Title (en)

SPINTRONIC DEVICES WITH CONSTRAINED SPINTRONIC DOPANT AND ASSOCIATED METHODS

Title (de)

SPINTRONIKVORRICHTUNGEN MIT BESCHRÄNKTEM SPINTRONIKDOTAND UND ENTSPRECHENDE VERFAHREN

Title (fr)

DISPOSITIFS SPINTRONIQUES CONTENANT DES DOPANTS SPINTRONIQUES ET PROCEDES ASSOCIES

Publication

EP 2002481 A1 20081217 (EN)

Application

EP 07753441 A 20070319

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- US 68742207 A 20070316

Abstract (en)

[origin: WO2007109231A1] A spintronic device may include at least one superlattice and at least one electrical contact coupled thereto, with the at least one superlattice including a plurality of groups of layers. Each group of layers may include a plurality of stacked base semiconductor monolayers defining a base semiconductor portion having a crystal lattice, at least one non-semiconductor monolayer constrained within the crystal lattice of adjacent base semiconductor portions, and a spintronic dopant. The spintronic dopant may be constrained within the crystal lattice of the base semiconductor portion by the at least one non-semiconductor monolayer. In some embodiments, the repeating structure of a superlattice may not be needed.

IPC 8 full level

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Citation (examination)

- US 6376337 B1 20020423 - WANG CHIA-GEE [US], et al
- KREUTZ T C ET AL: "Spacer-dependent transport and magnetic properties of digital ferromagnetic heterostructures", APPLIED PHYSICS LETTERS, AIP, AMERICAN INSTITUTE OF PHYSICS, MELVILLE, NY, US LNKD- DOI:10.1063/1.1528280, vol. 81, no. 25, 16 December 2002 (2002-12-16), pages 4766 - 4768, XP012032811, ISSN: 0003-6951
- See also references of WO 2007109231A1

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