THE UNIVERSITY OF MANCHESTER

PARTICULARS OF APPOINTMENT

FACULTY OF SCIENCE & ENGINEERING

SCHOOL OF NATURAL SCIENCES

DEPARTMENT OF EARTH & ENVIRONMENTAL SCIENCES

RESEARCH ASSOCIATE IN PLANETARY SCIENCE

VACANCY REF: SAE-027007

Salary:	Grade 6 £36,924 to £45,163 per annum, depending on relevant experience
Hours:	Full Time
Duration:	Fixed term for 17 months
Location:	Oxford Road, Manchester

Enquiries about the vacancy, shortlisting and interviews:
Name: Prof. Katherine Joy
Email: Katherine.Joy@manchester.ac.uk

Background

This is a Research Associate position for the STFC consolidated grant, “Planetary Science at The University of Manchester”. The Research Associate will join a leading group of planetary scientists, isotope geochemists and technical specialists within the Department of Earth and Environmental Sciences. The project will be carried out under the direction of Prof Katherine Joy.

Overall Purpose of the Job

The aim of the role is to conduct research to meet the objectives of the project titled “Investigating the temporal and chemical evolution of evolved lunar magmatism”. The overall goal of the project is to use novel chemical and chronology analytical techniques to investigate the petrological and chronological relationships between different types of evolved rocks from the Moon to better understand comparative planetary magmatic processes. The project will be based on analysing the petrology and chronology of lunar samples, and using petrological modelling codes to investigate their crystallisation histories.

Key Responsibilities, Accountabilities or Duties

The range of duties will include:

- Select, characterize and prepare aliquots of samples for analysis.
- Analyse lunar samples using electron beam (SEM, EPMA) and LA-ICP-MS lab techniques.
- Use petrological modelling codes.
- Assist with the maintenance, operation and development of our LA-ICP-MS lab.
- Interpret analytical data and write up results for publication.
- Continually update knowledge and understanding in field or specialism.
- Translate knowledge of advances in the subject area into research activity.
- Deal with routine communication using a range of media.
- Communicate complex information, orally, in writing and electronically.
- Communicate material of a specialist or highly technical nature.
- Liaise with colleagues and students.
- Manage own research and administrative activities, with guidance.
- Work with colleagues on joint projects, as required
- Collaborate with academic colleagues on areas of shared research interest.
- Attend and contribute to relevant meetings.
- Use new research techniques and methods.
- Use creativity to analyse and interpret research data and draw conclusions on the outcomes.
- Contribute to collaborative decision making with colleagues in areas of research.

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- Use research resources, laboratories and workshops as appropriate.
- Plan and manage own research activity in collaboration with others.
- Balance with help the competing pressures of research and administrative demands and deadlines.
- Be aware of the risks in the work environment and their potential impact on their own work and that of others, and contribute to the development of risk assessments and safe procedures.

Person Specification

Essential:

- Have, or be about to obtain, a PhD in a relevant subject (geology, planetary science or a related discipline) or equivalent.
- Willingness to work onsite at the University of Manchester.
- Experience of working with complex laboratory instrumentation, notably LA-ICP-MS or SIMS.

- Experience using petrological modelling codes.
- Experience in producing and interpreting data from geological or extra-terrestrial samples.
- A journal and/or research conference publication record commensurate with academic career experience.
- Excellent written and oral communication and interpersonal skills.
- Excellent time management and organisational skills.
- Willingness to learn and develop through training opportunities.
- Ability to conform to health and safety requirements of working in a laboratory and willingness to contribute to the development of risk assessments and safe procedures.
- Ability to work independently and as part of a team.

Desirable:

- Experience of working with terrestrial granites or other evolved rocks
- Experience working with lunar and/or extra-terrestrial samples
- Experience of working with in situ dating techniques using LA-ICP-MS, SIMS etc.
- Experience of quantitative analysis of isotope ratios