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(54) **NANOTUBE SEMICONDUCTOR DEVICE AND SHEAR FORCE SENSOR INCLUDING THE SAME**

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(57) **ABSTRACT**

An orthostatic hypotension screening system using a heart rate-based machine learning algorithm includes an input unit configured to receive a variable comprising at least one of a patient's age, blood pressure, an expiration (E)-inspiration (I) difference and an E:I ratio calculated from a heart rate, and a Valsalva ratio calculated according to a Valsalva method; and a determination unit configured to determine whether the patient has orthostatic hypotension according to a machine learning algorithm that is pre-trained based on the variable received through the input unit.