

Title (en)

CONTROL SYSTEM AND METHOD FOR NEGATIVE DAMPING COMPENSATION IN MAGNETIC LEVITATION

Title (de)

STEUERSYSTEM UND VERFAHREN ZUR NEGATIV-DÄMPFUNGSKOMPENSATION BEI DER MAGNETISCHEN SCHWEBUNG

Title (fr)

SYSTÈME DE COMMANDE ET PROCÉDÉ DE COMPENSATION D'UN AMORTISSEMENT NÉGATIF DANS UNE LÉVITATION MAGNÉTIQUE

Publication

**EP 2095198 A2 20090902 (EN)**

Application

**EP 07859380 A 20071213**

Priority

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- US 87062906 P 20061219

Abstract (en)

[origin: WO2008075269A2] A magnetic levitation control system (100) includes a sensor (106) configured to measure a gap between an electro magnet and a stage and generate a gap measurement signal. A gap filter (112) is configured to receive the gap measurement signal and provide a phase lead signal which estimates and accounts for delays between the gap measurement signal and a compensation action. An estimation block (114) is configured to receive the phase lead signal and provide the compensation action in accordance with the phase lead signal such that negative stiffness and negative damping effects are compensated for in the control system.

IPC 8 full level

**G05D 3/12** (2006.01); **F16C 39/06** (2006.01); **G05B 5/01** (2006.01); **G05B 6/02** (2006.01)

CPC (source: EP KR)

**F16C 32/0444** (2013.01 - EP); **G05B 5/01** (2013.01 - KR); **G05B 6/02** (2013.01 - KR); **H02N 15/00** (2013.01 - EP); **F16C 2326/10** (2013.01 - EP)

Citation (search report)

See references of WO 2008075269A2

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