

Appendix NEF Publications 2016-2025 (358 papers)

2016 (50 papers):

1. Spin Textures of Exciton-Polaritons in a Tunable Microcavity with Large TE-TM Splitting, F Li, E Cancellieri, L Giriunas, A A P Trichet, D M Whittaker, P M Walker, F Fras, E Clarke, J M Smith, M S Skolnick, D N Krizhanovskii, Phys Rev Lett 115, 246401, 2016. **DOI: 0.1103/PhysRevLett.115.246401**
2. Chirality of nanophotonic waveguide with embedded quantum emitter for unidirectional spin transfer, R J Coles, D M Price, J M Dixon, B Royall, E Clarke, P Kok, M S Skolnick, A M Fox and M Makhonin, Nature Communications 7, 11183, 2016. **DOI: 10.1038/ncomms11183**
3. Magneto-optical spectroscopy of single charge-tunable InAs/GaAs quantum dots emitting at telecom wavelengths, L Sapienza, R Al-Khuzheyri, A Dada, A Griffiths, E Clarke, B D Gerardot, Phys Rev 93, 155301, 2016. **DOI: 10.1103/PhysRevB.93.155301**
4. Optimization of the Epitaxial Design of High Current Density Resonant Tunneling Diodes for Terahertz Emitters. Baba, R; Stevens, BJ; Mukai, T; Hogg, RA. 2016. QUANTUM SENSING AND NANO ELECTRONICS AND PHOTONICS XIII. Volume 9755. **DOI:10.1117/12.2212346**
5. Characterisation of High Current Density Resonant Tunneling Diodes for THz Emission Using Photoluminescence Spectroscopy. Jacobs, KJP; Baba, R; Stevens, BJ; Mukai, T; Ohnishi, D; Hogg, RA. 2016. Quantum Dots And Nanostructures: Growth, Characterization, And Modeling Xiii. Volume 9758. **DOI:10.1117/12.2212669**
6. Epitaxial Design for Maximising Wall Plug Efficiency in Resonant Tunnelling Diode Terahertz Emitters. Baba, R; Stevens, BJ; Mukai, T; Hogg, RA. 2016 International Conference on Infrared Millimeter and Terahertz Waves. **DOI: 10.1109/IRMMW-THz.2016.7758959**
7. On-chip interference of single photons from an embedded quantum dot and an external laser, N Prtljaga, C Bentham, J O'Hara, J, B Royall, E Clarke, L R Wilson, M S Skolnick, A M Fox, Appl Phys Lett 108, 251101, 2016. **DOI: 10.1063/1.4954220**
8. Temperature dependence of avalanche gain in $\text{Al}_{0.85}\text{Ga}_{0.15}\text{As}_{0.56}\text{Sb}_{0.44}$. Xie, S; Zhou, X; Zhang, S; Ng, JS; Tan, CH. 2016 Compound Semiconductor Week (Csw) Includes 28th International Conference On Indium Phosphide & Related Materials (Iprm) & 43rd International Symposium On Compound Semiconductors (Iscs). **DOI: 10.1109/ICIPRM.2016.7528783**
9. InGaAs/AlGaAsSb APD with over 200 GHz gain-bandwidth product. Zhou, X; Xie, S; Zhang, S; Ng, JS; Tan, CH. 2016. 2016 Compound Semiconductor Week (Csw) Includes 28th International Conference On Indium Phosphide & Related Materials (Iprm) & 43rd International Symposium On Compound Semiconductors (Iscs). **DOI: 10.1109/ICIPRM.2016.7528782**
10. Simulation of broad spectral bandwidth emitters at 1060nm for optical coherence tomography. Tooley, IG; Childs, DTD; Stevens, BJ; Groom, KM ; Hogg, RA. 2016. NOVEL IN-PLANE SEMICONDUCTOR LASERS XV. Volume 9767. **DOI:10.1117/12.2211657**
11. Strain balancing of MOVPE InAs/GaAs quantum dots using $\text{GaAs}_{0.8}\text{P}_{0.2}$. Roberts, TS; Stevens, BJ; Clarke, E; Tooley, I; Orchard, J; Farrer, I; Childs, DTD; Babazadeh, N; Ozaki, N; Mowbray, D; Hogg, RA. 2016 IEEE International Semiconductor Laser Conference.

12. High sensitivity InAs photodiodes for mid-infrared detection. Ng, S; Zhou, XX; Auckloo, A; White, B; Zhang, SY; Krysa, A; David, JPR; Tan, CH. 2016. ELECTRO-OPTICAL REMOTE SENSING X. Volume 9988. **DOI:10.1117/12.2243146**
13. Photoluminescence Characterisation of High Current Density Resonant Tunnelling Diodes for Terahertz Applications. Jacobs, KJP; Stevens, BJ; Hogg, RA. February 2016. IEICE TRANSACTIONS ON ELECTRONICS. Volume E99C Issue2 Page181-188. **DOI:10.1587/transele.E99.C.181**
14. Avalanche Noise in Al_{0.52}In_{0.48}P diodes, L Qiao, J S Cheong, J S L Ong, J S Ng, A B Krysa, J E Green, J P R David, IEEE Phot Tech Lett 28, 481, 2016. **DOI: 10.1109/LPT.2015.2499545**
15. Visible light communication using InGa_N optical sources with AlInGaP nanomembrane down-converters, J M M Santos, S Rajbhandari, D Tsonev, H Chun, B Guilhabert, A B Krysa, M D Dawson, Optics Express 24, 10020, 2016. **DOI: 10.1364/OE.24.010020**
16. High-Gain InAs Planar Avalanche Photodiodes, B S White, I C Sandall, X X Zhou, A B Krysa, K McEwan, J P R David, John P. R.), C H Tan, J Lightwave Technology 34, 2639, 2016. **DOI: 10.1109/JLT.2016.2531278**
17. Characterisation of Al_{0.52}In_{0.48}P mesa p-i-n photodiodes for X-ray photon counting spectroscopy, S Butera, G Lioliou, A B Krysa, A M Barnett, J Appl Phys 120, 024502, 2016. **DOI: 10.1063/1.4956153**
18. Al_{0.52}In_{0.48}P Fe-55 x-ray-photovoltaic battery, S Butera, G Lioliou, A B Krysa, A M Barnett, J Phys D, 49, 355601, 2016. **DOI: 10.1088/0022-3727/49/35/355601**
19. Optimizations of Defect Filter Layers for 1.3-μm InAs/GaAs Quantum-Dot Lasers Monolithically Grown on Si Substrates, M Tang, S M Chen, J Wu, Q Jiang, K Kennedy, P Jurczak, M Liao, R Beanland, A Seeds, H Y Liu, IEE Sel Top in Q Electronics 22, 1900207, 2016. **DOI: 10.1109/JSTQE.2016.2551941**
20. Microscopic model for the magnetic-field-driven breakdown of the dissipationless state in the integer and fractional quantum Hall effect, A Poux, Z R Wasilewski, K J Friedland, R Hey, K H Ploog, R Airey, P Plochocka, D K Maude, Phys Rev 94, 075411, 2016. **DOI: 10.1103/PhysRevB.94.075411**
21. Ultrafast depopulation of a quantum dot by LA-phonon-assisted stimulated emission, F Liu, L M P Martins, A J Brash, A M Barth, J H Quilter, V M Axt, M S Skolnick, A M Fox, Phys Rev B93, 161407(R), 2016. **DOI: 10.1103/PhysRevB.93.161407**
22. Mechanism for enhanced wavelength tuning in gain-levered InP quantum dot lasers, R Thomas, D. Briglin, A. B. Krysa, P M Smowton, IET Optoelectronics 10, 661, 2016. **DOI: 10.1049/iet-opt.2015.0062**
23. InAsP/AlGaInP/GaAs QD laser operating at ~770 nm, A.B. Krysa et al, J. Phys. Conf. Ser. 740, 012008, 2016. **DOI: 10.1088/1742-6596/740/1/012008**
24. Tunable narrow linewidth AlGaInP semiconductor disk laser for Sr atom cooling applications, D Pabœuf, J E Hastie, Applied Optics 55, 4980, 2016. **DOI: 10.1364/AO.55.004980**
25. Temperature study of Al_{0.52}In_{0.48}P detector photon counting X-ray spectrometer S. Butera, A B Krysa, A M Barnett, J. Appl. Phys. 120, 174593, 2016. **DOI: 10.1063/1.4966940**
26. Temperature dependence of an AlInP ⁶³Ni betavoltaic cell, S. Butera, A B Krysa, A M Barnett. J. Appl. Phys. 2016-120-14450, 2016. **DOI: 10.1063/1.4964504**

27. InGaAs/AlGaAsSb avalanche photodiode with high gain - bandwidth product, S Xie, X Zhou, S Zhang, D J Thomson, X Chen, G T Reed, C H Tan. Optics Express, 24, 24242, 2016. **DOI: 10.1364/OE.24.024242**
28. GaAs-based superluminescent diodes with window-like facet structure for low spectral modulation at high output powers. Ghazal, OMS; Childs, DT; Stevens, BJ; Babazadeh, N; Hogg, RA; Groom, KM. April 2016. SEMICONDUCTOR SCIENCE AND TECHNOLOGY. Volume 31 Issue 4. **DOI: 10.1088/0268-1242/31/4/045003**
29. InGaAs/InAlAs single photon avalanche diode for 1550 nm photons, X Meng, S. Xie, X. Zhou, N. Calandri, M. Sanzaro, A. Tosi, C. H. Tan and J. S. Ng. R Soc Open Sci. 3, 150584, 2016. **DOI: 10.1098/rsos.150584**
30. Avalanche breakdown characteristics of $\text{Al}_{1-x}\text{Ga}_x\text{As}_{0.56}\text{Sb}_{0.44}$ quaternary alloys. X Zhou, S Zhang, J David, J S Ng & C H Tan, C. H. IEEE Photonics Technology Letters, PP(99), 1, 2016. **DOI: 10.1109/LPT.2016.2601651**
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35. A GaAs-based self-aligned stripe distributed feedback laser. Lei, H; Stevens, BJ; Fry, PW; Babazadeh, N; Ternent, G; Childs, DT; Groom, KM. August 2016. SEMICONDUCTOR SCIENCE AND TECHNOLOGY. Volume 31 Issue 8. **DOI: 10.1088/0268-1242/31/8/085001**
36. Single-photon electroluminescence for on-chip quantum networks”, C. Bentham, D. Hallett, N. Prtljaga, B. Royall, D. Vaitiekus, R. J. Coles, E. Clarke, A. M. Fox, M. S. Skolnick, I. E. Itskevich, L. R. Wilson, Appl. Phys. Lett. 109, 161101, 2016. **DOI: 10.1063/1.4965295**
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38. Photonic crystal surface emitting lasers - coherent arrays and external feedback. Taylor, RJE; Li, G; Ivanov, P; Childs, DTD; Stevens, BJ; Babazadeh, N; Ignatova, O; Nakano, Y; Tanemura, T; Hogg, RA. 2016 INTERNATIONAL CONFERENCE LASER OPTICS. **DOI: 10.1109/LO.2016.7549733**
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46. A study of the optical and polarisation properties of InGaN/GaN multiple quantum wells grown on a-plane and m-plane GaN substrates. Kundys, D; Sutherland, D; Davies, M; Oehler, F; Griffiths, J; Dawson, P; Kappers, MJ; Humphreys, CJ; Schulz, S; Tang, F; Oliver, RA. November 2016. Science and Technology of Advanced Materials. Vol 17, No 1, 736-743. **DOI10.1080/14686996.2016.1244474**
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2017 (49 papers):

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52. Fabrication, Characterisation, and Epitaxial Optimisation of MOVPE-Grown Resonant Tunnelling Diode THz emitters. Baba, R; Jacobs, KJP; Stevens, BJ; Harrison, BA; Mukai, T; Hogg, RA. 2017. QUANTUM SENSING AND NANO ELECTRONICS AND PHOTONICS XIV. Volume 10111. **DOI:10.1117/12.2252377**
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