

List of Publications

- 1 **IME Butler**, Wei Li, SA Sobhani, N Babazadeh, IM Ross, K Nishi, K Takemasa, M Sugawara, DTD Childs and RA Hogg, "*Size anisotropy inhomogeneity effects in state-of-the-art quantum dot lasers*", Applied Physics Letters 113, 012105 (2018)
- 2 AN Majeed, P Ivanov, BJ Stevens, E Clarke, **IME Butler**, DTD Childs, O Kojima and R Hogg, "*Broadband THz absorption spectrometer based on excitonic nonlinear optical effects*", Light: Science & Applications 8, 29 (2019)
- 3* **IME Butler**, Wei Li, SA Sobhani, N Babazadeh, IM Ross, K Nishi, K Takemasa, M Sugawara, Negin Peyvast, DTD Childs, Richard A Hogg, "*Incorporating structural analysis in a quantum dot Monte-Carlo model*", Novel In-Plane Semiconductor Lasers XVII 10553, 105530G (2018)

* Non-peer reviewed

Conference Presentations and Posters

- O Iain M. E. Butler**, David T. D. Childs, Richard A. Hogg, Kouichi Akahane, Atsushi Matsumoto, Naokatsu Yamamoto, "*Lasing characteristics and material design parameters for InP(311)B InAs quantum-dot lasers*", Novel In-Plane Semiconductor Lasers XIX, SPIE Photonics West 2020
- AO A Matsumoto**, I Butler, T Umezawa, S Nakajima, R Hogg, N Yamamoto, "*Characteristics of QD-LD with InP (311) B Substrate on Thickness of InGaAlAs Spacer Layers*", 2019 Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference (CLEO/Europe-EQEC)
- O I.M.E. Butler**, N. Babazadeh, R. Baba, K. Nishi, K. Takemasa, M. Sugawara, D.T.D. Childs, R.A. Hogg, "*High Resolution Optical Spectroscopy of state-of-the-art Quantum-Dot Lasers for High Temperature Operation*", Conference presentation at Semiconductor and Integrated Optoelectronics 2019, Cardiff
- P I.M.E. Butler**, A. Matsumoto, K. Akahane, N. Yamamoto, D.T.D. Childs, R.A. Hogg, "*A study on design parameters of InAs quantum dot laser material on the lasing characteristics using the InP(311)B substrate*", UK Semiconductors 2019, Sheffield
- O I.M.E. Butler**, Wei Li, S.A. Sobhani, N. Babazadeh, I.M. Ross, K. Nishi, K. Takemasa, M. Sugawara, D.T.D. Childs, R.A. Hogg, "*Object Orientated Monte-Carlo Model Incorporating Structural Analysis of State-of-the-Art Quantum Dot Lasers*", JSAP Autumn Meeting 2018, Nagoya, Japan
- O I.M.E. Butler**, Wei Li, S.A. Sobhani, N. Babazadeh, I.M. Ross, K. Nishi, K. Takemasa, M. Sugawara, D.T.D. Childs, R.A. Hogg, "*A Monte-Carlo model incorporating structural analysis of state-of-the-art quantum-dot lasers*", SPIE Photonics West 2019
- O I.M.E. Butler**, N. Babazadeh, R. Baba, K. Nishi, K. Takemasa, M. Sugawara, D.T.D. Childs, R.A. Hogg, "*Broad temperature range characterisation of quantum-dot lasers for harsh environments*", SPIE Photonics West 2019
- O I.M.E. Butler**, Wei Li, S.A. Sobhani, N. Babazadeh, I.M. Ross, K. Nishi, K. Takemasa, M. Sugawara, D.T.D. Childs, R.A. Hogg, "*Object Orientated Monte-Carlo*

- Model Incorporating Structural Analysis of State-of-the-Art Quantum Dot Lasers*", UK Semiconductors 2018, Sheffield
- AO** A.N. Majeed , P.Ivanov , B. J. Stevens , E. Clarke, I. M. E. Butler, D. T. D. Childs , O. Kojima, **R. A. Hogg**, "*Room temperature tuneable THz generation based on excitonic optical nonlinearities in GaAs/AlGaAs Multi-quantum well structures*", SPIE Photonics West 2018
- O** **I.M.E. Butler**, Wei Li, S.A. Sobhani, N. Babazadeh, I.M. Ross, K. Nishi, K. Takemasa, M. Sugawara, D.T.D. Childs, R.A. Hogg, "*Quantum Dot Size Anisotropy Effects in State-of-the-Art Quantum Dot Lasers*", UK Semiconductors 2017, Sheffield
- O** **I.M.E. Butler**, Wei Li, S.A. Sobhani, N. Babazadeh, I.M. Ross, K. Nishi, K. Takemasa, M. Sugawara, D.T.D. Childs, R.A. Hogg, "*Quantum Dot Size Anisotropy Effects in State-of-the-Art Quantum Dot Lasers*", UK-China Emerging Technologies (UCET) 2017, Glasgow
- AP** Guangrui Li, Jayanta Sarma, Iain Butler, Richard JE Taylor, David TD Childs, **Richard A Hogg**, "*Modelling and Device Simulation of Photonic Crystal Surface Emitting Lasers Based on Modal Index Analysis*", 2018 IEEE International Semiconductor Laser Conference (ISLC)
- AP** Ben C King, Richard JE Taylor, Pavlo Ivanov, Iain Butler, Timothy S Roberts, David TD Childs, **Richard A Hogg**, "*In-Line Non-Destructive Characterisation Method for Photonic Crystal Surface Emitting Lasers*", 2018 IEEE International Semiconductor Laser Conference (ISLC)
- AP** **AN Majeed**, P Ivanov, BJ Stevens, E Clarke, IME Butler, DTD Childs, O Kojima, R Hogg, "*Room temperature tuneable THz generation based on excitonic optical nonlinearities in GaAs/AlGaAs multi-quantum well structures*", 2017 42nd International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz)

Key:

O = Oral Presentation,

AO = Named author (oral presentation),

P = Poster Presentation,

AP = Named author (poster presentation),