

## Post-doctoral Researcher in Thermal Separations Technology

### Job Description

An opportunity for a post-doctoral researcher in the field of thermal separations technology at the Department of Process Engineering at Stellenbosch University is currently available. **The focus of the position would be on thermodynamics, phase behaviour, distillation and/or extraction principles with particular focus on either high pressure/supercritical applications or low pressure thermodynamics and modelling thereof.** The position will be awarded initially for a period of one year but may be extended based on performance and availability of funds.

The postdoctoral researcher would be required to conduct research and provide significant assistance with the following:

- Supervision of postgraduate student projects;
- Assist with the management of the research group;
- Performing experimental work when necessary;
- Publication of research outputs from research generated;
- Developing new areas of research within the research group;
- Improving experimental facilities;
- Writing new funding proposals to sustain research activities.

### Desired Skills and Experience

Essential: A PhD in Chemical Engineering, Chemical Technology or similar discipline with proven research record in at least one of the aspects described above, as related to thermal separations technology, is a requirement. As the position requires significant communication tasks, good command of the English language, especially written English, is essential.

Desirable: A first degree in Chemical Engineering, allowing registration as a professional engineer will be considered a significant benefit. Preference will be given to applicants with notable experience and skills and a good publication record in one or more of the following areas:

- Thermodynamic measurements and modelling of phase behaviour;
- Understanding of and familiarity with analytical techniques applicable to such measurements (GC, FTIR, etc.);
- Fundamental understanding of phase behaviour and the impact of phase behaviour on separation processes;
- Command of Aspen Plus® or similar for process modelling of thermal separation processes;
- Experience in thermodynamic modelling; and/or
- High pressure/supercritical processing.

Strong leadership qualities, the ability to co-manage a group of students and experience in co-supervision of students will be an advantage.

### Application

A covering letter and curriculum vitae, including all research outputs and names and contact details of at least three references, should be sent to Prof. C.E. Schwarz, Department of Process Engineering, Faculty of Engineering, University of Stellenbosch, Private Bag X1, Matieland, 7602, South Africa. Fax: +27 (0)21-808-2059 or, preferably, via e-mail: [cschwarz@sun.ac.za](mailto:cschwarz@sun.ac.za).

Review of application will commence on the 15<sup>th</sup> of March 2019 but late applications may be considered.