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Non-destructive testing — Radiation methods for computed tomography —

Part 1: Vocabulary

Essais non destructifs — Méthodes par rayonnements pour la tomographie informatisée —

Partie 1: Vocabulaire

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Foreword

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This third edition cancels and replaces the second edition (ISO 15708-1:2017), which has been technically revised.

The main changes are as follows:

— correction of term 3.8, 3.9, 3.20 and 3.27.

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Non-destructive testing — Radiation methods for computed tomography —

Part 1: Vocabulary

1 Scope

This document defines terms used in the field of computed tomography (CT). It presents vocabulary that is not only CT-specific but which also includes other more generic terms and definitions spanning imaging and radiography. Some of the definitions represent discussion points aimed at refocusing their terms in the specific context of computed tomography.

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
absorption
photoelectric absorption
mode of interaction between photons and matter whereby a photon is absorbed by an atom which then emits an electron whose kinetic energy is exactly equal to the energy-depleted photon's electron-binding energy

Note 1 to entry: See also *Compton scattering* (3.6).

3.2
angular increment
angular spacing between adjacent *CT projections* (3.12)

3.3
artefact
artificial feature which appears on the *CT image* (3.11) but does not correspond to a physical feature of the object

3.4
beam hardening
spectrum hardening
spectral change of a polychromatic beam caused by preferential attenuation of low energy photons

Note 1 to entry: See also *cupping effect* (3.17).

3.5
calibration template
phantom
known reference object that is scanned to assess the performance of a *CT system* (3.15)

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