

**TRENT UNIVERSITY
PHYSICS & CHEMISTRY SEMINAR PROGRAM**

WEDNESDAY, JANUARY 21, 2015

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Rosetta Project to a Comet: A Quadrupole Ion Trap too far?

ABSTRACT

The question mark at the end of the title serves to denote that this presentation is by way of a review of the remarkable achievements of the Rosetta Project to about November 16th, 2014. An interview replay will set the scene for the Rosetta project and the successful landing of Philae then, as we never seem to get enough time for questions and discussion, we shall pause for some questions and discussion to sample the wide range of individual interests in the Rosetta Project. I hope that there will be time to cover the involvement of Professor John F. J. Todd of the University of Kent, Canterbury, UK, and the speaker over the past 60 years, particularly with the development of the quadrupole ion trap as a mass spectrometer, and an explanation of why a facsimile of our initial quadrupole ion trap now rests of the surface of comet 67P. A brief review will be given of the new ion-trapping instruments, involving Orbitrap and Ion Cyclotron Resonance mass spectrometers, installed in the Water Quality Centre, and available to all.

SCIENCE COMPLEX ROOM 115

11:00 AM

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***Note:** A scan through Chapter 9 (as described below) would be very informative. Chapter 9 is part (the ninth chapter!) of a 2005 publication about the Rosetta Project to a Comet.*

To get to Chapter 9 of Quadrupole Ion Trap Mass Spectrometry (by RE March & JFJ Todd), go to www.trentu.ca then click on the top entry 'Trent University'. Find 'About Trent' (near the top right hand corner), then scroll down to click on 'News and Events'. Locate 'Latest Headlines' near the centre of the screen. Scroll down to click on 'Read more news'; near the screen centre, locate 'Earlier News Reports' then enter a search for 'Rosetta'. You will be presented with two news items, the first for Tuesday, November 11, 2014 and the second for January 30, 2014. Go to the latter and click on 'Trent link to the Rosetta 'Comet Chaser' Mission. At the foot of the page you will see 'The chapter can be found here'. Click on 'here' and you will be transported to the 'Spectroscopy Now' page of John Wiley & Sons. Click on 'For access to free chapter' and the entire chapter, published in 2005, will appear on your screen.

The direct link to Chapter 9 is: <http://www.spectroscopynow.com/details/ezime/143c4d0c63a/Rosetta-Heads-to-Comet-for-Some-Serious-GCMS-Read-Free-Chapter-from-Quadrupole-.html>