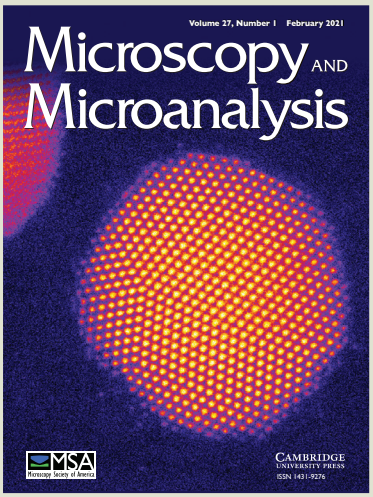
Volume 27 Number 1 February 2021

Microscopy AND Microanalysis

preview of some upcoming articles



Materials Science Applications

Determination of the chemical compositions of fine titanium carbide and niobium carbide precipitates in isothermally aged ferritic steel by atom probe tomography analysis
Kobayashi, Yukiko; Takahashi, Jun; Kawakami, Kazuto; Hono, Kazuhiro

Microscopy of Polyurea Grease
Thorseth, Matthew; Harris, Joseph; Gu, Junsi; Cuthbert, John; Huffman, Lauren; Capaldo, Kevin; Jia, Zhe

Local porosity measurement from scanning electron microscopy images in backscattered electrons mode
Sorbier, Loïc; Poncet, Hedwige; Lecocq, Vincent; Maillet, Guillaume; Moula, Maroua; Le Corre, Vincent

Solving peak overlaps for proximity histogram analysis of complex interfaces for atom probe tomography data
Cojocaru-Mirédin, Oana; Keutgen, Jens; London, Andrew

In situ EBSD study on the microstructural transformation of Ni5W substrate for coated conductors
Wu, Xinyu; Suo, Hongli; Li, Jiazhi; Ji, Yaotang; Ma, LIn; Liu, Min; Dai, Yinming; Liu, Jianhua; Zhang, Zili

Software and Instrumentation

The environmental liquid cell technique for improved electron microscopic imaging of soft matter in solution
Miller, R.J. Dwayne; Azim, Sana; Bultema, Lindsey; De Kock, Michiel; Osorio-Blanco, Ernesto; Calderón, Marcelo; Gonschior, Josef; Leimkohl, Jan-Philipp; Tellkamp, Friedjof; Buecker, Robert; Schulz, Eike; Keskin, Sercan; de Jonge, Niels; Kassier, Guenther

Nanowire detection in AFM images using deep learning
Wu, Sen; Bai, Huitian

In situ atomic force microscopy depth-corrected 3-dimensional focused ion beam based time-of-flight secondary ion mass spectroscopy: spatial resolution, surface roughness, oxidation
Kalacska, Szilvia; Pillatsch, Lex; Maeder, Xavier; Michler, Johann

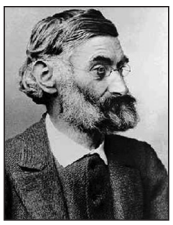
Embracing Uncertainty: Modeling Uncertainty in EPMA - Part II
Ritchie, Nicholas

Optimizing Non-Rigid Registration for Scanning Transmission Electron Microscopy Image Series
Voyles, Paul; Zhang, Chenyu; Feng, Jie; Yankovich, Andrew; Kvit, Alex; Berkels, Benjamin

Development of a Practicable Digital Pulse Read-out for Dark-field STEM
Mullarkey, Tiarnan; Downing, Clive; Jones, Lewys

Retarding field integrated fluorescence and electron microscope
Vos, Yoram; Lane, Ryan; Peddie, Christopher; Wolters, Anouk; Hoogenboom, Jacob

Dynamic Imaging of Nanostructures in an Electrolyte with a Scanning Electron Microscope
Chee, See Wee; Yoon, Aram; Herzog, Antonia; Grosse, Philipp; Alsem, Daan Hein; Roldan Cuenya, Beatriz



Dear Abbe

Dear Abbe,

I have recently discovered a new source of grant money and thus, fulfillment: exosomes! While they are nothing new, what I think is new is the sheer number of students I can get working on these, and therefore more lab space I can justifiably assimilate. One of my primary means of visualizing exosomes is negative staining with TEM. This has prompted some reviewers to complain that my papers are too negative and that I need more positive results. What to do?

Excited in Exeter

Dear Excited,

Ach! I do understand your problem. I have endured negative ninnies for many decades now. But do not fear! Positive outcomes are close at hand. Exosomes are tiny little bundles of cell guts (I'd use "nanoparticle," but that word is so overused. I expect it to show up in shampoo commercials any day.). These cell guts are full of proteins, DNA, RNA, and several other acronyms; you just need to use all those students to hunt for these specific little bundles and separate them from neurons! What you want are ones containing all the pick-a-letter NAs and neurotransmitters. These are really mobile synapses with the added excitement of genetic information. Get some loaded with oxytocin and introduce them into the negative reviewers' nasal spray (to fight mental congestion). They'll be euphoric with your next paper and you'll be "*Stardenburdenhardenbart*"!

Problems with negative reviewers and finding new uses for popular research? Ask Dear Abbe through his assistant at johnshields59@gmail.com! He'll be sure to create a positive vibe.

MT

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