ISO 14706:2014-08 (E)

Surface chemical analysis - Determination of surface elemental contamination on silicon wafers by total-reflectio n X-ray fluorescence (TXRF) spectroscopy

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative reference 1

3 Terms and definitions 1

4 Abbreviated terms 2

5 Principle 2

6 Apparatus 3

7 Environment for specimen preparation and measurement 3

8 Calibration reference materials 3

9 Safety 4

10 Measurement procedure 4
10.1 Preparation for measurement 4
10.2 Preparing a calibration curve 4
10.3 Measurement of a test specimen 5

11 Expression of results 5
11.1 Method of calculation 5
11.2 Blank correction 6

12 Precision 6

13 Test report 6

Annex A (informative) Reference materials 8

Annex B (informative) Relative sensitivity factor 9

Annex C (informative) Preparation of reference materials[6] 13

Annex D (informative) VPD-TXRF method 16

Annex E (informative) Glancing-angle settings 18

Annex F (informative) International inter-laboratory test results 22

Bibliography 25