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ABSTRACT



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TITLE: DEFECT ANALYSIS IN MAGNETIC THIN FILMS

5 A method of analysing defects in a magnetic thin film
is provided, comprising: applying a magnetic field to the
magnetic thin films; measuring the magnetisation of the
magnetic thin film over a range of different field
strengths; calculating a value representative of a magnetic
10 hardness coefficient for the magnetic thin film from the
magnetisations measured; comparing the calculated value
with a reference value; and determining defect information
in dependence upon the comparison made. The information
determined may relate to :

15 (a) The relative levels of defects, if the reference
value is representative of the magnetic hardness
coefficient of a control specimen having a predetermined
defect level;

(b) The predominant type of defects, if the reference
20 value is representative of the magnetic hardness
coefficient obtained when the magnetic field is applied in
a different direction; and

(c) The distribution of defects, if the magnetisations
are measured for a selected part of the magnetic thin film
25 and compared with a reference value which is representative
of a magnetic hardness coefficient calculated from
magnetisations measured for a part other than the said
selected part of the magnetic thin film.

(Figure 1)