

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