



Contribution ID: 445

Type: **Poster Presentation**

## **Raman spectroscopy of biological and chemical samples**

*Tuesday, 9 July 2013 17:40 (1 hour)*

### **Abstract content <br> &nbsp; (Max 300 words)**

The Laser Research Institute at Stellenbosch University has recently developed a high resolution Raman spectroscopy setup. The setup consists of an Ar-ion laser, an old, re-commissioned double monochromator and a state of the art ICCD detector. The setup was constructed with main aim in mind of being able to perform novel interdisciplinary research, mainly in collaboration with chemists and biologists. In the very short time that the system has been operational, great strides have been made in this regard. This talk will give an overview of the system as well as a background tutorial on the theory of Raman spectroscopy. Some relevant examples from our laboratory, demonstrating the sensitivity of our setup as well as the applicability to the fields of chemistry and biology, will be shown. Lastly, the main research focus of our efforts, namely Surface Enhanced Raman Spectroscopy (SERS), will be discussed, along with future plans for improvements.

### **Apply to be<br> considered for a student <br> &nbsp; award (Yes / No)?**

No

### **Would you like to <br> submit a short paper <br> for the Conference <br> Proceedings (Yes / No)?**

No

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