
Surface chemical analysis — Recording and reporting data in X-ray photoelectron spectroscopy (XPS)

Analyse chimique des surfaces — Enregistrement et notification des données en spectroscopie de photoélectrons par rayons X (XPS)





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Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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Introduction

X-ray photoelectron spectroscopy (XPS) is used extensively for the surface analysis of materials. Elements in the specimen (with the exception of hydrogen and helium) are identified from the measurement of core-level binding energies in the photoelectron spectra, comparing them against elemental tabulations of those energies. Information on the chemical state of such elements can be derived from the chemical shifts and/or peak shape of the measured photoelectrons with respect to reference states.

This International Standard defines the level of information on the specimen and the experimental parameters that should be included in the analytical record. The results of the analysis should be recorded in a standard format that should include sufficient detail to allow the experiment to be repeated. This material should be available for reporting, as required.

Experimental conditions and data acquisition parameters should be included so that the quality of the data can be assessed.