



JOB DESCRIPTION

Materials Research Leader

1414 Degrees is scaling up its molten-silicon based thermal energy storage technology (TESS). The aim is to harness the very high energy density and latent heat capacity of silicon to build and operate very large scale (GWhr) energy storage units. The Material Research Leader will provide specialist insight, analytical techniques and understanding to lead the development and optimisation of materials used in the technology. The role requires technical experience with high temperature materials applications over 1000C, phase change material interactions with ceramics, refractories or other materials used in similar applications and leadership experience directing a research team and overseeing research projects.

Key Responsibilities:

- Leading 1414 Degrees research and development efforts to improve and optimise materials used in its energy storage technology;
- Overseeing physical experiments and numerical modelling of silicon containment in ceramics or refractory materials;
- Managing research engineers in order to deliver successful project and research outcomes;
- Develop research plans and test for all works required;
- Prepare and submit reports to key stakeholders on the progress and status of projects and research;
- Maintain accurate records and files; and
- Collaborating with local and international University partners.

Qualifications, Skills & Experience

Required:

- PhD qualification in Materials, Chemistry or Chemical Engineering from a recognised university;
- Experience in research and development of materials, including analysis techniques;
- In-depth knowledge of high temperature ceramics and refractories;
- Management or research teams and projects;
- Excellent (verbal and written) communication skills in English;
- Driven individual with a can-do attitude able to meet tight deadlines;
- Able to undertake multiple tasks and projects simultaneously and manage competing priorities efficiently and effectively; and
- Proven team player, with ability to build and maintain effective internal and external relationships as a member of multi-disciplined team.

Desirable:

- Knowledge of silicon processing and handling
- Knowledge of materials and chemistry modelling packages.

Employment Conditions:

Appointment to this role may be subject to pre-employment checks including:

- Right to work in Australia
- Criminal history
- Drug & Alcohol testing

For more information contact Jordan Parham: jparham@1414degrees.com.au or +61 406 384 238.