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(54) Title: METHODS OF MARKING MATERIALS

(57) Abstract

A method of marking a material and subsequently detecting that it has been marked is disclosed, comprising adding or applying a marker comprising a nucleic acid tag to the material, sampling a portion of the material containing such marker, and detecting the presence of nucleic acid tag in the sample. The method is characterised in that the quantity of the nucleic acid tag present in the sample is determined to provide an indication of the quantity of marker present in the material. The nucleic acid tag may comprise one or more identifying sequences, and the tag is amplified by means of a nucleic acid amplification reaction. Also disclosed are a method of marking a material with a nucleic acid tag, a method of detecting whether a material has been marked by a marker comprising a nucleic acid tag, a method of detecting the quantity of a marker comprising a nucleic acid tag in a material that has previously been marked, a method of marking a material and subsequently determining the quantity of marker in the material, and a method of and a kit for determining which particular nucleic acid tag from a known pool of nucleic acid tags has been used to mark a material.