

## Extractive Metallurgy - Tailings Remediation

### *Postdoctoral Research Fellowship*

**Scope of Research:** In the Extractive Metallurgy research group one of the key focuses is on evaluation of the impacts of mine tailings and remediation. This includes development of technologies and the use of various modeling tools to evaluate the impacts of such technologies and support their development.

The postdoctoral fellow will conduct research to model and evaluate the short and long-term environmental impacts of material on historic tailings storage facilities typical to South Africa. The research will also involve investigation of mitigation strategies.

Specific duties for the position include:

- Delivery of a literature survey on recent advances in the field
- Construction of equipment and execution of an experimental study to generate data to understand chemical mechanisms occurring in a tailings storage facility
- Build mathematical models to predict chemical and geochemical processes occurring in TSF's
- Publication and presentation of research
- Assistance with supervision of undergraduate and postgraduate students
- Contribution to the general activities of the research group, funding applications, laboratory management etc.

The duration of the research position is 12 months, subject to performance reviews.

**Host:** The successful applicant will work under supervision of Dr Margreth Tadie.

**Requirements:** The post-doctoral fellow must have a keen interest and proven track record in the chemical or minerals processing industry.

- A PhD obtained within the last five years in the field of mineral processing, extractive metallurgy, chemical engineering, or closely related field with a publication track record in international scientific journals.
- Strong technical and analytical skills.
- Working knowledge of process simulation
- Strong technical writing skills.
- Ability to take initiative and develop new research opportunities.

**Conditions of employment:** Please note that postdoctoral fellows are not appointed as employees and their fellowships are awarded tax free. They are therefore not eligible for employee benefits.

**Commencement of duties:** As soon as possible

**Application closing date:** -

**Enquiries:** Please submit your complete application (including cover letter, CV with details of at least 2 referees who may be contacted, relevant degree and other certificates) to Dr M Tadie ([mtadie@sun.ac.za](mailto:mtadie@sun.ac.za)). Applicants should request their referees to forward confidential reports to the same address.