

# EXHIBIT B



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**Fonseca et al.**

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(54) **ACTIGRAPHY METHODS AND APPARATUSES**

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(51) **Int. Cl.**  
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**A61B 5/00** (2006.01)  
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(58) **Field of Classification Search**  
None  
See application file for complete search history.

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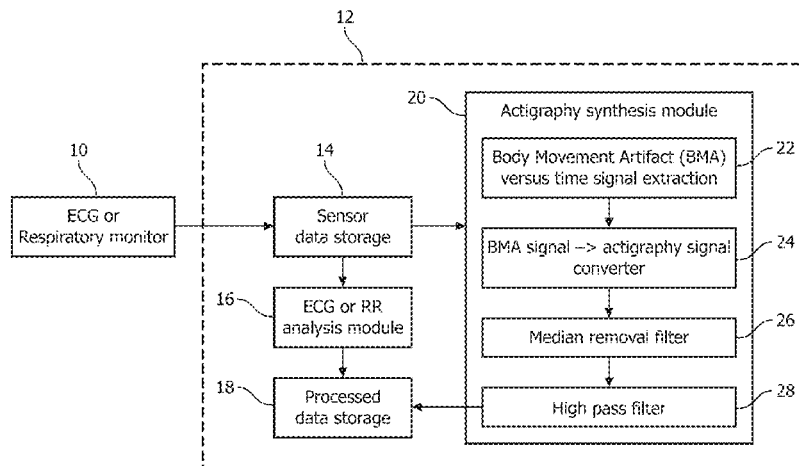
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(57) **ABSTRACT**

An actigraphy method includes receiving a physiological parameter signal as a function of time for a physiological parameter other than body motion (such as electrocardiography or a respiration monitor), computing a body motion artifact (BMA) signal as a function of time from the physiological parameter signal (for example, using a local signal power signal, a local variance signal, a short-time Fourier transform, or a wavelet transform over epochs of duration on order a few minutes or less), and computing an actigraphy signal as a function of time from the BMA signal, for example by applying a linear transform to the BMA signal and optionally applying filtering such as median removal and/or high-pass filtering.

**20 Claims, 16 Drawing Sheets**



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*A61B 5/11* (2006.01)  
*A61B 5/113* (2006.01)  
*A61B 5/08* (2006.01)
- (52) **U.S. Cl.**  
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*A61B 5/7242* (2013.01)

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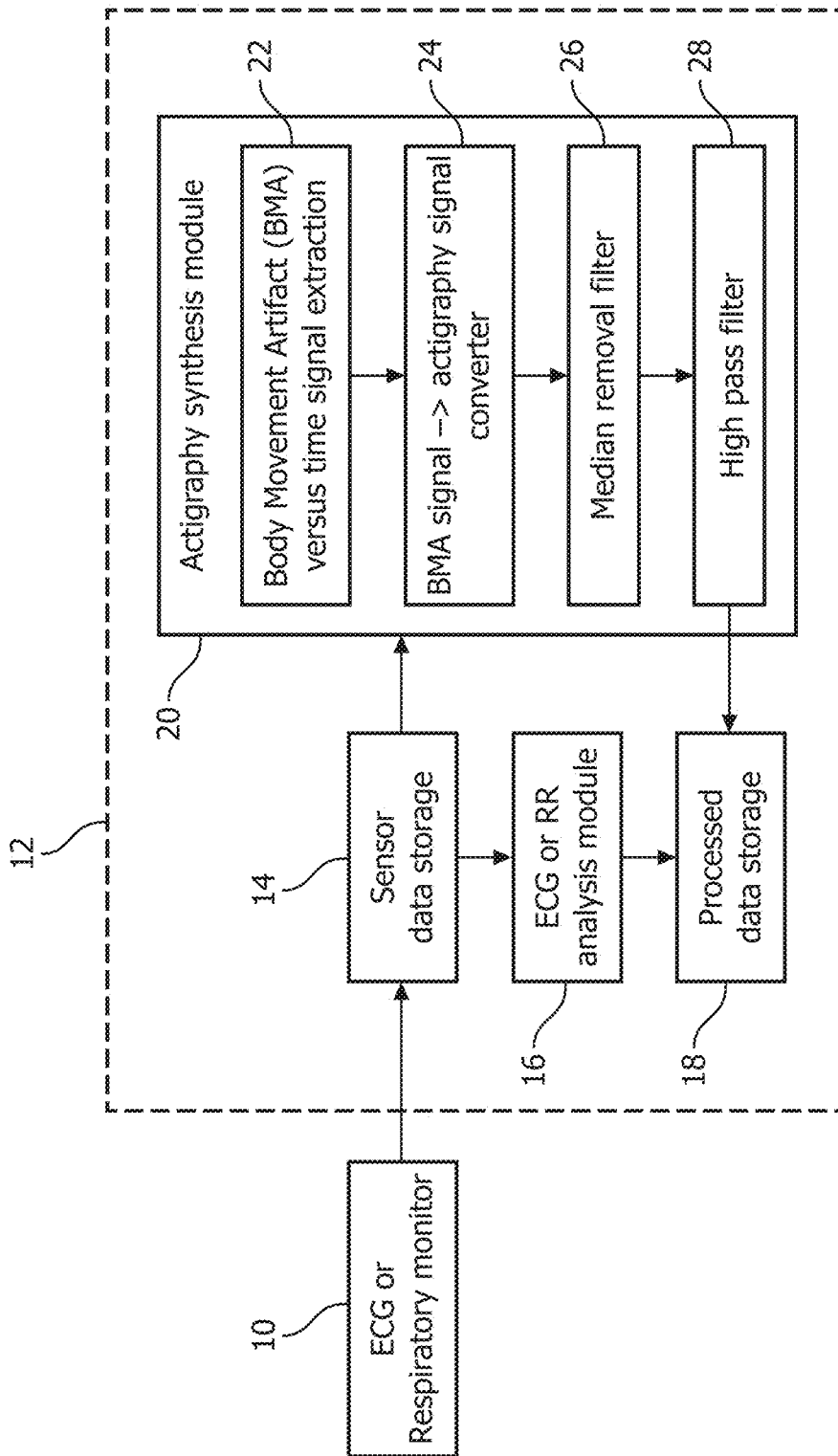


FIG. 1

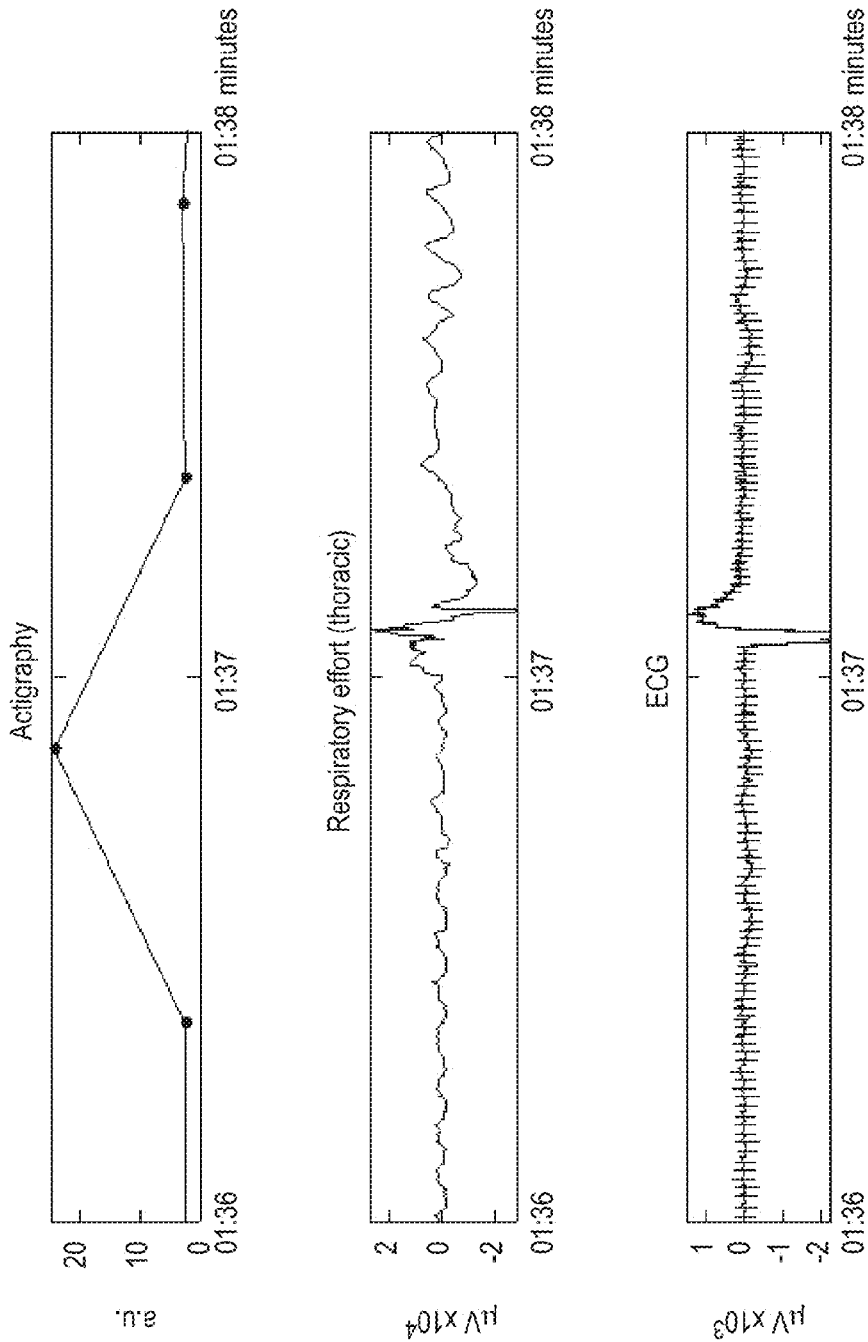


FIG. 2

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