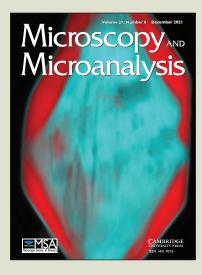
Microscopy_{and} Microanalysis

preview of some upcoming articles



Review

Cell and Tissue Imaging by TOF-SIMS and MALDI-TOF: An overview for biological and pharmaceutical analysis

Noun, Manale et al.

Materials Science Applications

Microanalyses and spectroscopic techniques for the identification of pigments and pictorial materials in Monet's *Pink Water Lilies* painting *Germinario, Giulia et al.*

- Quantitative analysis of nitrogen by atom probe tomography using stoichiometric y'-Fe₄N consisting of ¹⁵N isotope
- Takahashi, Jun et al.
- In situ observation of the early stages of rapid solid–liquid reaction in closed liquid cell TEM using graphene encapsulation
- Yang, Cheol-Woong et al. Composition analysis by STEM-EDX of ternary semiconductors by internal references
- van Helvoort, Antonius and Nilsen, Julie The Mechanism of FIB-Induced Phase Transformation in Austenitic Steel
- Michael, Joseph et al.

Software and Instrumentation

- Quantitative Assessment and Measurement of X-ray Detector Performance and Solid Angle in the Analytical Electron Microscope Zaluzec, Nestor
- Determining Grain Boundary Position and Geometry from EBSD Data: Limits of Accuracy Fullwood, David et al.

Strategies for EELS data analysis. Dimensionality reduction and clustering analysis. Introducing UMAP and HDBSCAN.

- Blanco-Portals, Javier et al.
- Electron probe microanalysis of transition metals using L-lines: the effect of self-absorption Llovet, Xavier et al.

Fast improvement of TEM image with low-dose electrons by deep learning Katsuno, Hiroyasu et al.

Biological Applications

The relevance of ultrastructural studies of metastatic cells from women with breast cancer history

Introíni, Gisele et al.

Confocal microscopy in ecophysiological studies of algae: a door to understanding autofluorescence in red algae

Aboal, Marina et al. Response of olfactory sensory neurons to mercury ions in zebrafish: An

- immunohistochemical study
- Lazzari, Maurizio et al.

 $\mathrm{Na^{*}}$ and $\mathrm{K^{*}}$ Ions Differently Affect Nucleosome Structure, Stability and Interactions with Proteins

Feofanov, Alexey et al.

Micrographia

Pulmonary Guardians and Special Regulatory Devices in the Lung of Nile Monitor Lizard (*Varanus niloticus*) with Special Attention to the Communication between Telocyte, Pericyte and Immune Cells

Awad, Mahmoud and Mohamedien, Dalia



Dear Abbe

Dear Abbe,

We have this very rakish fellow in the Ecology Department who keeps talking about his exploits in the wild. We think we are just as manly, but somehow our stories don't seem nearly so death-defying. What could we do to appear more extraordinary?

Hellions in Hillsboro

Dear Hellion,

Ah, this reminds me of my youth with the Teutonic Knights preparing for the Schlacht bei Tannenberg and hearing their hair-raising cries. Later, inspired, we would sit in front of our microtomes and bellow our own fierce battle cries. This was appropriate, since most of my colleagues exhibited a fury befitting a warrior reddened in administrative battles with a Dean. The Lab is a dangerous environment, strewn with glass knives, radioactive bottles, sharp tweezers, and vicious paper cuts. We are a hardy bunch and always look for ways to make our dangerous jobs even more adventurous. Take, in point, a colleague in Texas whom I'll refer to as Josephine. She would become so irritated with her LKB glass knife maker that she would resort to clamping her Bowie knife to the microtome (she always kept it hairsplitting sharp) and pull off 5mm thick sections with ease. Or my first Liebhaber, Gertrud Bonemarrow, who could break glass with her menacing glare. It makes me shiver just thinking about it. So, raise your drinking beakers, beat on the breakroom table, and tell your tales with gusto!

It's a jungle out there! Don't get stranded on the side of Conundrum Highway without advice from Herr Abbe! Contact him before it's too late at johnshields59@gmail.com.

