Title (en)

ABSORBENT ACOUSTIC METAMATERIAL

Title (de)

ABSORBIERENDES AKUSTISCHES METAMATERIAL

Title (fr)

MÉTAMATÉRIAU ACOUSTIQUE ABSORBANT

Publication

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Application

EP 16819595 A 20161202

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Abstract (en)

[origin: WO2017093693A1] The invention relates to an elementary acoustic metamaterial cell (1) comprising: a body (2) made of solid material; and at least one resonator taking the form of a groove (3) of width l and depth p, said groove (3) being open on the surface of said body, wherein: the depth p is set by a resonant frequency (f) of the cell according to a relationship x, c being the speed of sound in air; and the width l is set by an energy density confined in said cell according to a logarithmic relationship E max α log (l) determined experimentally, said groove having an acoustic absorption controlled by a ratio between the depth p and the width l of the groove. The invention also relates to an acoustic screen comprising such an elementary cell.

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

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