PHANTOM USED IN NON DESTRUCTIVE TESTING CALIBRATION: A BIBLIOMETRIC STUDY

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ABSTRACTS

PHANTOM USED IN NON-DESTRUCTIVE TESTING CALIBRATION: A BIBLIOGRAPHIC STUDY

A phantom is a highly specialised item used in medical imaging for quality control, calibration, dosimetry, and education. Regardless of their differences, the term is used interchangeably for both. Phantoms were first employed in 2D x-ray imaging techniques such as radiography or fluoroscopy, but more recently, phantoms with specialised imaging properties such as SPECT, MRI, CT, Ultrasound, PET, and other imaging methods or modalities have been developed. In this study, a bibliometric study has been conducted to recognize the trends of scientific research and the key topics related to phantoms and non-destructive testing by the available literature review. The study interval is from 1985 to 2022. The database such as Scopus and Web of Science (WoS) were used in this study. Several classifications has been made, including an analysis of the year of publication, publications by country, research area, methods and co-occurrences of author keywords, co-authorship between countries and authors. Corresponding to the specific keywords, the outcome presented by WoS and Scopus was a sum of 197 publications. The main findings show that the trends of research in this field have shown significant increase in the past two decades. Both websites have seen a regular increase in publications and has a positive impact since researchers are focusing on the phantom used in non-destructive testing. United Stated is the country that published phantom related study the most and the majority of the primary research areas are Physics and Engineering. The most common researcher's method used in the study was an experimental method.