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Kelley

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(54) **SYSTEM AND METHOD FOR THE TREATMENT OF INSOMNIA**

1/36025; A61M 1/36135; A61M 2021/0022; A61M 2021/0027; A61M 2021/0044; A61M 2021/0072; A61M 2205/332; A61M 2230/005

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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 188 days.

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Related U.S. Application Data

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(57) **ABSTRACT**

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A system and method that provides controlled bilateral stimulation to a patient in response to physiological feedback to initiate and/or accelerate the onset of sleep and to maintain the sleep state after the onset of sleep. The system induces bilateral stimulation through stimulation modules that are coupled to opposite lateral sides of the patient's body. The stimulation modules stimulate the patient's body bilaterally through a sequence of stimulations that alternate from one side of the patient's body to the other with a pause between each successive stimulation. The system controls the duration of the stimulations, the intensity of the stimulations and the period of time between successive stimulations in response to feedback from physiological sensors. The sensors are coupled to the patient and provide physiological information which initiates or terminates the bilateral stimulations, and/or modifies the characteristics of the stimulations.

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42 Claims, 9 Drawing Sheets

