



**PUBLICATIONS 2013**

**BOOKS AND CHAPTERS IN BOOKS, JOURNAL PUBLICATIONS, KEYNOTE AND INVITED LECTURES, CONFERENCE PRESENTATIONS, CONFERENCE PROCEEDINGS AND PATENTS**

**BOOKS AND CHAPTERS IN BOOKS**

Arshaw, P. and J. T. Pembroke. December 2013. Integrative Conjugative Elements (ICE's) of the SXT/R391 Group as Vehicles for Acquisition of Antibiotic Resistance Determinants, Stable Maintenance and Transfer to a Wide Range of Enterobacterial Pathogens. In: *Microbial Pathogens and Strategies for Combating Them: Science, Technology and Education*, A. Méndez-Vilas (editor), published by Formatex Research Centre, pp. 439-446. ISBN: 978-84-939843-9-7.

Diaz, C., M. L. Valenzuela and C. O'Dwyer. April 2013. Organometallic-Metallic-Cyclotriphosphazene Mixtures: Solid-State Method for Metallic Nanoparticle Growth. In: *Nanostructures: Properties, Methods and Applications*, Y. Dong (Ed.). Nova Science Publishers NY, USA. ISBN: 978-1-62618-109-0 ebook.

Katnam, K. B. and T. M. Young. April 2013. Mode-I Fracture of CFRP Composite Bonded Joints: Influence of Surface Treatment and Adhesive Ductility. In: *Composites and Nanocomposites*, S. Thomas, O. S. Oluwafemi, J. P. Jose and H. J. Maria (editors), published by Apple Academic Press Inc. ISBN: 978-1-92689-528-4.

McNamara, K. and S. A. M. Tofail. 2013. Biomedical Applications of Nanoalloys. In: *Nanoalloys: From Fundamentals to Emergent Applications*, Florent Calvo (editor), published by Elsevier Inc. ISBN: 978-0-12-394401-6.

Ryan, M. P., C. C. Adley and J. T. Pembroke. December 2013. The Use of MEGA as an Educational Tool for Examining the Phylogeny of Antibiotic Resistance Genes. In: *Microbial Pathogens and Strategies for Combating Them: Science, Technology and Education*, A. Méndez-Vilas (editor), published by Formatex Research Centre, pp. 736-743. ISBN: 978-84-939843-9-7.

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## **JOURNAL PUBLICATIONS**

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- Xiang, Y., J. Du, L. B. Skinner, C. J. Benmore, A. W. Wren, D. J. Boyd and M. R. Towler. May 2013. Structure and Diffusion of ZnO-SrO-CaO- $\text{Na}_2\text{O}$ - $\text{SiO}_2$  Bioactive Glasses: A Combined High Energy X-ray Diffraction and Molecular Dynamics Simulations Study. *RSC Advances*, 3 (17), pp. 5966-5978. ISSN: 2046-2069.
- Yang, H. and Å. C. Rasmuson. October 2013. Nucleation of Butyl Paraben in Different Solvents. *Crystal Growth and Design*, 13 (10), pp. 4226-4238. ISSN: 1528-7483.
- Young, T. M. August 2013. An Investigation into Potential Fuel Savings for 110-130 Seat Passenger Transport Aircraft Due to the Incorporation of Natural Laminar Flow or Hybrid Laminar Flow Control on the Engine Nacelles. *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, 227 (8), pp. 1300-1324. ISSN: 0954-4100.
- Yatongchai, C., A. W. Wren, D. J. Curran, J. Hornez and M. R. Towler. May 2013. Comparison of the Weibull Characteristics of Hydroxyapatite and Strontium Doped Hydroxyapatite. *Journal of the Mechanical Behavior of Biomedical Materials*, 21, pp. 95-108. ISSN: 1751-6161.

Yu, X., Y. Shi, H. Wang, N. Cai, C. Li, R. I. Tomov, J. Hanna, B. A. Glowacki and A. F. Ghoniem. December 2013. Experimental Characterization and Elementary Reaction Modeling of Solid Oxide Electrolyte Direct Carbon Fuel Cell. *Journal of Power Sources*, 243, pp. 159-171. ISSN: 0378-7753.

Zhang, S. and Å. C. Rasmuson. March 2013. Thermodynamics and Crystallization of the Theophylline-Glutaric Acid Cocrystal. *Crystal Growth and Design*, 13 (3), pp. 1153-1161. ISSN: 1528-7483.

### **KEYNOTE AND INVITED LECTURES**

**Buckley, D. N.**, M. O'Grady and C. Lenihan. 2013. *In-Situ* AFM Imaging and Stress Measurements During Interruption of Electrochemical Deposition of Copper Nanofilms. *China Semiconductor Technology International Conference, CSTIC 2013*, Shanghai, China, 19-21 March. Keynote presentation.

Glynn, C., M. Osiak, W. McSweeney, O. Lotty, K. Jones, H. Geaney, E. Quiroga-González, J. D. Holmes and C. O'Dwyer. 2013. Semiconductor Nanostructures for Antireflection Coatings, Transparent Contacts, Junctionless Thermoelectrics and Li-ion Batteries. *223<sup>rd</sup> ECS Meeting*, Toronto, Canada, 12-16 May. Invited presentation.

Lynch, R. P., N. Quill, C. O'Dwyer, M. Dornhege, H. H. Rotermund and D. N. Buckley. 2013. Cessation of Porous Layer Growth in n-InP Anodised in KOH. *223<sup>rd</sup> ECS Meeting*, Toronto, Canada, 12-16 May. Invited presentation.

**Tofail, S. A. M.** 2013. Electrically Modified Hydroxyapatite for Investigating Biomolecular Interactions. *15<sup>th</sup> European Conference on Applications of Surface and Interface Analysis, ECASIA '13*, Forte Village Resort, Sardinia, Italy, 13-18 October. Invited presentation.

**Tofail, S. A. M.** 2013. First Principle Design of Piezoelectric Hydroxyapatite: A Case Study. *EMRS 2013 Fall Meeting*, Warsaw, Poland, 17-21 September. Invited presentation.

**Tofail, S. A. M.** 2013. Chemical and Structural Nanoscopy of Biological and Non-Biological Materials: The Concept and Applications. *EuroNanoForum 2013*, Dublin, 18-20 June. Invited presentation.

**Tofail, S. A. M.**, A. A. Gandhi, J. Butler, L. O'Donoghue, K. McNamara, P. Tiernan, T. McGloughlin, J. Carlson, S. Lavelle, C. A. Biffi and A. Tuissi. 2013. Workability of Radiopaque Er Doped NiTi. *Shape Memory and Superelastic Technologies International Conference and Exposition, SMST2013*, Prague, Czech Republic, 20-24 May. Invited presentation.

**Tofail, S. A. M.** 2013. Medical Device Engineering and Characterisation at the Nanoscale. *5<sup>th</sup> Annual Nano4Life Conference*, Organised by NanoKTN and British Society for Nanomedicine, Regency College London, United Kingdom, 15 May. Invited presentation.

Hendaoui, N., I. Pita, N. Liu, M. Kumbham, S. A. M. Tofail, C. Silien and A. Peremans. 2013. Super Resolution Infrared Microscopy in Far Field, *Nanowall Workshop*, FUNDP, Namur, Belgium, 19 April. Invited presentation.

**Tofail, S. A. M.** 2013. Piezoelectricity in Hydroxyapatite: Crystal Symmetry, Surface Stability and Size Effect. *Electromechanics in Biosystems Workshop*, Conway Institute, University College Dublin, 27-28 March. Invited presentation.

**Tofail, S. A. M.**, A. Peremans and C. Silien. 2013. Label Free Nanoscopy Using Infrared Absorption: An Introduction. *BioPic2013, National Biophotonic Imaging Platform*, Dublin, 21-23 March. Invited presentation.

## **CONFERENCE PRESENTATIONS**

**Baublite, L.**, M. Mullins and S. A. M. Tofail. 2013. Mapping the Perception of Risks Associated with Nanotechnology: 75 Per Cent Respondents Believe that Benefits will Exceed Risks. *EuroNanoForum 2013*, Dublin, 18-20 June. Poster presentation.

**Bourke, A.**, X. Gao, R. P. Lynch and D. N. Buckley. 2013. Kinetics of the Redox Reactions in the Vanadium Redox Flow Battery. *223<sup>rd</sup> ECS Meeting*, Toronto, Ontario, Canada, 12-16 May 2013. Oral presentation.

**Buckley, R.**, R. Courtney and T. Curtin. 2013. Buffering Mechanisms in Constructed Wetlands Treating Alkaline Leachate. *NUI Galway-UL Alliance – Engineering, Informatics and Science Research Day*, NUI Galway, 11 April. Oral presentation.

**Cahill, L.**, S. Natarajan, S. P. A. Bordas and C. McCarthy. 2013. A Combined Experimental-numerical Investigation into Meso-scale Matrix Crack Interactions in Unidirectional Composite Materials. *NUI Galway-UL Alliance – Engineering, Informatics and Science Research Day*, NUI Galway, 11 April. Poster presentation.

Callanan, A., M. T. Walsh and T. M. McGloughlin. 2013. The Vascular Potential of Urinary Bladder Matrix – An Extracellular Matrix Material. *21<sup>st</sup> Sylvester O'Halloran Meeting*, 1-2 March, The Graduate Entry Medical School, University of Limerick. Oral presentation.

Cheuk, D. and Å. C. Rasmuson. 2013. Crystallization Properties of 1,4-Dihydroxyanthraquinone. *British Association for Crystal Growth Annual Conference*, University Place, Manchester, United Kingdom, 16-18 June. Poster presentation.

**Costelloe, J.**, I. Larrabide and M. Walsh. 2013. Numerical Modelling of the Mass Transport of Blood-Borne Species in Cerebral Aneurysms of the Sylvian Bifurcation. *19<sup>th</sup> Congress of the European Society of Biomechanics, ESB2013*, Patras, Greece, 25-28 August. Oral presentation.

**Costelloe, J.**, I. Larrabide and M. Walsh. 2013. Numerical Modelling of the Mass Transport of Blood-borne Species in Cerebral Aneurysms of the Basilar Artery. *ASME 2013 Summer Bioengineering Conference*, Sunriver, Oregon, USA, 26-29 June. Poster presentation.

**Costelloe, J.**, I. Larrabide and M. Walsh. 2013. Using Patient-specific Models to Develop Representative Geometries of Basilar Artery Aneurysms. *Shear Stress Symposium*, Rotterdam, The Netherlands, 19 April. Poster presentation.

**Costelloe, J.** and M. Walsh. 2013. The Development of Representative Geometries of the Basilar Artery Based on Patient-specific Models. *NUI Galway-UL Alliance – Engineering, Informatics and Science Research Day*, NUI Galway, 11 April. Poster presentation.

Cronin, P., E. Dworniczek, J. Zeglinski, R. Franiczek, I. Buzalewicz, M. Wawrzyńska, H. Podbielska, P. Tiernan and S. A. M. Tofail. 2013. Photosterilisable Textiles for Improved Hygiene in Hospital Environments. *13<sup>th</sup> Autex World Textile Conference*, Dresden, Germany, 22-24 May. Oral presentation.

Culligan, K., S. Walsh, C. Dunne, M. T. Walsh, F. Remzi, S. Ryan, F. Quondamatteo, P. Dockery and C. Coffey. 2013. The Mesocolon: A Histological Characterisation of the Mesenteric Attachment of the Colon. *XXXVIIIth Sir Peter Freyer Memorial Lecture and Surgical Symposium*, National University of Ireland, Galway, 6-7 September. Oral presentation.

**Daniels, E.**, D. Madden and T. Curtin. 2013. Investigation of Impregnation Methods in Amine Modification of Mesoporous Solids. *NUI Galway-UL Alliance – Engineering, Informatics and Science Research Day*, NUI Galway, 11 April. Poster presentation.

- Hendaoui, N.**, I. Pita, N. Liu, M. Kumbham, S. A. M. Tofail, A. Peremans and C. Silien. 2013. Label-free Nanoscopy with Infra Red: Breaking Away from the Diffraction Barrier. *Focus on Microscopy Conference*, Maastricht, The Netherlands, 24-27 March. Oral presentation.
- Hristu, R.**, S. G. Stanciu, D. Tranca, A. A. Gandhi, S. A. M. Tofail and G. A. Stanciu. 2013. Far and Near Field-Probing of Electrostatic Domains on Nanocrystalline Hydroxyapatite. *EuroNanoForum 2013*, Dublin, 18-20 June. Poster presentation.
- Kok, M.**, D. Raps and T. M. Young. 2013. Effects of Surface Roughness and Energy on Insect Residue Adhesion to Aircraft Leading Edge Surfaces. *Annual Meeting of the Adhesion Society*, Daytona Beach, Florida, 3-6 March. Oral presentation.
- Korostynska, O.**, G. Gigilashvili, A. A. Gandhi and S. A. M. Tofail. 2013. Pressure Induced Capacitance Change in Screen-Printed Hydroxyapatite. *Electromechanics in Biosystems Workshop*, Conway Institute, University College Dublin, 27-28 March. Oral presentation.
- Kuhs, M. and Å. C. Rasmuson. 2013. Transformation Kinetics of History of Solution Effects Observed in Nucleation of Fenoxycarb. *British Association for Crystal Growth Annual Conference*, University Place, Manchester, United Kingdom, 16-18 June. Poster presentation.
- Lang, S. B.**, S. A. M. Tofail, A. L. Kholkin, M. Wojtas, M. Gregor, A. A. Gandhi, Y. Wang, S. Bauer, M. Krause and A. Plecenik. 2013. Ferroelectric Polarization in Nanocrystalline Hydroxyapatite Thin Films on Silicon. *15th International Conference on Biomedical Engineering*. Oral presentation.
- Liu, J. and Å. C. Rasmuson. 2013. Influence of Fluid Shear on Primary Nucleation in Solution. *British Association for Crystal Growth Annual Conference*, University Place, Manchester, United Kingdom, 16-18 June. Poster presentation.
- Lynch, B.**, J. Nelson and T. M. McGloughlin. 2013. In-Vitro Measurement of Migration in an Endovascular Stent Graft in an Idealised AAA Model. *NUI Galway-UL Alliance – Engineering, Informatics and Science Research Day*, NUI Galway, 11 April. Poster presentation.
- Lynch, B.**, J. Nelson, B. Dowling and T. M. McGloughlin. 2013. Measurement of the Long-term Performance of Endovascular Devices. *ICT Meets Medicine and Health (ICTMH 2013)*, Bremen, Germany, 19-20 March. Oral presentation.
- Lynch, R. P.**, N. Quill, C. O'Dwyer, M. Dornhege, H. H. Rotermund and D. N. Buckley. 2013. Formation of Finite Porous Layers During Anodization of n-InP in Aqueous KOH Electrolytes. *223<sup>rd</sup> ECS Meeting*, Toronto, Ontario, Canada, 12-16 May 2013. Oral presentation.
- Mealey, D., D. Khamar, J. Zeglinski and Å. C. Rasmuson. 2013. The Effect of Solvent-solute Interactions on the Nucleation of Salicylic Acid. *British Association for Crystal Growth Annual Conference*, University Place, Manchester, United Kingdom, 16-18 June. Poster presentation.
- Meaney, C. L.**, G. T. Carroll and T. M. McGloughlin. 2013. Vascular Graft Assessment: Cell-scaffold Interaction under Physiologically Relevant Conditions. *NUI Galway-UL Alliance – Engineering, Informatics and Science Research Day*, NUI Galway, 11 April. Poster presentation.
- Morley, S.**, D. Newport and M. Walsh. 2013. The Development of a Numerical Model to Analyse the Flow within the Lymphatic System. *NUI Galway-UL Alliance – Engineering, Informatics and Science Research Day*, NUI Galway, 11 April. Poster presentation.
- Morley, S.** and M. Walsh. 2013. Computational Fluid Dynamic Modelling of Cerebral Aneurysms: The Effect of Aneurysm Geometrical Variables on Intra-aneurysmal Haemodynamics. *Bioengineering in Ireland 19*, Johnstown House Hotel, Co. Meath, 18-19 January. Oral and poster presentation.



**Mortell, D.**, C. McCarthy and D. Tanner. 2013. An Investigation into Matrix Cracking in Transverse Plies Leading to Delamination Cracks at Ply Boundaries. *19<sup>th</sup> International Conference on Composite Materials, ICCM19*, Montreal, Canada, 28 July-2 August. Oral and poster presentation.

**Mortell, D.**, C. McCarthy and D. Tanner. 2013. Interaction of Transverse Crack Growth and Delamination of Composite Materials. *NUI Galway-UL Alliance – Engineering, Informatics and Science Research Day*, NUI Galway, 11 April. Poster presentation.

**Mortell, D.**, C. McCarthy and D. Tanner. 2013. Interaction of Transverse Crack Growth and Delamination of Composite Materials. *Sir Bernard Crossland Symposium 2013*, Trinity College Dublin, Dublin, 10-11 April. Oral and poster presentation.

**McAlea, E.**, M. Mullins, F. Murphy and S. A. M. Tofail. 2013. Insuring Nanotechnology Health Risk – Issues Around Sustainability. *Q-Nano Annual Conference*, Prague, Czech Republic, 14-18 February. Poster presentation.

McHugh, S., J. Mulvihill, E. Cunnane, E. Kavanagh, S. Walsh and M. T. Walsh. 2013. Carotid Plaque Composition and Mechanism of Behaviour. *XXXVIIIth Sir Peter Freyer Memorial Lecture and Surgical Symposium*, National University of Ireland, Galway, 6-7 September. Oral presentation.

**Nash, N.**, W. Stanley and T. M. Young. 2013. Fabrication and Characterisation of Carbon/Benzoxazine Composites with Improved Fracture Toughness using Liquid Resin Infusion (LRI). *NUI Galway-UL Alliance – Engineering, Informatics and Science Research Day*, NUI Galway, 11 April. Poster presentation.

**O’Leary, S.**, E. Kavanagh, P. Grace, T. McGloughlin and B. Doyle. 2013. Determination of Layer and Region Specific Mechanical Properties of Intraluminal Thrombus (ILT): The Importance of Biaxial Tensile Testing. *American Society of Mechanical Engineering 2013 Summer Bioengineering Conference*, Oregon, USA, 26-29 June. Oral presentation.

**O’Leary, S.**, E. Kavanagh, P. Grace, T. M. McGloughlin and B. Doyle. 2013. Determination of the Patient, Region and Layer Specific Mechanical Properties of Abdominal Aortic Aneurysm Intraluminal Thrombus. *NUI Galway-UL Alliance – Engineering, Informatics and Science Research Day*, NUI Galway, 11 April. Poster presentation.

**O’Leary, S.**, E. Kavanagh, P. Grace, T. McGloughlin and B. Doyle. 2013. Intraluminal Thrombus: The Importance of Biaxial Testing. *Sir Bernard Crossland Symposium*, Dublin, 10-11 April. Poster presentation.

**O’Leary, S.**, E. Kavanagh, P. Grace, T. McGloughlin and B. Doyle. 2013. Determining Patient-Specific Mechanical Properties of Intraluminal Thrombus by Examining Two Modes of Deformation. *21<sup>st</sup> Sylvester O’Halloran Surgical Scientific Meeting*, Limerick, 1-2 March. Poster presentation.

**O’Leary, S.**, E. Kavanagh, P. Grace, B. Doyle and T. M. McGloughlin. 2013. Mechanical Characterisation of Intraluminal Thrombus Using Uniaxial and Biaxial Test Methods. *Bioengineering in Ireland 19*, Co. Meath, 18-19 January. Oral presentation.

**Pastorino, L.**, T. Soulimane, A. Antipov, P. Bianchini, A. Diaspro, S. A. M. Tofail and C. Ruggiero. 2013. Polyelectrolyte Nano-engineered Capsules: Permeability by Cytochrome c Oxidase. *EuroNanoForum 2013*, Dublin, 18-20 June. Poster presentation.

Power, C., S. O’Leary, D. Healy, P. Coyle, S. McHugh, S. Walsh, E. Kavanagh, P. Grace, B. Doyle and T. M. McGloughlin. 2013. Determining the Mechanical Characteristics of Intraluminal Thrombus in Patients Undergoing Abdominal Aortic Aneurysm Surgery. *XXXVIIIth Sir Peter Freyer Memorial Lecture and Surgical Symposium*, National University of Ireland, Galway, 6-7 September. Poster presentation.

**Rasmuson, Å. C.** 2013. Crystal Nucleation of Organic Compounds – Old Knowledge and New Findings. *British Association for Crystal Growth Annual Conference*, University Place, Manchester, United Kingdom, 16-18 June. Oral presentation.

**Salazar-Alvarez, M.,** A. A. Gandhi, S. A. M. Tofail and E. Magner 2013. Thick Films of Hydroxyapatite for Investigating Electrical and Electromechanical Interactions with Biological Species. *NUI Galway-UL Alliance – Engineering, Informatics and Science Research Day*, NUI Galway, 11 April. Poster presentation.

**Salazar-Alvarez, M.,** A. A. Gandhi, S. A. M. Tofail and E. Magner. 2013. Thick Films of Hydroxyapatite for Investigating Electrical and Electromechanical Interactions with Biological Species. *Electromechanics in Biosystems Workshop*, Conway Institute, University College Dublin, 27-28 March. Poster presentation.

**Salazar-Alvarez, M.,** A. A. Gandhi, S. A. M. Tofail and E. Magner. 2013. Thick Films of Hydroxyapatite for Investigating Electrical and Electromechanical Interactions with Biological Species. *EuroNanoForum 2013*, The Convention Centre, Dublin, 18-20 June. Poster presentation.

**Sharos, P. A.** and C. McCarthy. 2013. An Analytical Model to Improve the Efficiency of Numerical Models of Composite Bolted Lap Joints Subjected to High Rates of Loading. *19<sup>th</sup> International Conference on Composite Materials (ICCM19)*, Montreal, Canada, 28 July-2 August. Oral presentation.

**Sharos, P. A.** and C. McCarthy. 2013. Efficient Numerical Modelling of Composite Bolted Lap Joints Subjected to High Rates of Loading. *12<sup>th</sup> Deformation and Fracture of Composites and 6<sup>th</sup> Structural Integrity Conference (DFC-12/SI-6)*, Cambridge, England, 8-11 April. Oral presentation.

Sharos, P. A. and **C. McCarthy**. 2013. Efficient Numerical Modelling of Composite Bolted Lap Joints Subjected to High Rates of Loading. *NUI Galway-UL Alliance – Engineering, Informatics and Science Research Day*, NUI Galway, 11 April. Poster presentation.

**Singh, S.,** A. Singh and K. M. Ryan. 2013. Homogeneously Alloyed CdSexS1-x Nanorods with Compositionally Tunable Photoluminescence-Synthesis and Application. *65<sup>th</sup> Irish Universities Chemistry Research Colloquium*, Trinity College, Dublin, 26-28 June. Oral presentation.

**Singh, S.,** A. Singh and K. M. Ryan. 2013. Synthesis and Characterization of Homogeneously Alloyed Cd(SexSx-1) Nanocrystals For Solar Cell Applications. *EuroNanoForum 2013*, Convention Centre, Dublin, 18-20 June. Poster presentation.

**Soulimane, T.,** A. A. Gandhi, S. Robin and S. A. M. Tofail. 2013. Selective Protein Adsorption on Electrically Modified Hydroxyapatite. *Electromechanics in Biosystems Workshop*, Conway Institute, University College Dublin, 27-28 March. Oral presentation.

**Stapleton, A.,** S. Cabaj, T. Soulimane and S. A. M. Tofail. 2013. Piezoelectricity in Membrane Proteins. *Electromechanics in Biosystems Workshop*, Conway Institute, University College Dublin, 27-28 March. Oral presentation.

**Stritch, T. P.,** C. T. McCarthy and E. G. Little. 2013. Three Dimensional Stress Analysis of Contact in Pin-Loaded Joints. *BSSM 9th International Conference on Advances in Experimental Mechanics*, University of Cardiff, 3-5 September. Oral presentation.

**Stritch, T. P.,** C. T. McCarthy and E. Little. 2013. Three Dimensional Stress Analysis of Contact in Pin-loaded Joints. *NUI Galway-UL Alliance – Engineering, Informatics and Science Research Day*, NUI Galway, 11 April. Poster presentation.

Svärd, M., M. Kuhs, S. Watterson, S. Hudson and Å. C. Rasmuson. 2013. A Thermodynamic Investigation into the Origin of Linearity and Non-linearity in van't Hoff Plots. *British Association for Crystal Growth Annual Conference*, University Place, Manchester, United Kingdom, 16-18 June. Poster presentation.

**Taupe, N.,** D. Lynch, R. Wnetrzak, F. O'Grady, W. Kwapinski and J. J. Leahy. 2013. Up-draft Gasification of Poultry Litter. *ManuREsource 2013*, Bruges, Belgium, 5-6 December. Oral presentation.

**Taupe, N.,** C. Dela Piccola, W. Kwapinski and J. J. Leahy. 2013. Characterization of Poultry Litter Chars Produced by Slow Pyrolysis and Gasification. *ManuREsource 2013*, Bruges, Belgium, 5-6 December. Poster presentation.

**Taupe, N.,** C. Dela Piccola, W. Kwapinski and J. J. Leahy. 2013. Influence of Volatile Matter Composition in Biochar on Plant Growth. *NUI Galway-UL Alliance – Engineering, Informatics and Science Research Day*, NUI Galway, 11 April. Poster presentation.

Tecza, M., M. R. O’Connell, J. C. Cooney and T. F. Kagawa. 2013. High Affinity Substrate hC5a Binding by the Streptococcal C5a Peptidase ScpA’. *Society for General Microbiology Spring Conference*, Manchester, United Kingdom, 25-28 March.

Tierney, T., Å. C. Rasmuson and S. P. Hudson. 2013. Preparation and Isolation of Nanocrystals from Solution. *British Association for Crystal Growth Annual Conference*, University Place, Manchester, United Kingdom, 16-18 June. Poster presentation.

**Tofail, S. A. M.** 2013. Label Free Nanoscopy Using Infrared Absorption: An Introduction. *BioPhotonics and Imaging Conference, BioPHIC 2013*, Dublin, 25-27 March. Oral presentation.

Yang, H. and Å. C. Rasmuson. 2013. Nucleation of Drug-like Compounds: Steady State Nucleation or Non-steady State Nucleation. Interfacial Energy with Intermolecular Binding. *British Association for Crystal Growth Annual Conference*, University Place, Manchester, United Kingdom, 16-18 June. Poster presentation.

Yazdani Nezhad, H., C. T. McCarthy, F. Merwick and R. M. Frizzell. 2013. Study of Impact Damage Response of Fibre-reinforced Polymer Composites. *The Third International Conference on Computational Modeling of Fractures and Failure of Materials and Structures*, Prague, Czech Republic, 5-7 June.

Zeglinski, J., M. Svärd, J. Karpinska, M. Kuhs and Å. C. Rasmuson. 2013. Atomic-level Insight into Growth of Fenoxycarb Crystal: Surface Structure vs. Morphology. *British Association for Crystal Growth Annual Conference*, University Place, Manchester, United Kingdom, 16-18 June. Poster presentation.

## **CONFERENCE PROCEEDINGS**

Bala, T. and K. M. Ryan. 2013. Silver Tip Formation on Colloidal CdSe Nanorods by a Facile Phase Transfer Protocol. In: *Advanced Nanomaterials and Nanotechnology, Proceedings of the 2<sup>nd</sup> International Conference on Advanced Nanomaterials and Nanotechnology*, 8-10 December 2011, Guwahati, India, pp. 21-31. Published by Springer Berlin Heidelberg. ISBN: 978-3-642-34215-8.

Bourke, A., X. Gao, R. P. Lynch and D. N. Buckley. 2013. Kinetics of the Redox Reactions in the Vanadium Redox Flow Battery. *ECS Meeting Abstracts*, volume MA2013-01, abstract 142, 223<sup>rd</sup> ECS Meeting, Toronto, Ontario, Canada, 12-16 May 2013.

Buckley, D. N., M. O’Grady and C. Lenihan. 2013. *In-Situ* AFM Imaging and Stress Measurements During Interruption of Electrochemical Deposition of Copper Nanofilms. *ECS Transactions*, 52 (1), pp. 613-618, published by The Electrochemical Society, *China Semiconductor Technology International Conference, CSTIC 2013*, Shanghai, China, 19-21 March.

Feys, J., B. Ghekiere, P. Lommens, S. C. Hopkins, P. Vermeir, M. Baecker, B. A. Glowacki and I. Van Driessche. 2013. Thin YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-δ</sub> Patterns by Chemical Solution Processing Using Ink-jet Printing. *Proceedings of MRS Spring Meeting and Exhibit, Symposium M: Solution Synthesis of Inorganic Functional Materials – Films, Nanoparticles and Nanocomposites*, San Francisco, California, USA, 1-5 April 2013, volume 1547.

Gao, X., R. P. Lynch, M. J. Leahy and D. N. Buckley. 2013. Spectroscopic Study of Vanadium Electrolytes in Vanadium Redox Flow Battery (VRFB). *ECS Transactions*, 45 (26), pp. 25-36, Large Scale Electrical Energy Storage 1, J. Meyers, Y-M. Chiang, B. Y. Liaw, T. Nguyen, W. C. Carter and C. Ponce de León Albarrán (editors), published by The Electrochemical Society, 221<sup>st</sup> ECS Meeting, Seattle, Washington, 6-10 May 2012.

Glocheux, Y., Z. Gholamvand, K. Nolan, A. Morrissey, S. J. Allen and G. M. Walker. 2013. Optimisation of 3D-organized Mesoporous Silica Containing Iron and Aluminium Oxides for the Removal of Arsenic from Groundwater. *Chemical Engineering Transactions*, 32, pp. 43-48, *Proceedings of ICheaP11, 11<sup>th</sup> International Conference on Chemical and Process Engineering*, Milan, Italy, 2-5 June 2013. ISBN: 978-88-95608-23-5.

Glynn, C., M. Osiak, W. McSweeney, O. Lotty, K. Jones, H. Geaney, E. Quiroga-González, J. D. Holmes and C. O'Dwyer. 2013. Semiconductor Nanostructures for Antireflection Coatings, Transparent Contacts, Junctionless Thermoelectrics and Li-ion Batteries. *ECS Transactions*, 53 (6), pp. 25-44, *Proceedings of 223<sup>rd</sup> ECS Meeting*, Toronto, Canada, 12-16 May 2013.

Keenan, T. J., A. W. Wren, A. Coughlan and M. R. Towler. 2013. Relating pH and Ion Release from Ga<sub>2</sub>O<sub>3</sub>-Na<sub>2</sub>O-CaO-ZnO-SiO<sub>2</sub> Bioactive Glasses. *Proceedings of 39<sup>th</sup> Annual Northeast Bioengineering Conference, NEBEC 2013*, Syracuse, New York, USA, 5-7 April 2013, pp. 98-99. Published by IEEE. ISBN: 978-0-7695-4964-4.

Kok, M., D. Raps and T. M. Young. 2013. Effects of Surface Roughness and Energy on Insect Residue Adhesion to Aircraft Leading Edge Surfaces. *On-line Proceedings of Annual Meeting of the Adhesion Society*, Daytona Beach, Florida, 3-6 March.

Lynch, R. P., N. Quill, C. O'Dwyer, M. Dornhege, H. H. Rotermund and D. N. Buckley. 2013. Formation of Finite Porous Layers During Anodization of n-InP in Aqueous KOH Electrolytes. *ECS Meeting Abstracts*, volume MA2013-01, abstract 907, 223<sup>rd</sup> ECS Meeting, Toronto, Ontario, Canada, 12-16 May 2013.

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