

## Prof Magdalena Titirici

Dr. Rer. Nat. Habil.

School of Engineering and Materials Science  
Queen Mary University of London  
Mile End Road  
London E1 4NS

tel: +44 (0)20 7882 6272 fax: +44 (0)20 7882 3390  
email: m.m.titirici@qmul.ac.uk web: www.sems.qmul.ac.uk/m.m.titirici

---

### 2017

**Recent advances of electrode materials for low-cost sodium-ion batteries towards practical application for grid energy storage.**

Li Y, Lu Y, Zhao C, Hu YS, Titirici MM, Li H, Huang X and Chen L. *Energy Storage Materials* vol. 7, 130-151.

**Nanoporous Materials for the Onboard Storage of Natural Gas.**

Kumar KV, Preuss K, Titirici M-M and RodrÁ-guez-Reinoso F. *Chem Rev* vol. 117, (3) 1796-1825.

**Carbon Nanodot Solar Cells from Renewable Precursors.**

Titirici M-M, Marinovic A, Dunn S, Swee Kiat L and Briscoe J. *Chemsuschem*.

**Salt Templating with Pore Padding: Hierarchical Pore Tailoring towards Functionalised Porous Carbons.**

Kumar KV, Gadipelli S, Preuss K, Porwal H, Zhao T, Guo ZX and Titirici M-M. *Chemsuschem* vol. 10, (1) 199-209.

**S, N-Co-Doped Graphene-Nickel Cobalt Sulfide Aerogel: Improved Energy Storage and Electrocatalytic Performance.**

He G, Qiao M, Li W, Lu Y, Zhao T, Zou R, Li B, Darr JA, Hu J, Titirici M-M and Parkin IP. *Adv Sci (Weinh)* vol. 4, (1).

**Active sites engineering leads to exceptional ORR and OER bifunctionality in P,N Co-doped graphene frameworks.**

Chai G-L, Qiu K, Qiao M, Titirici M-M, Shang C and Guo Z. *Energy & Environmental Science* vol. 10, (5) 1186-1195.

### 2016

**Connecting carbon porosity with dispersibility and friability.**

Texter J, Zhao L, Xiao PW, Caballero FP, Han BH and Titirici MM. *Carbon* vol. 112, 117-129.

**In Situ Synthesis of Fluorescent Carbon Dots/Polyelectrolyte Nanocomposite Microcapsules with Reduced Permeability and Ultrasound Sensitivity.**

Gao H, Sapelkin AV, Titirici MM and Sukhorukov GB. *Acs Nano*.

**Hard Carbon Microtubes Made from Renewable Cotton as High-Performance Anode Material for Sodium-Ion Batteries.**

Li Y, Hu YS, Titirici MM, Chen L and Huang X. *Advanced Energy Materials* vol. 6, (18).

**Efficient metal-free N-doped mesoporous carbon catalysts for ORR by a template-free approach.**

Ferrero GA, Fuertes AB, Sevilla M and Titirici M-M. *Carbon* vol. 106, 179-187.

**Oxygen Electrocatalysis: Topological Defects in Metal-Free Nanocarbon for Oxygen Electrocatalysis (Adv. Mater. 32/2016).**

Tang C, Wang HF, Chen X, Li BQ, Hou TZ, Zhang B, Zhang Q, Titirici MM and Wei F. *Advanced Materials* vol. 28, (32) 7030-7030.

**Understanding the Hydrophilicity and Water Adsorption Behavior of Nanoporous Nitrogen-Doped Carbons.**  
Kumar KV, Preuss K, Guo ZX and Titirici MM. *Journal of Physical Chemistry C* vol. 120, (32) 18167-18179.

**Graphene/nitrogen-doped porous carbon sandwiches for the metal-free oxygen reduction reaction: Conductivity: versus active sites.**

Qiao M, Tang C, He G, Qiu K, Binions R, Parkin IP, Zhang Q, Guo Z and Titirici MM. *Journal of Materials Chemistry A* vol. 4, (32) 12658-12666.

**Sulphur-doped ordered mesoporous carbon with enhanced electrocatalytic activity for the oxygen reduction reaction.**

Wang L, Jia W, Liu X, Li J and Titirici MM. *Journal of Energy Chemistry*.

**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.

**Activated carbons with high nitrogen content by a combination of hydrothermal carbonization with activation.**

Laginhas C, Nabais JMV and Titirici MM. *Microporous and Mesoporous Materials* vol. 226, 125-132.

**Microcellular Electrode Material for Microbial Bioelectrochemical Systems Synthesized by Hydrothermal Carbonization of Biomass Derived Precursors.**

Flexer V, Donose BC, Lefebvre C, Pozo G, Boone MN, Van Hoorebeke L, Baccour M, Bonnet L, Calas-Etienne S, Galarneau A, Titirici MM and Brun N. *Acs Sustainable Chemistry and Engineering* vol. 4, (5) 2508-2516.

**Local Platinum Environments in a Solid Analogue of the Molecular Periana Catalyst.**

Soorholtz M, Jones LC, Samuelis D, Weidenthaler C, White RJ, Titirici MM, Cullen DA, Zimmermann T, Antonietti M, Maier J, Palkovits R, Chmelka BF and Schüth F. *Acs Catalysis* vol. 6, (4) 2332-2340.

**Corrigendum: Levulinic Acid Biorefineries: New Challenges for Efficient Utilization of Biomass.**

Pileidis FD and Titirici M-M. *Chemsuschem* vol. 9, (6) 652-655.

**Levulinic Acid Biorefineries: New Challenges for Efficient Utilization of Biomass.**

Pileidis FD and Titirici M-M. *Chemsuschem* vol. 9, (6) 562-582.

**Bio-inspired carbon electro-catalysts for the oxygen reduction reaction.**

Preuss K, Kannuchamy VK, Marinovic A, Isaacs M, Wilson K, Abrahams I and Titirici MM. *Journal of Energy Chemistry* vol. 25, (2) 228-235.

**Towards effective small scale microbial fuel cells for energy generation from urine.**

Chouler J, Padgett GA, Cameron PJ, Preuss K, Titirici MM, Ieropoulos I and Di Lorenzo M. *Electrochimica Acta* vol. 192, 89-98.

**The influence of pore size distribution on the oxygen reduction reaction performance in nitrogen doped carbon microspheres.**

Ferrero GA, Preuss K, Fuertes AB, Sevilla M and Titirici MM. *Journal of Materials Chemistry A* vol. 4, (7) 2581-2589.

**Soy protein directed hydrothermal synthesis of porous carbon aerogels for electrocatalytic oxygen reduction.**

Alatalo SM, Qiu K, Preuss K, Marinovic A, Sevilla M, Sillanpää M, Guo X and Titirici MM. *Carbon* vol. 96, 622-630.

**Porous carbon derived from rice husks as sustainable bioresources: Insights into the role of micro-/mesoporous hierarchy in hosting active species for lithium-sulphur batteries.**

Rybarczyk MK, Peng HJ, Tang C, Lieder M, Zhang Q and Titirici MM. *Green Chemistry* vol. 18, (19) 5169-5179.

**Meso- and microporous soft templated hydrothermal carbons for dye removal from water.**

Alatalo SM, Mäkilä E, Repo E, Heinonen M, Salonen J, Kukk E, Sillanpää M and Titirici MM. *Green Chemistry* vol. 18, (4) 1137-1146.

## 2015

**Versatile Cellulose-Based Carbon Aerogel for the Removal of Both Cationic and Anionic Metal Contaminants from Water.**

Alatalo S-M, Pileidis F, Mäkilä E, Sevilla M, Repo E, Salonen J, Sillanpää M and Titirici M-M. *Acs Appl Mater Interfaces* vol. 7, (46) 25875-25883.

**Hydrothermal Carbonization of Digestate in the Presence of Zeolite: Process Efficiency and Composite Properties.**

Mumme J, Titirici MM, Pfeiffer A, Lüder U, Reza MT and Mašek O. *Acs Sustainable Chemistry and Engineering* vol. 3, (11) 2967-2974.

**Structural and Morphological Changes in Kraft Lignin during Hydrothermal Carbonization.**

Wikberg H, Ohra-Aho T, Pileidis F and Titirici MM. *Acs Sustainable Chemistry and Engineering* vol. 3, (11) 2737-2745.

**Effect of Nitrogen Doping on the CO<sub>2</sub> Adsorption Behavior in Nanoporous Carbon Structures: A Molecular Simulation Study.**

Kumar KV, Preuss K, Lu L, Guo ZX and Titirici MM. *Journal of Physical Chemistry C* vol. 119, (39) 22310-22321.

**Electrochemical behaviour of activated carbons obtained via hydrothermal carbonization.**

Salinas-Torres D, Lozano-Castelló D, Titirici MM, Zhao L, Yu L, Morallón E and Cazorla-Amoros D. *Journal of Materials Chemistry A* vol. 3, (30) 15558-15567.

**Biomass-Derived Carbon Quantum Dot Sensitizers for Solid-State Nanostructured Solar Cells.**

Briscoe J, Marinovic A, Sevilla M, Dunn S and Titirici M. *Angewandte Chemie - International Edition* vol. 54, (15) 4463-4468.

**Biomass-derived carbon quantum dot sensitizers for solid-state nanostructured solar cells.**

Briscoe J, Marinovic A, Sevilla M, Dunn S and Titirici M. *Angew Chem Int Ed Engl* vol. 54, (15) 4463-4468.

**Hydrothermal Carbonization of Biomass.**

Titirici MM, Funke A and Kruse A. *Recent Advances in Thermochemical Conversion of Biomass*.

**Sustainable carbon materials.**

Titirici M-M, White RJ, Brun N, Budarin VL, Su DS, del Monte F, Clark JH and MacLachlan MJ. *Chem Soc Rev* vol. 44, (1) 250-290.

**Erratum: Surface modification of CNTs with N-doped carbon: An effective way of enhancing their performance in supercapacitors (ACS Sustainable Chemistry and Engineering (2014) 2:4 (1049-1055) DOI: 10.1021/sc500069h).**

Sevilla M, Yu L, Zhao L, Ania CO and Titirici MM. *Acs Sustainable Chemistry and Engineering* vol. 3, (4).

**Hydrothermal carbonisation (HTC): History, state-of-the-art and chemistry.**

Marinovic A, Pileidis FD and Titirici MM. *Rsc Green Chemistry* vol. 2015-January, (32) 129-155.

## 2014

**Hydrothermal synthesis of microalgae-derived microporous carbons for electrochemical capacitors.**

Sevilla M, Gu W, Falco C, Titirici MM, Fuertes AB and Yushin G. *Journal of Power Sources* vol. 267, 26-32.

**Characterization of biomass and its derived char using <sup>13</sup>C-solid state nuclear magnetic resonance.**

Baccile N, Falco C and Titirici MM. *Green Chemistry* vol. 16, (12) 4839-4869.

**Supercapacitive Behavior of Two Glucose-Derived Microporous Carbons: Direct Pyrolysis versus Hydrothermal Carbonization.**

Sevilla M, Yu L, Ania CO and Titirici MM. *Chemelectrochem* vol. 1, (12) 2138-2145.

**Always look on the light side of life: sustainable carbon aerogels.**

White RJ, Brun N, Budarin VL, Clark JH and Titirici M-M. *Chemsuschem* vol. 7, (3) 670-689.

**Carbohydrate-derived nanoarchitectures: On a synergistic effect toward an improved performance in lithium-sulfur batteries.**

Brun N, Sakaushi K, Eckert J and Titirici MM. *Acs Sustainable Chemistry and Engineering* vol. 2, (2) 126-129.

**Biosourced nitrogen-doped microcellular carbon monoliths.**

Brun N, Osiceanu P and Titirici MM. *Chemsuschem* vol. 7, (2) 397-401.

**Charging and discharging behavior of solvothermal LiFePO<sub>4</sub> cathode material investigated by combined EELS/NEXAFS study.**

Schuster ME, Teschner D, Popovic J, Ohmer N, Girgsdies F, Tornow J, Willinger MG, Samuelis D, Titirici MM, Maier J and Schlögl R. *Chemistry of Materials* vol. 26, (2) 1040-1047.

**Mesoporous graphite nanoflakes via ionothermal carbonization of fructose and their use in dye removal.**

Xie ZL, Huang X, Titirici MM and Taubert A. *Rsc Advances* vol. 4, (70) 37423-37430.

**Sustainable carbon hybrid materials made by hydrothermal carbonization and their use in energy applications.**

Antonietti M, Zhao L and Titirici MM. *Nanocarbon-Inorganic Hybrids: Next Generation Composites For Sustainable Energy Applications*.

**Carbon aerogels from bacterial nanocellulose as anodes for lithium ion batteries.**

Wang L, Schütz C, Salazar-Alvarez G and Titirici MM. *Rsc Advances* vol. 4, (34) 17549-17554.

## 2013

**Flexible coral-like carbon nanoarchitectures via a dual block copolymer-latex templating approach.**

Kubo S, White RJ, Tauer K and Titirici MM. *Chemistry of Materials* vol. 25, (23) 4781-4790.

**Hydrothermal synthesis of SnO<sub>2</sub> and SnO<sub>2</sub>@C nanorods and their application as anode materials in lithium-ion batteries.**

Yu L, Cai D, Wang H and Titirici MM. *Rsc Advances* vol. 3, (38) 17281-17286.

**Tailoring the porosity of chemically activated hydrothermal carbons: Influence of the precursor and hydrothermal carbonization temperature.**

Falco C, Marco-Lozar JP, Salinas-Torres D, Morallón E, Cazorla-Amorós D, Titirici MM and Lozano-Castelló D. *Carbon* vol. 62, 346-355.

**Green Nanostructured Carbons.**

Titirici M. *Producing Fuels and Fine Chemicals From Biomass Using Nanomaterials*. Editors: Luque R and Balu AM. *Taylor & Francis*.

**Hydrothermal nanocasting: Synthesis of hierarchically porous carbon monoliths and their application in lithium-sulfur batteries.**

Yu L, Brun N, Sakaushi K, Eckert J and Titirici MM. *Carbon* vol. 61, 245-253.

**Synthesis of Microspherical LiFePO<sub>4</sub>-Carbon Composites for Lithium-Ion Batteries.**

Yu L, Cai D, Wang H and Titirici M-M. *Nanomaterials* vol. 3, (3) 443-452.

**Original design of nitrogen-doped carbon aerogels from sustainable precursors: Application as metal-free oxygen reduction catalysts.**

Brun N, Wohlgemuth SA, Osiceanu P and Titirici MM. *Green Chemistry* vol. 15, (9) 2514-2524.

**Hydrothermal Nanocarbons.**

Titirici M. *Advanced Hierarchical Nanostructured Materials*. Editors: Zhang Q and Fei W. *Wiley*.

**Facile polymer functionalization of hydrothermal-carbonization-derived carbons.**

Urakami H, Yilmaz AG, Osiceanu P, Yagci Y, Vilela F and Titirici MM. *Macromolecular Rapid Communications* vol. 34, (13) 1080-1084.

**Sustainable Carbon Materials from Hydrothermal Processes.**

Titirici M, White RJ, Fellingner T, Kubo S, Brun N, Lozano-Castelló D, Cazorla-Amorós D, Marco-Lozar JP, Wohlgemuth S, Urakami H, Zhao L, Baccile N, Weber J, Falco C, Yu SH, Hu B, Zhu HZ, Sevilla M, Fuertes A and Demir-Cakan R. *Titirici M. Wiley*.

**Hydrothermal conversion of biomass to fuels and energetic materials.**

Kruse A, Funke A and Titirici MM. *Current Opinion in Chemical Biology* vol. 17, (3) 515-521.

**Rice husk-derived carbon anodes for lithium ion batteries.**

Wang L, Schnepf Z and Titirici MM. *Journal of Materials Chemistry A* vol. 1, (17) 5269-5273.

**Hydrothermal carbon-based nanostructured hollow spheres as electrode materials for high-power lithium-sulfur batteries.**

Brun N, Sakaushi K, Yu L, Giebeler L, Eckert J and Titirici MM. *Physical Chemistry Chemical Physics* vol. 15, (16) 6080-6087.

**Emulsion-Templated Macroporous Carbons Synthesized by Hydrothermal Carbonization and their Application for the Enzymatic Oxidation of Glucose.**

Brun N, Edembe L, Gounel S, Mano N and Titirici MM. *Chemsuschem* vol. 6, (4) 701-710.

**Hydrothermal carbons from hemicellulose-derived aqueous hydrolysis products as electrode materials for supercapacitors.**

Falco C, Sieben JM, Brun N, Sevilla M, Van Der Maelen T, Morallón E, Cazorla-Amorós D and Titirici MM. *Chemsuschem* vol. 6, (2) 374-382.

**Direct methane oxidation over Pt-modified nitrogen-doped carbons.**

Soorholtz M, White RJ, Zimmermann T, Titirici MM, Antonietti M, Palkovits R and Schüth F. *Chemical Communications* vol. 49, (3) 240-242.

**Polypyrrole-derived mesoporous nitrogen-doped carbons with intrinsic catalytic activity in the oxygen reduction reaction.**

Sevilla M, Yu L, Fellingner TP, Fuertes AB and Titirici M-M. *Rsc Advances* vol. 3, (25) 9904-9910.

**Production of low-cost adsorbents with tunable surface chemistry by conjunction of hydrothermal carbonization and activation processes.**

Román S, Valente Nabais JM, Ledesma B, González JF, Laginhas C and Titirici MM. *Microporous and Mesoporous Materials* vol. 165, 127-133.

## 2012

**High-performance CO<sub>2</sub> sorbents from algae.**

Sevilla M, Falco C, Titirici MM and Fuertes AB. *Rsc Advances* vol. 2, (33) 12792-12797.

**Renewable nitrogen-doped hydrothermal carbons derived from microalgae.**

Falco C, Sevilla M, White RJ, Rothe R and Titirici MM. *Chemsuschem* vol. 5, (9) 1834-1840.

**Carbohydrate-derived hydrothermal carbons: A thorough characterization study.**

Yu L, Falco C, Weber J, White RJ, Howe JY and Titirici MM. *Langmuir* vol. 28, (33) 12373-12383.

**Borax-mediated formation of carbon aerogels from glucose.**

Fellinger TP, White RJ, Titirici MM and Antonietti M. *Advanced Functional Materials* vol. 22, (15) 3254-3260.

**Synthesis of mesoporous carbon/iron carbide hybrids with unusually high surface areas from the ionic liquid precursor [Bmim][FeCl<sub>4</sub>].**

Göbel R, Xie ZL, Neumann M, Günter C, Löbbicke R, Kubo S, Titirici MM, Giordano C and Taubert A. *Crystengcomm* vol. 14, (15) 4946-4951.

**Hollow carbon nanospheres with superior rate capability for sodium-based batteries.**

Tang K, Fu L, White RJ, Yu L, Titirici MM, Antonietti M and Maier J. *Advanced Energy Materials* vol. 2, (7) 873-877.

**Carbon-based ionogels: Tuning the properties of the ionic liquid via carbon-ionic liquid interaction.**

Göbel R, White RJ, Titirici MM and Taubert A. *Physical Chemistry Chemical Physics* vol. 14, (17) 5992-5997.

**A one-pot hydrothermal synthesis of sulfur and nitrogen doped carbon aerogels with enhanced electrocatalytic activity in the oxygen reduction reaction.**

Wohlgemuth SA, White RJ, Willinger MG, Titirici MM and Antonietti M. *Green Chemistry* vol. 14, (5) 1515-1523.

**Black perspectives for a green future: Hydrothermal carbons for environment protection and energy storage.**

Titirici MM, White RJ, Falco C and Sevilla M. *Energy and Environmental Science* vol. 5, (5) 6796-6822.

**An improved grafting technique for producing imprinted thin film composite beads.**

Halhalli MR, Aureliano CSA, Schillinger E, Sulitzky C, Titirici MM and Sellergren B. *Polymer Chemistry* vol. 3, (4) 1033-1042.

**A one-pot hydrothermal synthesis of tunable dual heteroatom-doped carbon microspheres.**

Wohlgemuth SA, Vilela F, Titirici MM and Antonietti M. *Green Chemistry* vol. 14, (3) 741-749.

**Hollow carbon nanospheres with a high rate capability for lithium-based batteries.**

Tang K, White RJ, Mu X, Titirici MM, Van Aken PA and Maier J. *ChemSuschem* vol. 5, (2) 400-403.

**Nitrogen-doped Hydrothermal Carbons.**

M.M.Titirici , R.J. White and Zhao L. *Green* vol. 2, (1) 25-40.

**Thermoresponsive polymers in liquid chromatography.**

Tan I, Roohi F and Titirici MM. *Analytical Methods* vol. 4, (1) 34-43.

**Hydrothermal Carbons: Synthesis, Characterisation and Applications.**

Titirici M. *Novel Carbon Adsorbents*. Tascon JMD. Elsevier.

## 2011

**Hydrothermal carbon from biomass: Structural differences between hydrothermal and pyrolyzed carbons via <sup>13</sup>C solid state NMR.**

Falco C, Perez Caballero F, Babonneau F, Gervais C, Laurent G, Titirici MM and Baccile N. *Langmuir* vol. 27, (23) 14460-14471.

**Ordered carbohydrate-derived porous carbons.**

Kubo S, White RJ, Yoshizawa N, Antonietti M and Titirici MM. *Chemistry of Materials* vol. 23, (22) 4882-4885.

**A sustainable synthesis of nitrogen-doped carbon aerogels.**

White RJ, Yoshizawa N, Antonietti M and Titirici MM. *Green Chemistry* vol. 13, (9) 2428-2434.

**Aqueous nanocarbon dispersions for electronic and energy applications.**

Texter J, Crombez R, Ma X, Titirici MM and Antonietti M. *Acs National Meeting Book of Abstracts*.

**Hierarchical porous carbonaceous materials via ionothermal carbonization of carbohydrates.**

Xie ZL, White RJ, Weber J, Taubert A and Titirici MM. *Journal of Materials Chemistry* vol. 21, (20) 7434-7442.

**Structural insights on nitrogen-containing hydrothermal carbon using solid-state magic angle spinning <sup>13</sup>C and <sup>15</sup>N nuclear magnetic resonance.**

Baccile N, Laurent G, Coelho C, Babonneau F, Zhao L and Titirici MM. *Journal of Physical Chemistry C* vol. 115, (18) 8976-8982.

**LiFePO<sub>4</sub> Mesocrystals for lithium-ion batteries.**

Popovic J, Demir-Cakan R, Tornow J, Morcrette M, Su DS, Schlögl R, Antonietti M and Titirici MM. *Small* vol. 7, (8) 1127-1135.

**Hydrothermal carbonization of biomass residuals: a comparative review of the chemistry, processes and applications of wet and dry pyrolysis.**

J. A Libra , K. S Ro , C. Kammann , A. Funke , N. D Berge , Y. Neubauer , M-M. Titirici , C. Fühner , O. Bens , J. Kern and K-H. Emmerich. *Biofuels* vol. 2(1), 89-124.

**Waterborne nanocarbon dispersions for electronic and fuel applications.**

Texter J, Crombez R, Ma XM, Caballero FP, Zhao L, Titirici MM and Antonietti M. *Abstracts of Papers of The American Chemical Society* vol. 241,.

**Morphological and structural differences between glucose, cellulose and lignocellulosic biomass derived hydrothermal carbons.**

Falco C, Baccile N and Titirici MM. *Green Chemistry* vol. 13, (11) 3273-3281.

**Hydrothermal carbonization of biomass residuals: A comparative review of the chemistry, processes and applications of wet and dry pyrolysis.**

Libra JA, Ro KS, Kammann C, Funke A, Berge ND, Neubauer Y, Titirici MM, Fühner C, Bens O, Kern J and Emmerich KH. *Biofuels* vol. 2, (1) 71-106.

2010

**Template synthesis of carbonaceous tubular nanostructures with tunable surface properties.**

Kubo S, Tan I, White RJ, Antonietti M and Titirici MM. *Chemistry of Materials* vol. 22, (24) 6590-6597.

**Solvothermal carbon-doped TiO<sub>2</sub> photocatalyst for the enhanced methylene blue degradation under visible light.**

Matos J, Garc a A, Zhao L and Titirici MM. *Applied Catalysis a: General* vol. 390, (1-2) 175-182.

**Functional hollow carbon nanospheres by latex templating.**

White RJ, Tauer K, Antonietti M and Titirici MM. *Journal of The American Chemical Society* vol. 132, (49) 17360-17363.

**Proteins induced formation of hydrothermal nitrogen doped carbons.**

Baccile N and Titirici MM. *Materials Research Society Symposium Proceedings* vol. 1219, 28-33.

**Nitrogen-containing hydrothermal carbons with superior performance in supercapacitors.**

Zhao L, Fan LZ, Zhou MQ, Guan H, Qiao S, Antonietti M and Titirici MM. *Advanced Materials* vol. 22, (45) 5202-5206.

**Sustainable nitrogen-doped carbonaceous materials from biomass derivatives.**

Zhao L, Baccile N, Gross S, Zhang Y, Wei W, Sun Y, Antonietti M and Titirici MM. *Carbon* vol. 48, (13) 3778-3787.

**Methane conversion on Pt-Ru nanoparticles alloy supported on hydrothermal carbon.**

Matos J, Rosales M, Demir-Cakan R and Titirici MM. *Applied Catalysis a: General* vol. 386, (1-2) 140-146.

**Sustainable nitrogen-doped carbon latexes with high electrical and thermal conductivity.**

Zhao L, Crombez R, Caballero FP, Antonietti M, Texter J and Titirici MM. *Polymer* vol. 51, (20) 4540-4546.

**One-step solvothermal synthesis of a carbon @TiO<sub>2</sub> dyade structure effectively promoting visible-light photocatalysis.**

Zhao L, Chen X, Wang X, Zhang Y, Wei W, Sun Y, Antonietti M and Titirici MM. *Advanced Materials* vol. 22, (30) 3317-3321.

**Carbon dioxide capture on amine-rich carbonaceous materials derived from glucose.**

Zhao L, Bacsik Z, Hedin N, Wei W, Sun Y, Antonietti M and Titirici MM. *Chemsuschem* vol. 3, (7) 840-845.

**Material derived from hydrothermal carbonization: Effects on plant growth and arbuscular mycorrhiza.**

Rillig MC, Wagner M, Salem M, Antunes PM, George C, Ramke HG, Titirici MM and Antonietti M. *Applied Soil Ecology* vol. 45, (3) 238-242.

**Hydrothermal synthesis of imidazole functionalized carbon spheres and their application in catalysis.**

Demir-Cakan R, Makowski P, Antonietti M, Goettmann F and Titirici MM. *Catalysis Today* vol. 150, (1-2) 115-118.

**Engineering carbon materials from the hydrothermal carbonization process of biomass.**

Hu B, Wang K, Wu L, Yu SH, Antonietti M and Titirici MM. *Advanced Materials* vol. 22, (7) 813-828.

**One-step hydrothermal synthesis of nitrogen-doped nanocarbons: Albumine directing the carbonization of glucose.**

Baccile N, Antonietti M and Titirici MM. *Chemsuschem* vol. 3, (2) 246-253.

**Porous carbohydrate-based materials via hard templating.**

Kubo S, Demir-Cakan R, Zhao L, White RJ and Titirici MM. *Chemsuschem* vol. 3, (2) 188-194.

**Opportunities for Technological Transformations: from Climate Change to Climate Management?.**

Titirici M, Murach D and Antonietti M. *Global Sustainability - a Nobel Cause*. Editors: Schellnhuber HJ, Molina M, Stern N, Huber V and Kadner S. *Cambridge University Press*.

**Chemistry and materials options of sustainable carbon materials made by hydrothermal carbonization.**

Titirici MM and Antonietti M. *Chemical Society Reviews* vol. 39, (1) 103-116.

**Coal from carbohydrates: The chimie douce of carbon.**

Antonietti M and Titirici MM. *Comptes Rendus Chimie* vol. 13, (1-2) 167-173.

2009

**Thermo-responsive columns for HPLC: The effect of chromatographic support and polymer molecular weight on the performance of the columns.**

Roohi F, Fatoglu Y and Titirici MM. *Analytical Methods* vol. 1, (1) 52-58.

**Naturally inspired nitrogen doped porous carbon.**

White RJ, Antonietti M and Titirici MM. *Journal of Materials Chemistry* vol. 19, (45) 8645-8650.

**PEGylated chromatography: Efficient bioseparation on silica monoliths grafted with smart biocompatible polymers.**

Tan I, Zarafshani Z, Lutz JF and Titirici MM. *Acs Applied Materials and Interfaces* vol. 1, (9) 1869-1872.

**Structural characterization of hydrothermal carbon spheres by advanced solid-state MAS 13C NMR investigations.**

Baccile N, Laurent G, Babonneau F, Fayon F, Titirici MM and Antonietti M. *Journal of Physical Chemistry C* vol. 113, (22) 9644-9654.

**Porous polymers: Enabling solutions for energy applications.**

Thomas A, Kuhn P, Weber J, Titirici MM and Antonietti M. *Macromolecular Rapid Communications* vol. 30, (4-5) 221-236.

**Carboxylate-rich carbonaceous materials via one-step hydrothermal carbonization of glucose in the presence of acrylic acid.**

Demir-Cakan R, Baccile N, Antonietti M and Titirici MM. *Chemistry of Materials* vol. 21, (3) 484-490.

2008

**Hydrothermal carbon from biomass: A comparison of the local structure from poly- to monosaccharides and pentoses/hexoses.**

Titirici MM, Antonietti M and Baccile N. *Green Chemistry* vol. 10, (11) 1204-1212.

**Thermo-responsive monolithic materials.**

Roohi F, Antonietti M and Titirici MM. *Journal of Chromatography A* vol. 1203, (2) 160-167.

**Hydrothermal carbon spheres containing silicon nanoparticles: Synthesis and lithium storage performance.**

Demir Cakan R, Titirici MM, Antonietti M, Cui G, Maier J and Hu YS. *Chemical Communications* (32) 3759-3761.

**Thin thermo-responsive polymer films onto the pore system of chromatographic beads via reversible addition-fragmentation chain transfer polymerization.**

Roohi F and Magdalena Titirici M. *New Journal of Chemistry* vol. 32, (8) 1409-1414.

**Selective partial hydrogenation of hydroxy aromatic derivatives with palladium nanoparticles supported on hydrophilic carbon.**

Makowski P, Demir Cakan R, Antonietti M, Goettmann F and Titirici MM. *Chemical Communications* (8) 999-1001.

**Facile one-pot synthesis of mesoporous SnO<sub>2</sub> microspheres via nanoparticles assembly and lithium storage properties.**

Demir-Cakan R, Hu YS, Antonietti M, Maier J and Titirici MM. *Chemistry of Materials* vol. 20, (4) 1227-1229.

**Superior storage performance of a Si@SiO<sub>x</sub>/C nanocomposite as anode material for lithium-ion batteries.**

Hu YS, Demir-Cakan R, Titirici MM, Müller JO, Schlögl R, Antonietti M and Maier J. *Angewandte Chemie - International Edition* vol. 47, (9) 1645-1649.

2007

**Back in the black: Hydrothermal carbonization of plant material as an efficient chemical process to treat the CO<sub>2</sub> problem?.**

Titirici MM, Thomas A and Antonietti M. *New Journal of Chemistry* vol. 31, (6) 787-789.



**A direct synthesis of mesoporous carbons with bicontinuous pore morphology from crude plant material by hydrothermal carbonization.**

Titirici MM, Thomas A, Yu SH, Müller JO and Antonietti M. *Chemistry of Materials* vol. 19, (17) 4205-4212.

**Aminated hydrophilic ordered mesoporous carbons.**

Titirici MM, Thomas A and Antonietti M. *Journal of Materials Chemistry* vol. 17, (32) 3412-3418.

**Chromatographic comparison of bupivacaine imprinted polymers prepared in crushed monolith, microsphere, silica-based composite and capillary monolith formats.**

Oxelbark J, Legido-Quigley C, Aureliano CSA, Titirici MM, Schillinger E, Sellergren B, Courtois J, Irgum K, Dambies L, Cormack PAG, Sherrington DC and De Lorenzi E. *Journal of Chromatography A* vol. 1160, (1-2) 215-226.

**Replication and coating of silica templates by hydrothermal carbonization.**

Titirici MM, Thomas A and Antonietti M. *Advanced Functional Materials* vol. 17, (6) 1010-1018.

## 2006

**A generalized synthesis of metal oxide hollow spheres using a hydrothermal approach.**

Titirici MM, Antonietti M and Thomas A. *Chemistry of Materials* vol. 18, (16) 3808-3812.

**Thin molecularly imprinted polymer films via reversible addition-fragmentation chain transfer polymerization.**

Titirici MM and Sellergren B. *Chemistry of Materials* vol. 18, (7) 1773-1779.

## 2005

**Synthesis and evaluation of new propazine-imprinted polymer formats for use as stationary phases in liquid chromatography.**

Tamayo FG, Titirici MM, Martin-Esteban A and Sellergren B. *Analytica Chimica Acta* vol. 542, (1 SPEC. ISS.) 38-46.

## 2004

**Novel Formats in Molecular Imprinting.**

TITIRICI M.

**Peptide recognition via hierarchical imprinting.**

Titirici MM and Sellergren B. *Analytical and Bioanalytical Chemistry* vol. 378, (8) 1913-1921.

## 2003

**Hierarchical imprinting using crude solid phase peptide synthesis products as templates.**

Titirici MM, Hall AJ and Sellergren B. *Chemistry of Materials* vol. 15, (4) 822-824.

## 2002

**Hierarchically imprinted stationary phases: Mesoporous polymer beads containing surface-confined binding sites for adenine.**

Titirici MM, Hall AJ and Sellergren B. *Chemistry of Materials* vol. 14, (1) 21-23.