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Investigation and evaluation of a custom Raman spectroscopy setup

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Abstract content
   (Max 300 words)
Formatting &
Special chars

Since the advent of the laser Raman spectroscopy has become an invaluable tool for the qualitative analysis of molecular compounds. Few other techniques can match the accuracy of Raman spectroscopy with regards to identifying a compound. Raman spectroscopy has the added advantage that it can often be used in situ and in aqueous environments. This has facilitated a tremendous amount of research in the field with numerous derivatives being developed, such as Surface Enhanced Raman Spectroscopy (SERS), Tip Enhanced Raman Spectroscopy (TERS) and Spatial Offset Raman Spectroscopy (SORS) to name but a few.

In this work a custom Raman spectroscopy setup will be described. An old double monochromator has been re-commissioned and converted into a Raman spectrometer through the addition of a sensitive intensified CCD detector and an Ar-ion laser is used as an excitation source. Examples of measurements performed on the system will be shown to illustrate the resolution, accuracy and detection limit of the setup. Lastly, a brief comment will be made with regards to the future research planned with this setup and in the Raman spectroscopy laboratory.

Apply to be
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Yes

Level for award
 (Hons, MSc,
   PhD)?

MSc

Main supervisor (name and email)
and his / her institution

Pieter H. Neethling
pietern@sun.ac.za
Stellenbosch University

Would you like to <br> submit a short paper <br> for the Conference
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No

Primary author: Ms PFUKWA, Cathrine (Stellenbosch University)

Co-authors: Prof. ROHWER, Erich (Stellenbosch University);   Prof. SCHWOERER, Heinrich (Stellenbosch University); Dr NEETHLING, Pieter (Stellenbosch University)

Presenter: Ms PFUKWA, Cathrine (Stellenbosch University)

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