



## Anisotropic Strain-Driven Magnetolectric Devices

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### The Invention

Magnetolectric devices based on piezoelectric/magnetostrictive bilayers are provided. Also provided are methods of using the devices to modulate or to sense the magnetization of the magnetostrictive material. The devices include an island of magnetostrictive material that is strain-coupled to a thin layer of a piezoelectric material at an interface. A bottom electrode is placed in electrical communication with one surface of the piezoelectric film, and an unpaired top electrode is placed in electrical communication with a second, opposing surface of the piezoelectric film.

### Additional Information

#### For More Information About the Inventors

- [Chang-Beom Eom](#)
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#### Tech Fields

- [Information Technology : Hardware](#)
- [Semiconductors & Integrated Circuits : Design & fabrication](#)

For current licensing status, please contact Michael Carey at [mcarey@warf.org](mailto:mcarey@warf.org) or 608-960-9867