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(54) Title: RADIOACTIVE ANOMALY DISCRIMINATION FROM SPECTRAL RATIOS

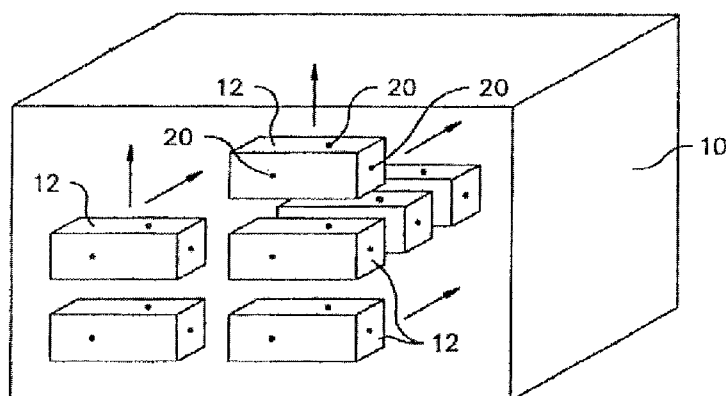


FIG. 10

(57) Abstract: A method for discriminating a radioactive anomaly from naturally occurring radioactive materials includes detecting a first number of gamma photons having energies in a first range of energy values within a predetermined period of time and detecting a second number of gamma photons having energies in a second range of energy values within the predetermined period of time. The method further includes determining, in a controller, a ratio of the first number of gamma photons having energies in the first range and the second number of gamma photons having energies in the second range, and determining that a radioactive anomaly is present when the ratio exceeds a threshold value.