



Designation: E 1829 – 9702

Standard Guide for Handling Specimens Prior to Surface Analysis¹

This standard is issued under the fixed designation E 1829; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This guide covers specimen handling and preparation prior to surface analysis and applies to the following surface analysis disciplines:

1.1.1 Auger electron spectroscopy (AES),

1.1.2 X-ray photoelectron spectroscopy (XPS or ESCA), and

1.1.3 Secondary ion mass spectrometry, SIMS.

1.1.4 Although primarily written for AES, XPS, and SIMS, these methods may also ~~will~~ apply to many surface-sensitive analysis methods, such as ion scattering spectrometry, low-energy electron diffraction, and electron energy loss spectroscopy, where specimen handling can influence surface-sensitive measurements.

1.2 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*

¹ This guide is under the jurisdiction of ASTM Committee E42 on Surface Analysis and is the direct responsibility of Subcommittee E42.03 on Auger Electron Spectroscopy and X-ray Photoelectron Spectroscopy.

Current edition approved ~~Sept. 10, 1997~~ April 10, 1997; ~~2002~~. Published ~~June 1998~~ April 2002. Originally published as E 1829 – 96. Last previous edition E 1829 – 96₇.