Symposium introduces surface analyst

By EMILY GIBBS

A symposium introducing the Unique Surface Analysis introduced unprecedented technology for material and surface research last Wednesday.

Dr. Hidde Brongersma from Eindhoven University of Technology, and Dr. Israel E. Wachs, Dr. Alfred Miller and Dr. Andriy Kovalskyi, all from Lehigh, spoke about the new technology available to the research community.

There were four presentations followed by a meet and greet session and a walk through of the technology. A new Ion Scattering technology, Ion-Tof Qac high sensitivity-low Energy Ion Scattering, was recently installed at Lehigh. The Ion-Tof Qac along with the Scienta ESCA 300 were Energy Ion Scattering, was recently a walk through of the technology.

Dr. Brongersma introduced the symposium, explaining that the new technology is so special because it's so sensitive. Brongersma also discussed the technical efficiency of this new technology.

During the brief question-and-answer session following Brongersma’s speech, a woman in the audience asked if this new technology truly had any practical use. Brongersma said that was a lot of practical use and explained that fusible glass material, such as linoleum, can be viewed with the Low Energy Ion Scattering technology. Brongersma said if linoleum is viewed in this way, then they can figure out a way to make linoleum last longer and remain stronger for longer. This technology is very helpful for future development.

Kovalskyi, a Lehigh professor of 20 years, explained the exploration of glass surfaces with the XPS. The new state-of-the-art high resolution XPS is much better than the normal XPS they used to explore the intricate glass surfaces, Kovalskyi said.

With this new technology, researchers can now look deep into the glass material and identify the weakest parts of the glass. The XPS has improved ways in which researchers can analyze glass.

“New technology will help us to make glass stronger,” Kovalskyi said.

When asked how, he explained that if they can identify the weakest part in the glass, they can figure out how to strengthen it. With this technology, glass can be made stronger and will be less prone to breakage.

The symposium attracted a wide range of people. The audience consisted of graduate students, material science majors, Lehigh professors, and professors and researchers from other institutions.

After each speaker, the audience asked an array of questions. Most audience members seemed knowledgeable about the topic prior to coming to the symposium.

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