

Dynamic control of terahertz light by graphene metasurfaces**Univ. of Ulsan¹****E-mail: ttkim@ulsan.ac.kr**

Manipulation of the polarization states of electromagnetic waves can be realized by employing anisotropic materials with chirality or birefringence. However, at terahertz frequencies, the relatively small anisotropy of naturally existing materials impedes the miniaturization of optical components and devices. In this talk, we will present electrically controllable polarization states at the THz waves by different designs of metasurfaces with strong chirality, anisotropy, and non-Hermitian chiral degeneracy. Continuous control polarization states may provide a wide range of opportunities for the development of compact THz polarization devices and polarization-sensitive THz technology. Moreover, we anticipate that electrically controllable non-Hermitian metasurface platforms can serve as an interesting framework for the investigation of rich non-Hermitian polarization dynamics around chiral exceptional points.