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2021

Electrospinning as a route to advanced carbon fibre materials for selected low-temperature electrochemical devices: a review.

Wen Y, Kok MDR, Tafoya JPV, Sobrido ABJ, Bell E, Gostick JT, Herou S, Schlee P, Titirici M-M, Brett DJL, Shearing PR and Jervis R. *Journal of Energy Chemistry* vol. 59, 492-529. Elsevier.

2020

The Role of Carbon Dots - Derived Underlayer in Hematite Photoanodes.

Jorge Sobrido A, Guo Q, Titirici M-M and Briscoe J. *Nanoscale. Royal Society of Chemistry.*

Monitoring Hydrogen Evolution Reaction Intermediates of Transition Metal Dichalcogenides via Operando Raman Spectroscopy.

Guo S, Li Y, Tang S, Zhang Y, Li X, Sobrido AJ, Titirici MM and Wei B. *Advanced Functional Materials.*

Heat Diffusion-Induced Gradient Energy Level in Multishell Bisulfides for Highly Efficient Photocatalytic Hydrogen Production.

Wang B, Guo S, Xin X, Zhang Y, Wang Y, Li C, Song Y, Deng D, Li X, Sobrido AJ and Titirici MM. *Advanced Energy Materials.*

Carbon Dots in Solar-to-Hydrogen Conversion.

Luo H, Guo Q, Szilágyi PÁ, Jorge AB and Titirici MM. *Trends in Chemistry. Elsevier.*

Nitrogen-doped Carbon Dots/TiO₂ Nanoparticle Composites for Photoelectrochemical Water Oxidation.

Luo H, Dimitrov SD, Daboczi M, Kim J-S, Guo Q, Fang Y, Stoeckel M-A, SamorÅñ P, Fenwick O, Jorge Sobrido A, Wang X and Titirici M-M. *Acs Applied Nano Materials. American Chemical Society.*

2019

3D Carbon Materials for Efficient Oxygen and Hydrogen Electrocatalysis.

Jorge AB, Jervis R, Periasamy AP, Qiao M, Feng J, Tran LN and Titirici M. *Advanced Energy Materials* 1902494-1902494. Wiley.

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.*

Manipulating the optical properties of carbon dots via fine tuning their structural features.

Luo H, Papaioannou N, Salvadori E, Roessler M, Ploenes G, van Eck ERH, Tanase L, Feng J, Sun Y, Yang Y, Danaie M, Sobrido ABJ, Sapelkin A, Durrant J, Dimitrov SD and Titirici M-M. *ChemSuschem.*

High-power nitrated TiO₂ carbon felt as the negative electrode for all-vanadium redox flow batteries.

JORGE SOBRIDO AB, Jervis R, Flox C, Vázquez-Galván J and Morante JR. *Carbon. Elsevier.*

Free-standing supercapacitors from Kraft lignin nanofibers with remarkable volumetric energy density.
Schlee P, Herou S, Jervis R, Shearing PR, Brett DJL, Baker D, Hosseinaei O, Tomani P, Murshed MM, Li Y, Mostazo-López MJ, Cazorla-Amorós D, Jorge Sobrido AB and Titirici MM. *Chemical Science* vol. 10, (10) 2980-2988.

2018

Edge-rich MoS₂ grown on edge-oriented three-dimensional graphene glass for high-performance hydrogen evolution.

Li X, Guo S, Li W, Ren X, Su J, Song Q, Sobrido AJ and Wei B. *Nano Energy* vol. 57, 388-397.

One-Step Synthesis, Structure, and Band Gap Properties of SnO₂ Nanoparticles Made by a Low Temperature Nonaqueous Sol-Gel Technique.

JORGE SOBRIDO AB. *Acs Omega* vol. 3, 13227-13238. American Chemical Society.

High Performance N-Doped Carbon Electrodes Obtained via Hydrothermal Carbonization of Macroalgae for Supercapacitor Applications.

Ren M, Jia Z, Tian Z, Lopez D, Cai J, Titirici MM and Jorge AB. *Chemelectrochem* vol. 5, (18) 2686-2693.

Correlating electrochemical impedance with hierarchical structure for porous carbon-based supercapacitors using a truncated transmission line model.

Abouelamaiem DI, He G, Neville TP, Patel D, Ji S, Wang R, Parkin IP, Jorge AB, Titirici MM, Shearing PR and Brett DJL. *Electrochimica Acta* vol. 284, 597-608.

Integration of supercapacitors into printed circuit boards.

JORGE SOBRIDO AB and TITIRICI M. *Journal of Energy Storage* vol. 19, 28-34. Elsevier.

Carbon Nitride Materials as Efficient Catalyst Supports for Proton Exchange Membrane Water Electrolyzers.

Jorge A, Dedigama I, Miller T, Shearing P, Brett D and McMillan P. *Nanomaterials* vol. 8, (6) 432-432.

Freestanding Non-Precious Metal Electrocatalysts for Oxygen Evolution and Reduction Reactions.

JORGE SOBRIDO AB, TITIRICI M, QIAO M, DOSZCZECZKO S, CHEN R and FENG J. *Chemphyschem*. Wiley.

Biomass-derived electrodes for flexible supercapacitors.

Herou S, Schlee P, Jorge AB and Titirici M. *Current Opinion in Green and Sustainable Chemistry* vol. 9, 18-24.

Synergistic relationship between the three-dimensional nanostructure and electrochemical performance in biocarbon supercapacitor electrode materials.

JORGE SOBRIDO AB and TITIRICI M. *Sustainable Energy Fuels*.

2017

The Importance of Using Alkaline Ionomer Binders for Screening Electrocatalysts in Alkaline Electrolyte.

JORGE SOBRIDO AB. *Journal of The Electrochemical Society* vol. 164, F1551-F1555. Electrochemical Society.

Correlation between the Proton Conductivity and Diffusion Coefficient of Sulfonic Acid Functionalized Chitosan and Nafion Composites via Impedance Spectroscopy Measurements.

JORGE SOBRIDO AB, Sel O, Ressam I, Lahcini M, Cadi A and Perrot H. *Ionics*.

Carbon nitrides: synthesis and characterization of a new class of functional materials.

JORGE SOBRIDO AB, McMillan PF, Miller TS, Suter T, Sella A and Cora F. *Physical Chemistry Chemical Physics* vol. 10.1039/C7CP02711G, (19) 15613-15638. Owner Societies.

2016

Graphitic Carbon Nitride as a Catalyst Support in Fuel Cells and Electrolyzers.

JORGE SOBRIDO AB, Mansor N, Miller TS, Dedigama I, Jingjin J, Brazdova V, Mattevi C, Gibbs C, Hodgson D, Shearing PR, Howard CA, Cora F, Shaffer M, Brett DJL and McMillan PF. *Electrochimica Acta*.

Fe-N-Doped Carbon Capsules with Outstanding Electrochemical Performance and Stability for the Oxygen Reduction Reaction in Both Acid and Alkaline Conditions.

Ferrero GA, Preuss K, Marinovic A, Jorge AB, Mansor N, Brett DJ, Fuertes AB, Sevilla M and Titirici MM. *Acs Nano* vol. 10, (6) 5922-5932.

2015

The Use of Graphitic Carbon Nitride Based Composite Anodes for Lithium-Ion Battery Applications.

Miller TS, Jorge AB, Sella A, Cor  F, Shearing PR, Brett DJL and McMillan PF. *Electroanalysis* vol. 27, (11) 2614-2619.

Influence of sol counter-ions on the anatase-to-rutile phase transformation and microstructure of nanocrystalline TiO₂.

Tobaldi DM, Pullar RC, Gualtieri AF, Belen Jorge A, Binions R, McMillan PF, Seabra MP and Labrincha JA. *Crystengcomm* vol. 17, (8) 1813-1825.

On titanium dioxide thin films growth from the direct current electric field assisted chemical vapour deposition of titanium (IV) chloride in toluene.

Romero L, Jorge-Sobrido A-B, McMillian PF and Binions R. *Thin Solid Films*. Elsevier.

Pd nanoparticles supported on reduced graphene- E. coli hybrid with enhanced crystallinity in bacterial biomass.

Priestley RE, Mansfield A, Bye J, Deplanche K, Jorge AB, Brett D, Macaskie LE and Sharma S. *Rsc Advances* vol. 5, (102) 84093-84103.

2014

Graphitic Carbon Nitride Supported Catalysts for Polymer Electrolyte Fuel Cells.

Mansor N, Jorge AB, Cor  F, Gibbs C, Jervis R, McMillan PF, Wang X and Brett DJL. *J Phys Chem C Nanomater Interfaces* vol. 118, (13) 6831-6838.

Influence of sol counter-ions on the visible light induced photocatalytic behaviour of TiO₂ nanoparticles.

Tobaldi DM, Pullar RC, Binions R, Belen Jorge A, McMillan PF, Saeli M, Seabra MP and Labrincha JA. *Catalysis Science and Technology* vol. 4, (7) 2134-2146.

Enhanced photocatalytic properties of titanium dioxide thin films produced from the ac electric field assisted chemical vapor deposition of titanium (IV) chloride in toluene.

Romero L, Jorge AB, McMillan PF and Binions R. *Ecs Journal of Solid State Science and Technology* vol. 3, (7).

Electrochemical properties of graphitic carbon nitrides.

Jorge AB, Cor  F, Sella A, McMillan PF and Brett DJL. *International Journal of Nanotechnology* vol. 11, (9/10/11).

2013

H₂ and O₂ Evolution from Water Half-Splitting Reactions by Graphitic Carbon Nitride Materials.

Jorge AB, Martin DJ, Dhanoa MTS, Rahman AS, Makwana N, Tang J, Sella A, Cor  F, Firth S, Darr JA and McMillan PF. *The Journal of Physical Chemistry C* vol. 117, (14) 7178-7185.

2012

Nanocrystalline N-doped ceria porous thin films as efficient visible-active photocatalysts.

Jorge AB, Sakatani Y, Boissi re C, Laberty-Roberts C, Sauthier G, Fraxedas J, Sanchez C and Fuertes A. *Journal of Materials Chemistry* vol. 22, (7) 3220-3226.

2011

Anion order in perovskite oxynitrides.

Yang M, Or -Sol  J, Rodgers JA, Jorge AB, Fuertes A and Attfield JP. *Nat Chem* vol. 3, (1) 47-52.

2009

Direct solid-state synthesis at high pressures of new mixed-metal oxynitrides: RZrO(2)N (R = Pr, Nd, and Sm).

Yang M, Rodgers JA, Middler LC, Or -Sol  J, Jorge AB, Fuertes A and Attfield JP. *Inorg Chem* vol. 48, (24) 11498-11500.

2008

Large coupled magnetoresponses in EuNbO₂N.

Jorge AB, Or -Sol  J, Bea AM, Mufti N, Palstra TTM, Rodgers JA, Attfield JP and Fuertes A. *J Am Chem Soc* vol. 130, (38) 12572-12573.

Nitrogen Doping of Ceria.

Jorge AB, Fraxedas J, Cantarero A, Williams AJ, Rodgers J, Attfield JP and Fuertes A. *Chemistry of Materials* vol. 20, (5) 1682-1684.