PhD positions - Marie-Curie Initial Training Network ABYSS
 training network on reactive geological systems from the mantle to the abyssal sub-seafloor

The formation and hydrothermal alteration of the oceanic lithosphere are the major processes for energy and chemical exchanges between the deep Earth and its outer envelopes. The mechanisms controlling these exchanges remain poorly understood, especially at the main thermal and lithological boundaries, marking the transitions from the mantle to the oceanic crust, to the hydrosphere and to the biosphere.

The ABYSS training and research programme focuses on the development of new field, experimental and analytical approaches to measure and model:

- the physical, hydrodynamic and geochemical processes controlling mass and energy transfers at mid-oceanic spreading ridges;
- the linkages and feedbacks between these processes and their implications for life and marine resources in the deep-sea.

ABYSS is an EU Framework 7 Marie Curie Initial Training Network that brings together 10 European research groups and 4 Associated Partners from the private sector. The ABYSS ITN will provide training for 12 Early Stage Researchers (ESR) in Geodynamics, Mineralogy, Hydrodynamics, Thermodynamics and (Bio-)Geochemistry. An ESR project is for 3 years.

Applicants will engage in an organized PhD training program. The candidate must qualify for admittance as a PhD student at the Host Institution.

Application procedure:
Candidates will fill out an on-line application form and provide a CV, a motivation letter, two recommendation letters and academic credentials (mark sheets and degree statements at BSc and MSc level for ESR positions and degree statement at PhD level for ER positions).

At this stage of the recruitment process, preliminary mark sheets will be accepted to enable students from universities where final exams are organized in June or September to apply.

Deadline for ESR (PhD) applications: June 1, 2014
The positions will be filled as soon as recruitment committees will meet. The positions will be re-opened if the applicants don’t fulfil the recruitment criteria.

Application on ABYSS website: http://abyss-itn.eu/

For any enquiries regarding recruitment, please contact us at epm@abyss-itn.eu

The ABYSS ITN has received funding from the People programme (Marie Curie Actions) of the European Union’s Seventh Framework Programme FP7/2007-2013/ under REA - Grant Agreement n°608001
PhD position in experimental petrology  
Marie-Curie Initial Training Network ABYSS (ESR1)  
Training network on reactive geological systems from the mantle to the abyssal sub-seafloor

Host institution: Dipartimento di Scienze della Terra, Università Degli Studi di Milano (Italy) / Secondment institutions: Petroceramics SpA, Gottfried Wilhelm Leibnitz Universität Hannover

The Department of Earth Sciences at the University of Milano seeks to appoint a PhD student for a research project in experimental petrology with main focus on melt-rocks interactions at mantle-crust interface governing the formation of the oceanic lithosphere. The successful applicant will use HP-HT experimental and analytical facilities available at the Department of Earth Sciences of the University of Milan. To investigate crustal conditions the successful candidate will work in close collaboration with J. Koepke of the Leibniz Universität of Hannover.

Methods: Experiments in static and rocking piston cylinders and in Internally Heated Pressure Vessel; WDS/EDS electron microprobe, LA-ICP-MS, TEM, SEM image analysis. Thermodynamic modeling and phase petrology.

Goals: Understanding the role of melt-rock reactions and fractional crystallization on the origin of mafic cumulates within the oceanic lithosphere, combined with data on natural occurrences obtained in parallel projects within the network.

Requirements: Candidates must hold an MSc in Earth Sciences. Experience in petrology and analytical geochemistry is advantageous.

This fellowship is for a period of 36 months starting on (no later than) November 1, 2014. It is funded by ABYSS, an EU Framework 7 Marie Curie Integrated Training Network starting on March 1, 2014. ABYSS brings together 10 European research groups and 4 Associated Partners from the private sector and proposes 12 PhDs (ESR: Early Stage Researcher) positions and 3 postdoctoral fellowships (ER: Experienced Researcher).

Recruitment will be an international process based on the principles of the European Charter and Code for Researchers and the eligibility criteria for ITN projects.

A PhD candidate (ESR) is a researcher who, at the time of recruitment, has not yet been awarded the doctorate degree and is in the first 4 years (full-time equivalent) of his/her research career. At the time of recruitment, researchers have not resided or carried out their main activity in the country of their future host organization for > 12 months in the 3 years prior to that date.

Salary and monthly mobility allowances follow attractive/competitive E.U. standard.

Candidates are required to apply online through website: http://abyss-itn.eu/
Candidates must provide a CV, a motivation letter, two recommendation letters and academic credentials. At this stage of the recruitment process, preliminary mark sheets will be accepted.

For further information, contact: P. Fumagalli (patrizia.fumagalli@unimi.it)

The ABYSS ITN has received funding from the People programme (Marie Curie Actions) of the European Union’s Seventh Framework Programme FP7/2007-2013/ under REA - Grant Agreement n°608001
PhD position: melt-rock interactions in the oceanic lithosphere

Marie-Curie Initial Training Network ABYSS (ESR2)
Training network on reactive geological systems from the mantle to the abyssal sub-seafloor

Host institution: Dipartimento di Scienze della Terra, dell’Ambiente e della Vita, Università degli Studi di Genova (Italy) / Secondment institutions: Géosciences Montpellier (CNRS, France), National Oceanographic Centre, University of Southampton (UK).

The Department of Earth, Environment and Life Sciences at the University of Genova seeks to appoint a PhD student for a research project in igneous petrology and rock-forming processes in the lower oceanic crust. Field objects will be fossil oceanic lithosphere records in the Alpine-Apennine ophiolites (Liguria, Alpine Corse). The ESR will work in a multidisciplinary environment, in collaboration with E. Rampone, L. Crispini (Università degli Studi di Genova), M. Godard, B. Ildefonse (Geosciences Montpellier) and D. Teagle (University of Southampton).

Methods: Field mapping, Microstructural analysis (EBSD), Imaging (SEM), In-situ mineral chemistry (EMPA, LA-ICP-MS), Elemental mapping, Geochemical modelling.

Goals: Define field relations of crustal rocks and host mantle peridotites, to constrain styles and mechanisms of magma intrusion. Provide geochemical and microstructural tools to constrain the origin (mantle vs. magmatic) of olivine in the lower oceanic crust, and determine the role of fractional crystallization and reactive porous melt flow. Understand the effect of melt-rock reaction in the lower oceanic crust on the evolution of MORBs.

Requirements: Candidates must hold an MSc in Earth Sciences or a closely related discipline. Background in mapping and structural analysis, petrology, geochemistry is advantageous. Solid grounds in physical sciences are welcome.

This fellowship is for a period of 36 months starting no later than November 1, 2014. It is funded by ABYSS, an EU Framework 7 Marie Curie Integrated Training Network. ABYSS brings together 10 European research groups and 4 partners from the private sector; it proposes 12 PhDs (ESR) positions and 3 postdoctoral fellowships (ER).

Recruitment will be an international process based on the principles of the European Charter and Code for Researchers and the eligibility criteria for ITN projects.

A PhD candidate (ESR) is a researcher who, at the time of recruitment, has not yet been awarded the doctorate degree and is in the first 4 years (full-time equivalent) of his/her research career. At the time of recruitment, researchers have not resided or carried out their main activity in the country of their future host organization for > 12 months in the 3 years prior to that date.

Salary and monthly mobility allowances follow attractive/competitive E.U standard.

Candidates are required to apply online through website: http://abyss-itn.eu/
Candidates must provide a CV, a motivation letter, two recommendation letters and academic credentials. At this stage of the recruitment process, preliminary mark sheets will be accepted.

For further information, contact: Elisabetta Rampone (betta@dipteris.unige.it)

The ABYSS ITN has received funding from the People programme (Marie Curie Actions) of the European Union’s Seventh Framework Programme FP7/2007-2013/ under REA - Grant Agreement n°608001
PhD position on melt-rock interactions in the oceanic lithosphere

Marie-Curie Initial Training Network ABYSS (ESR3)

Training network on reactive geological systems from the mantle to the abyssal sub-seafloor

Host institution: Géosciences Montpellier (CNRS, France) / Secondment institutions: Universita Degli Studi di Genova (Italy), University of Southampton (UK)

Géosciences Montpellier seeks to appoint a PhD student for a research project in igneous petrology, to work on rock-forming processes in the lower oceanic crust, through a detailed investigation of microstructural and petro-geochemical signatures of gabbroic rock samples from drill cores (ODP/IODP Expeditions; Mid-Atlantic Ridge, Southwest Indian Ridge). The trainee will work in a multidisciplinary and international environment, in collaboration with E. Rampone (Universita Degli Studi di Genova) and D. Teagle (University of Southampton).

Methods: Petrological analysis, Microstructural analysis (EBSD), In-situ mineral chemistry (EMP, Laser-ICP-MS), Elemental mapping, Geochemical modelling.

Goals: Constrain the micro- to macro-scale relationships between the constituent mineral phases, and document crystallization and melt-rock interaction processes; Understand to what extent crystallization and reactive porous melt flow in the lower oceanic crust may affect the melts chemistry and the physico-chemical properties of the oceanic lithosphere.

Requirements: Candidates must hold an MSc in Earth Sciences or a closely related discipline, and should have a background in petrology, geochemistry, and microstructural analysis. Solid grounds in physical sciences and/or crystallography are welcome.

This fellowship is for a period of 36 months starting no later than November 1, 2014. It is funded by ABYSS, an EU Framework 7 Marie Curie Integrated Training Network starting on March 1, 2014. ABYSS brings together 10 European research groups and 4 partners from the private sector; it proposes 12 PhDs (ESR) positions and 3 postdoctoral fellowships (ER).

Recruitment will be an international process based on the principles of the European Charter and Code for Researchers and the eligibility criteria for ITN projects.

A PhD candidate (ESR) is a researcher who, at the time of recruitment, has not yet been awarded the doctorate degree and is in the first 4 years (full-time equivalent) of his/her research career. At the time of recruitment, researchers have not resided or carried out their main activity in the country of their future host organization for > 12 months in the 3 years prior to that date.

Salary and monthly mobility allowances follow attractive/competitive E.U standard.

Candidates are required to apply online through website: http://abyss-itn.eu/
Candidates must provide a CV, a motivation letter, two recommendation letters and academic credentials. At this stage of the recruitment process, preliminary mark sheets will be accepted.

For further information, contact: Benoit Ildefonse (ildefonse@um2.fr) and Marguerite Godard (Marguerite.Godard@um2.fr)

The ABYSS ITN has received funding from the People programme (Marie Curie Actions) of the European Union’s Seventh Framework Programme FP7/2007-2013/ under REA - Grant Agreement n°608001
PhD position in experimental petrology
Marie-Curie Initial Training Network ABYSS (ESR4)

Training network on reactive geological systems from the mantle to the abyssal sub-seafloor

Host Institution: Leibniz Universität Hannover (Germany) / Secondment institutions: Università Degli Studi di Milano (Italy), University of Southampton (UK)

The Institute of Mineralogy at the Leibniz University of Hannover seeks to appoint a PhD student for a research project in petrology with the main focus on experimental investigation of the interactions between rock and a fluid strongly enriched in NaCl (brine) derived from hydrothermal fluids at very high temperatures. The experimental work uses state-of-art high-pressure facilities in two different labs at the University of Hannover (J. Koepke) and the University of Milano (P. Fumagalli). This project will also investigate chlorine-rich mineral phases from natural abyssal gabbros which are discussed to be formed by rock/brine interaction in the deep crust under mid-ocean ridges. Isotope analysis of these mineral phases will be performed at the University of Southampton (D. Teagle).

Methods: Experiments in Internally Heated Pressure Vessels (IHPV, P ≤ 0.5 GPa); experiments with piston cylinder techniques (U. of Milano, P ~ 0.5-1 GPa); analysis of the experimental results with in-situ geochemical methods (EPMA; LA-ICP-MS); bulk and in situ geochemical analysis of natural hydro-magmatic minerals from deep oceanic crust and shallow mantle with special focus on fluid-mobile trace elements; stable isotope analysis (U. of Southampton).

Requirements: Candidates must hold a MSc in Earth Sciences or a closely related discipline. Experience in petrology and analytical lab work is absolutely necessary.

This fellowship is for a period of 36 months starting no later than November 1, 2014. It is funded by ABYSS, an EU Framework 7 Marie Curie Integrated Training Network starting on March 1, 2014. ABYSS brings together 10 European research groups and 4 partners from the private sector; it proposes 12 PhDs (ESR) positions and 3 postdoctoral fellowships (ER).

Recruitment will be an international process based on the principles of the European Charter and Code for Researchers and the eligibility criteria for ITN projects.

A PhD candidate (ESR) is a researcher who, at the time of recruitment, has not yet been awarded the doctorate degree and is in the first 4 years (full-time equivalent) of his/her research career. At the time of recruitment, researchers have not resided or carried out their main activity in the country of their future host organization for > 12 months in the 3 years prior to that date.

Salary and monthly mobility allowances follow attractive/competitive E.U. standard.

Candidates are required to apply online through website: http://abyss-itn.eu/

Candidates must provide a CV, a motivation letter, two recommendation letters and academic credentials. At this stage of the recruitment process, preliminary mark sheets will be accepted.

For further information, contact: J. Koepke (koepke@mineralogie.uni-hannover.de)

The ABYSS ITN has received funding from the People programme (Marie Curie Actions) of the European Union’s Seventh Framework Programme FP7/2007-2013/ under REA - Grant Agreement n°608001
PhD position in Hydrothermal Cooling of the Lower Oceanic Crust

Marie-Curie Initial Training Network ABYSS (ESRF)

Training network on reactive geological systems from the mantle to the abyssal sub-seafloor

Host institution: Ocean & Earth Science, National Oceanography Centre Southampton, University of Southampton (UK); Secondment institutions: CNRS-Geosciences Montpellier (FR); Leibnitz Universität Hannover (Germany); University of Oslo (Norway).

The Graduate School of the National Oceanography Centre Southampton seeks to appoint a PhD researcher to investigate the formation of the lower oceanic crust with Pr Damon Teagle and Dr Tim Henstock. This project will integrate fieldwork, petrological and isotope geochemical observations with experimental petrology and numerical modeling to quantify cooling rates and the vigour of deep hydrothermal circulation in the crystallization of the lower oceanic crust. It will involve fieldwork in the Samail ophiolite, Sultanate of Oman, and additional analytical (Benoit Ildefonse, Montpellier), experimental (J. Koepke, Hannover), and modeling (B. Jamtveit, Oslo) research.

Methods: Mapping; Petrography; Micro-sampling of Ilmenite minerals for composition, stable and Sr isotope analyses; Analyse olivine to establish orientations and rates of cooling from trace element profiles (e.g., Ca); Sub-solidus trace element diffusion experiments.

Goals: To end-member test models of the accretion of fast spreading ocean crust. Fluid fluxes, based on tracer transport modeling of the advection of isotopic signals, combined with cooling rate estimates from trace element diffusion, will be integrated with thermal modeling to test the role of deep hydrothermal fluid circulation in cooling the lower oceanic crust at ridge axis.

Requirements: Candidates must hold a MSc in Earth Sciences or a closely related discipline. Rigorous numerical skills and a strong fieldwork background are encouraged.

This fellowship is for a period of 36 months starting on 1st Oct. 2014. It is funded by ABYSS, an EU Framework 7 Marie Curie Integrated Training Network. ABYSS brings together 10 European research groups and 4 Associated Partners from the private sector and proposes 12 PhDs (ESR: Early Stage Researcher) positions and 3 postdoctoral fellowships (ER: Experienced Researcher).

Recruitment will be an international process based on the principles of the European Charter and Code for Researchers and the eligibility criteria for ITN projects.

A PhD candidate (ESR) is a researcher who, at the time of recruitment, has not yet been awarded the doctorate degree and is in the first 4 years (full-time equivalent) of his/her research career. At the time of recruitment, researchers have not resided or carried out their main activity in the country of their future host organization for > 12 months in the 3 years prior to that date.

Salary and monthly mobility allowances follow attractive/competitive E.U. standard

Candidates are required to apply online through website: http://abyss-its.eu/

Candidates must provide a CV, a motivation letter, two recommendation letters and academic credentials. At this stage of the recruitment process, preliminary mark sheets will be accepted.

For further information, contact: Pr Damon A.H. Teagle (damon.teagle@southampton.ac.uk)

The ABYSS ITN has received funding from the People programme (Marie Curie Actions) of the European Union’s Seventh Framework Programme FP7/2007-2013/ under REA - Grant Agreement n°608001
PhD position in Experimental Geosciences
Marie-Curie Initial Training Network ABYSS (ESR6)
Training network on reactive geological systems from the mantle to the abyssal sub-seafloor

Host institution: Geoscience Department, University of Bremen (Germany) / Secondment institutions: Géosciences Montpellier (CNRS, France), Nordic Mining ASA (Norway)

The department of Geosciences at the University of Bremen seeks to appoint a PhD student for a research project in petrology and geochemistry. The successful applicant will use experimental techniques and numerical models to investigate replacive formation of sulfide in hydrothermal discharge zone.

Methods: Hydrothermal flow-through experiments, µ-CT and electron microscopy, aqueous geochemistry, thermodynamic computations, numerical models of coupled reaction and flow

Goals: Understand the couplings between reaction and permeability evolution in reactive water-rock systems, specifically the replacement of anhydrite by sulfide

Requirements: Candidate must hold an MSc in Earth Sciences or a related discipline in physical sciences. Experience in either hydrological modeling or petrological and geochemical techniques is advantageous.

This fellowship is for a period of 36 months starting no later than October 1, 2014. It is funded by ABYSS, an EU Framework 7 Marie Curie Integrated Training Network starting on March 1, 2014. ABYSS brings together 10 European research groups and 4 partners from the private sector; it proposes 12 PhDs (ESR) positions and 3 postdoctoral fellowships (ER).

Recruitment will be an international process based on the principles of the European Charter and Code for Researchers and the eligibility criteria for ITN projects.

A PhD candidate (ESR) is a researcher who, at the time of recruitment, has not yet been awarded the doctorate degree and is in the first 4 years (full-time equivalent) of his/her research career. At the time of recruitment, researchers have not resided or carried out their main activity in the country of their future host organization for > 12 months in the 3 years prior to that date.

Salary and monthly mobility allowances follow attractive/competitive E.U. standard

Candidates are required to apply online through website: http://abyss-itn.eu/

Candidates must provide a CV, a motivation letter, two recommendation letters and academic credentials. At this stage of the recruitment process, preliminary mark sheets will be accepted.

For further information, contact: Wolfgang Bach (wbach@uni-bremen.de)

The ABYSS ITN has received funding from the People programme (Marie Curie Actions) of the European Union’s Seventh Framework Programme FP7/2007-2013/ under REA - Grant Agreement n°608001
PhD position in Experimental Geosciences
Marie-Curie Initial Training Network ABYSS (ESR8)

Training network on reactive geological systems from the mantle to the abyssal sub-seafloor

Host institution: Géosciences Montpellier (CNRS, France) / Secondment institutions: Geoscience Department, University of Bremen (Germany), Instituto Andaluz de Ciencias de la Tierra, CSIC-University of Granada (Spain), University of Oslo (Norway), Statoil (Norway).

Géosciences Montpellier seeks to appoint a PhD student for a research project investigating experimentally hydrothermal fluxes at ridges, with a focus on serpentinization processes and H₂ / CO₂ exchanges. Experiments will be carried out mainly on the percolation benches recently developed at the ICARE laboratory (Montpellier), that allow to reproduce thermodynamic and physical conditions analogous to those typical of ultramafic hydrothermal systems (low fluid fluxes, temperatures up to 400°C). The trainee will work in a multidisciplinary and international environment in close collaboration with W. Bach (U. Bremen), C. Garrido (IACT, Granada), B. Jamtveit and H. Austrheim (U. of Oslo).

Methods: Reactive percolation laboratory experiments at P 20-40MPa & T 150-350°C on olivine, peridotites and serpentinites; Chemical and mineralogical characterization of reaction products and chemistry of outlet fluids (including C); Thermodynamic modelling.

Goals: Investigate the feed-back effects between hydration reactions and hydrodynamic properties; Characterize their impact on the effective reactivity and sustainability of the system, on hydrogen production and carbon budget.

Requirements: Candidates must hold an MSc in Earth Sciences or a closely related discipline. (S)he must have experience in petrology/mineralogy or in micro-analytical techniques or hydrodynamic in porous media. A strong interest for lab work is required. Solid grounds in physical sciences and/or fluid chemistry are welcome.

This fellowship is for a period of 36 months starting no later than November 1, 2014. It is funded by ABYSS, an EU Framework 7 Marie Curie Integrated Training Network starting on March 1, 2014. ABYSS brings together 10 European research groups and 4 partners from the private sector; it proposes 12 PhDs (ESR) positions and 3 postdoctoral fellowships (ER). Recruitment will be an international process based on the principles of the European Charter and Code for Researchers and the eligibility criteria for ITN projects.

Salary and monthly mobility allowances follow attractive/competitive E.U. standard
Candidates are required to apply online through website: http://abyss-itn.eu/
Candidates must provide a CV, a motivation letter, two recommendation letters and academic credentials. At this stage of the recruitment process, preliminary mark sheets will be accepted.

For further information, contact: Marguerite Godard (Marguerite.Godard@um2.fr).

The ABYSS ITN has received funding from the People programme (Marie Curie Actions) of the European Union’s Seventh Framework Programme FP7/2007-2013/ under REA - Grant Agreement n°608001
PhD position in Petrology and Geochemistry
Marie-Curie Initial Training Network ABYSS (ESR9)

Training network on reactive geological systems from the mantle to the abyssal sub-seafloor

Host institution: Instituto Andaluz de Ciencias de la Tierra, CSIC-University of Granada (Spain).
Secondment institutions: University of Bremen (Germany), CNRS-Géosciences Montpellier (France), University of Oslo (Norway), University of Southampton (UK).

The Instituto Andaluz de Ciencias de la Tierra (Granada, Spain) seeks to appoint a PhD student for a research project in petrology, geochemistry and reaction path modelling. The successful applicant will work on natural constraints on CO₂ sequestration in ultramafic rocks with C J. Garrido (CSIC, IACT) and Claudio Marchesi (University of Granada) in collaboration with W. Bach (Bremen), B. Ildefonse, M. Godard (Montpellier), B. Jamtveit (Oslo) and D. Teagle (Southampton).

Goals: To investigate natural examples of carbonated serpentinites preserving different stages of carbonation of ultramafic rocks to provide essential insight into the role of serpentinite carbonation in the global carbon cycle; and use natural constrains to develop strategies for in situ mineral carbonation of serpentinite for CO₂ sequestration.

Methods: Fieldwork including mapping and sampling of different outcrops worldwide preserving fossil environments of natural carbonation of mafic and ultramafic rocks; Mineralogical, petrological and microstructural characterization by means of different instrumental techniques; Geochemical analyses (laboratory work and instrumental analysis); Thermodynamic and numerical modelling.

Requirements: Candidates must hold an MSc in Earth Sciences. Knowledge and previous experience on metamorphic/hydrothermal/structural geology, isotope geochemistry, and aqueous/hydrothermal thermodynamic reaction path modelling will be highly appreciated. S/he should be highly motivated by working in a team on an interdisciplinary topic, have an excellent command of English, well-organized and be able to work autonomously during field work.

This fellowship is for a period of 36 months starting no later than November 1, 2014. It is funded by ABYSS, an EU Framework 7 Marie Curie Integrated Training Network starting on March 1, 2014. ABYSS brings together 10 European research groups and 4 partners from the private sector; it proposes 12 PhDs (ESR) positions and 3 postdoctoral fellowships (ER).

Recruitment will be an international process based on the principles of the European Charter and Code for Researchers and the eligibility criteria for ITN projects.

Salary and monthly mobility allowances follow attractive/competitive E.U. standard.

Candidates are required to apply online through website: http://abyss-itn.eu/

Candidates must provide a CV, a motivation letter, two recommendation letters and academic credentials. At this stage of the recruitment process, preliminary mark sheets will be accepted.

For further information, contact: Dr. Carlos J. Garrido (carlos.garrido@csic.es)

The ABYSS ITN has received funding from the People programme (Marie Curie Actions) of the European Union’s Seventh Framework Programme FP7/2007-2013/ under REA - Grant Agreement n°608001
PhD position in Experimental Geochemistry
Marie-Curie Initial Training Network ABYSS (ESR10)
Training network on reactive geological systems from the mantle to the abyssal sub-seafloor

Host institution: Instituto Andaluz de Ciencias de la Tierra, CSIC-University of Granada (ES) / Secondment institutions: Institut de Physique du Globe de Paris (FR), University of Bremen (DE)

The Instituto Andaluz de Ciencias de la Tierra—a joint research institute between the CSIC and the University of Granada—seeks to appoint a PhD student for a research project in experimental geochemistry, petrology and mineralogy. The successful applicant will work on mineral pattern formation in alkaline hydrothermal environments with J.M. García-Ruiz and C.J. Garrido (IACT) in close collaboration with M.A. van Zuilen and B. Menez (IPGP) and W. Bach (University of Bremen).

Methods: Hydrothermal experiments; X-rays, electron diffraction, spectroscopic techniques (µFTIR; µRaman); microscopic imaging (TEM, FESEM, synchrotron based imaging).

Goals: To investigate self-assembled mineral shapes and textures in natural alkaline environments. To investigate experimentally the effect of pH level, silica content, presence of organic molecules, and microbial life on the precipitation of magnesium carbonate in submarine hydrothermal systems. This combined approach aims at identifying morphological and textural differences between abiotic versus biotic crystallization in natural alkaline environments.

Requirements: Candidates must hold an MSc in Earth Sciences, Chemistry or Materials Science. Knowledge on organic chemistry will be appreciated. S/he should be motivated by working in a team on an interdisciplinary topic.

This fellowship is for a period of 36 months starting no later than November 1, 2014. It is funded by ABYSS, an EU Framework 7 Marie Curie Integrated Training Network starting on March 1, 2014. ABYSS brings together 10 European research groups and 4 partners from the private sector; it proposes 12 PhDs (ESR) positions and 3 postdoctoral fellowships (ER). Recruitment will be an international process based on the principles of the European Charter and Code for Researchers and the eligibility criteria for ITN projects. A PhD candidate (ESR) is a researcher who, at the time of recruitment, has not yet been awarded the doctorate degree and is in the first 4 years (full-time equivalent) of his/her research career. At the time of recruitment, researchers have not resided or carried out their main activity in the country of their future host organization for > 12 months in the 3 years prior to that date.

Salary and monthly mobility allowances follow attractive/competitive E.U. standard

Candidates are required to apply online through website: http://abyss-itn.eu/

Candidates must provide a CV, a motivation letter, two recommendation letters and academic credentials. At this stage of the recruitment process, preliminary mark sheets will be accepted.

For further information, contact: Carlos J. Garrido (carlos.garrido@csic.es)

The ABYSS ITN has received funding from the People programme (Marie Curie Actions) of the European Union’s Seventh Framework Programme FP7/2007-2013/ under REA - Grant Agreement n°608001
PhD position in Geobiology/Biopetrology
Marie-Curie Initial Training Network ABYSS (ESR11)
Training network on reactive geological systems from the mantle to the abyssal sub-seafloor

Host institution: Institut de Physique du Globe de Paris (France) / Secondment institutions: University of Bremen (Germany) & Universita degli Studi di Genova (Italy)

The Institut de Physique du Globe de Paris seeks to appoint a PhD student for a geobiology research project, the aim of which is assessing how hydration of the ocean crust supports microbial life by providing chemical energy and organic compounds. The successful applicant will work on the characterization of oceanic rocks from a microbiological, petrological and mineralogical point of view in close collaboration with B. Ménez (IPGP), W. Bach (University of Bremen) and D. Brunelli (University of Genova & Modena and Reggio Emilia).

Methods: Microimaging techniques to characterize organic contents in geological material (SEM, TEM, μFTIR, μRaman, CLSM, Synchrotron Deep UV, ToF-SIMS imaging & FISH). Petrography and in situ geochemistry (EPMA and LA-(MC)-ICP-MS).

Goals: Acquire/develop expertise in high resolution techniques for in situ detection of biosignatures in oceanic crust samples; explore the metabolic diversity, energy sources, and biogeochemical transformations of deep ecosystems in the oceanic lithosphere; develop upscaling models constrained by bioenergetic considerations that aim at predicting biomass production at depth along with its impact on fluid circulations and elemental budgets.

Requirements: Candidates must hold an MSc in Biological or Earth Sciences. Knowledge in organic chemistry and petrology will be appreciated. Most importantly, she/he should be motivated by working in a team on an interdisciplinary topic.

This fellowship is for a period of 36 months starting no later than November 1, 2014. It is funded by ABYSS, an EU Framework 7 Marie Curie Integrated Training Network starting on March 1, 2014. ABYSS brings together 10 European research groups and 4 partners from the private sector; it proposes 12 PhDs (ESR) positions and 3 postdoctoral fellowships (ER).

Recruitment will be an international process based on the principles of the European Charter and Code for Researchers and the eligibility criteria for ITN projects. A PhD candidate (ESR) is a researcher who, at the time of recruitment, has not yet been awarded the doctorate degree and is in the first 4 years (full-time equivalent) of his/her research career. At the time of recruitment, researchers have not resided or carried out their main activity in the country of their future host organization for > 12 months in the 3 years prior to that date.

Salary and monthly mobility allowances follow attractive/competitive E.U. standard.

Candidates are required to apply online through website: http://abyss-itn.eu/

Candidates must provide a CV, a motivation letter, two recommendation letters and academic credentials. At this stage of the recruitment process, preliminary mark sheets will be accepted.

For further information, contact: B. Ménez (menez@ipgp.fr)

The ABYSS ITN has received funding from the People programme (Marie Curie Actions) of the European Union’s Seventh Framework Programme FP7/2007-2013/ under REA - Grant Agreement n°608001