



Theme	Future memory architectures & materials		Next generation solar cells and fets		Flexible transparent optoelectronics				Nanophotonics	
	Phase change RAM	Resistive RAM	Heterojunction Solar Cells	Thermoelectric material	High mobility materials	Ferroelectric non-volatile electronics	Flexible Optoelectronics	Transparent Electronics	Chalcogenide glass Metamaterials	Glass Microsphere and Nanosphere Photonic Elements
Materials	Ga-La-S Ga-La-S-O Ge-Sb-Te, Ge-Te, Ge-Sb Sb-Te, Bi-Sb-Te AgInSbTe ZnS/SiO ₂	Ge-Se Ge-S, Ge-Sb-S Ge-Sb, Sb-S Hybrid Ge-O/Ge-S Hybrid Sb-O/Sb-S TiO ₂ GLSO SiO ₂	CuInGa(S,Se) ₂ (CIGS) Cu ₂ ZnSnS ₄ (CZTS)	Bi-Te Bi-Se Bi-Sb-Te	Mo ₂ S Graphene	GeTe	All our materials can be deposited on flexible substrates – see below.	SnO ₂ ZnO ITO Ga-La-S Al-Zn-O	Au Ag Al GST GLS	Ga-La-S Ga-La-S-O

- Our facilities allow us to develop a material in-house in bulk and thin film formats across a vast compositional space, along with state of the art nanofabrication facilities for device development . This is coupled with full thermo-opto-electronic characterisation suites dedicated to the study of both material and device based parameters.
- Fabrication techniques used are at room temperature. Vast array of substrates and materials and material phases is used and produced as a result.
- In-situ doping of thin films and bulk, as well as ion implantation capabilities for non-equilibrium doping of materials used extensively to achieve specific operational characteristics for different applications.