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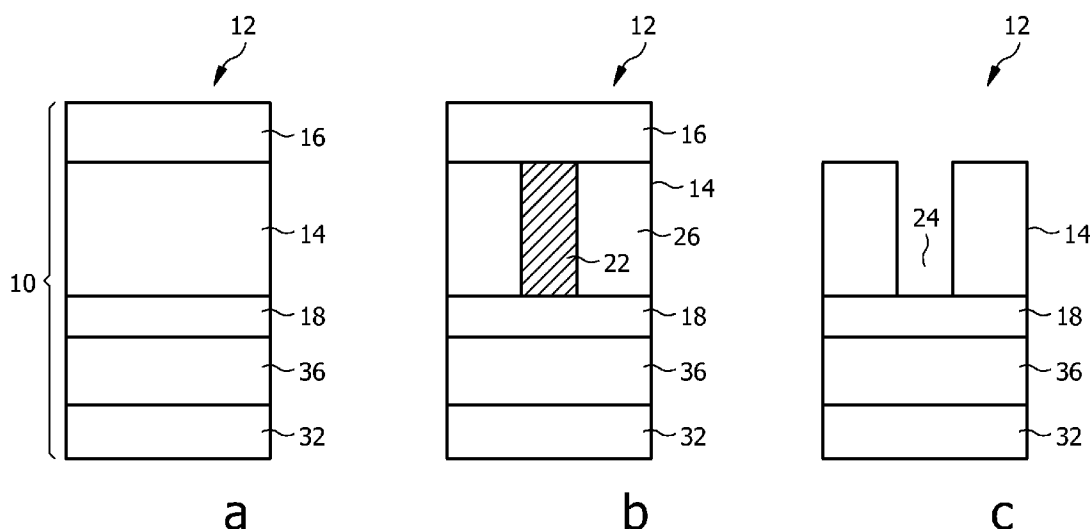
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(54) Title: METHODS FOR MASTERING AND MASTERING SUBSTRATE



(57) Abstract: The present invention relates to a method for providing a high density relief structure in a recording stack (10) of a master substrate (12), particularly a master substrate (12) for making a stamp for the mass-iabrication of optical discs or a master substrate for creating a stamp for micro contact printing, the method comprising the following steps: - providing a recording stack (10) comprising a dielectric layer (14) and means (16, 18; 20) for supporting heat induced phase transitions within the dielectric layer (14); causing a heat induced phase transition in regions (22) of the dielectric layer (14) where pits (24) are to be formed by applying laser pulses; and removing the regions (22) of the dielectric layer (14), which have experienced a phase transition, by an etching process; or removing the regions (26) of the dielectric layer (14), which have not experienced a phase transition, by an etching process.

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