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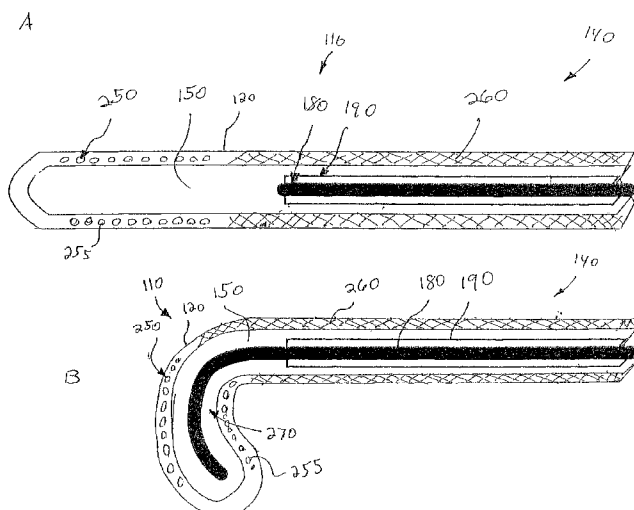
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(54) Title: RADIO-FREQUENCY-BASED CATHETER SYSTEM WITH IMPROVED DEFLECTION AND STEERING MECHANISMS



(57) Abstract: A shapeable curvilinear radio-frequency antenna apparatus (110) for ablating biological tissue within the body vessel of a patient includes a flexible catheter body (120) having a distal portion (140) and an elongated lumen (150). Inner and outer coaxially aligned conductors (640, 660) extend within the catheter (120) and are coaxial with the lumen (150). A flexible shapeable curvilinear radio-frequency antenna (250) is carried by the distal portion of the flexible catheter body (120) and is in electrical communication with the inner and outer coaxially aligned conductors (640, 660). The flexible shapeable curvilinear radio-frequency antenna (250) is adaptable to receive and transmit radio-frequency energy for ablating biological tissue and is shapeable between a straight configuration (190) and a curvilinear configuration (180) for creating a curvilinear ablation pattern in biological tissue within the body vessel of a patient.



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