

Maria C. Guti  rrez

List of Publications by Year in descending order

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104
papers

7,771
citations

53789
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108
all docs

108
docs citations

108
times ranked

10006
citing authors

#	ARTICLE	IF	CITATIONS
1	Transitioning from Ionic Liquids to Deep Eutectic Solvents. ACS Sustainable Chemistry and Engineering, 2022, 10, 1232-1245.	6.7	22
2	Easy and Efficient Recovery of EMIMCl from Cellulose Solutions by Addition of Acetic Acid and the Transition from the Original Ionic Liquid to an Eutectic Mixture. Molecules, 2022, 27, 987.	3.8	3
3	Hydrogen bonding in ternary mixtures of N-Methyl morpholine Oxide, water and Dimethyl sulfoxide for enhanced cellulose dissolution capabilities. Journal of Molecular Liquids, 2022, 358, 119113.	4.9	5
4	Should deep eutectic solvents be treated as a mixture of two components or as a pseudo-component?. Journal of Chemical Physics, 2021, 154, 184501.	3.0	10
5	Tools for extending the dilution range of the "solvent-in-DES" regime. Journal of Molecular Liquids, 2021, 329, 115573.	4.9	11
6	EMIMBF ₄ in ternary liquid mixtures of water, dimethyl sulfoxide and acetonitrile as "solvent-in-salt" electrolytes for high-performance supercapacitors operating at -70 °C. Energy Storage Materials, 2021, 40, 368-385.	18.0	25
7	Compressive modulus and deformation mechanisms of 3DG foams: experimental investigation and multiscale modeling. Nanotechnology, 2021, 32, 485711.	2.6	2
8	Aqueous Co-Solvent in Zwitterionic-Based Protic Ionic Liquids as Electrolytes in 2.0 V Supercapacitors. ChemSusChem, 2020, 13, 5983-5995.	6.8	8
9	Aqueous-Eutectic-in-Salt Electrolytes for High-Energy-Density Supercapacitors with an Operational Temperature Window of 100 °C, from -35 to +65 °C. ACS Applied Materials & Interfaces, 2020, 12, 29181-29193.	8.0	10
10	Highly Efficient p-Toluenesulfonic Acid-Based Deep-Eutectic Solvents for Cathode Recycling of Li-Ion Batteries. ACS Sustainable Chemistry and Engineering, 2020, 8, 5437-5445.	6.7	83
11	Further Extending the Dilution Range of the "Solvent-in-DES" Regime upon the Replacement of Water by an Organic Solvent with Hydrogen Bond Capabilities. ACS Sustainable Chemistry and Engineering, 2020, 8, 12120-12131.	6.7	20
12	Carbon and carbon composites obtained using deep eutectic solvents and aqueous dilutions thereof. Chemical Communications, 2020, 56, 3592-3604.	4.1	22
13	Brillouin Spectroscopy as a Suitable Technique for the Determination of the Eutectic Composition in Mixtures of Choline Chloride and Water. Journal of Physical Chemistry B, 2020, 124, 4002-4009.	2.6	24
14	Highly Efficient and Recyclable Carbon-Nanofiber-Based Aerogels for Ionic Liquid-Water Separation and Ionic Liquid Dehydration in Flow-Through Conditions. Advanced Materials, 2019, 31, e1903418.	21.0	24
15	Looking at the "Water-in-Deep-Eutectic-Solvent" System: A Dilution Range for High Performance Eutectics. ACS Sustainable Chemistry and Engineering, 2019, 7, 17565-17573.	6.7	80
16	Carbon-GO Composites with Preferential Water versus Ethanol Uptake. ACS Applied Materials & Interfaces, 2019, 11, 24493-24503.	8.0	12
17	Vortex ring processes allowing shape control and entrapment of antibacterial agents in GO-based particles. Carbon, 2019, 147, 408-418.	10.3	7
18	Brillouin and NMR spectroscopic studies of aqueous dilutions of malicine: Determining the dilution range for transition from a "water-in-DES" system to a "DES-in-water" one. Journal of Molecular Liquids, 2019, 284, 175-181.	4.9	32

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19	Deep eutectic solvents as active media for the preparation of highly conducting 3D free-standing PANI xerogels and their derived N-doped and N-, P-codoped porous carbons. Carbon, 2019, 146, 813-826.	10.3	11
20	Encoding Metal-“Cation Arrangements in Metal-“Organic Frameworks for Programming the Composition of Electrocatalytically Active Multimetal Oxides. Journal of the American Chemical Society, 2019, 141, 1766-1774.	13.7	32
21	Nanophase separation in aqueous dilutions of a ternary DES as revealed by Brillouin and NMR spectroscopy. Journal of Molecular Liquids, 2019, 276, 196-203.	4.9	33
22	Hydrogen-bond supramolecular hydrogels as efficient precursors in the preparation of freestanding 3D carbonaceous architectures containing BCNO nanocrystals and exhibiting a high CO ₂ /CH ₄ adsorption ratio. Carbon, 2018, 134, 470-479.	10.3	13
23	Reline aqueous solutions behaving as liquid mixtures of H-bonded co-solvents: microphase segregation and formation of co-continuous structures as indicated by Brillouin and ¹ H NMR spectroscopies. Physical Chemistry Chemical Physics, 2017, 19, 17103-17110.	2.8	49
24	Predicting the suitability of aqueous solutions of deep eutectic solvents for preparation of co-continuous porous carbons via spinodal decomposition processes. Carbon, 2017, 123, 536-547.	10.3	29
25	Favorable Biological Responses of Neural Cells and Tissue Interacting with Graphene Oxide Microfibers. ACS Omega, 2017, 2, 8253-8263.	3.5	34
26	Ice as a Green-Structure-Directing Agent in the Synthesis of Macroporous MWCNTs and Chondroitin Sulphate Composites. Materials, 2017, 10, 355.	2.9	5
27	Study of Superbase-Based Deep Eutectic Solvents as the Catalyst in the Chemical Fixation of CO ₂ into Cyclic Carbonates under Mild Conditions. Materials, 2017, 10, 759.	2.9	24
28	Immunomodulatory and angiogenic responses induced by graphene oxide scaffolds in chronic spinal hemisectioned rats. Biomaterials, 2016, 99, 72-81.	11.4	77
29	Tailoring the textural properties of hierarchical porous carbons using deep eutectic solvents. Journal of Materials Chemistry A, 2016, 4, 9146-9159.	10.3	39
30	Synthesis of Biodegradable Macroporous Poly(l-lactide)/Poly(ε-caprolactone) Blend Using Oil-in-Eutectic-Mixture High-Internal-Phase Emulsions as Template. ACS Applied Materials & Interfaces, 2016, 8, 16939-16949.	8.0	55
31	Tailored Fringed Platforms Produced by Laser Interference for Aligned Neural Cell Growth. Macromolecular Bioscience, 2016, 16, 255-265.	4.1	5
32	Phosphorus-doped carbon-“carbon nanotube hierarchical monoliths as true three-dimensional electrodes in supercapacitor cells. Journal of Materials Chemistry A, 2016, 4, 1251-1263.	10.3	136
33	Nitrogen-doped carbons prepared from eutectic mixtures as metal-free oxygen reduction catalysts. Journal of Materials Chemistry A, 2016, 4, 478-488.	10.3	35
34	Subacute Tissue Response to 3D Graphene Oxide Scaffolds Implanted in the Injured Rat Spinal Cord. Advanced Healthcare Materials, 2015, 4, 1861-1868.	7.6	51
35	Deep Eutectic Solvents Playing Multiple Roles in the Synthesis of Porous Carbon Materials. , 2015, , 23-45.		1
36	Mammalian Cell Cryopreservation by Using Liquid Marbles. ACS Applied Materials & Interfaces, 2015, 7, 3854-3860.	8.0	35

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37	Near-to-eutectic mixtures as bifunctional catalysts in the low-temperature-ring-opening-polymerization of ϵ -caprolactone. <i>Green Chemistry</i> , 2015, 17, 3632-3643.	9.0	27
38	Preparation of Chitosan Nanocomposites with a Macroporous Structure by Unidirectional Freezing and Subsequent Freeze-Drying. <i>Marine Drugs</i> , 2014, 12, 5619-5642.	4.6	55
39	Chitosan Scaffolds Containing Calcium Phosphate Salts and rhBMP-2: In Vitro and In Vivo Testing for Bone Tissue Regeneration. <i>PLoS ONE</i> , 2014, 9, e87149.	2.5	28
40	Sulfur-Doped Carbons Prepared from Eutectic Mixtures Containing Hydroxymethylthiophene as Metal-Free Oxygen Reduction Catalysts. <i>ChemSusChem</i> , 2014, 7, 3347-3355.	6.8	17
41	Effect of doping in carbon nanotubes on the viability of biomimetic chitosan-carbon nanotubes-hydroxyapatite scaffolds. <i>Journal of Biomedical Materials Research - Part A</i> , 2014, 102, 3341-3351.	4.0	20
42	Role of polymers in the design of 3D carbon nanotube-based scaffolds for biomedical applications. <i>Progress in Polymer Science</i> , 2014, 39, 1448-1471.	24.7	78
43	Deep Eutectic Solvents in Polymerizations: A Greener Alternative to Conventional Syntheses. <i>ChemSusChem</i> , 2014, 7, 999-1009.	6.8	200
44	Chondroitin sulphate-based 3D scaffolds containing MWCNTs for nervous tissue repair. <i>Biomaterials</i> , 2014, 35, 1543-1551.	11.4	55
45	Efficient nitrogen-doping and structural control of hierarchical carbons using unconventional precursors in the form of deep eutectic solvents. <i>Journal of Materials Chemistry A</i> , 2014, 2, 17387-17399.	10.3	37
46	3D free-standing porous scaffolds made of graphene oxide as substrates for neural cell growth. <i>Journal of Materials Chemistry B</i> , 2014, 2, 5698.	5.8	108
47	Use of Eutectic Mixtures for Preparation of Monolithic Carbons with CO ₂ -Adsorption and Gas-Separation Capabilities. <i>Langmuir</i> , 2014, 30, 12220-12228.	3.5	21
48	DES assisted synthesis of hierarchical nitrogen-doped carbon molecular sieves for selective CO ₂ versus N ₂ adsorption. <i>Journal of Materials Chemistry A</i> , 2014, 2, 8719-8729.	10.3	66
49	Deep Eutectic Solvent-Assisted Synthesis of Biodegradable Polyesters with Antibacterial Properties. <i>Langmuir</i> , 2013, 29, 9525-9534.	3.5	74
50	Deep Eutectic-Assisted Synthesis of Bimodal Porous Carbon Monoliths with High Electrical Conductivities. <i>Particle and Particle Systems Characterization</i> , 2013, 30, 316-320.	2.3	19
51	Microwave-assisted synthesis of NiCo ₂ O ₄ -graphene oxide nanocomposites suitable as electrodes for supercapacitors. <i>RSC Advances</i> , 2013, 3, 13690.	3.6	69
52	Modulating the cytocompatibility of tridimensional carbon nanotube-based scaffolds. <i>Journal of Materials Chemistry B</i> , 2013, 1, 3064.	5.8	29
53	Three dimensional macroporous architectures and aerogels built of carbon nanotubes and/or graphene: synthesis and applications. <i>Chemical Society Reviews</i> , 2013, 42, 794-830.	38.1	1,065
54	Deep eutectic solvents as both active fillers and monomers for frontal polymerization. <i>Journal of Polymer Science Part A</i> , 2013, 51, 1767-1773.	2.3	92

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55	Synthesis of macroporous poly(acrylic acid)-carbon nanotube composites by frontal polymerization in deep-eutectic solvents. <i>Journal of Materials Chemistry A</i> , 2013, 1, 3970.	10.3	97
56	Deep-eutectic solvents playing multiple roles in the synthesis of polymers and related materials. <i>Chemical Society Reviews</i> , 2012, 41, 4996.	38.1	608
57	Phase Behavior of Elastin-Like Synthetic Recombinamers in Deep Eutectic Solvents. <i>Biomacromolecules</i> , 2012, 13, 2029-2036.	5.4	30
58	Deep eutectic assisted synthesis of carbon adsorbents highly suitable for low-pressure separation of CO ₂ -CH ₄ gas mixtures. <i>Energy and Environmental Science</i> , 2012, 5, 8699.	30.8	71
59	Synthesis of novel lidocaine-releasing poly(diols-co-citrate) elastomers by using deep eutectic solvents. <i>Chemical Communications</i> , 2012, 48, 579-581.	4.1	98
60	In Situ Precipitation of Amorphous Calcium Phosphate and Ciprofloxacin Crystals during the Formation of Chitosan Hydrogels and Its Application for Drug Delivery Purposes. <i>Langmuir</i> , 2012, 28, 15937-15946.	3.5	37
61	Osteoconductive Performance of Carbon Nanotube Scaffolds Homogeneously Mineralized by Flow-through Electrodeposition. <i>Advanced Functional Materials</i> , 2012, 22, 4411-4420.	14.9	46
62	Phosphate-Functionalized Carbon Monoliths from Deep Eutectic Solvents and their Use as Monolithic Electrodes in Supercapacitors. <i>ChemSusChem</i> , 2012, 5, 1405-1409.	6.8	87
63	Three-dimensional microchanneled electrodes in flow-through configuration for bioanode formation and current generation. <i>Energy and Environmental Science</i> , 2011, 4, 4201.	30.8	112
64	Deep eutectic solvents as both precursors and structure directing agents in the synthesis of nitrogen doped hierarchical carbons highly suitable for CO ₂ capture. <i>Energy and Environmental Science</i> , 2011, 4, 3535.	30.8	176
65	Chitosan Gelation Induced by the in Situ Formation of Gold Nanoparticles and Its Processing into Macroporous Scaffolds. <i>Biomacromolecules</i> , 2011, 12, 179-186.	5.4	61
66	Progress in Bionanocomposite and Bioinspired Foams. <i>Advanced Materials</i> , 2011, 23, 5262-5267.	21.0	58
67	Deep-Eutectic-Solvent-Assisted Synthesis of Hierarchical Carbon Electrodes Exhibiting Capacitance Retention at High Current Densities. <i>Chemistry - A European Journal</i> , 2011, 17, 10533-10537.	3.3	86
68	Frontal polymerizations carried out in deep-eutectic mixtures providing both the monomers and the polymerization medium. <i>Chemical Communications</i> , 2011, 47, 5328.	4.1	127
69	Bacteria Incorporation in Deep-Eutectic Solvents through Freeze-Drying. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 2158-2162.	13.8	158
70	Resorcinol-Based Deep Eutectic Solvents as Both Carbonaceous Precursors and Templating Agents in the Synthesis of Hierarchical Porous Carbon Monoliths. <i>Chemistry of Materials</i> , 2010, 22, 6146-6152.	6.7	143
71	Block-Copolymer assisted synthesis of hierarchical carbon monoliths suitable as supercapacitor electrodes. <i>Journal of Materials Chemistry</i> , 2010, 20, 773-780.	6.7	114
72	Resorcinol-Formaldehyde Polycondensation in Deep Eutectic Solvents for the Preparation of Carbons and Carbon-Carbon Nanotube Composites. <i>Chemistry of Materials</i> , 2010, 22, 2711-2719.	6.7	126

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73	Enzyme-induced graft polymerization for preparation of hydrogels: synergetic effect of laccase-immobilized-cryogels for pollutants adsorption. <i>Soft Matter</i> , 2010, 6, 3533.	2.7	21
74	PPO15-PEO22-PPO15 block copolymer assisted synthesis of monolithic macro- and microporous carbon aerogels exhibiting high conductivity and remarkable capacitance. <i>Journal of Materials Chemistry</i> , 2009, 19, 1236.	6.7	82
75	Freeze-Drying of Aqueous Solutions of Deep Eutectic Solvents: A Suitable Approach to Deep Eutectic Suspensions of Self-Assembled Structures. <i>Langmuir</i> , 2009, 25, 5509-5515.	3.5	380
76	Self-assembled titania-silica-sepiolite based nanocomposites for water decontamination. <i>Journal of Materials Chemistry</i> , 2009, 19, 2070.	6.7	38
77	Controlled formation of the anhydrous polymorph of ciprofloxacin crystals embedded within chitosan scaffolds: study of the kinetic release dependence on crystal size. <i>Journal of Materials Chemistry</i> , 2009, 19, 1576.	6.7	16
78	Multiwall carbon nanotube scaffolds for tissue engineering purposes. <i>Biomaterials</i> , 2008, 29, 94-102.	11.4	402
79	Ice-Templated Materials: Sophisticated Structures Exhibiting Enhanced Functionalities Obtained after Unidirectional Freezing and Ice-Segregation-Induced Self-Assembly. <i>Chemistry of Materials</i> , 2008, 20, 634-648.	6.7	396
80	Preparative scale Baeyer-Villiger biooxidation at high concentration using recombinant <i>Escherichia coli</i> and in situ substrate feeding and product removal process. <i>Nature Protocols</i> , 2008, 3, 546-554.	12.0	78
81	TiO ₂ /ORMOSIL Thin Films Doped with Phthalocyanine Dyes: New Photocatalytic Devices Activated by Solar Light. <i>Journal of Physical Chemistry C</i> , 2008, 112, 2667-2670.	3.1	29
82	Urea assisted hydroxyapatite mineralization on MWCNT/CHI scaffolds. <i>Journal of Materials Chemistry</i> , 2008, 18, 5933.	6.7	35
83	Enzymatic Synthesis of Amorphous Calcium Phosphate-Chitosan Nanocomposites and Their Processing into Hierarchical Structures. <i>Chemistry of Materials</i> , 2008, 20, 11-13.	6.7	49
84	Reply to Comment on "Highly Fluorescent Rhodamine B Nanoparticles Entrapped in Hybrid Glasses". <i>Langmuir</i> , 2008, 24, 2258-2259.	3.5	0
85	Macroporous 3D Architectures of Self-Assembled MWCNT Surface Decorated with Pt Nanoparticles as Anodes for a Direct Methanol Fuel Cell. <i>Journal of Physical Chemistry C</i> , 2007, 111, 5557-5560.	3.1	132
86	Hydrogel Scaffolds with Immobilized Bacteria for 3D Cultures. <i>Chemistry of Materials</i> , 2007, 19, 1968-1973.	6.7	56
87	Fluorescence Study of the Fluidity and Cooperativity of the Phase Transitions of Zwitterionic and Anionic Liposomes Confined in Sol-Gel Glasses. <i>Journal of Physical Chemistry B</i> , 2007, 111, 3665-3673.	2.6	19
88	Highly Fluorescent Rhodamine B Nanoparticles Entrapped in Hybrid Glasses. <i>Langmuir</i> , 2007, 23, 2175-2179.	3.5	38
89	Ordered arrangement of gold nanoparticles on an α -cyclodextrin-dodecanethiol inclusion compound produced by magnetron sputtering. <i>New Journal of Chemistry</i> , 2007, 31, 1400.	2.8	19
90	Biocompatible MWCNT scaffolds for immobilization and proliferation of <i>E. coli</i> . <i>Journal of Materials Chemistry</i> , 2007, 17, 2992-2995.	6.7	74

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91	Poly(vinyl alcohol) Scaffolds with Tailored Morphologies for Drug Delivery and Controlled Release. <i>Advanced Functional Materials</i> , 2007, 17, 3505-3513.	14.9	189
92	A Biocompatible Bottom-Up Route for the Preparation of Hierarchical Biohybrid Materials. <i>Advanced Materials</i> , 2006, 18, 1137-1140.	21.0	96
93	Microbial Baeyer-Villiger oxidation applied to the synthesis of the N-protected (1R,5R)-Geismanolide lactone. <i>Tetrahedron: Asymmetry</i> , 2005, 16, 2521-2524.	1.8	22
94	Enzyme-Catalyzed Rearrangement of a Diepoxy-germacrane Compound into New 7-epi-Eudesmane Derivatives. <i>Journal of Organic Chemistry</i> , 2005, 70, 338-341.	3.2	4
95	Microbiological Transformations 60. Enantioconvergent Baeyer-Villiger Oxidation via a Combined Whole Cells and Ionic Exchange Resin-Catalysed Dynamic Kinetic Resolution Process. <i>Advanced Synthesis and Catalysis</i> , 2005, 347, 1051-1059.	4.3	49
96	Biotransformation of a 4 β -hydroxylated eudesmane with <i>Exserohilum halodes</i> . <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2004, 27, 133-138.	1.8	7
97	Biotransformation of ent-13-epi-manoyl oxides difunctionalized at C-3 and C-12 by filamentous fungi. <i>Phytochemistry</i> , 2004, 65, 107-115.	2.9	15
98	Microbiological Transformations 57. Facile and Efficient Resin-Based in Situ SFPR Preparative-Scale Synthesis of an Enantiopure α -Unexpected Lactone Regioisomer via a Baeyer-Villiger Oxidation Process. <i>Organic Letters</i> , 2004, 6, 1955-1958.	4.6	55
99	Microbiological transformations 52.. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2003, 21, 231-238.	1.8	24
100	The first fluorogenic assay for detecting a Baeyer-Villigerase activity in microbial cells. <i>Organic and Biomolecular Chemistry</i> , 2003, 1, 3500-3506.	2.8	35
101	Improved microbiological hydroxylation of sesquiterpenoids: semisynthesis, structural determination and biotransformation studies of cyclic sulfite eudesmane derivatives. <i>Organic and Biomolecular Chemistry</i> , 2003, 1, 2314-2320.	2.8	13
102	Chemical-Microbiological Synthesis of Cryptomeridiol Derivatives by <i>Gliocladium roseum</i> : \hat{A} Semisynthesis of 11-Hydroxyeudesmanolides. <i>Journal of Natural Products</i> , 2002, 65, 1011-1015.	3.0	13
103	Biotransformation of 4 β -hydroxyeudesmane-1,6-dione by <i>Gliocladium roseum</i> and <i>Exserohilum halodes</i> . <i>Phytochemistry</i> , 2001, 58, 891-895.	2.9	14
104	Biotransformation of shiromool derivatives by <i>Rhizopus nigricans</i> cultures: Chemical-microbiological synthesis of michelenolide analogues. <i>Tetrahedron</i> , 1998, 54, 3311-3320.	1.9	10