



## Magneto-Electronic Properties of Material for Spintronic Applications

Guest Editor:

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Deadline for manuscript  
submissions:

**closed (31 October 2021)**

### Message from the Guest Editor

Spintronics is a new technology for storing, displaying, and processing information based on changes brought in the electronic properties of the material by magnetic fields. The magnetization alignment can influence asymmetric interaction with various biological systems and furthermore can be used for spintronic applications by utilizing quantum-mechanical effects.

Recently, parallel efforts to induce spin selective charge imbalance have attracted enormous attention in the interdisciplinary community. There is the belief that electronic spin couples its degree of freedom with one of the most intriguing asymmetries in nature, chirality. Interestingly, moving electrons with specific spin also follow chiral paths due to their asymmetric momentum. This enables the chiral system to couple with a spin degree of freedom of an electron and allows specific spin to travel through this chiral system, and vice versa for opposite spin. On this note in the past, there were many systems developed which are able to create spin imbalance, like spin filtering or spin polarized current.

