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(54) Title: METHOD FOR THE ALIGNMENT OF PHOTOLITHOGRAPHIC MASKS AND CORRESPONDING PROCESS FOR MANUFACTURING INTEGRATED CIRCUITS IN A WAFER OF SEMICONDUCTOR MATERIAL

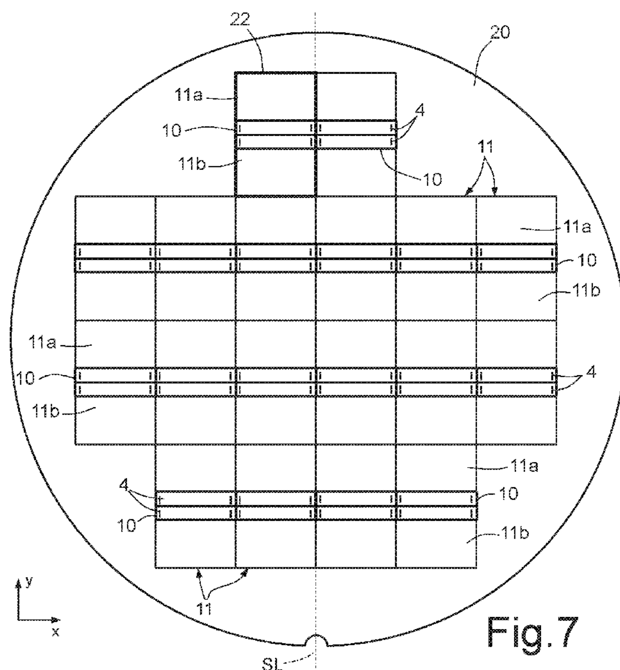

Fig.7

(57) Abstract: A photomask alignment method for a manufacturing process of an integrated circuit in a semiconductor material wafer (20), the method envisaging: at a first level, defining, by means of a single photolithography process, at least one alignment structure (10; 10') on the wafer (20), the alignment structure (10; 10') having at least a first (4a) and a second (4b) reference mark; and, at an upper level, higher than the first one, aligning a first field mask (11a) relative to the at least one first reference mark (4a); and aligning a second field mask (11b), which is used, together with the first field mask (11a), for the photolithography formation of the integrated circuit inside a respective die (22) in the wafer (20), relative to the at least one second reference mark (4b), so that the first and second field masks (11a, 11b) are arranged on the wafer (20) adjacent to one another in a first coupling direction, without any mutual overlapping.

[Continued on next page]

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