

ISO 4631:2023-11 (E)

Corrosion of metals and alloys - Measurement of the electrochemical critical localized corrosion potential (E-CLCP) for Ti alloys fabricated via additive manufacturing method in simulated biomedical solutions

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principles	1
5 Apparatus	3
5.1 Potentiostat.....	3
5.2 Heating bath with temperature controller.....	3
5.3 Specimen holder and connections.....	3
5.4 Test cell.....	4
5.5 Auxiliary electrode and reference electrode.....	4
6 Test solutions	4
7 Test specimen	4
8 Procedure	5
8.1 Preparation of reference electrodes.....	5
8.2 Preparation of biomedical AM Ti alloy specimen.....	5
8.3 Preparation of solution.....	5
8.4 Setting up the E-CLCP test.....	5
8.5 Ending test.....	6
9 Examination and evaluation	6
10 Test report	7
Annex A (informative) Validity of the E-CLCP by the correlation between E-CLCP and E-CLCT	8
Bibliography	9