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Microscopy AND Microanalysis

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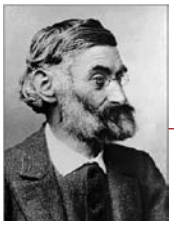

DearAbbe

Dear Abbe,

I am excited about attending the International Microscopy Congress in September. A colleague informed me that you would be there! Is this true? Can I get a selfie with you and maybe buy you a round at the local brew house while at the meeting? I'm into CosPlay and have gone to several DragonCon meetings dressed as you.
All Aflutter in Atlanta

Dear Aflutter,

I am glad you let me know you will be at the meeting and would be available to buy me beers! Hopefully, if you are lucky and I am careless, we will bump into each other. I am more than happy to do a selfie with you, although that sounds rather oxymoronic. Yes, it is truly hard to be humble when you have attained my stature in this life. There was even a website for a short time listing my several attributes, although many people thought it was a parody. For example, "Abbe can grind an aspheric lens with the calluses on his hands." Or, "When Abbe walks into the lab, all the inverted microscopes become uprights." My favorite was "Light breaks into its spectra when it strikes Abbe," which explains the aura around me at times. I have seen something similar listed for some guy named Chuck Norris, but that is completely ridiculous. It's not easy being a self-made man such as myself, but fortunately I had an Oedipus complex and a time machine…

Dear Abbe,

I believe you are not a rumormonger, but nevertheless I hope you can help me. I keep hearing a rumor about a new brand of TEM nearing production, with some new and wonderful contrast-imaging mode. Should I wait for this new TEM before I write my next instrument grant?
Wondering in Woonsocket

Dear Wondering,

I am happy that someone doesn't think of me as a mere rumormonger. But since this is my rumor, I suppose I can let you in on the secret. You have heard of Spintronics? Not the name of a Eurotechno band, but the idea that electrons have "spin" as well as charge. Why not use an electric field to control the spin and produce a spin-polarized current? As the beam interacts with the sample, the spinning electrons interact differently depending on what part of the sample they pass through. Some spinning electrons are deflected in the sample instead of going straight through it. Combine the beams and, wunderbar! Spin contrast! Just like Prof. Nomarski's famous contrast (winner of my medal, by the way)—but better! I can't tell you how this is done because I am having trouble reading the napkin I jotted the specs on. So, yes! Wait to spend your millions in grant money on the new wonder: the gyro spin-contrast electron microscope (or SCEM for those who need more acronyms). I get dizzy just thinking about all the possibilities! Next time I will describe, in a quantum way, creating entangled electrons so you can observe images in your office with electrons that never saw a sample (see L van Hook, "Entangled Microscopy," *Microscopy Today* 99(3) (1999) 6–7).

If you feel entangled in your professional life, Herr Abbe is happy to help. To seek his assistance, please inconvenience his assistant at jpshield@uga.edu.

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