



## Magnetic Memory Devices Based On 4d And 5d Transition Metal Perovskites

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**WARF: P170269US02**

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### The Invention

Magnetic switching devices, including magnetic memory devices, are provided. The devices use high-quality crystalline films of 4d or 5d transition metal perovskite having a strong spin-orbit coupling (SOC) to produce spin-orbit torque in adjacent ferromagnetic materials via a strong spin-Hall effect. Spin-orbit torque can be generated by the devices with a high efficiency, even at or near room temperature.

### Additional Information

#### For More Information About the Inventors

- [Chang-Beom Eom](#)

#### Tech Fields

- [Information Technology : Hardware](#)
- [Materials & Chemicals : Composites](#)

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