

# Rafael A Garcia-Muñoz

## List of Publications by Year in descending order

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54  
papers

1,427  
citations

257450

24  
h-index

345221

36  
g-index

54  
all docs

54  
docs citations

54  
times ranked

1803  
citing authors

#	ARTICLE	IF	CITATIONS
1	Supercritical Fluid Extraction of a Nonionic Surfactant Template from SBA-15 Materials and Consequences on the Porous Structure. <i>Langmuir</i> , 2003, 19, 3966-3973.	3.5	146
2	Acidic and catalytic properties of hierarchical zeolites and hybrid ordered mesoporous materials assembled from MFI protozeolitic units. <i>Journal of Catalysis</i> , 2011, 279, 366-380.	6.2	145
3	Functionalization of SBA-15 by an acid-catalyzed approach: A surface characterization study. <i>Microporous and Mesoporous Materials</i> , 2007, 106, 129-139.	4.4	59
4	Influence of the calcination treatment on the catalytic properties of hierarchical ZSM-5. <i>Catalysis Today</i> , 2012, 179, 91-101.	4.4	50
5	Properties of hierarchical Beta zeolites prepared from protozeolitic nanounits for the catalytic cracking of high density polyethylene. <i>Applied Catalysis A: General</i> , 2017, 531, 187-196.	4.3	47
6	Synthesis of Chiral Periodic Mesoporous Silicas Incorporating Tartrate Derivatives in the Framework and Their Use in Asymmetric Sulfoxidation. <i>Chemistry of Materials</i> , 2008, 20, 2964-2971.	6.7	42
7	Surface-functionalization of mesoporous SBA-15 silica materials for controlled release of methylprednisolone sodium hemisuccinate: Influence of functionality type and strategies of incorporation. <i>Microporous and Mesoporous Materials</i> , 2017, 240, 236-245.	4.4	40
8	Modelling the adsorption and controlled release of drugs from the pure and amino surface-functionalized mesoporous silica hosts. <i>Microporous and Mesoporous Materials</i> , 2018, 262, 23-34.	4.4	40
9	Material selection and prediction of solar irradiance in plastic devices for application of solar water disinfection (SODIS) to inactivate viruses, bacteria and protozoa. <i>Science of the Total Environment</i> , 2020, 730, 139126.	8.0	40
10	Effect of hierarchical porosity and fluorination on the catalytic properties of zeolite beta for glycerol etherification. <i>Applied Catalysis A: General</i> , 2014, 473, 75-82.	4.3	38
11	Facile one-pot approach to the synthesis of chiral periodic mesoporous organosilicas SBA-15-type materials. <i>Journal of Catalysis</i> , 2010, 274, 221-227.	6.2	34
12	Slow crack growth resistance in resin blends of chromium and metallocene catalyzed ethylene-hexene copolymers for pipe applications. <i>Polymer Engineering and Science</i> , 2008, 48, 925-933.	3.1	33
13	Volatile Organic Compounds Analysis in Breath Air in Healthy Volunteers and Patients Suffering Epidermoid Laryngeal Carcinomas. <i>Chromatographia</i> , 2014, 77, 501-509.	1.3	32
14	Effect of hierarchical porosity in Beta zeolites on the Beckmann rearrangement of oximes. <i>Catalysis Science and Technology</i> , 2017, 7, 181-190.	4.1	30
15	Effects of the structural components on slow crack growth process in polyethylene blends. Composition intervals prediction for pipe applications. <i>Journal of Applied Polymer Science</i> , 2011, 121, 3269-3276.	2.6	29
16	Influence of the structural and textural properties of ordered mesoporous materials and hierarchical zeolitic supports on the controlled release of methylprednisolone hemisuccinate. <i>Journal of Materials Chemistry B</i> , 2014, 2, 7996-8004.	5.8	29
17	Synthesis of hierarchical Beta zeolite with uniform mesopores: Effect on its catalytic activity for veratrole acylation. <i>Catalysis Today</i> , 2018, 304, 89-96.	4.4	28
18	Incorporation of recycled high-density polyethylene to polyethylene pipe grade resins to increase close-loop recycling and Underpin the circular economy. <i>Journal of Cleaner Production</i> , 2020, 276, 124081.	9.3	28

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19	Solar Water Disinfection to Produce Safe Drinking Water: A Review of Parameters, Enhancements, and Modelling Approaches to Make SODIS Faster and Safer. <i>Molecules</i> , 2021, 26, 3431.	3.8	28
20	Remarkable catalytic properties of hierarchical zeolite-Beta in epoxide rearrangement reactions. <i>Catalysis Today</i> , 2015, 243, 141-152.	4.4	27
21	Molecular structure and local dynamic in impact polypropylene copolymers studied by preparative TREF, solid state NMR spectroscopy, and SFM microscopy. <i>Polymer</i> , 2015, 61, 87-98.	3.8	27
22	New Drug-Structure-Directing Agent Concept: Inherent Pharmacological Activity Combined with Templating Solid and Hollow-Shell Mesoporous Silica Nanoparticles. <i>Advanced Functional Materials</i> , 2016, 26, 7291-7303.	14.9	27
23	One-step synthesis of a thioester chiral PMO and its use as a catalyst in asymmetric oxidation reactions. <i>Journal of Materials Chemistry</i> , 2012, 22, 2607-2615.	6.7	26
24	The effect of microstructure on the slow crack growth resistance in polyethylene resins. <i>Polymer Engineering and Science</i> , 2015, 55, 1018-1023.	3.1	26
25	Correlating Surface-Functionalization of Mesoporous Silica with Adsorption and Release of Pharmaceutical Guest Species. <i>Journal of Physical Chemistry C</i> , 2016, 120, 16887-16898.	3.1	23
26	Chemical Adhesion of Polyalkenoate-based Adhesives to Hydroxyapatite. <i>Journal of Adhesive Dentistry</i> , 2016, 18, 257-65.	0.5	22
27	Molecular characterization of polypropylene heterophasic copolymers by fractionation techniques. <i>Macromolecular Research</i> , 2011, 19, 778-788.	2.4	20
28	Simultaneous synthesis of modified Binol-periodic mesoporous organosilica SBA-15 type material. Application as catalysts in asymmetric sulfoxidation reactions. <i>Journal of Materials Science</i> , 2013, 48, 5990-6000.	3.7	20
29	Synthesis of Helical and Supplementary Chirally Doped PMO Materials. Suitable Catalysts for Asymmetric Synthesis. <i>Langmuir</i> , 2014, 30, 881-890.	3.5	20
30	Engineering hollow mesoporous silica nanoparticles to increase cytotoxicity. <i>Materials Science and Engineering C</i> , 2020, 112, 110935.	7.3	20
31	<scp></scp>-Dopa release from mesoporous silica nanoparticles engineered through the concept of drug-structure-directing agents for Parkinson's disease. <i>Journal of Materials Chemistry B</i> , 2021, 9, 4178-4189.	5.8	20
32	Environmental life cycle assessment of the incorporation of recycled high-density polyethylene to polyethylene pipe grade resins. <i>Journal of Cleaner Production</i> , 2021, 319, 128580.	9.3	19
33	Quantification of PP contamination in recycled PE by TREF analysis for improved the quality and circularity of plastics. <i>Polymer Testing</i> , 2021, 100, 107273.	4.8	18
34	Alternative accelerated and short-term methods for evaluating slow crack growth in polyethylene resins with high crack resistance. <i>Polymer Testing</i> , 2017, 62, 366-372.	4.8	17
35	Kinetic modelling of the synthesis of 2-hydroxy-5-hexenyl 2-chlorobutyrate ester by an immobilised lipase. <i>Biochemical Engineering Journal</i> , 2000, 5, 185-190.	3.6	16
36	Solar water disinfection in high-volume containers: Are naturally occurring substances attenuating factors of radiation?. <i>Chemical Engineering Journal</i> , 2020, 399, 125852.	12.7	15

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37	Influence of specimen geometry on the slow crack growth testing of HDPE for pipe applications. <i>Polymer Testing</i> , 2015, 48, 104-110.	4.8	14
38	Cytostatic and Cytotoxic Effects of Hollow-Shell Mesoporous Silica Nanoparticles Containing Magnetic Iron Oxide. <i>Nanomaterials</i> , 2021, 11, 2455.	4.1	14
39	Challenges and Opportunities for Recycled Polyethylene Fishing Nets: Towards a Circular Economy. <i>Polymers</i> , 2021, 13, 3155.	4.5	13
40	Effect of the dual incorporation of fullerene and polyethyleneimine moieties into SBA-15 materials as platforms for drug delivery. <i>Journal of Materials Science</i> , 2019, 54, 11635-11653.	3.7	12
41	Weathering of plastic SODIS containers and the impact of ageing on their lifetime and disinfection efficacy. <i>Chemical Engineering Journal</i> , 2022, 435, 134881.	12.7	12
42	Synthesis and characterization of SBA-15 materials functionalized with olefinic groups and subsequent modification through oxidation procedures. <i>Microporous and Mesoporous Materials</i> , 2010, 131, 321-330.	4.4	11
43	Strain hardening test on the limits of Slow Crack Growth evaluation in high resistance polyethylene resins: Effect of comonomer type. <i>Polymer Testing</i> , 2020, 81, 106155.	4.8	11
44	Modification of chiral dimethyl tartrate through transesterification: Immobilization on POSS and enantioselectivity reversal in sharpless asymmetric epoxidation. <i>Chirality</i> , 2010, 22, 675-683.	2.6	10
45	Study of the PENT test conditions for reducing failure times in high-resistance polyethylene resins for pipe applications. <i>Mechanics of Time-Dependent Materials</i> , 2012, 16, 105-115.	4.4	10
46	Cancer diagnosis by breath analysis: what is the future?. <i>Bioanalysis</i> , 2014, 6, 2331-2333.	1.5	7
47	Influence on properties and phase structure of single gas-phase reactor made impact polypropylene copolymers. <i>European Polymer Journal</i> , 2018, 106, 156-168.	5.4	7
48	Kidney-Protector Lipidic Cilastatin Derivatives as Structure-Directing Agents for the Synthesis of Mesoporous Silica Nanoparticles for Drug Delivery. <i>International Journal of Molecular Sciences</i> , 2021, 22, 7968.	4.1	6
49	New method of single liquid-phase reactor synthesis of high-impact polypropylene: Structure, morphology, and impact properties of copolymers. <i>European Polymer Journal</i> , 2017, 93, 436-447.	5.4	5
50	Oil-in-water synthesis of hollow-shell mesoporous peapod-like silicates: Electron microscopy insights. <i>Microporous and Mesoporous Materials</i> , 2018, 264, 43-54.	4.4	5
51	Engineered PP impact copolymers in a single reactor as efficient method for determining their structure and properties. <i>European Polymer Journal</i> , 2021, 157, 110642.	5.4	5
52	Direct synthesis and post-oxidation of SBA-15 and MCM-41 functionalized with butenyl groups. <i>Studies in Surface Science and Catalysis</i> , 2005, 158, 485-492.	1.5	4
53	Friedel-Crafts acylation of aromatic compounds over hybrid zeolitic-mesoporous materials. <i>Studies in Surface Science and Catalysis</i> , 2007, 170, 1884-1890.	1.5	0
54	Designing nanocarriers to overcome the limitations in conventional drug administration for Parkinson's disease. <i>Neural Regeneration Research</i> , 2022, 17, 1743.	3.0	0