

ISO 21820:2021-02 (E)

Fine ceramics (advanced ceramics, advanced technical ceramics) - Ultraviolet photoluminescence image test method for analysing polytypes of boron- and nitrogen-doped SiC crystals

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols	2
5 Principle	2
6 Apparatus	2
7 Sampling	3
8 Procedure	3
8.1 Cleaning of SiC wafer surface	3
8.2 Optical setup	3
8.3 Measurement.....	4
9 Expression of results	6
9.1 Expression of boundaries of polytypes in CIE 1931 colour space.....	6
9.2 Transformation of the UVPL image to CIE 1931 colour space with polytype boundaries ...	6
9.3 Determination of polytype.....	7
10 Test report	7
Annex A (informative) Determination of polytypes	9
Annex B (informative) Determination of polytypes	17
Annex C (informative) Penetration depth of SiC	25
Annex D (informative) Calibration	26
Bibliography	27