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Non-destructive testing — Acoustic emission testing — Vocabulary

Essais non destructifs — Contrôle par émission acoustique — Vocabulaire

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Foreword

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This document was prepared by Technical Committee ISO/TC 135, *Non-destructive testing*, Subcommittee *SC9, Acoustic emission testing.,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 138, *Non-destructive testing,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 12716:2001), which has been technically revised.

The main changes are as follows:

— terms sorted in order of scientific and technical characteristics;

— terms and definitions revised and obsolete terms removed.

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Non-destructive testing — Acoustic emission testing — Vocabulary

1 Scope

This document defines the terms used in acoustic emission testing and forms a common basis for standards and general use.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1 Terms related to the physical nature of acoustic emission

3.1.1
acoustic emission
AE
class of phenomena whereby transient elastic waves are generated by the rapid release of energy from localized sources or the transient waves so generated

Note 1 to entry: Local plastic deformation, crack propagation, erosion, corrosion, impact, leakage are examples of such phenomena.

3.1.2
acoustic emission event
event
physical phenomenon giving rise to *acoustic emission* (3.1.1)

3.1.3
acoustic emission source
source
spatial element from where one (or more) *acoustic emission event(s)* (3.1.2) originate(s)

3.1.4
acoustic emission wave
elastic wave
transient elastic wave generated by an *acoustic emission event* (3.1.2)

Note 1 to entry: Acoustic emission and acoustic emission wave are often used synonymously.

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