

Title (en)

PERFORMANCE IMPROVEMENT OF MAGNETOCALORIC CASCADES THROUGH OPTIMIZED MATERIAL ARRANGEMENT

Title (de)

LEISTUNGSVERBESSERUNG VON MAGNETOKALORISCHEN KASKADEN DURCH OPTIMIERTE MATERIALANORDNUNG

Title (fr)

AMÉLIORATION DE LA PERFORMANCE DE CASCADES MAGNÉTOCALORIQUES PAR AGENCEMENT DE MATÉRIAU OPTIMISÉ

Publication

EP 2948962 A4 20161102 (EN)

Application

EP 14743598 A 20140114

Priority

- EP 13152519 A 20130124
- IB 2014058251 W 20140114
- EP 14743598 A 20140114

Abstract (en)

[origin: WO2014115057A1] A magnetocaloric cascade containing at least three different magnetocaloric materials with different Curie temperatures, which are arranged in succession by descending Curie temperature, wherein none of the different magnetocaloric materials with different Curie temperatures has a higher layer performance L_p than the magnetocaloric material with the highest Curie temperature and wherein at least one of the different magnetocaloric materials with different Curie temperatures has as lower layer performance L_p than the magnetocaloric material with the highest Curie temperature wherein L_p of a particular magnetocaloric material being calculated according to formula (I): $L_p = m \cdot dT_{ad,max}$ with $dT_{ad,max}$: maximum adiabatic temperature change which the particular magnetocaloric material undergoes when it is magnetized from a low magnetic field to high magnetic field during magnetocaloric cycling, m : mass of the particular magnetocaloric material contained in the magnetocaloric cascade.

IPC 8 full level

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CPC (source: EP)

F25B 21/00 (2013.01); **H01F 1/012** (2013.01); **F25B 2321/002** (2013.01); **Y02B 30/00** (2013.01)

Citation (search report)

- [A] US 2011030939 A1 20110210 - CARROLL COLMAN [DE], et al
- [A] US 2012043497 A1 20120223 - KATTER MATTHIAS [DE], et al
- [A] US 2004250550 A1 20041216 - BRUCK EKKEHARD HUBERTUS [NL], et al
- See references of WO 2014115057A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

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DOCDB simple family (application)

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