



METALLAGRAM

LONG ISLAND CHAPTER



Volume 57 Issue 1

Chapter website: <http://www.matscieng.sunysb.edu/asm/>

WELCOME TO THE 2015-2016 YEAR

Next Meeting Wednesday, September 16, 2015

Where Pollo Rico Latin Bistro, Centereach, NY

Topic: Graphene-Enhanced 3D Printing Materials: Methods and Applications

Speaker: Dr. Elena Polyakova, Graphene Laboratories

Social hour ... 6:00 pm Dinner ... 7:00 pm Meeting ... 8:00 pm

Members ... \$22 Guests ... \$25 ASM 25 years ... \$20 Students ... \$12

(New and recently transferred-in members free)

Reservations appreciated – call Peter Indrigo at 631-589-6666

In Memoriam: Dick Richards, 1919-2014

It was with much sadness that we only recently learnt of the passing on November 2, 2014 of Richard A. (Dick) Richards, a member of the Chapter since its inception in the mid-1950s. Dick was born on September 27, 1919 and served in the US Navy in World War II. He obtained a Bachelor's degree in Mechanical Engineering at MIT and later a Master's degree from Brooklyn Polytechnic Institute. In civilian life, he became a metallurgist, working at Bethlehem Steel, at Republic Aviation and on nuclear submarines. Later in life he moved to the academic field, teaching at SUNY Farmingdale and Suffolk County Community College. Dick filled the hours outside his "day" jobs with numerous volunteer activities, of which the ASM Long Island chapter was lucky to be one. He was an energetic member of the Executive Committee and always provided thoughtful contributions to our discussions. Dick served as Chairman during the year 1975-1976 and held various other offices from time to time. He was particularly interested in education and regularly served as a judge at the Long Island Science Congress. Dick will always be remembered for his friendly disposition, his enthusiasm, his willingness to volunteer for new tasks, and his undying optimism. The Chapter wishes to express its condolences to his children, grandchildren and great-grandchildren on their loss; he was predeceased by his wife, Margaret, in 2010.

"He was such a gentleman, always had a kind word and a smile to offer to all" (Peter Indrigo)
"He was always a kind, pleasant gentleman, who was always ready to help others" (Rao Tipirneni)
"He was such a nice cordial fellow with a great sense of humor" (Cy Marsden)

Our Speaker

Dr. Elena Polyakova serves as Co-Chief Executive Officer at Graphene 3D Lab. Dr. Polyakova is regularly invited to leading international conferences, she is well-known by players in industry and academia the World over. The scientific community regards her as an expert in two-dimensional materials. She is regularly contacted by journalists, including those from the BBC and Bloomberg, as well as market analysts who are seeking her professional advice. Dr. Polyakova has co-authored papers with Nobel and Kavli prize winners, as well as members of the National Academy of Sciences.

Her Topic

The market for 3D printing is expected to grow exponentially over the course of the next few years, even without factoring in the likelihood for advances in both printer and filament technologies. One such advance is the use of graphene, a 2D material known for its strength and conductivity, in filament production. Adding graphene to filaments increases the strength of end-products made by 3D printing and adds conductivity – a major advancement when considering using 3D printing for energy storage and electronic applications. The biggest challenge in developing specialty 3D printing filaments is the creation of materials that are functional, while maintaining their printability. Today's generation of 3D printers are designed to work with filaments made of thermoplastic materials; however using graphene as an additive to thermoplastics alters the 3D printing filament's inherent properties. This may cause a change in 3D printing parameters and, potentially, a decrease in the ability to 3D print. Dr. Polyakova will overview how Graphene 3D addresses the challenges to using graphene nanoplatelets as an additive in thermoplastic materials, and maintains printability in the endproduct. The ability to create custom-made objects for use in many different industries is arguably the most important aspect of 3D printing. Due to its conductivity, Graphene 3D Lab's Conductive Graphene Filament has myriad applications in custom-made electronics, energy storage devices, and capacitive sensors.



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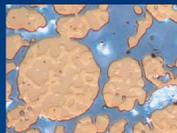
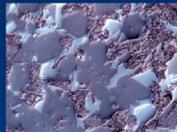


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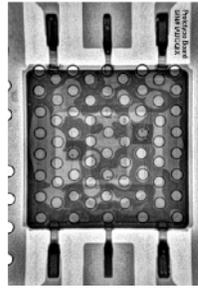
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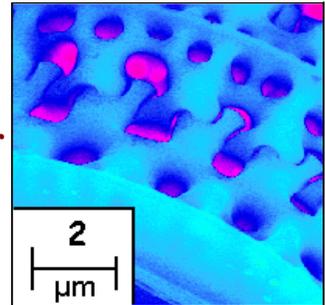
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Long Island Chapter Meeting Schedule

Oct. 21, 2015 **Topic: Dental Materials**
Speaker: Dr. Julio Carrion, SBU
Location: Pollo Rico, Centereach

Nov. 18, 2015 **Student Night**
Location: Old Field Club

Dec. 9, 2015 **Topic: Art Materials**
Speaker: John Twilley
Location: Pollo Rico, Centereach

Metro NY-NJ Chapter
(<http://metronynj.asminternational.org/portal/site/metronynj/>)

Long Island Metal Workers Society
(website <http://www.limws.org>)

No events listed

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