

Title (en)
Micropump avoiding microcavitation.

Title (de)
Mikropumpe ohne Mikrokavitation.

Title (fr)
Micropompe évitant la microcavitation.

Publication
EP 0568902 A2 19931110 (EN)

Application
EP 93106828 A 19930427

Priority
GB 9209593 A 19920502

Abstract (en)
A micropump (1) which is reciprocatingly driven by a membrane (18) into subsequent outwards and inwards bulging movements, in response to the application of an excitation voltage to a piezoelectric microactuator 9. The application of the excitation voltage follows a wave form which includes rapidly ascending ramps which produce rapid decrease of the volume of the pump chamber, and slowly descending ramps which produce sufficiently moderate rates of increase of the volume of the pump chamber in order to avoid microcavitation. <IMAGE>

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IPC 8 full level
F04B 43/04 (2006.01)

CPC (source: EP US)
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Cited by
US6479299B1; DE19534378C1; EP0789146A4; DE4405026A1; EP1489306A3; US6074725A; US6509085B1; EP1313949A4; DE10238564A1; DE10238564B4; US6132685A; EP1403518A3; US5942443A; US6046056A; US6150180A; CN109882380A; JP2017196614A; EP1959255A2; US6558944B1; US6382254B1; US6495369B1; WO0190577A1; WO2011058140A3; US6622746B2; US7749444B2; US10272691B2; US11260668B2; US10082135B2; US10415086B2; US7005078B2; US7311503B2; US7091048B2; US6630353B1; US6558960B1; US6413782B1; US6306659B1; US6399389B1; US6267858B1; US6274337B1; US6429025B1

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