

Title (en)  
DEVICE FOR THERMOSURGERY

Title (de)  
VORRICHTUNG FÜR DIE THERMOCHIRURGIE

Title (fr)  
DISPOSITIF DESTINÉ À LA CHIRURGIE THERMIQUE

Publication  
**EP 2164416 A1 20100324 (DE)**

Application  
**EP 07786104 A 20070716**

Priority  
EP 2007006302 W 20070716

Abstract (en)  
[origin: WO2009010080A1] A device for the thermosurgical treatment of biological tissue comprises a generator (22) for providing treatment energy, a measuring means (24) for detecting the chronological progression of a measurement variable influenced by the tissue impedance of the treated body or representative of the tissue impedance, and a controller (26), which is equipped to determine a frequency spectrum for the chronological progression of the measurement variable in a predefined examination frequency range and to control the energy output of the generator (22) as a function of the spectral content of the measurement variable in the examination frequency range. The invention is based on the realization that the development of vapor bubbles in the heated tissue can be detected based on the frequency spectrum of the tissue impedance, particularly in a frequency range between about 0.5 Hz and 200 Hz. Depending on the extent of the vapor bubble formation, the tissue impedance in this frequency range exhibits a different spectral image. This realization is used according to the invention to control the energy output of the generator.

IPC 8 full level  
**A61B 18/00** (2006.01); **A61B 18/12** (2006.01)

CPC (source: EP US)  
**A61B 18/1206** (2013.01 - EP US); **A61B 2018/00875** (2013.01 - EP US)

Citation (search report)  
See references of WO 2009010080A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK RS

DOCDB simple family (publication)  
**WO 2009010080 A1 20090122**; EP 2164416 A1 20100324; US 2010211062 A1 20100819; US 8361064 B2 20130129

DOCDB simple family (application)  
**EP 2007006302 W 20070716**; EP 07786104 A 20070716; US 66889710 A 20100218