

Theme: Electronic Material

- Sub-theme: Inorganic P-type semiconductor

The demand for new semiconducting materials with excellent electron mobility and process compatibility is a very urgent and important topic. Many electronic and optoelectronic devices require complementary and symmetrical pairs of n-type and p-type semiconductors. While several high-mobility n-type semiconductors are developed, there is literally no p-type semiconductor comparable to the n-type counterpart despite tremendous efforts to discover them.

We are aiming to find p-type semiconducting materials which can be a key technology for potential applications.

The topics we pursue through this GRO are as follows:

- High mobility channel materials (2D materials, TMD, oxide, metal halide semiconductors, and others) – doping, defects, growth, and Devices

※ *The topics are not limited to the above examples and the participants are encouraged to propose original ideas.*

※ Funding: Up to USD 150,000 per year