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2021

A novel fuel cell design for operando energy-dispersive x-ray absorption measurements.

Leach AS, Hack J, Amboage M, Diaz-Moreno S, Huang H, Cullen PL, Wilding M, Magliocca E, Miller TS, Howard CA, Brett DJL, Shearing PR, McMillan PF, Russell AE and Jervis R. *Journal of Physics Condensed Matter* vol. 33, (31).

2020

Realising the electrochemical stability of graphene: scalable synthesis of an ultra-durable platinum catalyst for the oxygen reduction reaction.

Angel GMA, Mansor N, Jervis R, Rana Z, Gibbs C, Seel A, Kilpatrick AFR, Shearing PR, Howard CA, Brett DJL and Cullen PL. *Nanoscale*.

Use of X-ray computed tomography for understanding localised, along-the-channel degradation of polymer electrolyte fuel cells.

Hack J, Rasha L, Cullen PL, Bailey JJ, Neville TP, Shearing PR, Brandon NP and Brett DJL. *Electrochimica Acta* vol. 352,.

2019

Lignin-derived electrospun freestanding carbons as alternative electrodes for redox flow batteries.

Jorge Sobrido A, Jervis R, Crespo Ribadeneyra M, Grogan L, Au H, Schlee P, Herou S, Neville T, Cullen P, Kok M, Hosseinaei O, Tomani P, Titirici M, Brett D and Shearing P. *Carbon.Elsevier*.

The liquid structure of the solvents dimethylformamide (DMF) and dimethylacetamide (DMA).

Basma N, Cullen PL, Clancy AJ, Shaffer MSP, Skipper NT, Headen TF and Howard CA. *Molecular Physics* vol. 117, (22) 3353-3363. *Informa Uk Limited*.

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Headen TF, Cullen PL, Patel R, Taylor A and Skipper NT. *Physical Chemistry Chemical Physics* vol. 20, (4) 2704-2715.

2017

Single Crystal, Luminescent Carbon Nitride Nanosheets Formed by Spontaneous Dissolution.

Miller TS, Suter TM, Telford AM, Picco L, Payton OD, Russell-Pavier F, Cullen PL, Sella A, Shaffer MSP, Nelson J, Tileli V, McMillan PF and Howard CA. *Nano Letters* vol. 17, (10) 5891-5896.

Trajectory of the selective dissolution of charged single-walled carbon nanotubes.

Buckley DJ, Hodge SA, Marco MD, Hu S, Anthony DB, Cullen PL, Mckeigue K, Skipper NT, Shaffer MSP and Howard CA. *Journal of Physical Chemistry C* vol. 121, (39) 21703-21712.

Investigation of Hot Pressed Polymer Electrolyte Fuel Cell Assemblies via X-ray Computed Tomography.

Meyer Q, Mansor N, Iacoviello F, Cullen PL, Jervis R, Finegan D, Tan C, Bailey J, Shearing PR and Brett DJL. *Electrochimica Acta* vol. 242, 125-136. Elsevier Bv.

Ionic solutions of two-dimensional materials.

Cullen PL, Cox KM, Bin Subhan MK, Picco L, Payton OD, Buckley DJ, Miller TS, Hodge SA, Skipper NT, Tileli V and Howard CA. *Nature Chemistry* vol. 9, (3) 244-249.

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Probing the charging mechanisms of carbon nanomaterial polyelectrolytes.

Hodge SA, Tay HH, Anthony DB, Menzel R, Buckley DJ, Cullen PL, Skipper NT, Howard CA and Shaffer MSP. *Faraday Discuss* vol. 172, 311-325.

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Multielement NMR studies of the liquid-liquid phase separation and the metal-to-nonmetal transition in fluid lithium- and sodium-ammonia solutions.

Lodge MTJH, Cullen P, Rees NH, Spencer N, Maeda K, Harmer JR, Jones MO and Edwards PP. *J Phys Chem B* vol. 117, (42) 13322-13334.

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Structure and morphology of charged graphene platelets in solution by small-angle neutron scattering.

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