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(54) **DUAL-ROTOR MICROFLUIDIC ENERGY CAPTURING AND POWER GENERATING DEVICE BASED ON PIEZOELECTRIC EFFECT**

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(57) **ABSTRACT**

Disclosed in the present invention is a dual-rotor microfluidic energy capturing and power generating device based on a piezoelectric effect. An inner ring of blades and an outer ring of blades are coaxially and movably sleeved, and rotate relatively. Sheet-like magnetic piezoelectric components and steel magnets are provided in an annular gap between the inner ring of blades and the outer ring of blades. Magnetic piezoelectric components are connected to an inner peripheral surface of the outer ring of blades, the magnetic piezoelectric components are magnetically repulsive to the steel magnets, and the outer sides of the magnetic piezoelectric components are axially arranged. The inner ring of blades and the outer ring of blades rotate relatively to drive the magnetic piezoelectric components and the steel magnets to rotate relatively, and further drive the magnetic piezoelectric components to oscillate to generate mechanical energy which is then converted into electric energy.