UWO 2025

Ultra-wide bandgap oxides

Wednesday 25th June 2025

Room TL325a, Learning and Teaching building, University of Strathclyde

9.30		**Registration and coffee**
10.10		**Opening remarks**
10.15	**M. Grundmann** Universität Leipzig	**Plenary talk** *Ultrawide gap gallium oxide: Epitaxy of various phases, doping and device properties*
11.00		**Coffee break**
11.30		**CHARACTERISATION SESSION**
	C. Dawe University of Manchester	*Electrically active defects in Ta-doped β-Ga_2O_3 grown via the optical floating zone method*
	L. Penman University of Strathclyde	*Comparative study of the optical properties of α-, β-, and κ-Ga_2O_3*
	F. Hrubisak Slovak Academy of Sciences	*The effect of hydrogen on electrical properties of depletion-mode MOSFETs fabricated from β-Ga_2O_3 on 4H-SiC substrates*
	S. Douglas University of Strathclyde	*Radiation resilient Ga_2O_3 photodetectors for applications in Low Earth Orbit*
12.30		**Poster flash presentations**
13.00		**Lunch + Posters**
14.00		**GROWTH SESSION**
	M. Bosi IMEM-CNR	*Nucleation of β and κ phases in MOVPE growth of Ga_2O_3: experimental evidence and first principles modelling*
	P. Fabianno Agnitron	*Scalable MOCVD Growth of β-Ga_2O_3 on 4-inch and Larger Substrates*
	A. Nandi University of Bristol	*β-Ga_2O_3 growth on single crystal diamond (111)*
	D. Lamb Swansea University	*$(Al_xGa_{1-x})_2O_3$ growth and materials properties using close coupled showerhead MOCVD*
	F. Gucmann Slovak Academy of Sciences	*The origin of enhanced crystal quality of (-201) β-Ga_2O_3 grown on vicinal sapphire by liquid-injection MOCVD*
15.15		**Coffee break**
15.45		**DEVICES SESSION**
	S. Vanjari University of Bristol	*Reliability of 3.8 kV β-Ga_2O_3 (001) vertical trench Schottky barrier diodes*
	P. Ferrandis Institut Néel	*Influence of bulk defects on the Schottky barrier height of β-Ga_2O_3 diodes*
	F. Hadizadeh University of Strathclyde	*Consistent reporting of performances in Ga_2O_3 UV-C photodetectors*
16.30		**OTHER MATERIALS SESSION**
	G. Cicconi University of Parma	*Metalorganic vapour phase epitaxy (MOVPE) of r-GeO_2 layers on isostructural TiO_2*
	K. Agrawal Tyndall National Institute	*Defects in ALD-HfO_2 on β-Ga_2O_3*
	C. Ezeh City University of Hong Kong	*Electronic bandgap engineering in wide gap NiO-Ga_2O_3 for p-type conductivity*
17.15		**Closing remarks**
17.30		**End**

Posters

Room TL328, Learning and Teaching building, University of Strathclyde

12.30-13.00 **Flash presentations (TL325a)**
13.00-14.00 **Poster presentations (TL328)**

V. Selamneni University of Glasgow	*Facile synthesis of ultra-long β-Ga_2O_3 nanowires using chemical vapor transport for optoelectronic devices*
Z. Pasha Cardiff University	*Fabrication and characterisation of optical float-zone β-Ga_2O_3 Schottky diodes*
M. Fadla Queen's University Belfact	*Band offsets and substitutional impurities in ultra-wide bandgap semiconductors and their alloys: A first-principles insight*
D. Keeble University of Dundee	*Detection of vacancy-related defects in MOCVD Beta-Ga_2O_3*
B. Hourahine University of Strathclyde	*Dilute gallium-based alloys*
D. Rogers Nanovation	*Self-powered Oxide Heterojunctions for Remote Optical Fire Sensing*
K. Li University College London	*Computational prediction of the intrinsic point defects of α-Ga_2O^3: cation split-vacancy configuration*
A. Moore Swansea University	*Electrical properties of Ga_2O_3:Si using close coupled showerhead MOCVD*
T. Aldakhil University of Strathclyde	*Properties of Si-doped α-Ga_2O_3*
L. Penman University of Strathclyde	*Electron microscopy investigation of laterally overgrown α-Ga_2O_3*
M. Alessa University of Strathclyde	*Fabrication of Ga_2O_3-UV photodetectors using chemical solution deposition*
M-Y. Kim University of Bristol	*Defect formation on (001) β-Ga_2O_3 during wet etching and its implications for vertical power device performance*
S. Reynolds University of Dundee	*Interpreting photocurrent decays in unintentionally doped beta-Ga_2O_3: Discrete and distributed trapping states*