



US007181288B1

(12) **United States Patent**
Rezai et al.

(10) **Patent No.:** **US 7,181,288 B1**
(45) **Date of Patent:** **Feb. 20, 2007**

(54) **NEUROMODULATION DEVICE AND METHOD OF USING THE SAME**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 531 days.

(21) Appl. No.: **10/603,243**

(22) Filed: **Jun. 24, 2003**

Related U.S. Application Data

(60) Provisional application No. 60/391,260, filed on Jun. 24, 2002, provisional application No. 60/391,261, filed on Jun. 24, 2002.

(51) **Int. Cl.**
A61N 1/04 (2006.01)

(52) **U.S. Cl.** 607/116; 607/117; 607/118

(58) **Field of Classification Search** 607/117, 607/116, 119, 122-123, 126, 128, 118
See application file for complete search history.

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(57) **ABSTRACT**

A device for modulating a volume of neural tissue comprising: a cannula having a proximal end, a distal end, and a lumen extending to at least the distal end, an actuator mechanism at least partially disposed in the lumen of the cannula; a plurality of leads having at least one electrode disposed thereon, the plurality of leads being coupled to the actuator mechanism to reciprocate between a retracted position wherein the plurality of leads are radially constrained within the lumen and an extended position; and a guide provided at the distal end of the cannula to deflect the plurality of leads radially outwardly into the neural tissue when the actuator mechanism is moved to the extended position.

12 Claims, 8 Drawing Sheets

