

## JEOL Image Contest Winner - September 2016

### *Zinc Condensation Crystals*

Zinc coating condensed onto piece of bare steel beneath it.

Credit: Joshua Solomon, General Motors; SEM: JSM-IT100

See all entries for [2016 Image Contest](#) or [submit an image](#).

New for 2016 - [Vote for your favorite](#)

---

## Failure Analysis with the SEM

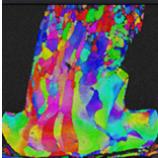
[See us at ISTFA](#)

[\*\*November 8-9 - Fort Worth, Texas\*\*](#)

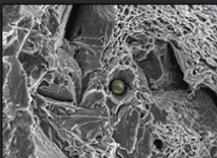
# UNLOCK THE ANSWERS TO YOUR FAILURE ANALYSIS QUESTIONS

Solutions for Innovation

SMART FLEXIBLE POWERFUL IMAGING & ANALYSIS



EDS - cross section of  
wire bond



Ductile and brittle fracture  
with an inclusion  
Courtesy Sheri Neva, EAG



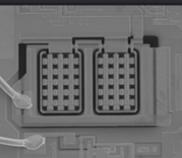
EDS - cross section of  
lithium battery



Fracture in wire bond



Rust



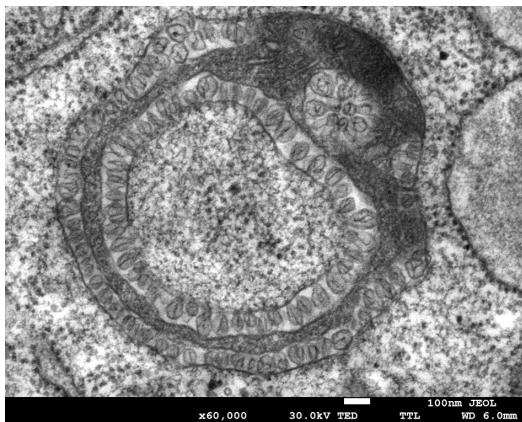
EBIC imaging -  
semiconductor device

**JEOL**  
Solutions for Innovation

See us at  
Booth #200!

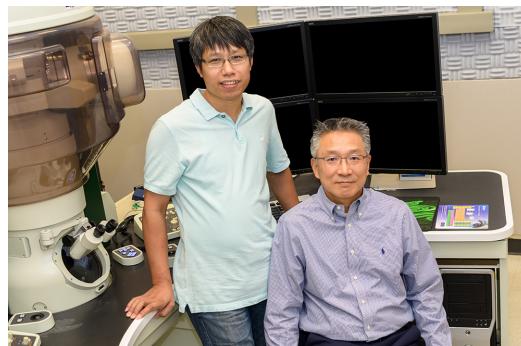
[Learn more about our solutions](#) for failure analysis, including the [IT300](#)

[InTouchScope](#) high resolution analytical SEM, [NeoScope](#) benchtop SEM with EDS, [Cross Section Polisher](#) for sample prep.



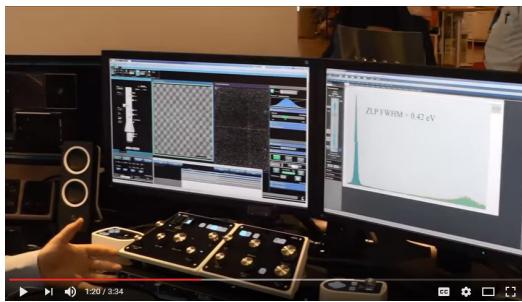
## Tech Note: STEM-in-SEM

STEM-in-SEM (Scanning Transmission Electron Microscopy in an SEM) has become a popular technique for biologists, polymer scientists and materials scientists for its ease of use, cost effectiveness and high resolution. This "low voltage STEM" technique is ideal for life sciences as well as ultrathin sections of materials samples. Learn more about this technique in the [Technical Note](#).



## UT Dallas Engineers Characterize a Novel Transistor

UT Dallas engineers and colleagues used ARM to characterize a novel transistor - one that is made with a new combination of materials that is even smaller than the smallest possible silicon-based transistor. Dr. Moon Kim, professor of materials science and engineering at UT Dallas and an author of the study, says, "Our research provides new insight into the feasibility to go beyond the ultimate scaling limit of silicon-based transistor technology." [More>](#)



[Video of a remote demo](#) of the new F2 analytical 200kV S/TEM with Cold FEG

### **Recently Published & In the News**

*The application of portable XRF and benchtop SEM-EDS to Cu-Pd exploration in the Coldwell Alkaline Complex, Ontario, Canada*

*MoS<sub>2</sub> Transistors with 1 nanometer Gate Lengths*

*Inside Facebook's robotic inner sanctum: a tour of its highly secretive hardware lab*

*Surface faceting and elemental diffusion behaviour at atomic scale for alloy nanoparticles during in situ annealing*

JEOL News Magazine 2016 can be downloaded from [our website](#) (registered users only), or ask us for a copy. Back issues are also available.

Share your publication news - send a link or pdf to [jeolink@jeol.com](mailto:jeolink@jeol.com).



### **New and Notable**

LED lights on the column aren't just for show! The optional lighting kit for the [JSM-IT100](#) and [JSM-IT300](#) column InTouchScope changes color to indicate SEM status.

Check out our [upcoming events](#) including a Particle Analysis Seminar and Metals & Materials Mashup.

The 2017 [SEM training schedule](#) is now online.

[Follow on Twitter](#) [Friend on Facebook](#) [LinkedIn](#) [YouTube](#)

Copyright © 2016 , All rights reserved.

Our mailing address is:

JEOL USA, Inc.

11 Dearborn Road  
Peabody, MA 01960

[update subscription preferences](#)