New 2017 Image Contest - 2017 Financing Offer - EPMA and Auger - Upcoming Events - Recent Publications

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# JEOLink JANUARY-FEBRUARY 2017 | ISSUE 69



# **JEOL Image Contest Winner - January 2017**

Congratulations to the first Image Contest winner of the new year! **Nina Daneu from Jožef Stefan Institute, Ljubljana, Slovenia** submitted this FE SEM image of a pore in bioglass entitled "Another Earth or...."

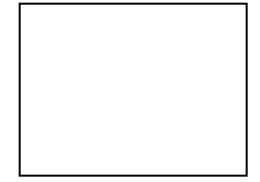
<u>All entries</u> can be seen on our website. Congratulations and thank you to all for these outstanding submissions since the beginning of the contest!

To <u>enter the contest</u> and submit your own images, check out the contest guidelines. We look forward to seeing your great results with the JEOL SEM, TEM, or EPMA! Each winning image for the month is reproduced in our annual <u>microscopy image calendar</u> (we still have just a few we can mail by <u>request</u>) and there is a monthly prize as well as a grand prize for the year.

## Auger - EPMA - what's in a probe?

The Scanning Auger Microanalyzer utilizes an analytical technique, named after the French scientist Pierre Auger. It combines a UHV system with Auger Electron Spectroscopy (AES) including a hemispherical analyzer, in-situ ion sputtering for depth profiling, and a Schottky field emission SEM column for high resolution SE and BSE imaging and Auger analysis of the top few atomic layers of the sample surface including non-conductive samples The JEOL\_JAMP-9510F Auger Microprobe offers the highest imaging and analytical resolution available.

The Electron Probe Microanalyzer (EPMA) utilizes proven WDS /EDS X-ray spectrometry and allows for high speed, high precision & accuracy qualitative and quantitative analyses



including mapping, line scans and CL. The <u>JXA-8530F Plus</u> is the latest in Field Emission EPMA technology providing high beam currents( even at low kV), high resolution imaging, and x-ray spatial resolution well below 100nm. Combined with the new JEOL soft x-ray emission spectrometer the EPMA can detect x-rays as low as 50ev (Li-k 54ev) and perform chemical state analysis, similar to EELS, with a spectrometer resolution of 0.3eV.

	Researchers at Northwestern shared the news that they coauthored a paper with UIC recently published in Nature. The paper reports an electron cryo-microscopy structure of ArfA and RF2 in complex with the 70S ribosome bound to a nonstop mRNAr. <a href="http://go.jeolusa.com/e/234012/2jwGXzn/2tb12/66415879?">http://go.jeolusa.com/e/234012/2jwGXzn/2tb12/66415879?</a> B3b37tpGfP1nYRqNSyhMLrg  Crafting a vaccine against RSV (respiratory syncytial virus) has been a minefield for 50 years, but scientists at Emory University School of Medicine and Children's Healthcare of Atlanta believe they have found the right balance. A 3D rendering a live-attenuated RSV particle, captured in a near-to-native state by cryoelectron tomography. <a href="http://go.jeolusa.com/e/234012/2ikXHJO/2tb14/66415879BB3b37tpGfP1nYRqNSyhMLrg">http://go.jeolusa.com/e/234012/2ikXHJO/2tb14/66415879BB3b37tpGfP1nYRqNSyhMLrg</a>
n=_IRi1GzJNBHLor_pRNt1	At Emory University School of Medicine, Prof. Elizabeth Wright and her colleagues have refined <i>techniques for studying viruses in the context of the cells they infect</i> , allowing them to see in detail how viruses enter and ar assembled in cells, or how genetic modifications alter viral structures or processing. <a href="http://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?">http://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?</a> <a href="https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?">B3b37tpGfP1nYRqNSyhMLrg</a> <a href="https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?">Photographic prints of platinum metal on paper</a> (1890-1920s) are <a href="https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?">https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?</a> <a href="https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?">https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?</a> <a href="https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?">https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?</a> <a href="https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?">https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?</a> <a href="https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?">https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?</a> <a href="https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?">https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?</a> <a href="https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879">https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?</a> <a href="https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879">https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879?</a> <a href="https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879">https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879</a> <a href="https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879">https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879</a> <a href="https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879">https://go.jeolusa.com/e/234012/2id2Jbi/2tb18/66415879</a> <a< td=""></a<>
	Patrick Ravines (SUNY Buffalo), Natasha Erdman (JEOL), and Rob McElroy (Archive Studio).

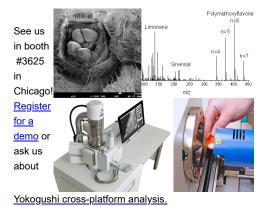
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## **Upcoming Events**

Symposium: "Latest Advances in Microscopy & Analytical Techniques" ~ Wednesday, February 8, 2017 at University of Pennsylvania, Krishna P. Singh Center for

Nanotechnology <a href="http://go.jeolusa.com/e/234012/2kwNiHB/2tb1n/66415879?">http://go.jeolusa.com/e/234012/2kwNiHB/2tb1n/66415879?</a>
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Pre-register for the HCC seminar!



We look forward to seeing you in 2017! Check out our current events calendar to see where we will be.

Stay in touch with us at JEOL USA and share in the fun and some valuable information. Besides, we like to see you there!









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