

From the Editor

Special Issue: Surface Analysis



Last November's *Microscopy Today* was our first special issue to focus on a single microscopy topic (scanning probe microscopy). The present issue on surface analysis is the first to have a guest editor, Vincent Smentkowski. Vincent brought me the idea of a special issue on surface analysis, and I was pleased to help him bring this topic to our readers. Many journals publish highly technical special issues, but that is not the goal here. These articles on surface analysis techniques are aimed at the general microscopist. Each article provides a brief introduction to a technique, discusses the method's capabilities, and gives a few applications.

Of all microscopy-related analytical methods, those that analyze surfaces are most often found in specialist laboratories capable of creating and maintaining ultra-high vacuum (UHV) instruments. Without UHV conditions and some method for cleaning the surface to be analyzed, true surface analysis is impossible. To the credit of the manufacturers of current commercial instruments, UHV vacuum is "almost routine," and the ease of making measurements has greatly improved. Thus, these instruments should now be thought of as normal complements to traditional microscopy methods. Indeed, even if such instruments are not available in your analytical laboratory, the information provided sometimes can be so important to the solution of a problem that use of an "outside" surface analysis laboratory may be warranted.

I thank our guest editor, Vincent Smentkowski, and all the authors of these articles. I look forward to future M&M symposia and additional *Microscopy Today* articles on surface analysis.

Charles Lyman
Editor-in-Chief

Correction. The article on page 38 of the January 2011 issue of this magazine contains an error. The second sentence of the fifth paragraph stated that Albert Crewe was the physicist who first imaged single atoms. It was the late Erwin Müller and his student, Kanwar Bahadur, who first observed single, isolated atoms in the field ion microscope in 1956. The article should have read that Albert Crewe was "the physicist who first imaged single atoms in the electron microscope."

Publication Objective: to provide information of interest to microscopists.

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