

Title (en)

METALLIC GLASS ALLOYS FOR MECHANICALLY RESONANT TARGET SURVEILLANCE SYSTEMS

Publication

**EP 0435885 B1 19930804 (EN)**

Application

**EP 89909913 A 19890816**

Priority

US 24869988 A 19880926

Abstract (en)

[origin: WO9003652A1] A magnetic metallic glass alloy evidencing a low rate of damping of mechanically resonant oscillations, is suitable for use in mechanically resonant target surveillance systems. The alloy has a composition described by the formula  $\text{FeaNiMcBdSiCr}$ , where M is one of molybdenum and chromium, "a"-"f" are in atom percent, "a" ranges from about 39 to about 41, "b" ranges from about 37 to about 39, "c" ranges from 0 to about 3, "d" ranges from about 17 to about 19, and "e" and "f" range from 0 to about 2, with the provisos that (i) only one of "c", "e", and "f" can be zero, (ii) "e" cannot be zero if "f" is not zero, and (iii) "f" can be zero only when M is Cr. A ribbon, wire or sheet of this alloy, having mechanical resonance in a range of frequencies from about 55 kHz to about 60 kHz, evidences a ring down time of at least about 3 ms.

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**H01F 1/153**

IPC 8 full level

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