



Stellenbosch

UNIVERSITY
IYUNIVESITHI
UNIVERSITEIT

SCIENCE
EYENZULULWAZI NGEZENDALO
NATUURWETENSKAPPE

CHEMISTRY AND POLYMER SCIENCE
ISEBE LEKHEMISTRI NENZULULWAZI YEPHOLIMA
CHEMIE EN POLIMEERWETENSKAP

Postdoctoral Research Fellowship

A postdoctoral research fellowship valued at R250k per annum is available in the department of Chemistry and Polymer Science, Stellenbosch University

<http://academic.sun.ac.za/arnott/index.html>

Prof Arnott's research area is in the development of new methods to functionalise calix[4]arenes and resorcinarenes, and further developing these frameworks for catalytic applications.

Calix[4]arenes: Our work is focused on developing new methods for the synthesis of inherently chiral calix[4]arenes, which have potential use as asymmetric ligands in organic transformations. Our results in this area have shed light on unusual asymmetric induction controlled by choice of an achiral ligand.

Resorcinarenes: Our interest is in developing the resorcinarene skeleton for use in organic catalytic transformations by developing new bidentate ligands that have a defined shape. The key interest is in developing methodology to synthesize and derivatise these compounds, eventually moving into the area of asymmetric catalysis by tailoring an inherently chiral resorcinarene.

Scope of Research: This project will involve several projects within the Arnott group that have needed the attention of an experienced synthetic chemist. The projects all involve various aspects of inherent chirality on calix[4]arenes.

Requirements: The applicant must have a PhD and graduated within the last five years. The applicant must also have performed PhD work in the field of organic chemistry with a strong emphasis on synthetic chemistry. Knowledge of standard analytical techniques, such as NMR spectroscopy, is expected, as well as being comfortable working under strict anhydrous conditions. Strong ability in writing and communication is also preferable.

Commencement of duties: as soon as possible in 2024

Duration: Up to December 2025

Closing date: 29 Jan 2024

Enquiries: Please contact Prof. Gareth Arnott (arnott@sun.ac.za) for more information. Send a letter of application, accompanied by a comprehensive curriculum vitae, including list of publications and the names and contact details of at least two referees. Applicants should request their referees to forward confidential reports by the closing date direct to the same address.