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Communication and Marketing Department  
Isebe loThungelwano neNtengiso  
Kommunikasie en Bemakingsdepartement

Private Bag X3, Rondebosch 7701, South Africa  
La Grotto House, Glendarrach Rd, Rondebosch, Cape Town  
Tel: +27 (0) 21 650-3733/2, Fax: +27 (0) 21 650-5682  
Internet: [www.uct.ac.za](http://www.uct.ac.za)

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**9 July 2010**

## **UCT/Sasol partnership yields groundbreaking invention**

A partnership between Sasol and the University of Cape Town's Centre for Catalysis Research has yielded the invention of a device that will add great value to research in a variety of fields including nano-technology.

The device, called a *Magnetometer*, is fully computer controlled and is the first of its kind in the world. The research team of Michael Claeys and Eric van Steen of UCT and Jan van de Loosdrecht and Kobus Visagie of Sasol Technology, has filed a joint international application to patent this product of the longstanding collaboration between Sasol and UCT in the field of catalysis research.

The Magnetometer enables scientists to examine ferro-metallic catalysts "in-situ". Catalysts such as Cobalt are used in the production of a variety of fuels and play a key role in terms of product performance. The device uses a large electromagnet to magnetize the catalyst which is placed in a small reactor in which industrial conditions with high pressure and temperature can be realized. The purpose of this

area of research is to examine the physical changes that catalysts undergo during process situations which have an effect on catalyst performance. The Magnetometer exploits the magnetic properties of these catalysts to obtain the required information.

Since its commissioning, the study team has performed numerous experiments from which important conclusions have been drawn in the field of catalyst research. The development of the magnetometer by the joint study team presents a fine example of successful collaboration between Sasol and academic partners. Recently, a research collaboration between Sasol and the Department of Chemistry and Chemical Engineering at the University of Pretoria (UP) led to the commissioning of high-tech equipment to gain better insights into the properties and performance of synthetic diesel fuels.

***ENDS***

***Issued by: UCT Communication and Marketing Department***

**Patricia Lucas**

Media Liaison Officer

Tel: (021) 650 5428 Fax (021) 650 5628

Cell: 076 292 8047

E-mail: [Pat.Lucas@uct.ac.za](mailto:Pat.Lucas@uct.ac.za)

La Grotto House, Glendarrach Road

University of Cape Town

Rondebosch

Website: [www.uct.ac.za](http://www.uct.ac.za)