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(71) Applicant: **THE COMMONWEALTH OF AUSTRALIA** [AU/AU]; West Avenue, Edinburgh, South Australia 5111 (AU).

(72) Inventors: **MOSS, Scott**; c/o The Commonwealth of Australia, West Avenue, Edinburgh, South Australia 5111 (AU). **PAXEVANOS, Mason**; c/o The Commonwealth of Australia, West Avenue, Edinburgh, South Australia 5111 (AU).

(74) Agent: **FB RICE PTY LTD**; Level 33, 477 Collins St, Melbourne, Victoria 3000 (AU).

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(54) Title: VIBRATION ENERGY PROJECTION DEVICES AND SYSTEMS

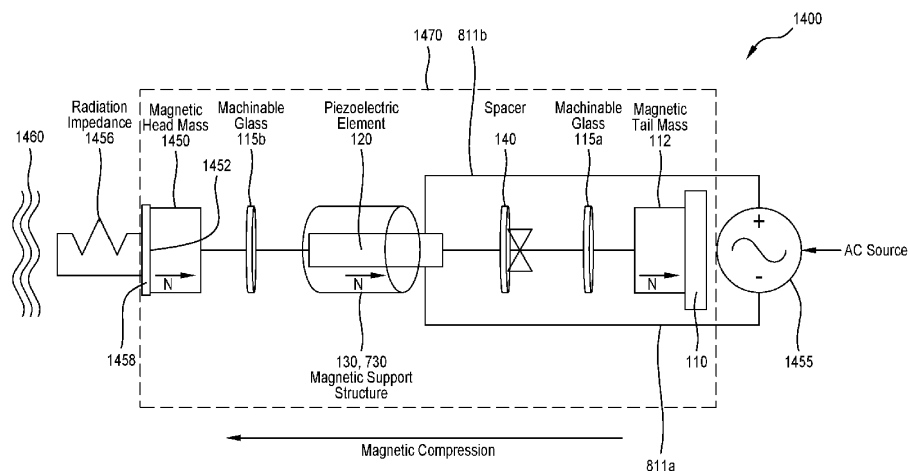


Figure 14

(57) Abstract: Some embodiments relate to an energy transduction device or apparatus. An example device or apparatus includes: a piezoelectric transducer; electrical conductors electrically coupled to the piezoelectric transducer; and an axially aligned magnet assembly arranged to apply static compressive force to the piezoelectric transducer, the magnet assembly being coupled to a base at one end and having a free opposite end. The magnet assembly is coaxial with the piezoelectric transducer and at least part of the magnet assembly is concentric with the piezoelectric transducer. The magnet assembly defines a gap between axially adjacent parts of the magnet assembly, wherein the gap is dimensioned to be sufficiently small that the magnet assembly applies a static compressive force to the piezoelectric transducer while being sufficiently large to allow for axial movement of the piezoelectric transducer without closing the gap.

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