Abstract

An implantable medical device for stimulating a human or animal heart, comprising a housing, a processor, a memory unit, a stimulation unit configured to stimulate the His bundle of a human or animal heart, and a detection unit configured to detect an electrical signal at the His bundle of the same heart. During operation, the following steps are performed: stimulating the His bundle with a stimulation pulse delivered by the stimulation unit; measuring an electric signal at the His bundle of the same heart with the detection unit upon termination of a first period of time starting from the stimulation pulse, wherein the first period of time lies in a time range of from 35 ms to 500 ms; and

measuring an impedance of the human or animal heart with the detection unit upon termination of a second period of time starting from the stimulation pulse, wherein the second period of time is equal to or longer than the first period of time and lies in a time range of from 50 ms to 500 ms.

Fig. 3