

ISO 22848:2021-02 (E)

Corrosion of metals and alloys - Test method for measuring the stress corrosion crack growth rate of steels and alloys under static-load conditions in high-temperature water

Contents		Page
Foreword		iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Principle of test	2
5	Specimen	3
5.1	Specimen orientation	3
5.2	Specimen geometry	3
5.3	Specimen finish	4
5.4	Specimen size requirement	4
5.5	Specimen dimensional measurement	5
5.6	Stress intensity factor, K_I	5
6	Test equipment	5
7	Crack length measurement by potential drop method	6
8	Corrosion potential measurement	7
8.1	General	7
8.2	Measurement method	7
9	Test procedure	7
9.1	General	7
9.2	Installation in autoclave	8
9.3	Adjustment of test environment	9
9.4	Loading	9
9.4.1	General	9
9.4.2	Fatigue pre-cracking	9
9.4.3	SCC transitioning	9
9.4.4	Static loading	11
10	Evaluation of test results	11
11	Test report	14
Annex A (informative) CDCB specimen geometry and stress intensity factor calculation		16
Annex B (informative) Equipment for SCC growth testing		19
Annex C (informative) Water chemistry and monitoring items in simulated BWR and PWR environments		22
Annex D (informative) Approach to determine crack growth rate		24
Bibliography		25