

Title (en)
Ultrasound system, ultrasound generator and method for operating the same

Title (de)
Ultraschallsystem, Ultraschallgenerator und Verfahren zum Betreiben eines solchen

Title (fr)
Système ultrasonore, générateur d'ultrasons et procédé de fonctionnement de celui-ci

Publication
EP 2705906 A3 20171213 (DE)

Application
EP 13181693 A 20130826

Priority
DE 102012215993 A 20120910

Abstract (en)
[origin: EP2705906A2] The method involves connecting a resonant circuit (2e) with an electro-mechanical oscillating system of an ultrasonic transducer (3). The initial excitation frequency of the resonant circuit is determined. The phase difference between current and voltage of excitation signal is detected for the frequency control of an ultrasonic generator. The oscillating system is excited at initial frequency to ultrasonic vibrations. The excitation frequency of the oscillating system is controlled such that the phase of impedance of oscillating system is set to preset range. Independent claims are included for the following: (1) an ultrasonic generator; and (2) an ultrasonic system with ultrasonic generator.

IPC 8 full level
B06B 1/02 (2006.01)

CPC (source: EP)
B06B 1/0253 (2013.01)

Citation (search report)

- [X] DE 4400210 A1 19950810 - BRANSON ULTRASCHALL [DE]
- [A] DE 69605170 T2 20000706 - LORRAINE LAMINAGE [FR], et al
- [A] US 2012046765 A1 20120223 - NIKOLIC NEVEN [CA], et al
- [A] EP 0254237 A2 19880127 - GASSLER HERBERT

Cited by
CN114818807A; CN108471242A; CN115040200A; CN114290685A; CN110337596A; CN109075760A; CN113899947A; CN117982203A; WO2022174661A1; WO2023174724A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2705906 A2 20140312; EP 2705906 A3 20171213; EP 2705906 B1 20200603; DE 102012215993 A1 20140313

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EP 13181693 A 20130826; DE 102012215993 A 20120910