

Superconductivity —

Part 5: Matrix to superconductor volume ratio measurement — Copper to superconductor volume ratio of Cu/Nb-Ti composite superconductors

The European Standard EN 61788-5:2001 has the status of a
British Standard

ICS 29.050

National foreword

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Superconductivity
Part 5: Matrix to superconductor volume ratio measurement -
Copper to superconductor volume ratio
of Cu/Nb-Ti composite superconductors
(IEC 61788-5:2000)

Supraconductivité
Partie 5: Mesure du rapport volumique
matrice/supraconducteurs -
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Verhältnis von Kupfervolumen
zu Supraleitervolumen von
Cu/Nb Ti-Verbundsupraleitern
(IEC 61788-5:2000)

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CENELEC

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Foreword

The text of document 90/81/FDIS, future edition 1 of IEC 61788-5, prepared by IEC TC 90, Superconductivity, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61788-5 on 2000-12-01.

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- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2003-12-01

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annexes A and ZA are normative and annexes B to D are informative.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61788-5:2000 was approved by CENELEC as a European Standard without any modification.

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INTRODUCTION

The copper to superconductor volume ratio of composite superconductors is used mainly to calculate the critical current density of superconducting wires. The test with the method given in this International Standard may be used to provide part of the information needed to determine the suitability of a specific superconductor. Moreover, this method is useful for quality control, acceptance or research testing if the precautions given in this standard are observed.

The test method given in this International Standard is based on the condition that the specific mass of Nb-Ti is known. If the specific mass of Nb-Ti and/or the fraction of Nb barrier are unknown, another method to determine the copper to superconductor volume ratio of composite superconductors is described in annex A.