



ASME/ISA Long Island Section Technical Meeting and Seminar

Nanotechnology and Thin Films

Clive Clayton, Leading Professor

Wednesday, April 1, 2015

Stony Brook University
GLS-HDV (Global Studies & Human Development) Center, Rooms 200-206
100 Nicolls Road
Stony Brook, NY 11790

6:00 PM Sign-In and Refreshments
6:30-8:30 PM Presentation

- Cost:** Attendance is free of charge for all attendees, and includes light refreshments. There is, however, a cost if you wish to obtain PDH credits. See next.
- PDH Credits:** ASME has approved this seminar for two Professional Development Hour (PDH) credits. ASME will issue a two-credit certificate to attendees who pay a processing fee of \$35. Please let us know when you register that you wish to receive the PDH credits and bring a check, made out to ASME Long Island Section, to the seminar.
- Registration:** Please register by contacting Matthew Ross at mrmatteoross@gmail.com or 631-403-0070 no later than March 29. Please provide your name, daytime phone number, company and society affiliation, and whether you are applying for PDH credits.
- Map/Directions:** <https://ucolleges.stonybrook.edu/content/center-global-studies-and-human-development>

Program Description – Thin film processing is the basis of numerous industries: semiconductors, sensors, optics, mems and even food and drug packaging. This lecture will cover some of the issues relating to processing thin films of a variety of materials. A short DVD will also be included to highlight some cutting edge processing.

About the Speaker – It has been the philosophy of Clive Clayton's laboratory to utilize the powerful tools of surface science for the study of industrially relevant surfaces and interfaces. For this purpose, he has developed a suit of surface spectrometers and an electrochemical analysis lab. Clayton is a fellow of the Electrochemical Society and has studied the formation and nature of nanoscale protective films formed on a variety of highly corrosion resistant crystalline and amorphous alloys. This work has involved surface modification studies using high and low energy ion implantation and ultra-fast laser ablation. His work includes the development of protective conversion coatings on depleted uranium, the fundamental mechanisms responsible for corrosion resistance in chromate conversion coatings on aluminum alloys, the environmental degradation of paints and polymer composite materials and the role of microbes on material degradation. He is currently director of the Institute for Sustainable Development and is collaborating with corporate partners to develop new approaches to the design of sustainable composite materials for the building industry in the developing world. Additionally, Clayton is the founder and director of the SPIR (Strategic Partnership for Industrial Resurgence) program, which has developed more than 2570 projects with more than 440 companies since 1994. He is both a former department chair and associate Dean of Engineering.

Education:

Dr. Clayton has a B. Sc. With Honors and a Ph.D. in Materials Science from University of Surrey, UK.