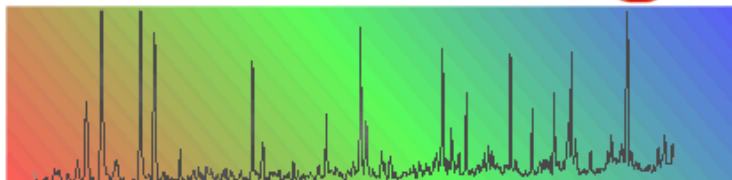




# SAS-Chicago



## November Meeting

Tuesday, November 18, 2008

The November 2008 meeting will be held at the Angelo's Restorante & Banquets, located at 247 N. York Rd., Elmhurst, IL 60126. See the map on the following page.

Social Hour: 5:30 PM

Dinner: 6:30 PM

Speaker: 7:30 PM

### Developments in Terahertz Imaging and its Applications to Industry

by

**Philip F Taday, Ph.D.**

*Teraview Limited*

The exceptional properties of terahertz radiation, such as ability to penetrate most non-polar materials that can be opaque for visible light or low contrast for x-rays and very importantly, low photon non-ionizing energies, make this radiation very attractive tool for aiding understanding of materials and products.

The coating of tablets is of great importance to both the consumer and the pharmaceutical manufacturer. By controlling the release of the active pharmaceutical ingredient (API) tablet coatings ensure bioavailability, minimize harmful effects and the waste of the drug by delivering it at the specific site and at the optimum level. These functions may be compromised if a coating is non-uniform or has defects. Until recently, the analysis of coating thickness relied on indirect techniques and it was usually determined by the weight gain of the coated tablet compared to the uncoated tablet core. Near-infrared and Raman spectroscopic and imaging techniques developed in recent years to yield information about the quality and integrity of the coatings are usually restricted to the outer surface of the tablet. In order to test the coating for uniformity or to analyze buried structures or even multiple layers within the tablet, the tablet has to be cut and spectroscopic images to be acquired for each layer. However, in contrast to the near-infrared and mid-infrared regions of the electromagnetic spectrum, many of the excipients used for coating solid dosage forms are transparent or semi-transparent to terahertz radiation. Moreover, terahertz radiation can easily penetrate commonly used coating polymers. This in turn means that, unlike aforementioned techniques, terahertz pulsed imaging non-destructively provides spatially resolved information from below the surface of the tablet. Consequently, terahertz measurements are arguably more suited to monitor key quality attributes of the pharmaceutical solid dosage forms during the manufacturing.

Please make your dinner reservations for the upcoming meeting by email at [sas.chicago@bigfoot.com](mailto:sas.chicago@bigfoot.com), using our online form < <http://www.sas-chicago.org/Online%20Registration%20at%20Angelo.htm> > or by calling Slav Stepanovich at 847-421-2056. Leave your name, company affiliation, a telephone number and the number of reservations. Please call by noon Friday, November 14th, so that proper arrangements can be made with the restaurant. If you can't attend, cancel by Friday.

**Family Style Dinner Choices: Rigatoni with Marinara Sauce, Chicken Vesuvio and Pork Tenderloin Piccatas.**

Dinner Cost Members: \$30

Students and Unemployed Members: \$10


Non-members: \$35

## Biography of Philip F Taday

Dr. Philip F. Taday earned his Bachelor of Science degree in physics (1986), and his Ph.D. in chemistry (1991) from the University of Reading in England. When working at the Central Laser Facility at the CLRC Rutherford Appleton Laboratory he developed a femtosecond tabletop laser system as well as worked on novel tunable sources. In August 2000 Dr. Taday began working at Toshiba Research Europe Limited, of Cambridge, England, on terahertz spectroscopy. In April of 2001 this terahertz program was spun-out of Toshiba, becoming TeraView Limited.

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## DIRECTIONS TO ANGELO'S RESTORANTE & BANQUETS

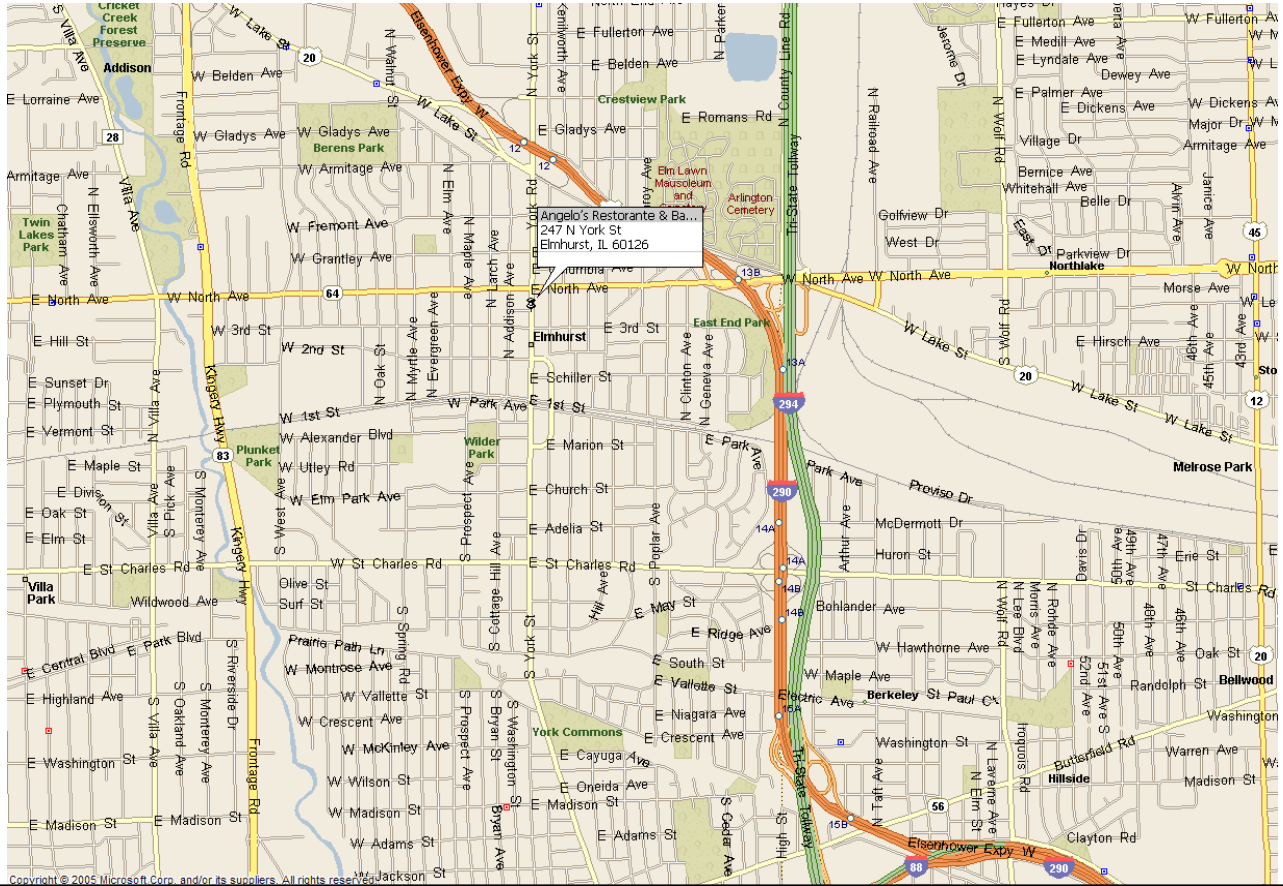
**247 N York St, Elmhurst, IL 60126; Phone: 630-833-2400**

Angelo's Restorante and Banquets is located in Elmhurst less than one block south of North Avenue (IL-64) on York St. on the east side of the street.

From north: Take I-294 (Tri-State) exit I-290 West. Immediately exit onto IL-64 West (North Avenue). Go to York St. and turn left. Proceed to restaurant.

From northwest: Take I-290 to the York Road exit and turn left. Proceed to restaurant.

From south: Take I-290 exit IL-64 West (North Avenue). Go to York St. and turn left. Proceed to restaurant.



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	† <b>Jeff Kukuk</b> Senior Sales Engineer Inorganic Analysis
	† PerkinElmer, Inc. 2000 York Road, Suite 132 Oak Brook, IL 60523 Phone: 800 762-4000 ext. 132 Fax: 630 556-4523 Cell: 630 222-8921 jeff.kukuk@perkinelmer.com www.perkinelmer.com

[www.perkinelmer.com](http://www.perkinelmer.com)

[email](mailto:jeff.kukuk@perkinelmer.com)

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