

Title (en)

METHOD FOR DETERMINING A PRODUCTION PARAMETER FOR A RESISTIVE RANDOM-ACCESS MEMORY CELL

Title (de)

VERFAHREN ZUR BESTIMMUNG EINES PRODUKTIONSPARAMETERS FÜR EINE RESISTIVE DIREKTZUGRIFFSPEICHERZELLE

Title (fr)

PROCÉDÉ DE DÉTERMINATION D'UN PARAMÈTRE DE FABRICATION D'UNE CELLULE DE MÉMOIRE VIVE RÉSISTIVE

Publication

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Application

**EP 20731866 A 20200611**

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Abstract (en)

[origin: WO2020249697A1] The invention relates to a method for determining at least one value (tTE\_opt, tOX\_opt, Xopt) of at least one production parameter (tTE, tOX, x) for a resistive memory cell, the resistive memory cell comprising a thin-film stack, said method comprising the following steps: - providing (S1) a plurality of reference memory cells (10) corresponding to a plurality of technological variants of the thin-film stack; - measuring (S2) an initial resistance value (Ri) for each reference memory cell; - determining (S3, S4), for each reference memory cell (10), a value of a programming parameter chosen from among the resistance in a high-resistance state (RHRS) and the programming window; - establishing (S5) a relationship between the programming parameter and the initial resistance (Ri) based on the initial resistance values (Ri) and the values of the programming parameter; and - determining said at least one value (tTE\_opt, tOX\_opt, Xopt) of said at least one production parameter (tTE, tOX, x) for which the programming parameter is greater than or equal to a target value (RHRS\_tg), based on said relationship between the programming parameter and the initial resistance (Ri) and on at least one dependency relationship between the initial resistance (Ri) and said at least one production parameter (tTE, tOX, x).

IPC 8 full level

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