# ISO 13095:2014-07 (E)

## Surface Chemical Analysis - Atomic force microscopy - Procedure for in situ characterization of AFM probe shank profile used for nanostructure measurement

## Contents

Page


Foreword ..... iv

Introduction ..... v

1 Scope ..... 1

2 Normative references ..... 1

3 Terms and definitions ..... 1

4 Symbols and abbreviated terms ..... 3

5 Procedure for probe characterization ..... 4
5.1 Methods for the determination of AFM probe shapes ..... 4
5.2 Reference sample setting ..... 5
5.3 Requirements of AFM and AFM imaging ..... 6
5.4 Measurement of probe shank profile ..... 7
5.5 Uncertainty of the measurement of the probe shank profile ..... 9

6 Reporting of probe characteristics ..... 10

Annex A (informative) Dependence of AFM images on measurement mode and settings ..... 12

Annex B (normative) Reference sample preparation ..... 15

Annex C (informative) Example of a reference structure ..... 18

Annex D (informative) Results of EPSC measurement repeatability test ..... 20

Annex E (informative) Plane correction for probe shank profile analysis ..... 22

Annex F (informative) Example of a report ..... 23

Bibliography ..... 25