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**Faculty of Science**

**Department of School of Earth & Environmental Sciences**

**Senior Research Associate**

**ZZ005065**

**Information for Candidates**

**THE POST**

Please see the attached job description and person specification.

**TERMS OF APPOINTMENT**

Full-time

Fixed term

Salary is in the range from £30,395 to £34,189 and progress to the top of the scale is by annual increments payable on 1 September each year. Salary is paid into a bank or building society monthly in arrears.

Working hours are normally from 8.30 a.m. to 5.15 p.m. Monday to Thursday and 8.30 a.m. to 4.15 p.m. Friday with one hour and ten minutes for lunch. As this post is research based, working hours will vary depending on the needs of the project so a flexible approach is required. Specific working hours will be agreed once an appointment has been made. Overtime is not normally payable but time off in lieu may be given.

Annual leave entitlement is 35 working days in a full leave year. The leave year commences on 1 October and staff starting and leaving during that period accrue leave on a pro-rata basis. In addition, the University is normally closed from Christmas Eve until New Year’s Day inclusive and on bank holidays.

The Appointee will be entitled to join the Local Government Pension Scheme. The scheme's provisions include a final salary based, index-linked pension with an option to exchange some pension for a lump sum on retirement together with dependants’ benefits. Contributions by the employee are subject to tax relief.

There is a probationary period of six months during which new staff are expected to demonstrate their suitability for the post.

There is a comprehensive sickness and maternity benefits scheme.

**All interview applicants will be required to bring their passport or full birth certificate and any other 'Right to Work' information to interview where it will be copied and verified.** The successful applicant will not be able to start work until their right to work documentation has been verified.

Please note if you are the successful candidate once the verbal offer of employment has been made and accepted, references will be immediately requested. It is the University’s policy that all employment covering the past three years is referenced. A minimum of two references is required to cover this three-year period of employment or study (where there has been no employment). One of your referees must be your current or most recent employer.

The successful candidate will need to bring documentary evidence of their qualifications to Human Resources on taking up their appointment.

To comply with UKVI legislation, non-EEA candidates are only eligible to apply for this post if it has been advertised for a total of 28 days.

If the position has a requirement for Disclosure and Barring Service check (DBS), this will be stated in the advert. The DBS Application Form will be provided once the selection process has been completed.

All applications must be submitted by Midnight (GMT) on the closing date published.



**UNIVERSITY OF PORTSMOUTH – RECRUITMENT PAPERWORK**

1. **JOB DESCRIPTION**

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| **Job Title:** | Senior Research Associate |
| **Grade:** | 6 |
| **Faculty/Centre:** | Science |
| **Department/Service:****Location:** | School of Earth & Environmental Sciences (SEES) Burnaby Building |
| **Position Reference No:** | ZZ005065 |
| **Responsible to:** | *Dr. James Darling (Principal Investigator) and Dr Michelle Hale (Head of School)* |
| **Responsible for:** | *N/A* |
| **Effective date of job description:** | Dec 2018 |

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| **Purpose of Job**: |
| Working autonomously with instruction from the research leader ultimately responsible for the project, (or group of studies), to carry out research analysing data, developing new evaluation methods and determining how best to apply them. Responsible for regularly managing elements of the project in line with the project terms of reference.The research project involves: This post will support a three-year STFC funded project entitled ‘The secular evolution of martian magmatism’. Based in the School of Earth and Environmental Sciences (SEES), this will involve the collection, interpretation and dissemination of new petrological, mineralogical and geochemical data from martian meteorites. Detailed characterisation of shock metamorphic effects from the macro to nanoscale will be undertaken, focusing on electron nanobeam location and analysis (EBSD, CL, BSE, EDS) of baddeleyite using the Zeiss EVO MA10 LaB6 SEM in SEES equipped with Oxford Instruments Nordlys-nano EBSD detector, X-max 80 EDS detector and Aztec software. U-Th-Pb isotope analysis of the characterised accessory mineral targets will then be undertaken by SIMS using the Heidelberg Cameca IMS 1280 or new in-situ ID-TIMS approaches in collaboration with the University of Surrey and NERC Isotope Geosciences Laboratory (NIGL). The project will develop an in-situ ID-TIMS approach, including micro-grain extraction by Xe-plasma-FIB, micro-grain handling and chemical procedures for low-blank analysis of small quantities of baddeleyite. Travel to all of these collaborating laboratories is required in order to support sample preparation, chemical preparation for ID-TIMS and data collection by SIMS and TIMS. The new geochronology results will be compared to a wide-range of published data, including shock-histories, ejection ages, geochemical and isotopic data and spectroscopic data, in order to interpret the implications for martian evolution. Results will be published in internationally leading journals, and also disseminated via a public engagement plan.This project involves collaborators in Canada, Germany and across the UK, and as such will involve online meetings that may be held in the evening. |

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| **Key Responsibilities:**  |
| 1. Petrological, mineralogical and geochemical analysis of martian meteorites
2. Collection, processing and interpretation of nanostructural data by EBSD and Raman spectroscopy, and U-Th-Pb isotopic data using SIMS and TIMS
3. Development of new techniques for Xe-FIB-SEM preparation of micrograins for chemical analysis
4. Contributing to a systematic review of martian chronology
5. Data management and reporting in line with the project data management plan
6. Preparing research papers for publication in internationally leading journals and disseminating outcomes more widely
7. Contributing to delivery of the academic impact and public engagement activities of the project
8. Contributing to the training and mentorship of postgraduate research students in areas relevant to the project.
9. To present research project findings to a variety of stakeholders and to write reports for research papers submitted for publication.

**Additional expectations of the role holder**1. In line with the research project aims and objectives, the role holder is required to plan, prioritise and organise their own workload, regularly managing the progress of elements of the research project
2. To communicate with team members and liaise and network with relevant others, ensuring effective working relations
3. To attend team meetings when required providing relevant and timely information, in order to aid decision making
4. To solve problems that may occur during the length of the research project using guidelines or a set of procedures
5. To analyse research data and develop new evaluation methods. On occasions may select existing methodologies determining when they should be applied
6. Can assist with supervising a research student/assistant/associate
7. Can deliver introductory workshops to students on topics such as research methods
8. To participate in and contribute to a performance & development review (PDR), ensuring that work produced is in line with the Department/Faculty/University aims
9. To comply with the University's Health and Safety Policy and pay due care to own safety and the safety of others. Report all accidents, near misses and unsafe circumstances to line management
10. To support the University's commitment to equality, diversity, respect and dignity, creating an environment in which individuals will be treated on the basis of their merits, abilities and potential, regardless of gender, racial or national origin, disability, religion or belief, sexual orientation, age or family circumstances.
11. Any other duties as required by the Principal Investigator/Head of Department
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| **Working Relationships:** 1. Managed by Principal Investigator (James Darling)
2. Networking with other researchers in the team and with research collaborators (Natasha Stephen, Plymouth; Kim Tait, Royal Ontario Museum; Desmond Moser, UWO; Dan Condon, NIGLl Axel Schmitt, Heidelberg), the Crustal Evolution Research Group, and other stakeholders, possibly external to the university.
3. Liaising with research colleagues and support/technical staff on day-to-day issues
4. Working with and sometime supervising research students/assistants/associates operating in the same laboratory/department.
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1. **PERSON SPECIFICATION**

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| **No** | **Attributes -**  | **Rating** | **Source** |
| **1.** | **Specific Knowledge & Experience** |  |  |
|  | Ongoing research experience in geology, geochemistry, planetary science or related field | E | AF,S |
|  | Research experience of collecting geochemical data using in-situ techniques | E | AF,S |
|  | Research experience with scanning electron microscopy of geological materials | E | AF,S |
|  | Knowledge of igneous and metamorphic petrology | E | AF,S |
|  | Knowledge and experience with U-(Th)-Pb geochronology and/or other radiometric dating techniques | D | AF,S |
|  | Knowledge of the field of meteoritics/martian geology | D | AF,S |
|  | Knowledge and experience with microstructural analysis by EBSD/Raman/TEM or related techniques | D | AF,S |
| **2.** | **Skills & Abilities** |  |  |
|  | Ability to predict and solve problems when they occur | E | AF,S |
|  | Ability to plan, organise and prioritise workloads | E | AF,S |
|  | Good Communication and Interpersonal skills | E | AF,S |
|  | Good report writing skills | E | AF,S |
|  | Statistical data analysis skills | E | AF,S |
|  | Presentation skills | E | AF,S |
|  | Project Management skills | D | AF,S |
| **3.**  | **Qualifications, Education & Training** |  |  |
|  | Postgraduate qualification in geology/geochemistry/planetary science or relevant experience | E | AF |
|  | Completed PhD in relevant subject or relevant professional experience | D | AF |
| **4.** | **Other Requirements** |  |  |
|  | Ability to work with minimum supervision | E | AF,S |
|  | Ability to work on own initiative and as part of a team | E | AF,S |
|  | Creative, highly motivated and committed to undertaking research | E | AF,S |
|  | Ability to work to tight deadlines | E | AF,S |

**Legend**

Rating of attribute: E = essential; D = desirable

Source of evidence: AF = Application Form; S = Selection Programme (including Test, Presentation)

**JOB HAZARD IDENTIFICATION FORM**

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| **Please tick box(s) if any of the below are likely to be encountered in this role. This is in order to identify potential job related hazards and minimise associated health effects as far as possible. Please use the** [**Job Hazard Information**](http://www.port.ac.uk/departments/services/humanresources/recruitmentandselection/informationforrecruiters/essentialinformationandformsforrecruiters/) **document in order to do this.**  |
| 1. International travel/Fieldwork
 | X | 13. Substances to which COSHH regulations apply (including microorganisms, animal allergens, wood dust, chemicals, skin sensitizers and irritants)  | X |
| 1. Manual Handling (of loads/people)
 |  | 14. Working at height |  |
| 1. Human tissue/body fluids (e.g. Healthcare workers, First Aiders, Nursery workers, Laboratory workers)
 |  | 15. Working with sewage, drains, river or canal water  |  |
| 1. Genetically Modified Organisms
 |  | 16. Confined spaces |  |
| 1. Noise > 80 DbA
 |  | 17. Vibrating tools  |  |
| 1. Night Working

 (between 2200 hrs and 0600 hrs) |  | 18. Diving |  |
| 1. Display screen equipment
 | X | 19. Compressed gases | X |
| 1. Repetitive tasks (e.g. pipette use, book sensitization etc)
 | X | 20. Small print/colour coding |  |
| 1. Ionising radiation/ non-ionising radiation/lasers/UV radiation

X | 21. Contaminated soil/bioaerosols |  |
| 10. Asbestos and lead  | 22. Nanomaterials  |
| 11. Driving on University business (mini-bus, van, bus, forklift truck etc)  | 23. Workplace Stressors  (e.g. workplace demands, role clarification, relationships etc)  |
| 12. Food handling  | 24. Other (please specify)  |

**Completed by Line Manager/Supervisor:**

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| **Name (block capitals)** | James Darling |
| **Date** | Dec 2018 |
| **Extension number** | Ext 2237 |

Managers should use this form and the information contained in it during induction of new staff to identify any training needs or requirement for referral to Occupational Health (OH).

Should any of this associated information be unavailable please contact OH (Tel: 023 9284 3187) so that appropriate advice can be given.