

**Magnetic Flux Engineering with Metglas Concentrators for High-Performance
Magneto-Mechano-Electric Energy Harvesting Devices**

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Table S1: The material properties of materials used as magnetic flux concentration (MFC).

Materials	Relative permeability μ/μ_0
Nickel	100 – 600
Iron (99.95% pure)	200000
Cobalt-iron	18000
Iron (99.8% pure)	5000
Ferritic stainless steel	1000 – 1800
Mn-Zn ferrites	1000 – 10000
Metglas 2714A	1000000

Fig. S1: Output RMS currents and RMS voltages, of MME generator without (w/o) and with (w/t) Meglas MFC at various load resistances.

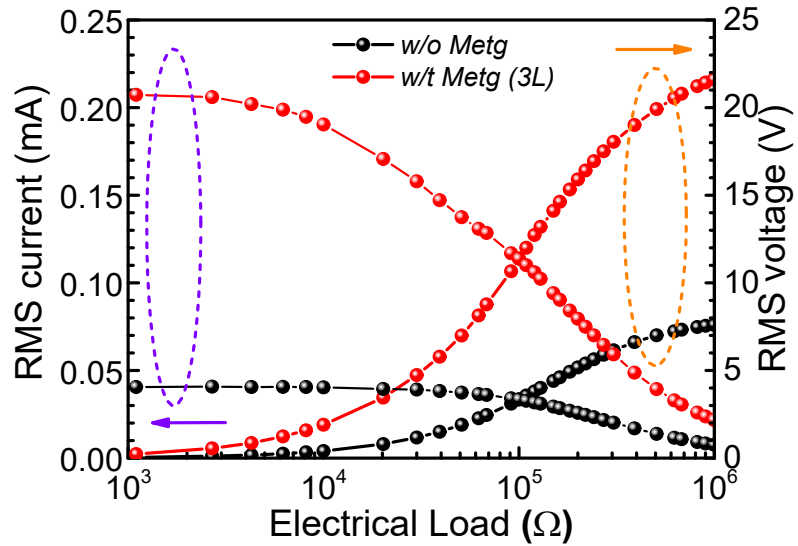


Fig. S2. RMS output power of the MME generators integrated with Metglas MFCs with different widths of the Metglas MFC as a function of external load resistance under an applied AC magnetic field of 10 Oe.

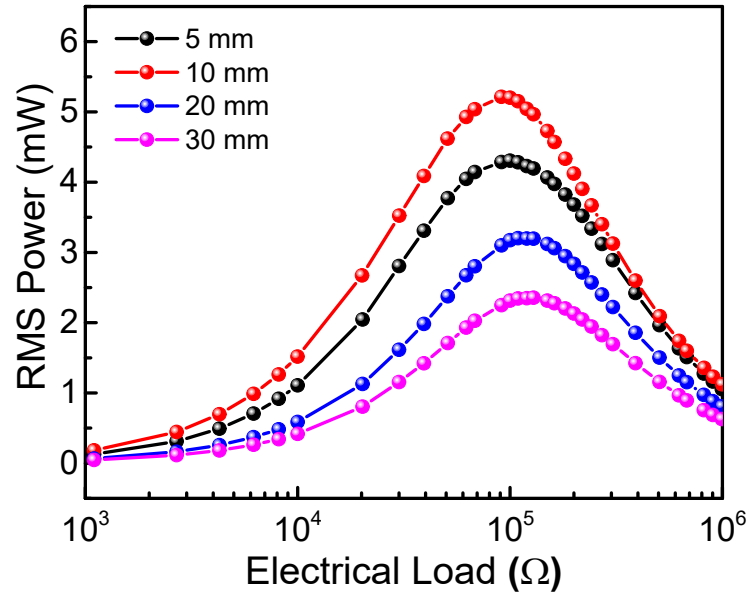


Fig. S3. Output RMS current and RMS voltage of the MME generator without (w/o) and with (w/t) Metglas magnetic flux concentrators (MFCs), comparing different numbers of Metglas layers at various load resistances.

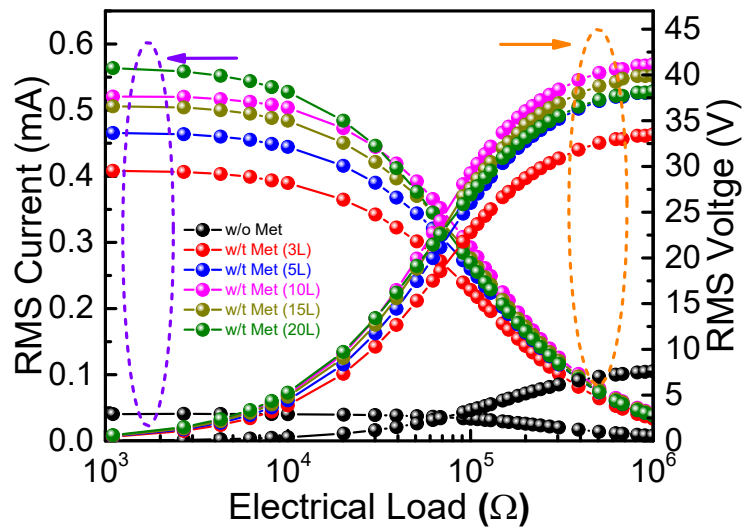


Fig. S4. Comparison of RMS output power of the MME generators integrated with different MFC materials as a function of external load resistance under an applied AC magnetic field of 10 Oe.

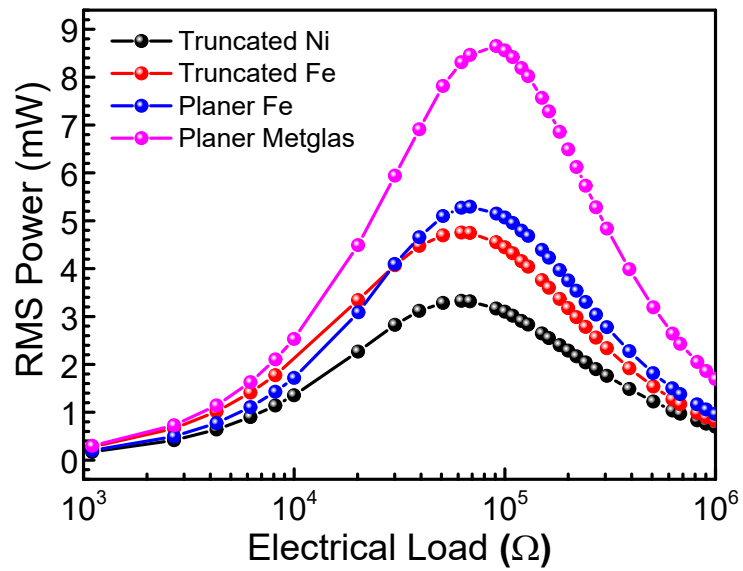


Fig. S5: Top view of experimental setup for the measurement of vibration amplitude using a laser interferometer.

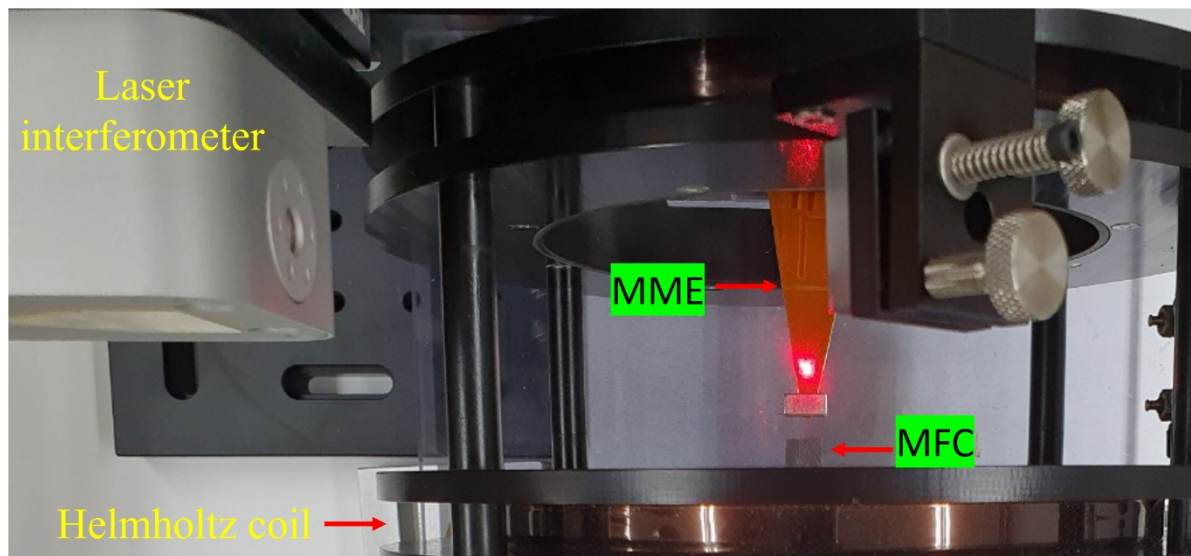


Figure S6: Experimental setup demonstrating the operation of powering arrays of 120 white LEDs under an applied magnetic field generated by a Helmholtz coil.

