

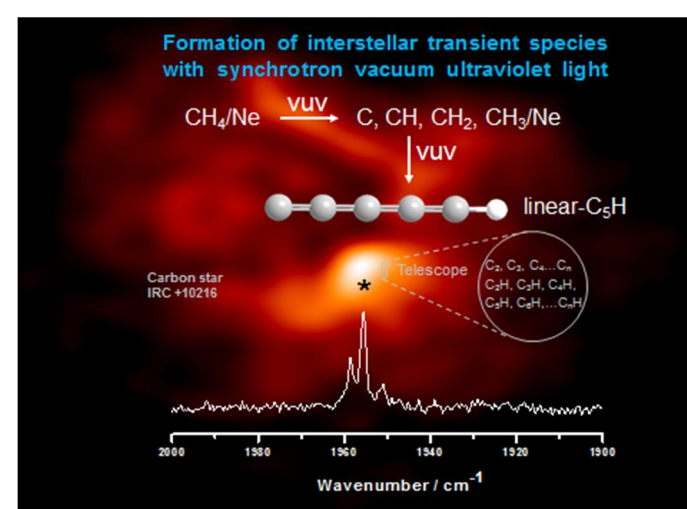
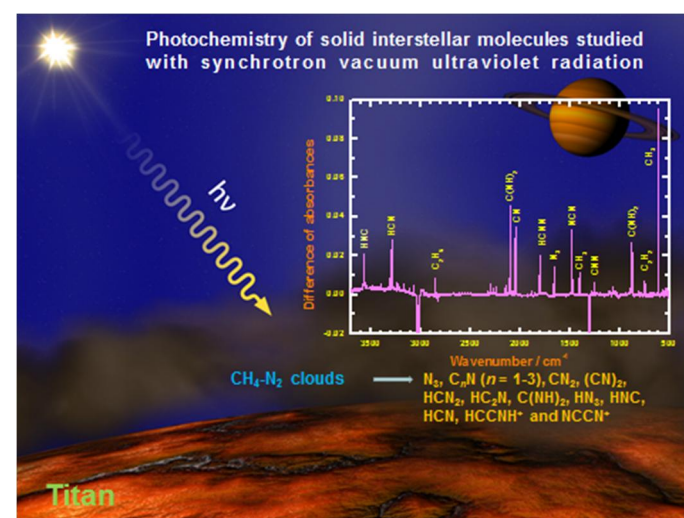
## Public Seminar

### *Look into Space with VUV Photochemistry*

- Speaker:** Dr. Bing-Ming Cheng  
National Synchrotron Radiation Research Center,  
Hsinchu Science Park, Hsinchu 30076, Taiwan
- Date and Time:** 10 December, 2013 (Tuesday) 2:00 pm – 3:30 pm
- Chair:** Prof. Yeung Yau Yuen/ Associate HoD of SES
- Venue:** Multimedia Laboratory (D4-LP-02, Tai Po Campus)

### Seminar Outline

Photochemical processes in condensed phases attract interest because the information yields detailed knowledge about chemical transformations in extraterrestrial environments. To study the photochemistry of solid interstellar molecules, we have constructed a 3 K cryostat/IR/UV-visible system coupled to a vacuum-ultraviolet beamline of a synchrotron; upon excitation of solid samples with a synchrotron vacuum-ultraviolet light, the photochemical products were deduced from their spectra. Taking the advantage of the unique property of synchrotron, we explore the spectroscopy of transient species and photochemistry of solid interstellar molecules with exciting prospects. Our results contribute important data to improve our understanding of photochemical synthesis of prebiotic molecules via abiotic compounds in the interstellar medium and on icy surfaces of planets and satellites in the solar system.



### About the Speaker

Dr. Bing-Ming Cheng joined the Scientific Research Division at National Synchrotron Radiation Research Center in Taiwan as a research scientist in 1989. With VUV light from the Taiwan Light Source, he is conducting experimental programs in molecular spectra, astro-science, phosphors and electro-optics with techniques of photoabsorption, photodissociation, photoionization, and photoluminescence.