

Electron source brightness and illumination semi-angle distribution measurement in a transmission electron microscope

*Felix Boerrnert, Julian Renner and Ute Kaiser*

Comparison of Cliff-Lorimer-based methods of STEM quantitative X-ray microanalysis for application to Silicon Oxycarbides thin films

*Andrea Parisini, Stefano Frabboni, Gian Carlo Gazzadi, Rodolfo Rosa1 and Aldo Armigliato*

Deformation mechanisms in rolled magnesium alloy under tension along rolling direction

*Dewen Hou, Tianmo Liu, Meng Shi, Haiming Wen and Haiyan Zhao*

Characterization of Lithium Ion Battery Materials with Valence Electron Energy Loss Spectroscopy

*Fernando Castro and Vinayak P. Dravid*

Hydrothermalite can prevent the damage effect of helicobacter pylori on gastric epithelial cells

*Yanyan Shi, Guo Yanlei, Zhang Ting, Ding Shigang*

Authentication of medicinally used flora using pollen features by scanning electron microscopy in the lower Margalla hills Islamabad Pakistan

*Muhammad Sufyan, Ikram Badshah, Mushfaq Ahmad, Muhammad Zafar, Siraj Bahadur and Neelam Rashid*

Mineralogical characterization of Hispano-Moresque glazes: a <sup>4</sup>-Raman and SEM-EDS study

*Susana Coentro, Rui C. da Silva, Cátia Relvas, Teresa Ferreira, José Mirão, Alfonso Pleguezuelo, Rui Trindade and Vânia S. F. Muralha*

Lorentz TEM Image Simulations of Experimental Nano-Chessboard Observations in Co-Pt Alloys

*Isha Kashyap, Yongmei M. Jin, Eric P. Vetter, Jerrold A. Floro and Marc De Graef*

In-situ observation of compression damage in a 3D braided carbon fiber reinforced carbon and silicon carbide (C/C-SiC) ceramic composite

*Fan Wan, Shixiang Zhao, Rongjun Liu, Changrui Zhang and Thomas J. Marrow*

A novel method to reconstruct the force curve by higher harmonics of the first two flexural modes in FM-AFM

*Zhang Suoxin, Jianqiang Qian, Yingzi Li, Yingxu Zhang and Zhenyu Wang*

Smart Scanning Ion Conductance Microscopy Imaging Technique Using Horizontal Fast Scanning Method

*Jian Zhuang, Zhiwu Wang, Zeqing Li, Pengbo Liang and Mugubo Vincent*

Electron microscopy imaging of zinc soaps nucleation in oil paint

*Joen Hermans, Gillian Osmond, Annelies van Loon, Piet Ledema, Robyn Chapman, John Drennan, Kevin Jack, Ronald Rasch, Garry Morgan, Zhi Zhang, Michael Monteiro and Katrien Keune*

Assessing Soft-Tissue Shrinkage Estimates in Museum Specimens Imaged With Diffusible Iodine-based Contrast-Enhanced Computed Tomography (diceCT)

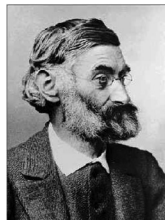
*Brandon Hedrick, Laurel Yohe, Abby Vander Linden, Liliana M. Dávalos, Karen Sears, Alexa Sadier, Stephen J. Rossiter, Kalina T. J. Davies and Elizabeth Dumont*

Adaptive modifications in four fish species of the Genus Garra (Hamilton, 1822) (Teleostei: Cyprinidae) in Basistha River, Assam, India

*Jafrin Hussain and Sabitry Bordoloi*

Use of an Annular SDD versus a conventional SDD Makes Phase Mapping a Practical Solution for Rare Earth Mineral Characterization

*Chaoyi Teng, Hendrix Demers, Nicolas Brodusch, Kristian Waters and Raynald Gauvin*



## Dear Abbe

### Dear Abbe,

My brother and co-worker came to me with this great idea. He claims that it is well accepted that a single drop of blood held on the fingertip for 30 seconds (prior to depositing layers of it onto a microscope slide) allows the specific gravity of the cells of different organs and tissues of the body to form patterns of oxidative stress that are easily identifiable when compared to the rings on Leonardo da Vinci's Vitruvian Man drawing. Not only that, but that each layer of dried blood corresponds to a period in the subject's life, back to infancy. I gave a quick artisanal chortle of disbelief (not being one for canned laughter). My brother then went on to describe how people have health practices diagnosing the illnesses of various organs and people's past medical history via a convoluted methodology based on this principle. I kid you not, there really are people doing this. At first I was struck by the sheer nonsense of this procedure. However, after perusing many dark-web pages of the Internet, and drinking absinthe in a room filled with cedar incense, I am inclined to believe his assertions. Have you encountered this potential lode of tailings from your illustrious mines of research? What do you think?

### Mystical in Muskegon

### Dear Mystic,

I believe in first impressions. And I think you should go with yours. I wish I could be surprised by this, but with all the quacks and flat-earthers that have been in the news lately, I'm not. In a former life, Leonardo and I used to chat at the Dandolo Salon over some limoncello, read from the *De Architectura*, and then amuse ourselves by pointing out all the erroneous conclusions of the ancient Roman architect Vitruvius, especially his idea that the proportions of the human body model the cosmos. I eventually talked Leonardo into producing a drawing to illustrate this fallacy. Unfortunately, Leonardo suffered the fate of many creative geniuses: people took his satirical disproof of Vitruvius's claims as not only gospel truth of *The Proportions of Man*, but great mystical wisdom connecting human health with the Starry Wisdom of the Cosmos (Lovecraft must be shuddering in Eldritch Horror at this). My thoughts are that you may be using the wrong image: a printed edition of Leonardo's drawing with all the mistakes of reproduction, instead of the original drawing. These errors made during the various printings of the Vitruvian Man diagram are like DNA copying errors during human reproduction. So, by knowing the printing history of your copy of the drawing, you can deduce not only the health of a subject's organs, but their genetic history as well. This is of course complete nonsense, but since the original drawing is also, why not compound the absurdity? Your brother will naturally receive your comment as Great Wisdom and rush off to start a whole new area of *Quacksalberei*. Now, I am going to go do what I really think should be done—sample some layers of schnapps. Just be sure to send me royalties from your brother's profits.

*Is your life getting all out of proportion? Contact Dear Abbe at [jpshield@uga.edu](mailto:jpshield@uga.edu) and he will at least make it more entertaining!*



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