

**JOB DESCRIPTION**

Vacancy Ref: 0427-24

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| **Job Title:** Post-Doctoral Research Associate in Experimental fluid dynamics & rheology | **Present Grade:** 6 or 7 |
| **Department/College:** Lancaster Environment Centre (LEC) |
| **Directly responsible to:** Dr Thomas Jones (LEC)  |
| **Supervisory responsibility for:** n/a |
| **Other contacts**  |
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| **Major Duties:**The post-doctoral role will directly contribute to the UKRI funded project entitled “Flow and fragmentation of melts and magmas: developing a unified view through experimental, numerical and field investigations”. You will be working and based within Dr Jones’ research group at Lancaster University and will contribute to the experimental objectives of the UKRI Future Leaders Fellowship awarded to Dr Jones.For appointment at Grade 6 Post-Doctoral Researcher you will:* Contribute to the project by performing analogue experiments to determine ductile/inertial fragmentation criteria for melts and multiphase magmas.
* Perform rheological experiments (e.g., rotational, extensional, and oscillatory rheometry).
* Perform experiments to characterize fluid properties (e.g., surface tension, density).
* Lead the analysis, interpretation, and integration of these new experimental datasets. Ideally this will include sophisticated rheological modelling of the data.
* Support the development and adaptation of new laboratory experiments/equipment (potentials include spray/droplet formation and high-temperature extensional experiments on basaltic melts).
* Engage with all project partners and the wider research team.
* Make model results accessible and ultimately targeted to the needs of end users.
* Lead the preparation and submission of journal papers for publication of project findings.
* Participate in writing new research proposals that build on the expertise developed in this project.
* Be an active and enthusiastic member of the (GFD) research group and contribute regularly to relevant research seminars, lab management, and collaborative research activities.
* Attend and present research and represent the interests of the research group and Lancaster University at major national and international conferences.

For appointment at Grade 7 Senior Post-Doctoral Researcher in addition to the Grade 6 list you will:* Take a leading role in identifying funding opportunities and developing project proposals for future funding based on the research area and results of this project.
* Any other duties appropriate to the grade, as directed by the Principal Investigator.
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