračne "ko' u rogu", pa se čini da su zvijezde doslovce nadohvat ruke. Noći idealne za promatranje zvijezda ponukale su njenog supruga prof. Zvonimira Devidéa da jednog ljeta ponese na Velebit i teleskop.

Kako duž doline Baških Oštarija prolazi cesta, a njome i pokoji automobil, bilo je potrebno naći neko zaklonjenije mjesto, gdje se neće vidjeti svjetla vozila niti hotela, a bilo je potrebno da i podloga bude koliko-toliko ravna da se može dobro namjestiti stativ teleskopa. Popodnevna šetnja izlučila je najpodesniju lokaciju - mjesno groblje.

I tako, u neki mračni sat, profesorica Kochansky i njen suprug došli su do groblja i postavili teleskop, naravno - u mrklom mraku. Profesor Devidé se potom zadubio u promatranje dubokog svemira, a profesorica je sjela na jednu ploču, i uživala u tišini (čitaj: čekala). Tko zna koliko je vremena prošlo, kad je u jednom trenutku osjetila lagani dodir po nogama; bilo je to nešto veliko i dlakavo!

Iako nije bila praznovjerna, pričala je, kosa joj se na glavi podigla! Čim je dala glas od sebe, to dlakavo biće se udaljilo. Naravno, sumnja nije pala na mogućeg oštarijskog vukodlaka, nego na domaćeg vuka samotnjaka, kojih je na Velebitu u to vrijeme bilo mnogo, pa ih je znala susretati za vrijeme šetnje šumom.

Kad je prof. Devidé upalio svjetiljku, vidjeli su da su privukli pažnju jednog velikog psa koji je dolutao iz neke od obližnjih kuća! Bilo kako bilo, to je bio i kraj njihove astronomske "misije". Vratili su se u hotel da ne privuku pažnju i drugih, manje umiljatih *kusavih* pasa (kako je profesorica ponekad znala nazivati vukove).

# XVII. međunarodni geološki kongres u SSSR-u 1937. godine i zašto se mora pamtiti?

**Enio Jungwirth**

Prošle su 132 godine otkako je u Parizu održan I. međunarodni geološki kongres, a dvije od posljednjeg XXX. kojeg su organizirale nordijske zemlje u Oslu.

Samo su tri države bile u mogućnosti organizirati tri takva kongresa u svojoj zemlji: Francuska (1878., 1900., 1980.), SAD (1891., 1933., 1989.) i carska Rusija (1897.), odnosno SSSR (1937., 1984.). Ne bi bilo ništa neobično da iz zaborava ne uskrsuju činjenice koje valja ne zaboraviti, a srećom se u drugim zemljama nisu desile (barem ne tim povodom)

Rusija (carska i sovjetska) organizirala je VII. međunarodni (svjetski) geološki kongres u St. Petersburgu, a XVII. i XXVII. u Moskvi. Zanimljivi brojevi, a još zanimljiviji događaji tridesetih godina prošloga stoljeća! Geološki kongres 1937. održan je u ozračju okrutnih masovnih progona sovjetskih ljudi različitih naroda i narodnosti, motiviran stavovima V. V. Staljina i vladinih represivnih organa, a sve s ciljem otkrivanja tzv. „narodnih neprijatelja“ i sijanjem straha od kontakata sa strancima i „sumnjivim elementima“.

Vjerojatno da ne bi bili izolirani i van tijeka događaja, te da bi istaknuli svoj utjecaj i u takvim uvjetima, željeli su međunarodni publicitet. Jednostavno je valjalo organizirati međunarodni skup. Organizacijski odbor SSSR-a XVII. međunarodnog geološkog kongresa vodili su akademici A. P. Karpinski (1846-1936), I. M. Gupkin (1871-1939), A. A. Borisjak (1872-1944), V. A. Obručev (1863-1956) i A. E. Fersman (1883-1945), koji su kongres organizirali i za tu prigodu pripremili i tiskali geološku kartu SSSR-a u mjerilu 1:5.000.000, koju su podijelili svim sudionicima. Kongres je održan u Moskvi od 21. do 29. lipnja 1937. Ozračje terora ogledalo se i prilikom samog održavanja kongresa. Mnogim sovjetskih znanstvenicima, koji su su željeli biti na skupu najčešće je u poljednji tenutak „otkazana“ gostoljubivost (nije im dopušten dolazak), a oni koji su bili u prisnijim doticajima sa stranim sudionicima uhićeni su tijekm kongresa ili odmah nakon njegova završetka (vidjeti popis sovjetskih sudionika i njihove sudbine).

*Popis sovjetskih geologa - sudionika XVII. Međunarodnog geološkog kongresa 1937. http://www.ihst.ru/projects/sohist/rg.htm (rus)*

| | IME I PREZIME | UHIĆEN/ REPRESIJA/ EGZIL | UBI-JEN |
|---|---|---|---|
| 1. | Aladljiškin, Aleksander Sergejevič (1911-1975) | 1937 | |
| 2. | Baženov, Ivan Kuzljmič (1890-1982) | 1949 | |
| 3. | Bobkov, Nikolaj Vasiljevič (1883-1938) | | 1938 |
| 4. | Borisov, Mihail (1910-?) | 1940-tih | |
| 5. | Claire, Modest Onisimovič (1879-1966) | 1923, 1930 | |
| 6. | Cukanov, Ivan Ivanovič (?) | + | |
| 7. | Černjik, Viktor Vasiljevič (1899-1941) | 1937 | 1941 |
| 8. | Demčuk, Afanasij Ivanovič (1897-?) | 1942 | |
| 9. | Demin, Pavel Fedorovič (1906-1968) | 1938 | |
| 10. | Didkovski, Boris Vladimirovič (1883-1938) | 1937 | 1938 |
| 11. | Dutkevič, Georgij Aleksandrovič (1907-1937) | | 1937 |
| 12. | Džhrbašjan, Tigran Aršakovič (1890-1937) | | 1937 |
| 13. | Fokin, Anatolij Mihajlovič (1892-1979) | 1930-1933 | |
| 14. | Fomičev, I. A. (?) | 1930-tih | |
| 15. | Galitskij, Vladimir Vladimirovič (?) | + | |
| 16. | Gapejev, Aleksaner Aleksandrovič (1881-1958) | 1923 | |
| 17. | Ginsburg, Ilja Isakovič (1882-1965) | 1928 | |
| 18. | Glagolev, Andrej Aleksandrovič (1894-1968) | 1923 ? | |
| 19. | Glazkovskij, Aleksej Aleksandrovič (?) | 1921 | |
| 20. | Helkvist, German Avgustovič (1894-1968) | 1941-1945 | |
| 21. | Himenkov, Viktor Gavrilovič (1881-1949) | 1933 | |
| 22. | Iljin, Sergej Ivanovič (1891-1948) | 1935 | |
| 23. | Ivanov, Evgenij Vasiljevič (1889-1948) | 1937 | |
| 24. | Judičev, Mihail Mihajlovič (?) | + | |
| 25. | Kalitskij, Kazimir Petrovič (1873-1944) | 1930 | |
| 26. | Kaljužni, Vasilij Avkseljevič (1889-?) | 1938, 1951 | |
| 27. | Kjazimov, Džafar Alekserovič (?) | 1938 | |
| 28. | Kogan, Naum Jakovljevič (1908-?) | 1949 | |
| 29. | Kotuliskij, Vladimir Klimenljevič (1879-1951) | 1929, 1932, 1949 | |
| 30. | Kozlov, Petr Tihonovič (1907-?) | | 1934 |
| 31. | Kučin, Mihail Ivanovič (1887-1963 ?) | 1949 | |
| 32. | Kulikov, Viktor Ivanovič (?) | + | |
| 33. | Linderer, Boris Aleksandrovič (1884-?) | 1926 | |
| 34. | Lindtrop, Norbert Teodorovič (1889-1969) | 1929 | |
| 35. | Makarenko, Georgij Aleksejevič (1901-1944) | 1940 | |
| 36. | Maškovič, Konstantin Andrejevič (1903-1974) | 1940 | |
| 37. | Meffert, Boris Fedorovič (1878-1937) | 1935 | |
| 38. | Meyer, Petr Nikolajevič (1902-?) | 1938 | |
| 39. | Mikej, A. Isak Jakovlevič (1901-1961) | 1937 | |
| 40. | Mirčnik, Georgij Fedorovič (1889-1942) | 1941 | |
| 41. | Moldavancev, Efraim Porfirjevič (1885-1941) | suicid 1941. | |
| 42. | Mušketov, Dimitrij Ivanovič (1882-1938) | 1937 | 1938 |
| 43. | Nikolajev, Ivan Dmitrijevič (?) | + | |
| 44. | Opokov, Evgenij Vladimirovič (1869-1937) | 1937 | |
| 45. | Orljev, Grigorij Kuzmljič (?) | 1937 | |
| 46. | Pervušina, Tatjana Polijektovna (1896-?) | 1939 | |
| 47. | Petrokovič, Jurij Aleksandrovič (1912-1942) | 1941 | |
| 48. | Pogrebitskij, | + | |
| 49. | Popov, Ivan Vasiljevič (1889-1974) | 1937 | |
| 50. | Popov, Ivan MIhajlovič (1889-?) | 1930 | |
| 51. | Pustovalov, Ivan Fedorovič (1904-1984) | + | |
| 52. | Puhtinskij, Mečislav Nikolajevič (1902-?) | 1937 | |
| 53. | Rabkov, Konstantin Nikolajevič (1895-1964 ?) | 1937 | |
| 54. | Romm, Jakov Mojisejevič (1889-1957) | 1949 | |
| 55. | Serdjučenko, Dimitrij Petrovič (1902-1990) | 1937 | |
| 56. | Sheynmann Jurij Mihajlovič (1901-1974) | 1938, 1949 | |
| 57. | Sheynmann Sergej Mihajlovič (1903-1986?) | 1949 | |
| 58. | Smolko, German Josifovič (1907-1937) | | 1937 |
| 59. | Sokolov, Nikolaj Iljič (1907-1960) | 1937 | |
| 60. | Speranskij, Boris Fedorovič (1885-1956) | 1949 | |
| 61. | Sušinskij, Petr Petrovič (1875-1937 ?) | | 1937 |
| 62. | Svitalskij, Nikolaj Ingnatljevič (1884-1937) | | 1937 |
| 63. | Šalin, Vladimir Nikolajevič (?) | 1937 | |
| 64. | Šamanskij, Lev Iosipovič (1894-1950) | 1949 | |
| 65. | Šuljc, Sergej Sergejevič (1898-1981) | 1937 pušten | |
| 66. | Tetjajev, Mihail Mihajlovič (1882-1956) | 1949 | |
| 67. | Tihonovič, Nikolaj Nikolajevič (1872-1952) | 1928 | |
| 68. | Tomčik, Ludbig Francevič (1909-1937 ?) | 1937 | |
| 69. | Vasilijev, Aleksandr Aleksejevič (1897-1938) | 1937 | 1938 |
| 70. | Vjidrin, Daniil Josifovič (1905-1981) | 1934 | |
| 71. | Vitgeft, Boris Vladimirovič (1900-1938) | 1937 | 1938 |
| 72. | Wendland, Konstantin Nikolajevič (1912-1991) | + | |
| 73. | Zenčenko, Nikolaj Aleksandrovič (1902-1938) | 1937 | 1938 |

Također valja istaknuti da je u pretkongresno vrijeme (1936.) skupina naftnih stručnjaka iz SSSR-a poslana u SAD na šestomjesečno usavršavanje. Ukratko, svaki od njih je po povratku bio strijeljan, a pošteđen je ostao samo Andrej Jakovljevič Krems (1899-1975).

Na kongresu u Moskvi među sovjetskim predstavnicima bili su mnogi ugledni profesori i znanstvenici koje sovjetska vlast nije

nimalo poštovala niti kao ugledne građane, niti kao ljude. Kao dokaz zle sudbine mogu poslužiti tri primjera:

• sveučilišni profesor **Nikolaj Vasiljevič BOBKOV** (1883-1938), uvaženi hidrogeolog i specijalist za inženjersku geologiju, čelnik Odjela za hidrogeologiju i inženjersku geologiju na Lenjingradskom rudarskom institutu uhićen je samo dva dana po povratku sa geološkog kongresa, a ustrijeljen je 18. veljače 1938. u Lenjingradu.

• **Dimitrij Ivanovič MUŠKETOV** (1882-1938) geolog, paleontolog, seizmolog i tektoničar, rektor Državnog rudarskog instituta „G. V. Plekhanov" (Tehničkog sveučilišta) u Lenjingradu i direktor Geološkog komiteta bio je jedan od organizatora geološkog kongresa u Moskvi. Mjesec dana prije početka kongresa je uhićen, a u kongresnim sažetcima nije niti spomenut (trebao je govoriti o tektonici), njegovo je ime nestalo iz kongresnog vodiča i popisa sovjetskih sudionika. Usmrćen je istoga dana, 18. veljače 1938., kada i G. N. Frederiks.

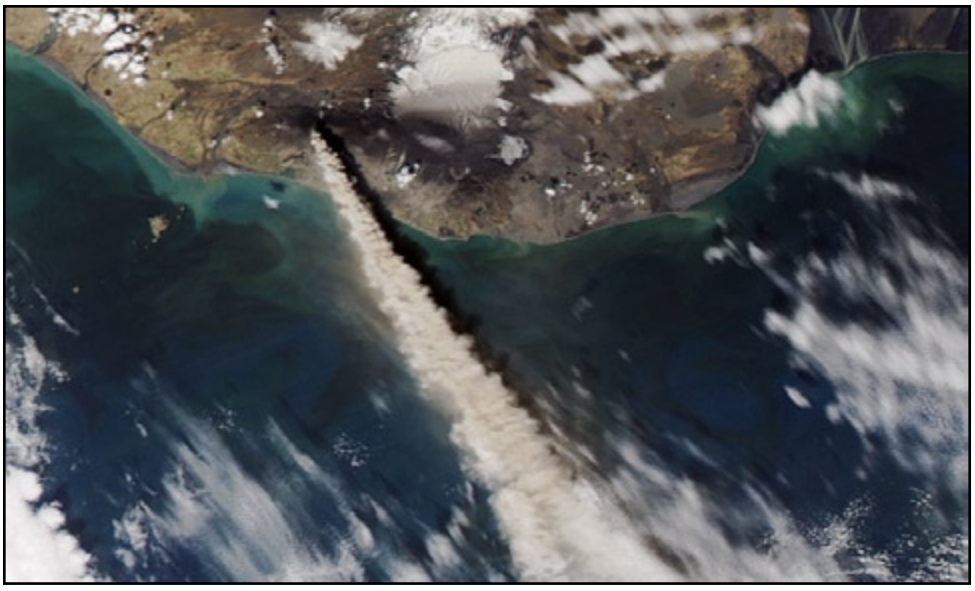
• **FREDERIKS, Georgij Nikolajevič** (1889-1938) geolog, stratigraf, paleontolog, profesor, i voditelj katedre za geologiju i dekan Tehničkog fakulteta Sveučilišta u Permu, istraživač u Geološkom komitetu (Geolkom). Potjecao je iz plemićke porodice (barun) iz simbirske provincije (danas Uljanovska oblast i grad na rijeci Volgi). Pogubljen.

*Radni zatovr Madaganskaja (1930-1950)*

Umjesto zaključka dovoljno je prenijeti vijest iz ruskog časopisa Pravitel'stvennyj Vestnik (№ 7, 1990) prevedenu na engleski jezik: "*... from 1930 to 1953 years on charges of counterrevolutionary crimes courts and all sorts of non-juridicial bodies has ... convicted 3.778.234 persons, of whom sentenced to capital punishment - shot - 786.098 people...*" [*... u vremenu od 1930. do 1950. pod optužbama za kontrarevolucionarne zločine sudovi i razna ne-sudska tijela osudili su 3.778.234, a od tog broja na smrt 786.098 ljudi ...*].

*Geolog-logoraš br. 138 u logoru u Vorkuti 1946.*

*Logor Magadan.*



*Erupcija islandskog vulkana Eyafjallajökull snimljena 10.5.2010. Satelit Aqua (MODIS).*

*Djelatnici Geološko-paleontološkog zavoda Geološkog odsjeka PMF najsrdačnije čestitaju rođendane Tihomiru Marjancu Jasenki Sremac Aleksandru Mezgi*