

Postdoctoral Research Fellow Opportunity: Extractive metallurgical process development and modelling

Host: Prof Christie Dorfling

There is currently an opportunity for a postdoctoral researcher focussing on the techno-economic assessment of metal production from primary and secondary resources available in the Department of Chemical Engineering at Stellenbosch University. The position will focus on development and modelling of various types of extractive metallurgical processes for the recovery of metals from feed materials such as mine tailings, industrial waste, and end-of-life electronic consumer goods. The research outputs will be used to identify preferred technology options as well as the required improvements in processes for industrial implementation.

Commencement: 1 April 2026 or as soon as possible thereafter

The postdoctoral research will be expected to contribute significantly to:

- independently work on process simulations and techno-economic assessments (and related process efficiency indicators) for a range of extractive metallurgical processes for waste valorisation and metal recycling;
- provide technical support to other researchers in the group working on similar process simulations as well as experimental projects in the field of hydrometallurgy;
- critically evaluate existing technologies, and prepare proposals for technical development to improve these;
- prepare and publish research outputs from current and previous research projects; and
- identify new research opportunities, and prepare new funding proposals to sustain research activities.

Requirements to apply:

Applicants must have a PhD in Chemical Engineering or Extractive Metallurgy, obtained within the past five years, with a strong background in process simulations, techno-economics and experimental work in extractive metallurgy, as described above. Candidates with a strong academic record and a proven track record in extractive metallurgical process design, process simulations using software such as HSC Chemistry® and FactSage, and techno-economic assessments of process technologies are particularly encouraged to apply.

Application

Enquiries about the position can be directed to Prof Christie Dorfling at dorfling@sun.ac.za. Applications (CV, academic transcript and cover letter) should be emailed to dorfling@sun.ac.za; the closing date for applications is **4 March 2026**.

Stellenbosch University reserves the right not to fill the position.