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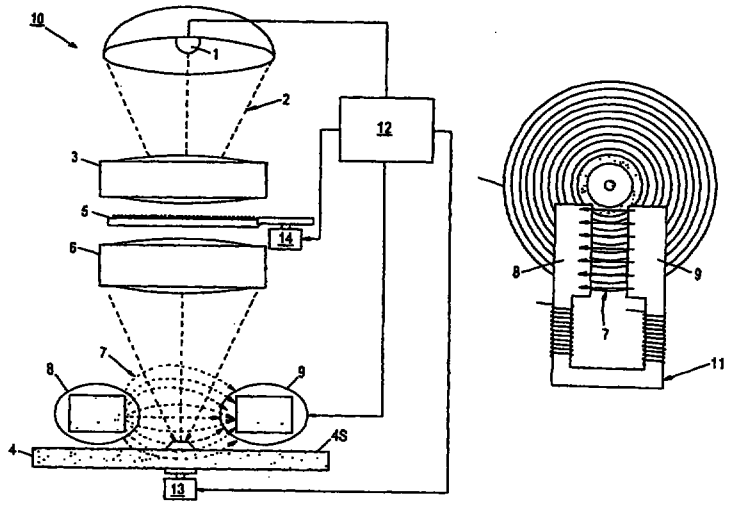
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(54) Title: MAGNETIC MEDIA PATTERNING UTILIZING HEAT-INDUCED PHASE TRANSITION



(57) Abstract: Patterned magnetic media are provided at high resolution and pattern definition by a process comprising steps of: applying to a magnetic layer (4) a first uniform magnetic field (7) of a first direction and strength to pre-align the magnetic grains thereof; applying a second uniform magnetic field of a second, opposite direction and of lesser strength than the first magnetic field, sufficient to change the alignment of the magnetic grains only when the temperature thereof is equal to or greater than the Curie temperature T_c; selectively increasing the temperature of a pattern of selected surface areas (4S) of the magnetic layer to at least T_c for an interval while applying the second magnetic field to thereby selectively change the alignment of the magnetic grains of the selectively heated surface areas; terminating application of the second magnetic field after completion of the selective realignment; and cooling the selectively heated surface areas to a temperature below T_c, whereby the magnetic pattern is preserved in the magnetic layer.

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