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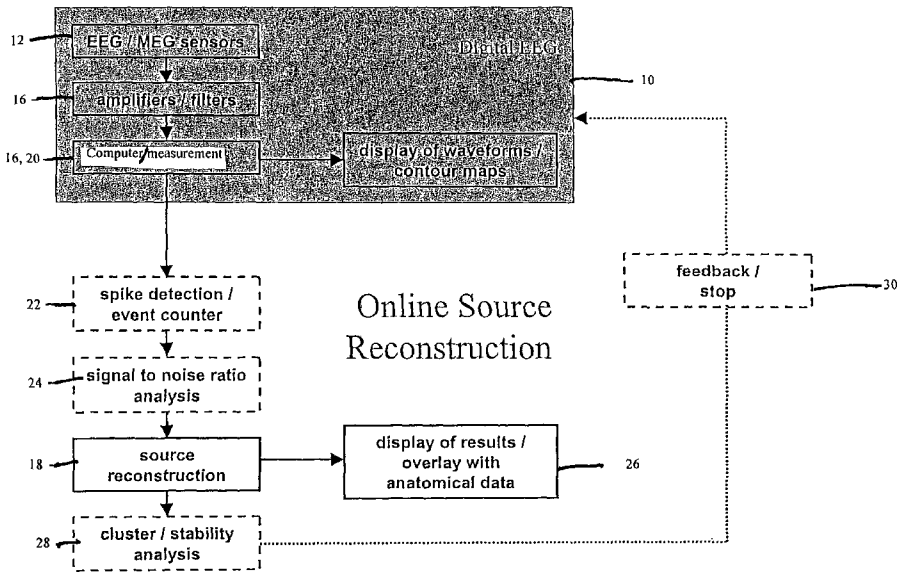
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(54) Title: ONLINE SOURCE RECONSTRUCTION FOR EEG/MEG AND ECG/MCG



(57) Abstract: In one embodiment, the present invention includes an EEG system comprising of sensors which are utilized to gather an electromagnetic signal from a patient; a signal processing system; and a computer system. The computer system is configured to support multiple threads of execution. The computer system initiates a first thread of execution, a measurement module, where the data is filtered and in some cases averaged. Typically, the data is filtered for a particular latency period. Once the data has been filtered and averaged, the result is given to a second thread of execution, the source reconstruction module, which then proceeds to generate a source reconstruction for the trial. The measurement module then acquires and processes new electromagnetic data from a new trial while the source reconstruction is being performed on the most recent trial.

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