

Title (en)

METHOD AND DEVICE FOR PROMPTLY CONDUCTING NON-DESTRUCTIVE CHEMICAL ANALYSIS OF TEST OBJECTS

Title (de)

CHEMISCHE ANALYSE VON MESSOBJEKTEN MIT DURCH KONZENTRISCH BESCHLEUNIGTEN DEUTERIUM-IONEN GENERIERTEN NEUTRONEN

Title (fr)

PROCEDE ET DISPOSITIF D'ANALYSE CHIMIQUE NON DESTRUCTIVE RAPIDE D'OBJETS DE MESURE

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Application

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Abstract (en)

[origin: WO03085418A2] The invention relates to a method for conducting non-destructive chemical analysis of test objects (1) by irradiating the test object (1) with neutrons and measuring the quantity of gamma photon radiation, which is emitted by the test object (1) immediately after irradiation, based on the number of gamma photon quanta of the respective photon energy (E_{γ}) in order to record a photon energy spectrum (6). The inventive method has the following steps: determining characteristic photon energies (E_{γ}) based on the gamma photon radiation quantities of the photon energy spectrum (6) which exceed a background photon radiation, and; determining the elements and/or isotopes of the test object (1) by assigning the characteristic photon energies (E_{γ}) to corresponding elements and/or isotopes that are each stored distinctly at a photon energy (E_{γ}).

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