

9:30-10:00	Arrival/Registration/Coffee
10:00-10:15	Opening Remarks (Martin Kuball)
10:15-11:00	Plenary talk Chair: Martin Kuball Ga₂O₃ - an overview Oliver Bierwagen Paul-Drude-Institut, Berlin, Germany
11:00 - 11:30	Session 1: Material modelling and characterization Chair: Martin Kuball
11:00-11:15	Tackling Disorder in γ-Ga₂O₃ Dr Anna Regoutz [1], Dr Laura Ratcliff [1], Takayoshi Oshima [1], Felix Nippert [1], Benjamin Janzen [1], Elias Kluth [1], Rüdiger Goldhahn [1], Martin Feneberg [1], Piero Mazzolini [1], Oliver Bierwagen [1], Charlotte Wouters [1], Musbah Nofal [1], Martin Albrecht [1], Jack Swallow [1], Leanne Jones [1], Pardeep Thakur [1], Tien-Lin Lee [1], Curran Kalha [1], Christoph Schlueter [1], Tim Veal [1], Joel Varley [1], Markus Wagner [1] [1] University College London, UK
11:15-11:30	Title: TBD Veno Naidoo et al., [1] Carl Zeiss Ltd
11:30-11:45	Coffee break + poster session
11:45 – 12:45:	Session 2: Electronic Devices Chair: Matt Smith
11:45-12:00	Highly scalable vertically stacked gate-all-around Ga₂O₃ based ambipolar device for CMOS IC Mr Saravanan Yuvaraja [1] , Mr Vishal Khandelwal [1] , Prof Xiaohang Li [1] [1] King Abdullah University of Science and Technology, THUWAL, Saudi Arabia
12:00-12:15	Investigation of interface traps in Ga₂O₃ based MOS using UV-assisted capacitance-voltage measurements Aditya Bhat K [1], Hyun-Seop Kim [1], Abhishek Mishra [1], Matthew Smith [1], Michael Uren [1], Martin Kuball [1] [1] Center for Device Thermography and Reliability, University of Bristol, Bristol BS8 1TL, UK
12:15-12:30	Thermal stability of Schottky contacts and induced defect levels in (100) Cz-grown beta-Ga₂O₃ crystals due to thermal load Palvan Seyidov [1], Joel B. Varley [2], Ymir Kalmann Frodason [3], Lasse Vines [3], Detlef Klimm [1], Zbigniew Galazka [1], TaShun Chou [1], Andreas Popp [1], Klaus Irmischer [1], Andreas Fiedler [1] [1] Leibniz-Institut für Kristallzüchtung, Berlin, Germany [2] Lawrence Livermore National Laboratory, USA [3] University of Oslo, Oslo, Norway
12:30-12:45	Failure analysis of gallium oxide Schottky barrier diodes using correlative microscopy Naresh Gunasekar [1] , Dr Paul Edwards [2] , Professor Robert Martin [2] , Dr Shanthi Subashchandran [3] , Dr Krishnamurthy Daivasigamani [4] , Dr Kohei Sasaki [4] , Dr Akito Kuramata [4] [1] Cardiff University, Cardiff, United Kingdom [2] University of Strathclyde, Glasgow, United Kingdom [3] Anna University, Chennai, India [4] Novel Crystal Technology, Saitama city, Japan
12:45-13:45	Lunch + poster session

13:45-15:00	Session 3: Material growth Chair: Naresh Gunasekar
13:45-14:00	The development of MOVPE-grown (100) β-Ga₂O₃ toward vertical power devices Ta-Shun Chou [1], Dr. Saud Bin Anooz [1], Raimund Grüneberg [1], Thi Thuy Vi Tran [1], Jana Rehm [1], Arub Akhtar [1], Dr. Zbigniew Galazka [1], Palvan Seyidov [1], Dr. Klaus Irmscher [1], Dr. Martin Albrecht [1], Dr. Andreas Fiedler [1], Andreas Popp [1] [1] Leibniz-Institut für Kristallzüchtung (IKZ), Berlin, Germany
14:00-14:15	Tailoring Five Polymorphs of Ga₂O₃ using Mist CVD Hiroyuki Nishinaka [1], Kazuki Shimazu [1], Masahito Kaneko [1], Temma Ogawa [1], Takahiro Kato [1], Yoko Taniguchi [1], Masahiro Yoshimoto [1] [1] Kyoto Institute of Technology, Kyoto, Japan
14:15-14:30	Recent advances in epitaxial growth, in-situ etch and regrowth of betta-Ga2O3 films using MOCVD A. Osinsky [1], F. Alema [1] Agnitron Technology Inc., 8360 Commerce Drive, Chanhassen, MN 55317, USA
14:30-14:45	Epitaxial growth of beta-Ga₂O₃ on Diamond substrates Arpit Nandi [1], David Cherns [1], Indraneel Sanyal [1], Martin Kuball [1] [1] Center for Device Thermography and Reliability, University of Bristol, Bristol BS8 1TL, UK
14:45-15:00	Development of 10-mm-square large size β-Ga₂O₃ SBDs K. Sasaki [1], C. H. Lin [1], A. Kuramata [1], [1] Novel Crystal Technology, Inc., Sayama, Saitama, Japan
15:00-15:15	Coffee break + poster session
15:15-16:00	Session 4: Optical properties Chair: Fabien Massabuau
15:15-15:30	Narrow-Band UV Emission in Gd³⁺-Implanted Gallium Oxide Martin Samuel Williams [1], Manuel Alonso-Orts [1], Alexander Karg [1], Patrick Vogt [1], Marco Schowalter [1], Andreas Rosenauer [1], Carsten Ronning [2], Martin Eickhoff [1] [1] Institute of Solid State Physics, University of Bremen, Otto-Hahn-Allee 1, Bremen, Germany, [2] Institute of Solid State Physics, Friedrich Schiller University Jena, Helmhotzweg 3, Jena, Germany
15:30-15:45	Hydrogen-related 3.8 eV luminescence in alpha-Ga₂O₃ David Nicol [1], Yuichi Oshima [2], Joseph Roberts [3], Lewis Penman [1], Douglas Cameron [1], Paul Chalker [3], Robert Martin [1], Fabien Massabuau [1] [1] University Of Strathclyde, Glasgow, United Kingdom, [2] National Institute for Materials Science, Tsukuba, Japan, [3] School of Engineering, University of Liverpool, Liverpool, United Kingdom
15:45-16:00	Cathodoluminescence of epitaxy lateral overgrowth of α-Ga₂O₃ Mugove Maruzane [1], Yuichi Oshima [2], Paul Edwards [1], Robert Martin [1], Fabien Massabuau [1] [1] University Of Strathclyde, Glasgow, United Kingdom [2] National Institute of Material Science, Tsukuba, Japan
16:00-16:45	Panel discussion: <ul style="list-style-type: none"> • What are the main challenges facing gallium oxide? • How to achieve critical mass for Ga₂O₃ and UWO in the UK/Europe?
16:45-17:00	Closing remarks and student prizes
17:00-18:00	Optional Tour of Facilities – CDTR @ University of Bristol

Posters

- **β -Ga₂O₃ Processing: An Investigation of Advanced Gate Dielectrics**
Jacob Asher[1], Jacob Mitchel[1], Jon Evans[1], Stefan Zeiske[1], Antonio Martinez[1], Dan Gillard[1], Craig Fisher[1], Zeyu Chi[1], Amador Perez-Tomas[1], Ekaterine Chikoidze[1], Mike Jennings[1]
[1] Swansea University, Swansea, United Kingdom
- **Computational Modelling of Wide Band Gap Transparent Conducting Oxide Sb₂O₅**
Ke Li[1], Joe Willis[1], David Scanlon[1]
University College London, London, United Kingdom
- **Degenerate Doping and Band Gap Renormalisation in β -Ga₂O₃: Computational Insights**
Joe Willis[1], David Scanlon[1]
University College London, London, United Kingdom
- **Incorporation of Bismuth into In₂O₃ and Ga₂O₃ thin films to introduce intermediate levels**
Yoko Taniguchi[1], Hiroyuki Nishinaka[1], Kazuki Shimazoe[1], Toshiyuki Kawaharamura[2], Masahiro Yoshimoto[1]
[1] Kyoto Institute of Technology, Kyoto, Japan,
[2] Kochi University of Technology, Kami, Japan
- **Probing sub-bandgap absorption in α -Ga₂O₃ using the constant photocurrent method**
David Nicol[1], Steve Reynolds[2], Joseph Roberts[3], Paul Chalker[3], Fabien Massabuau[1]
[1] University Of Strathclyde, Glasgow, United Kingdom
[2] University of Dundee, Dundee, United Kingdom
[3] University of Liverpool, Liverpool, United Kingdom
- **Piezoelectric property and strain response of defected β -Ga₂O₃**
Lijie Li[1]
[1] Swansea University, Swansea, United Kingdom
- **Metrology in Manufacturing Compound Semiconductors for Power Electronics**
Sebastian Wood[1], Dongkuk Kim[1], George Koutsourakis [1]
[1] National Physical Laboratory, Teddington, Middlesex, TW11 0LW, UK
- **Thermodynamic control of phases and structural phase transition in Ga₂O₃ thin films**
Amit Khare [1], Igor Shvets[1]
[1] CRANN and School of Physics, Trinity College Dublin, Dublin 2, Ireland