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(54) Title: COAXIAL ABLATION PROBE AND METHOD AND SYSTEM FOR REAL-TIME MONITORING OF ABLATION THERAPY

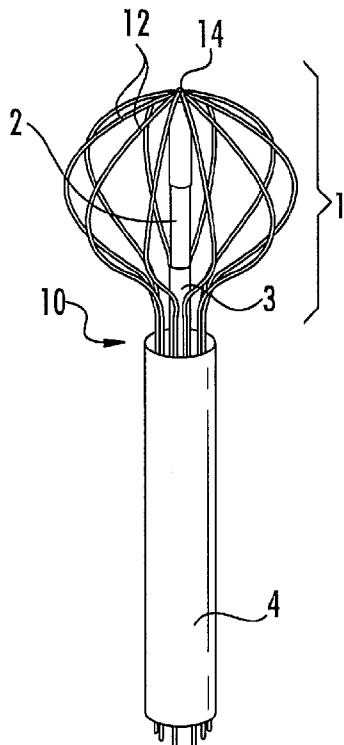


FIG. 2B

(57) **Abstract:** The subject matter described relates to a coaxial ablation probe and method and system for real time monitoring of ablation progress for percutaneous ablation. The probe includes an anode. The probe further includes a size and shape adjustable cathode cage surrounding the anode, the cathode cage includes a plurality of struts. The anode extends coaxially with respect to the struts that form the cathode cage. The cathode cage defines the treatment volume. Probe insertion and ablation progress will be monitored by a magnetic resonance imaging system.



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A. CLASSIFICATION OF SUBJECT MATTER

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CPC - A61B 18/1477, 2018/0016, 2018/00577, 2018/1475

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8): A61B18/04, 18/12, 18/14, 18/18 (2015.01)

CPC: A61B 18/148, 18/1477, 18/1492, 2018/0016, 2018/00577, 2018/143, 2018/1467, 2018/1475

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PatSeer (US, EP, WO, JP, DE, GB, CN, FR, KR, ES, AU, IN, CA, INPADOC Data); Google/Google Scholar; ProQuest; Pubmed/Medline, ScienceDirect: cage, strut, scaffolding, wires, tubing, stent, filaments, tines, cathode, anode, electrode, positive, negative, probe, needle, catheter, rod, core, shaft, ablation, expandable, coaxial, inner, outer, retract, compress, collapsible, surgery, surround, monitor, etc.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 7875025 B2 (COCKBURN, JF et al.) January 25, 2011; figures 5a-b; column 2, lines 57-65; column 3, lines 4-18; column 4, lines 6-9; column 7, lines 23-42	1-2, 8, 10-14, 17-18, 20-21, 26-31, 33
Y	US 6632222 B1 (EDWARDS, SD et al.) October 14, 2003; figure 6; column 8, lines 51-64	1-2, 8, 10-14, 17-18, 20-21, 26-31, 33
Y	US 8337492 B2 (KUNIS, CG et al.) December 25, 2012; figures 3 and 7; column 7, lines 27-44; column 16, lines 14-47	2, 8, 12
Y	US 2012/0101362 A1 (WEISS, S et al.) April 26, 2012; paragraph [0097]	28-30
Y	US 7792566 B2 (ROLAND, J et al.) September 7, 2010; column 3, lines 1-7	33
A	US 8090449 B2 (KING, GW et al.) January 3, 2012; figures 8b-8c, 12d; column 12, lines 24-32	15, 23-25
A	US 2010/0174280 A1 (GRIMALDI, M) July 8, 2010; figure 3; claim 1	16, 19, 22
A	US 8080009 B2 (LEE, B et al.) December 20, 2011; column 4, lines 39-61	32
P, X	US 2014/0025069 A1 (BOSTON SCIENTIFIC SCIMED, INC.) January 23, 2014; figures 3, 5, 8; paragraphs [0055]-[0058], [0062]-[0063]	1, 26

☐ Further documents are listed in the continuation of Box C.

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