

THE OPTOELECTRONICS RESEARCH CENTRE AT CLEO EUROPE 2019

Your guide to papers and posters featuring research from the Optoelectronics Research Centre and its major grants.

Sunday 23 June 2019

- **10:30** Short-wavelength, near-diffraction-limited beam, 792 nm cladding pumped efficient thulium-doped fiber laser in a power-scalable fiber design, #CJ1.1. *Pidishety et al.* (Room 3 ICM)
- **10:45** Thulium-doped Fibre Laser with 25 W Single-mode Output at 1726 nm, #CJ-1.2. *Burns et al.* (Room 3 ICM)
- **10:45** Hybrid Ho:YAG laser with 50W radially-polarised output, #CA-1.2. *Shardlow et al.* (Room 13a ICM)
- **11:00** THz Spectroscopy of Photogenerated Carriers in Fe:LiNbO₃ for Optical Control of 2D Materials, #CE-1.4. *Blundell et al.* (Room 7 Hall A1)
- **11:30** 3D vertical directional coupler using slope waveguides on Si, #CE-1.4. *Mittal et al.* (Room 7 Hall A1)
- **14:15** RF-sputtering technique for fabrication of dielectric multilayer structures with low-threshold coherent emission at 1.5 μm, #CE-2.2. *Chiasera et al.* (Room 3 ICM)
- **16:00** Long Range Distributed Optical Acoustic Sensor based on In-line Raman Amplification, #CH-3.1. *Masoudi et al.* (Room 1 Hall A1)
- **16:15** Photon Pair Generation at 2.080 μm by Down-conversion, #CD-3.2. *Shields et al.* (Room 13b ICM)
- **16:45** Broad-band optical parametric amplification in a tapered silicon core fiber pumped in the telecom band, #CD-3.4. *Wu et al.* (Room 13b ICM)
- **19:00** Low Bend Loss Femtosecond Written Waveguides Exploiting Microcrack Enhanced Modal Confinement, #CM-4.5. *Lee et al.* (Room 14b ICM)
- **19:15** Suspended Tantalum Pentoxide Rib Waveguides for Laser Absorption Spectroscopy, #CE-4.1. *Vlk et al.* (Room 1 Hall A1)

Posters (Hall B0):

- 2.5 mJ narrow-linewidth, linearly-polarized pulseburst high-power Yb-doped fiber amplifier system, #CJ-P.20. *Lin et al.*
- Pulsed Yb-doped Phospho-silicate Fiber MOPA Source with 25kW Peak Power and Excellent Beam Quality, #CJ-P.24. *Sahu et al.*
- Bismuth doped fiber for filtering applications, #CJ-P.39. *Jain et al.*
- Phase Sensitive Amplification in a Periodically Poled Silica Fiber, #CJ-P.74. *Englebert et al.*

Tutorial (Room 14a ICM): Metamaterials, Anapoles and Flying Donuts #EH-1.1. *Zheludev*

Meet us at Laser World of Photonics (24-27 June 2019) - Hall B2, Stand 121

Ask the experts from our Future Photonics Manufacturing Hub and quantum photonics research group

 **FUTURE PHOTONICS**Hub
Advancing the manufacturing of next-generation light technologies

 **LASER** World of
PHOTONICS

Monday 24 June 2019

- **11:15** Control of Laser Induced Stress for Diffractive Optics in Transparent Media, #CM-5.1. *Sun et al.* (Room 14b ICM)
- **11:45** Ultrafast perturbation mapping for characterization of photonic integrated circuits, #CK-4.3. *Dinsdale et al.* (Room 4b ICM)
- **11:45** Low-loss geometric phase elements by femtosecond laser writing in silica glass (Invited), #CM-5.3. *Sakakura et al.* (Room 14b ICM)
- **11:45** Miniaturised, Planar, Integrated Bragg Grating Spectrometer, #CH-5.2. *Field et al.* (Room 1 Hall A1)
- **11:45** Composite Material Antiresonant Fibre Optical Modulator with >3dB Depth, #CE-5.2. *Lewis et al.* (Room 3 Hall A1)
- **12:15** On the Possibility of Structural Characterisation of Hollow Core Fibres using Whispering Gallery Modes Excited by Laser and Broadband Light, #CE-5.4. *Bukshtab et al.* (Room 3 Hall A1)
- **12:30** Record Low Loss Hollow Core Fiber for the 1μm region, #CE-5.5. *Sakr et al.* (Room 3 Hall A1)
- **14:45** Laser Performance of a PLD Grown Yb:LuAG Double-Clad Planar Waveguide, #CE-5.5. *Sergey et al.* (Room 1 ICM)
- **15:30** Zinc Indiffused Diced Ridge PPLN Waveguides for Photorefractive Damage Resistance and Spectral Engineering, #CJ-6.5. *Berry et al.* (Room 1 ICM)
- **15:30** High Sensitivity All-Fibre Methane Sensor with Gas Permeable Teflon/Cryptophane-A Membrane, #CH-6.5. *Ismael et al.* (Room 1 Hall A1)
- **17:00** Integrated Optical Fibre - Investigating the Vibrational Response Using Optical Frequency Domain Reflectometry, #CE-7.4. *Scholl et al.* (Room 3 Hall A1)
- **17:15** Development of 3-D Printed Silica Preforms, #CE-7.5. *Camacho-Rosales et al.* (Room 3 Hall A1)



The Optoelectronics Research Centre at CLEO Europe 2019

Posters:

- Alignment of Higher-Order Mode Solid-State Laser Systems with Machine Learning Diagnostic Assistance, #CA-P.48. *Jefferson-Brain et al.* (Room 1 ICM)
- Resonant intersubband polariton-LO phonon scattering in optically pumped polaritonic devices, #CB-P.38. *Manceau et al.* (Hall Bo)
- Long Length fibre Fabry-Perot interferometers and applications in characterization and temperature sensing, #CH-P.9. *Ding et al.* (Hall Bo)

Tuesday 25 June 2019

- **09:00** Optical routing of nanospheres on plasmonic rails, #CL-4.3, *Yin et al.* (Room Osterseen ICM)
- **09:15** Laser-based Fabrication of Micromechanical Diaphragms for Pressure Sensing Using Bragg Gratings, #CE-8.4, *Jantzen et al.* (Room 3 Hall A1)
- **09:30** 790nm Diode Pumped Thulium Sensitized Holmium-doped Fibre Laser Operating Beyond 2100nm, #CJ-8.5, *Ramirez-Martinez et al.* (Room 1 ICM)
- **09:45** Multi-Watt Operation of a Holmium Doped Silica Fibre Laser at 2.2 microns, #CJ-8.6, *Holmes et al.* (Room 1 ICM)
- **14:30** Integrated waveguides and Bragg gratings UV written with 213nm light, #CK-8.3, *Gow et al.* (Room 14b ICM)
- **16:45** Singlemode Kilowatt Fibre Laser with Adjustable Beam Profile and M2, #CJ-9.2, *Vukovic et al.* (Room 1 ICM)

Posters (Hall Bo):

- Ultra Thin Terahertz Spatial Phase Modulator Based on Metamaterial-Enhanced Liquid-Crystal Cell, #CC-P.39, *Buchnev et al.*

Wednesday 26 June 2019

- **16:00** Direct Laser Synthesis of Two-Dimensional Transition Metal Dichalcogenides, #CE-10.1. *Abbas et al.* (Room 3 Hall A1)
- **16:15** Interferometric attosecond lock-in measurement of extreme ultraviolet circular dichroism, #CG-6.2. *Kneller et al.* (Room 13a ICM)
- **16:45** Metasurfaces Can Sense Spatial Coherence of Light, #EH-4.4. *Frank et al.* (Room 4a ICM)
- **16:45** Study of Tm-doped Aluminosilicate for Integration of Lasers on a SOI Silicon Photonics Platform, #EH-4.4. *Mitchell et al.* (Room 3 Hall A1)
- **17:00** Continuous beam steering via controlling light with light on a dielectric metasurface, #EH-4.4. *He et al.* (Room 4a ICM)

Posters (Hall Bo):

- Femtosecond Laser Assisted Fabrication of Visible Wavelength All-dielectric Nano-membrane Metasurfaces, #CK-P.46. *Beresna et al.*
- Growth of Large-Area, Uniform, Few-Layer Tungsten Disulphide by Thermal Decomposition of Ammonium Tetrathiotungstate, #EI-P.17. *Abbas et al.*
- Slow and stopped light in a time-dependent Moiré grating, #EJ-P.3. *Maybour et al.*

Thursday 27 June 2019

- **11:45** All-fiber Bi-doped laser continuously tunable from 1317-1375nm, #CJ-12.6. *Thipparapu et al.* (Room 1 ICM)
- **14:00** Nano-opto-mechanical Metamaterial Q-switches infrared fibre laser, #EH-5.1. *Karvounis et al.* (Room 4a ICM)

Posters (Hall Bo):

- Comparison of SC fibers for fs Ti:Sapphire based hyperspectral CARS microscopy, #CD-P.15. *Herdzik et al.*
- Impact of the electrical configuration on the thermal poling of optical fibres with embedded electrodes: theory and experiments, #CD-P.24. *De Lucia et al.*
- Development of Periodically Poled Lithium Niobate Zinc-Indiffused Ridge Waveguides at Blue Wavelengths, #CD-P.26. *Gray et al.*
- Polarization organisation hidden in the middle point of an optical fiber, #CD-P.39. *Fusaro et al.*
- Zn:MgO:PPLN Waveguides for Rb cold Atom Trap based Quantum Gravimetry in a CubeSat, #CD-P.51. *Carpenter et al.*
- Four-Port Interference Device on an Integrated Photonics Platform Based on Tilted Bragg Gratings, #EB-P.7. *Weisen et al.*
- Biphoton shaping with cascaded entanglement sources, #EB-P.29. *Riazi et al.*
- A Topologically Robust Formation of Broadband Vortices Propagating at the Speed of Light, #EC-P.3. *Zdagkas et al.*



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