José Af Gamelas

List of Publications by Year in descending order

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Version: 2024-02-01

89 2,334 papers citations

28 h-index 42 g-index

91 all docs 91 docs citations

91 times ranked 2774 citing authors

#	Article	IF	CITATIONS
1	Alternatives for lignocellulosic pulp delignification using polyoxometalates and oxygen: a review. Green Chemistry, 2007, 9, 717.	4.6	123
2	Keggin-type polyoxotungstates as catalysts in the oxidation of cyclohexane by dilute aqueous hydrogen peroxide. Journal of Molecular Catalysis A, 1999, 144, 461-468.	4.8	105
3	Nanostructured Bacterial Cellulose–Poly(4-styrene sulfonic acid) Composite Membranes with High Storage Modulus and Protonic Conductivity. ACS Applied Materials & Interfaces, 2014, 6, 7864-7875.	4.0	81
4	On the morphology of cellulose nanofibrils obtained by TEMPO-mediated oxidation and mechanical treatment. Micron, 2015, 72, 28-33.	1.1	72
5	The surface properties of cellulose and lignocellulosic materials assessed by inverse gas chromatography: a review. Cellulose, 2013, 20, 2675-2693.	2.4	70
6	Electrochemical Behaviour of First Row Transition Metal Substituted Polyoxotungstates: A Comparative Study in Acetonitrile. European Journal of Inorganic Chemistry, 2004, 2004, 619-628.	1.0	66
7	Synthesis, properties and photochromism of novel charge transfer compounds with Keggin anions and protonated 2,2′-biquinoline. Polyhedron, 2002, 21, 2537-2545.	1.0	64
8	Oxygen bleaching of kraft pulp with polyoxometalates and laccase applying a novel multi-stage process. Journal of Molecular Catalysis B: Enzymatic, 2005, 33, 57-64.	1.8	64
9	Composites of nanofibrillated cellulose with clay minerals: A review. Advances in Colloid and Interface Science, 2019, 272, 101994.	7.0	61
10	Influence of TEMPO-oxidised cellulose nanofibrils on the properties of filler-containing papers. Cellulose, 2017, 24, 349-362.	2.4	49
11	An insight into the surface properties of calcined kaolinitic clays: The grinding effect. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 455, 49-57.	2.3	45
12	Polyoxometalate/laccase-mediated oxidative polymerization of catechol for textile dyeing. Applied Microbiology and Biotechnology, 2011, 89, 981-987.	1.7	44
13	Eggshell waste to produce building lime: calcium oxide reactivity, industrial, environmental and economic implications. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	1.3	44
14	Characterization of Bone and Bone-Based Graft Materials Using FTIR Spectroscopy. , 0, , .		42
15	A novel approach for the oxidative catalysis employing polyoxometalate–laccase system: application to the oxygen bleaching of kraft pulp. Catalysis Communications, 2004, 5, 485-489.	1.6	40
16	Tuning rheology and aggregation behaviour of TEMPO-oxidised cellulose nanofibrils aqueous suspensions by addition of different acids. Carbohydrate Polymers, 2020, 237, 116109.	5.1	39
17	Polymorphism in tetra-butylammonium salts of Keggin-type polyoxotungstates. Inorganica Chimica Acta, 2003, 342, 16-22.	1.2	36
18	Sandwich-type tungstophosphates in the catalytic oxidation of cycloalkanes with hydrogen peroxide. Journal of Molecular Catalysis A, 2007, 262, 41-47.	4.8	35

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19	Xylan and xylan derivativesâ€"Their performance in bio-based films and effect of glycerol addition. Industrial Crops and Products, 2016, 94, 682-689.	2.5	34
20	Determination of 5-hydroxymethylfurfural in honey, using headspace-solid-phase microextraction coupled with a polyoxometalate-coated piezoelectric quartz crystal. Food Chemistry, 2017, 220, 420-426.	4.2	34
21	Enzymatic nanocellulose in papermaking – The key role as filler flocculant and strengthening agent. Carbohydrate Polymers, 2019, 224, 115200.	5.1	34
22	A new formaldehyde optical sensor: Detecting milk adulteration. Food Chemistry, 2020, 318, 126461.	4.2	34
23	Structural Studies of Keggin-Type Polyoxotungstates by Extended X-ray Absorption Fine Structure Spectroscopy. European Journal of Inorganic Chemistry, 2007, 2007, 1027-1038.	1.0	31
24	Functionalized xylans in the production of xylan-coated paper laminates. Reactive and Functional Polymers, 2017, 117, 89-96.	2.0	31
25	Evaluation of Silica-Coated PCC as New Modified Filler for Papermaking. Industrial & Engineering Chemistry Research, 2013, 52, 5095-5099.	1.8	30
26	Modification of precipitated calcium carbonate with cellulose esters and use as filler in papermaking. Chemical Engineering Research and Design, 2014, 92, 2425-2430.	2.7	30
27	Recycling Waste Seashells to Produce Calcitic Lime: Characterization and Wet Slaking Reactivity. Waste and Biomass Valorization, 2019, 10, 2397-2414.	1.8	30
28	Carboxymethylated cellulose nanofibrils in papermaking: influence on filler retention and paper properties. Cellulose, 2019, 26, 3489-3502.	2.4	29
29	Novel charge transfer supramolecular assemblies with Keggin anions and 2-amino-5-nitropyridine. Dalton Transactions, 2006, , 1197-1203.	1.6	28
30	New polyoxometalate–laccase integrated system for kraft pulp delignification. Biochemical Engineering Journal, 2007, 33, 141-147.	1.8	28
31	New polyoxometalate-functionalized cellulosic fibre/silica hybrids for environmental applications. RSC Advances, 2012, 2, 831-839.	1.7	27
32	Oxidation of cycloalkanes with hydrogen peroxide in the presence of Keggin-type polyoxotungstates. Catalysis Today, 2004, 91-92, 211-214.	2.2	26
33	Environmentally friendly cellulose-based polyelectrolytes in wastewater treatment. Water Science and Technology, 2017, 76, 1490-1499.	1.2	26
34	Tannin-based Coagulants from Laboratory to Pilot Plant Scales for Coloured Wastewater Treatment. BioResources, 2018, 13, 2727-2747.	0.5	26
35	Transition metal substituted polyoxometalates supported on amine-functionalized silica. Transition Metal Chemistry, 2007, 32, 1061-1067.	0.7	25
36	Sequential decolourization of reactive textile dyes by laccase mediator system. Journal of Chemical Technology and Biotechnology, 2009, 84, 442-446.	1.6	25

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37	Application of FT-IR-ATR Spectroscopy to Evaluate the Penetration of Surface Sizing Agents into the Paper Structure. Industrial & Engineering Chemistry Research, 2009, 48, 3867-3872.	1.8	25
38	New modified filler obtained by silica formed by sol–gel method on calcium carbonate. Journal of Sol-Gel Science and Technology, 2011, 59, 25-31.	1.1	25
39	Up-scaling of tannin-based coagulants for wastewater treatment: performance in a water treatment plant. Environmental Science and Pollution Research, 2020, 27, 1202-1213.	2.7	25
40	Flocculation of silica nanoparticles by natural, wood-based polyelectrolytes. Separation and Purification Technology, 2020, 231, 115888.	3.9	25
41	Increase of the filler content in papermaking by using a silica-coated PCC filler. Nordic Pulp and Paper Research Journal, 2014, 29, 240-245.	0.3	25
42	Transition metal substituted polyoxotungstates for the oxygen delignification of kraft pulp. Applied Catalysis A: General, 2005, 295, 134-141.	2.2	24
43	A New Approach for the Modification of Paper Surface Properties Using Polyoxometalates. Materials, 2010, 3, 201-215.	1.3	24
44	Cellulose micro and nanofibrils as coating agent for improved printability in office papers. Cellulose, 2020, 27, 6001-6010.	2.4	24
45	Evaluation of the papermaking potential of Ailanthus altissima. Industrial Crops and Products, 2013, 42, 538-542.	2.5	23
46	Evaluation of Anionic and Cationic Pulp-Based Flocculants With Diverse Lignin Contents for Application in Effluent Treatment From the Textile Industry: Flocculation Monitoring. Frontiers in Chemistry, 2020, 8, 5.	1.8	23
47	Catalytic oxidation of formaldehyde by ruthenium multisubstituted tungstosilicic polyoxometalate supported on cellulose/silica hybrid. Applied Catalysis A: General, 2016, 509, 8-16.	2.2	22
48	Spent Brewery Grains for Improvement of Thermal Insulation of Ceramic Bricks. Journal of Materials in Civil Engineering, 2013, 25, 1638-1646.	1.3	21
49	Oxidation of phenols employing polyoxometalates as biomimetic models of the activity of phenoloxidase enzymes. New Journal of Chemistry, 2007, 31, 1461.	1.4	20
50	Synthesis and characterisation of novel ruthenium multi-substituted polyoxometalates: $\hat{l}_{\pm}, \hat{l}_{-}[SiW9O37Ru4(H2O)3Cl3]7\hat{a}^{-}$. Polyhedron, 2010, 29, 3066-3073.	1.0	20
51	Studies on the redox turnover of polyoxometalates using potentiometric chemical sensors. New Journal of Chemistry, 2012, 36, 1036.	1.4	20
52	Delignification of eucalypt kraft pulp with manganese-substituted polyoxometalate assisted by fungal versatile peroxidase. Bioresource Technology, 2010, 101, 5935-5940.	4.8	19
53	Surface properties of distinct nanofibrillated celluloses assessed by inverse gas chromatography. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 469, 36-41.	2.3	19
54	Catalytic homogeneous oxidation of monoterpenes and cyclooctene with hydrogen peroxide in the presence of sandwich-type tungstophosphates [M4(H2O)2(PW9O34)2]na ²² , M = Coll, MnII and FellI. Journal of Molecular Catalysis A, 2017, 426, 593-599.	4.8	18

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55	Influence of physical–chemical interactions on the thermal stability and surface properties of poly(vinyl chloride)-b-poly(hydroxypropyl acrylate)-b-poly(vinyl chloride) block copolymers. European Polymer Journal, 2009, 45, 3389-3398.	2.6	17
56	Improving Paper Mechanical Properties Using Silica-modified Ground Calcium Carbonate as Filler. BioResources, 2015, 10, .	0.5	17
57	Engineering microfluidic papers: determination of fibre source and paper sheet properties and their influence on capillary-driven fluid flow. Cellulose, 2017, 24, 295-309.	2.4	17
58	Unusual electrochemical reduction of copper(II) to copper(I) in polyoxotungstates. Electrochemistry Communications, 2003, 5, 378-382.	2.3	16
59	Composite Films Based on Nanocellulose and Nanoclay Minerals as High Strength Materials with Gas Barrier Capabilities: Key Points and Challenges. BioResources, 2015, 10, 6310-6313.	0.5	16
60	Surface properties of carbonated and non-carbonated hydroxyapatites obtained after bone calcination at different temperatures. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 478, 62-70.	2.3	16
61	A comprehensive study on nanocelluloses in papermaking: the influence of common additives on filler retention and paper strength. Cellulose, 2020, 27, 5297-5309.	2.4	16
62	Production of nanocellulose gels and films from invasive tree species. International Journal of Biological Macromolecules, 2021, 188, 1003-1011.	3.6	16
63	Multisensor system for determination of polyoxometalates containing vanadium at its different oxidation states. Talanta, 2007, 72, 497-505.	2.9	15
64	Improving Colloidal Stability of Sepiolite Suspensions: Effect of the Mechanical Disperser and Chemical Dispersant. Minerals (Basel, Switzerland), 2020, 10, 779.	0.8	15
65	Unique Combination of Surface Energy and Lewis Acid–Base Characteristics of Superhydrophobic Cellulose Fibers. Langmuir, 2017, 33, 927-935.	1.6	14
66	Cationization of <i>Eucalyptus</i> wood waste pulps with diverse lignin contents for potential application in colored wastewater treatment. RSC Advances, 2019, 9, 34814-34826.	1.7	13
67	Interactions of ink colourants with chemically modified paper surfaces concerning inkjet print improvement. Materials Chemistry and Physics, 2013, 139, 877-884.	2.0	10
68	POLYOXOMETALATE-CATALYZED OXYGEN DELIGNIFICATION PROCESS: KINETIC STUDIES, DELIGNIFICATION SEQUENCES AND REUSE OF HPA-5-MnllAQUEOUS SOLUTION. Chemical Engineering Communications, 2009, 196, 801-811.	1.5	9
69	Surface properties of calcium carbonate modified with silica by sol-gel method. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 497, 1-7.	2.3	9
70	Quantifying acetaldehyde in cider using a Mn(III)-substituted polyoxotungstate coated acoustic wave sensor. Sensors and Actuators B: Chemical, 2018, 255, 2608-2613.	4.0	9
71	Precipitated calcium carbonate modified by the layer-by-layer deposition methodâ€"lts potential as papermaking filler. Chemical Engineering Research and Design, 2015, 104, 807-813.	2.7	8
72	Characterization of Two Cactus Formulation-Based Flocculants and Investigation on Their Flocculating Ability for Cationic and Anionic Dyes Removal. Polymers, 2020, 12, 1964.	2.0	8

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73	Stabilization of Palygorskite Aqueous Suspensions Using Bio-Based and Synthetic Polyelectrolytes. Polymers, 2021, 13, 129.	2.0	8
74	Composite Films of Nanofibrillated Cellulose with Sepiolite: Effect of Preparation Strategy. Coatings, 2022, 12, 303.	1.2	8
75	Surface properties of xylan and xylan derivatives measured by inverse gas chromatography. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 506, 600-606.	2.3	7
76	A more eco-friendly synthesis of flocculants to treat wastewaters using health-friendly solvents. Colloid and Polymer Science, 2017, 295, 2123-2131.	1.0	7
77	Comparison of Surface Properties of Sepiolite and Palygorskite: Surface Energy and Nanoroughness. Nanomaterials, 2021, 11, 1579.	1.9	7
78	High-performance delignification of invasive tree species wood with ionic liquid and deep eutectic solvent for the production of cellulose-based polyelectrolytes. RSC Advances, 2022, 12, 3979-3989.	1.7	7
79	Pre-treatment of industrial olive oil mill effluent using low dosage health-friendly cationic polyelectrolytes. Journal of Environmental Chemical Engineering, 2017, 5, 6053-6060.	3.3	6
80	Anionic Polyelectrolytes Synthesized in an Aromatic-Free-Oils Process for Application as Flocculants in Dairy-Industry-Effluent Treatment. Industrial & Engineering Chemistry Research, 2018, 57, 16884-16896.	1.8	5
81	Surface Energy and Lewis Acid-base Characteristics of Lignocellulosic Fibers upon Modification by Chemical Vapor Deposition of Trichloromethylsilane: An Inverse Gas Chromatography Study. Journal of Wood Chemistry and Technology, 2018, 38, 264-275.	0.9	5
82	Valorisation of invasive plant species in the production of polyelectrolytes. Industrial Crops and Products, 2021, 167, 113476.	2.5	5
83	Inverse gas chromatography and XPS of extracted kraft pulps. Holzforschung, 2013, 67, 273-276.	0.9	4
84	Purification of pulp mill condensates by an adsorptive process on activated carbon. Holzforschung, 2019, 73, 589-597.	0.9	3
85	Evaluation of Anionic Eco-Friendly Flocculants Prepared from Eucalyptus Pulps with Diverse Lignin Contents for Application in Effluent Treatment. Polymers, 2021, 13, 25.	2.0	3
86	Exploring the potential of cuttlebone waste to produce building lime. Materiales De Construccion, 2020, 70, 225.	0.2	3
87	Papermaking trials in a pilot paper machine with a new silica coated PCC filler. Nordic Pulp and Paper Research Journal, 2016, 31, 341-346.	0.3	2
88	Properties of extracted Eucalyptus globulus kraft pulps. Tappi Journal, 2012, 11, 47-55.	0.2	2
89	Surface characterization of polysaccharide scaffolds by inverse gas chromatography regarding application in tissue engineering. Surface and Interface Analysis, 2019, 51, 1070-1077.	0.8	1