Recent Publications – Research Institutes and Centres

BY MEMBERS OF THE STAFF AND BY RESEARCH STUDENTS WORKING UNDER THEIR SUPERVISION

The publications information has been derived from the College's Research Support System. Every effort has been made to ensure that the information is accurate and complete. Please notify the Research Support Systems Administrator (email: rssadmin@tcd.ie) of any errors or omissions which will be corrected in next year's Calendar.

Centre for Academic Practice and Student Learning (CAPSL)

Wride, Michael, 'Science play time', Creative Academic, 2, 2 (2015), 19-21[M.A. Wride]

'Goethean pedagogy a case in innovative science education and implications for work based learning', *Higher Education, Skills and Work-Based Learning*, 5, 4 (2015), 339-351 [P. Franses and M.A. Wride]

Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN)

- Fox, Daniel, 'Nanopatterning and electrical tuning of MoS₂ layers with a subnanometer helium ion beam', Nano Letters (2015), http://dx.doi.org/10.1021/acs.nanolett.5b01673 [D.S. Fox, Y. Zhou, P. Maguire, A. O'Neill et al]
- Gomes Da Rocha, Claudia, "Resistance of single Ag nanowire junctions and their role in the conductivity of nanowire networks", ACS Nano, 9, 11 (2015), 11422-11429 [A.T. Bellew, H.G. Manning, C. Gomes da Rocha, M.S. Ferreira and J.J. Boland]

'Curvature in graphene nanoribbons generates temporally and spatially focused electric currents', *Nanoscale*, 7 (2015), 8627 [C. Gomes da Rocha, R. Tuovinen, R. van Leeuwenb and P. Koskinen]

McEvoy, Niall, 'Basal-plane functionalization of chemically exfoliated molybdenum disulfide by diazonium salts', *ACS Nano,* 9, 6 (2015), 6018-6030 [K.C. Knirsch, N.C. Berner, H.C. Nerl, C.S. Cucinotta, Z. Gholamvand, N. McEvoy, Z. Wang et al]

'Preparation of gallium sulfide nanosheets by liquid exfoliation and their application as hydrogen evolution catalysts', *Chemistry of Materials*, 27, 9 (2015), 3483-3493 [A. Harvey, C. Backes, (...), Q.M. Ramasse, N. Mcevoy, S. Winters, N.C. Berner *et al*]

'Optimisation of copper catalyst by the addition of chromium for the chemical vapour deposition growth of monolayer graphene', *Carbon*, 95 (2015), 789-793 [E. Rezvani, T. Hallam, N. McEvoy, N.C.Berner and G.S.Duesberg]

Investigation of 2D transition metal dichalcogenide films for electronic devices', *Ultimate Integration on Silicon* (2015), 73-76 [G.S. Duesberg, T. Hallam, M. O'Brien, R. Gatensby, H.-Y. Kim, K. Lee, N.C. Berner, N. McEvoy and C. Yim]

'Two photon absorption and its saturation in WS₂ and MoS₂ monolayer and few-layer films', ACS Nano, 9, 7 (2015), 7142-7150 [S. Zhang, N. Dong, N. McEvoy, M. O'Brien, S. Winters *et al*]

'Low wavenumber Raman spectroscopy of highly crystalline MoSe₂ grown by chemical vapor deposition', *Physica Status Solidi*, 252, 11 (2015), 2385-2389 [M. O'Brien, N. McEvoy, D. Hanlon, K. Lee, J.N. Coleman and G.S. Duesberg]

'Liquid exfoliation of solvent-stabilised black phosphorus: applications beyond electronics', *Nature Communications*, 6, 8563 (2015), http://dx.doi.org/10.1038/ncomms9563 [D. Hanlon, C. Backes, E. Doherty, (...), Q.M. Ramasse, N. McEvoy, W.J. Blau *et al*]

Recent publications – Research Institutes and Centres

'Investigations of vapor phase deposited transition metal dichalcogenide films for future electronic applications', 45th European solid state device research conference (ESSDERC), Graz, Austria, (2015), 26-30 [T. Hallam, H.Y. Kim, M. O'Brien, R. Gatensby, N. McEvoy and G.S. Duesberg]

'Mapping of low-frequency Raman modes in CVD-grown transition metal dichalcogenides: layer number, stacking orientation and resonant effects', *Scientific Reports*, 6, 19476 (2016), http://dx.doi.org/10.1038/srep19476 [M. OBrien, N. McEvoy, D. Hanlon, T. Hallam, J.N. Coleman and G.S. Duesberg]

Monzon, Lorena, 'Effect of tetraalkylammonium cations on gas coalescence at a hydrogen-evolving microelectrode', *Langmuir,* 31, 21 (2015), 5737-5747 [L.M.A. Monzon, A.J. Gillen, M.E. Mobius and J.M.D. Coey]

Nicolosi, Valeria, 'Double-wall carbon nanotubes for wide-band, ultrafast pulse generation', ACS Nano, 8, 5 (2014), 4836-4847 [T. Hasan, Z. Sun, P. Tan, (...), G. Privitera, V. Nicolosi, A.C. Ferrari,]

'Basal-plane functionalization of chemically exfoliated molybdenum disulfide by diazonium salts', *ACS Nano*, 9, 6 (2015), 6018-6030 [K.C. Knirsch, N.C. Berner, H.C. Nerl, (...), G.S. Duesberg, V. Nicolosi, F. Hauke, A. Hirsch, J.N. Coleman and C. Backes]

'Preparation of gallium sulfide nanosheets by liquid exfoliation and their application as hydrogen evolution catalysts', *Chemistry of Materials*, 27, 9 (2015), 3483-3493 [A. Harvey, C. Backes, Z. Gholamvand, (...), G.S. Duesberg, V. Nicolosi and J.N. Coleman]

'A 2D graphene-manganese oxide nanosheet hybrid synthesized by a single step liquid-phase co-exfoliation method for supercapacitor applications', *Electrochimica Acta*, 174 (2015), 696-705 [B. Mendoza-Sánchez, J. Coelho, A. Pokle and V. Nicolosi]

'Electronic properties and chemical reactivity of TiS₂ nanoflakes', *Journal of Physical Chemistry* C, 119, 27 (2015), 15707-15715 [C.S. Cucinotta, K. Dolui, H. Pettersson, Q.M. Ramasse, E. Long, S.E. O'Brian, V. Nicolosi and S. Sanvito]

Trinity Centre for Bioengineering

- *Butler, John,* 'An evaluation of the role of environmental factors in the disease penetrance of cervical dystonia', *Journal of Neurology, Neurosurgery, and Psychiatry*, 86, 3 (2015), 331-335 [A. Molloy, O. Kimmich, L. Williams, J.S. Butler, N. Byrne *et al*]
- D'Arcy, Shona, 'A method to assess adherence in inhaler use through analysis of acoustic recordings of inhaler events', *PLOS ONE*, 9, 6 (2014), 0098701[S. D'Arcy, E. MacHale, J. Seheult, M.S. Holmes *et al*]

Duffy, Garry, 'Drug and cell delivery for cardiac regeneration', *Advanced Drug Delivery Reviews,* 84 (2015), 85-106 [C.L. Hastings, E.T. Roche, E. Ruiz-Hernandez, K. Schenke-Layland, C.J. Walsh and G.P. Duffy]

O'Brien, Fergal, 'Comparison of biomaterial delivery vehicles for improving acute retention of stem cells in the infarcted heart', *Biomaterials*, 35, 25 (2014), 6850-8 [E.T. Roche, C.L. Hastings, S.A. Lewin, D.E. Shvartsman, Y. Brudno, N.V. Vasilyev, F.J. O'Brien, C.J. Walsh, G.P. Duffy and D.J. Mooney]

Trinity College Institute of Neuroscience

Doherty, Colin, 'Epilepsy services in Ireland: 'a survey of people with epilepsy in relation to satisfaction, preferences and information provision'', *Epilepsy Research*, 113 (2015), 11-18 [L. Bennett, M. Bergin, M. Gooney, (...), C. Synnott and J.S.G. Wells]

Recent publications – Research Institutes and Centres

Finucane, Orla, 'Macrophage migration inhibitory factor deficiency ameliorates high-fat diet induced insulin resistance in mice with reduced adipose inflammation and hepatic steatosis', *PLOS ONE*, 9, 11 (2014), e113369 [O.M. Finucane, C.M. Reynolds, F.C. McGillicuddy, K.A. Harford, M. Morrison, J. Baugh and H.M. Roche]

Kerskens, Christian, 'Characterisation of the antidepressant properties of nitric oxide synthase inhibitors in the olfactory bulcectomised rat model of depression', *European Neuropsychopharmacology,* 24, 8 (2014), 1349-1361 [V. Gigliucci, S. Gormley, S. Gibney, J. Rouine, C. Kerskens, T.J. Connor and A. Harkin]

'Investigation of the mechanisms mediating MDMA "ecstasy"-induced increases in cerebrocortical perfusion determined by btASL MRI', *Psychopharmacology*, 232, 9 (2015), 1501-1513 [J. Rouine, M.E. Kelly, C. Jennings-Murphy, P. Duffy, I. Gorman, S. Gormley, C.M. Kerskens and A. Harkin]

'Chronic immobilization stress occludes *in vivo* cortical activation in an animal model of panic induced by carbon dioxide inhalation', *Frontiers in Behavioral Neuroscience*, 8 (2014), 311 [M.M. Rahman, C.M. Kerskens, S. Chattarji and S.M. O'Mara]

'Imaging and finite element analysis: a methodology for non-invasive characterization of aortic tissue', *Medical Engineering and Physics*, 37, 1 (2015), 48-54 [V. Flamini, A.P. Creane, C.M. Kerskens and C. Lally]

^{(Dysregulation} between emotion and theory of mind networks in borderline personality disorder', *Psychiatry Research - Neuroimaging*, 231, 1 (2015), 25-32 [A. O'Neill, A. D'Souza, A.C. Samson, A. Carballedo, C. Kerskens and T. Frodl]

The Trinity Long Room Hub

Ronan, Marisa, 'Humanities for the environment - a manifesto for research and action', Humanities, 4, 4 (2015), 977-992 [P. Holm, J. Adamson, H. Huang, (...), J. Ogude, M. Ronan, D. Scott et al]

Travis, Charles, 'Acts of perception: Samuel Beckett, time, space and the digital literary atlas of Ireland, 1922-1949', *International Journal of Humanities and Arts Computing*, 9, 2 (2015), 219-241 [C. Travis]

'Visual geo-literary and historical analysis, tweetflickrtubing, and James Joyce's Ulysses (1922)', Annals of the Association of American Geographers, 105, 5 (2015), 927-950 [C. Travis]

'Humanities for the environment - a manifesto for research and action', *Humanities*, 4, 4 (2015), 977-992 [P. Holm, J. Adamson, H. Huang, (...), K.O. Thompson, C. Travis, and K. Wehner]

Trinity Centre for Medieval and Renaissance Studies

Buckley, Ann, 'Wandering scholars and saintly cults: the liturgical legacy', Helen Waddell reassessed: new readings, ed. Jennifer Fitzgerald, Oxford, Peter Lang (2014), 63-80 [A.N Buckley]

Library

DeVleeschouwer, Ruth, 'Tomorrow's world: future-proofing yourself and your library', *An Leabharlann,* 24, 1 (2015), 29-30 [De Vleeschouwer, R., Dunlea, A., Nolan, D., and O'Donnchadha, D.]

Gillis, John, 'The Faddan More psalter', 14th International congress of Celtic studies, eds Liam Breathnach, Ruairí Ó hUiginn, Damian McManus and Katharine Simms, Dublin, School of Celtic Studies, (2015), 1-18 [J. Gillis]

Maxwell, Jane, 'Sources for the history of women in eighteenth-century Ireland', Bulletin of the John Rylands Library, 90, 2 (2014), 127-142 [J. Maxwell]

Recent publications – Research Institutes and Centres

- O'Flaherty, Ellen, 'The archives of Trinity College Dublin: a digital curation challenge', 1st Annual conference on digital preservation for the arts, social sciences and humanities (DPASSH), Dublin, Taylor & Francis (2015), 200-213 [E. O'Flaherty]
- Rankin, Kieran, 'Towards a retrospective political geography of border studies: partition and division in Ireland', *Political Geography*, 51 (2016), 100-103 [K.J. Rankin]
- Sheaf, Greg, 'Spiritual care competence for contemporary nursing practice: a quantitative exploration of the guidance provided by fundamental nursing textbooks', *Nurse Education in Practice* (2015), http://hdl.handle.net/2262/73938 [F.Timmins, F. Neill, M. Murphy, T. Begley and G. Sheaf]

'Spiritual care competence for contemporary nursing practice: a quantitative exploration of the guidance provided by fundamental nursing textbooks', *26th International networking for healthcare education conference*, Cambridge, (2015) 18-19 [M. Murphy, T. Begley, F. Neill, F. Timmins and G. Sheaf]

'Barriers and enablers to advanced practitioners' ability to enact their leadership role: a scoping review', *International Journal of Nursing Studies*, 60 (2016), 24-45 [N. Elliott, C. Begley, G. Sheaf and A. Higgins]

Administrative, executive and other officers

- *Gallagher, Silvia,* "What is, becomes what is right": a conceptual framework of newcomer legitimacy for online discussion communities', *Journal of Computer-Mediated Communication,* 20, 4 (2015), 400-416 [S.E. Gallagher and T. Savage]
- *Pierantoni, Gabriele,* 'Overview and evaluation of conceptual strategies for accessing CPUdependent execution resources in grid infrastructures', *Computer Science Journal*, 16, 4 (2016), 373-393 [J. Walsh, J. Dukes, G. Pierantoni and B. Coghlan]
- Smyth, Fiona, 'Inclusive education in progress: policy evolution in four European countries', European Journal of Special Needs Education, 29, 4 (2014), 433-445 [F. Smyth, M. Shevlin, T. Buchner, G. Biewer, P. Flynn, C. Latimier, J. Šiška, M. Toboso-Martín, S. Rodríguez Díaz and M.A.V. Ferreira]