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**Harczos**

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(54) **ELECTRODE STIMULATION SIGNAL GENERATION IN A NEURAL AUDITORY PROSTHESIS**

USPC ..... 607/55-57, 73, 136  
See application file for complete search history.

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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 114 days.  
  
This patent is subject to a terminal disclaimer.

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**Related U.S. Application Data**

(57) **ABSTRACT**

(63) Continuation of application No. PCT/EP2010/069525, filed on Dec. 13, 2010.

An auditory stimulation signal processing device includes a plurality of signal inputs adapted to receive a plurality of frequency bin signals; a signal selector adapted to select a selected frequency bin signal from the plurality of frequency bin signals; a parameter modifier adapted to vary at least one stimulation signal generation parameter used for generating an electrode stimulation signal and affecting a shape of a basic stimulation pulse; and an electrode stimulation signal generator adapted to generate the electrode stimulation signal for application to an electrode of a neural auditory prosthesis, the electrode corresponding to a frequency of the selected frequency bin signal. A corresponding method and a computer readable digital storage medium are also disclosed.

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(52) **U.S. Cl.**  
CPC ..... *A61N 1/36032* (2013.01); *A61N 1/0541* (2013.01)

(58) **Field of Classification Search**  
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**13 Claims, 11 Drawing Sheets**

