

# Silvia Villar-Rodil

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/5187793/silvia-villar-rodil-publications-by-citations.pdf>

**Version:** 2024-04-25

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

84  
papers

7,410  
citations

34  
h-index

86  
g-index

86  
ext. papers

8,069  
ext. citations

7.3  
avg, IF

5.86  
L-index

#	Paper	IF	Citations
84	Graphene oxide dispersions in organic solvents. <i>Langmuir</i> , <b>2008</b> , 24, 10560-4	4	2195
83	Vitamin C Is an Ideal Substitute for Hydrazine in the Reduction of Graphene Oxide Suspensions. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 6426-6432	3.8	1065
82	Atomic force and scanning tunneling microscopy imaging of graphene nanosheets derived from graphite oxide. <i>Langmuir</i> , <b>2009</b> , 25, 5957-68	4	575
81	High-throughput production of pristine graphene in an aqueous dispersion assisted by non-ionic surfactants. <i>Carbon</i> , <b>2011</b> , 49, 1653-1662	10.4	403
80	Preparation of graphene dispersions and graphene-polymer composites in organic media. <i>Journal of Materials Chemistry</i> , <b>2009</b> , 19, 3591		276
79	Towards full repair of defects in reduced graphene oxide films by two-step graphitization. <i>Nano Research</i> , <b>2013</b> , 6, 216-233	10	165
78	Environmentally friendly approaches toward the mass production of processable graphene from graphite oxide. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 298-306		154
77	UV light exposure of aqueous graphene oxide suspensions to promote their direct reduction, formation of graphene-metal nanoparticle hybrids and dye degradation. <i>Carbon</i> , <b>2012</b> , 50, 1014-1024	10.4	153
76	Kinetic isotope effect for H <sub>2</sub> and D <sub>2</sub> quantum molecular sieving in adsorption/desorption on porous carbon materials. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 9947-55	3.4	127
75	Biomolecule-assisted exfoliation and dispersion of graphene and other two-dimensional materials: a review of recent progress and applications. <i>Nanoscale</i> , <b>2016</b> , 8, 15389-413	7.7	105
74	Chemically exfoliated MoS <sub>2</sub> nanosheets as an efficient catalyst for reduction reactions in the aqueous phase. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 21702-10	9.5	99
73	Production of aqueous dispersions of inorganic graphene analogues by exfoliation and stabilization with non-ionic surfactants. <i>RSC Advances</i> , <b>2014</b> , 4, 14115-14127	3.7	90
72	Achieving extremely concentrated aqueous dispersions of graphene flakes and catalytically efficient graphene-metal nanoparticle hybrids with flavin mononucleotide as a high-performance stabilizer. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 10293-307	9.5	85
71	Nomex-derived activated carbon fibers as electrode materials in carbon based supercapacitors. <i>Journal of Power Sources</i> , <b>2006</b> , 153, 419-423	8.9	84
70	From graphene oxide to pristine graphene: revealing the inner workings of the full structural restoration. <i>Nanoscale</i> , <b>2015</b> , 7, 2374-90	7.7	83
69	Investigating the influence of surfactants on the stabilization of aqueous reduced graphene oxide dispersions and the characteristics of their composite films. <i>Carbon</i> , <b>2012</b> , 50, 3184-3194	10.4	81
68	Electrolytic exfoliation of graphite in water with multifunctional electrolytes: en route towards high quality, oxide-free graphene flakes. <i>Nanoscale</i> , <b>2016</b> , 8, 2982-98	7.7	75

67	Electrochemical Exfoliation of Graphite in Aqueous Sodium Halide Electrolytes toward Low Oxygen Content Graphene for Energy and Environmental Applications. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 24085-24099	9.5	74
66	Atomic Force Microscopy and Infrared Spectroscopy Studies of the Thermal Degradation of Nomex Aramid Fibers. <i>Chemistry of Materials</i> , <b>2001</b> , 13, 4297-4304	9.6	73
65	Nitrogen in aramid-based activated carbon fibers by TPD, XPS and XANES. <i>Carbon</i> , <b>2006</b> , 44, 2452-2462	10.4	70
64	Activated Carbon Materials of Uniform Porosity from Polyaramid Fibers. <i>Chemistry of Materials</i> , <b>2005</b> , 17, 5893-5908	9.6	68
63	Chemical and microscopic analysis of graphene prepared by different reduction degrees of graphene oxide. <i>Journal of Alloys and Compounds</i> , <b>2012</b> , 536, S532-S537	5.7	64
62	High quality, low oxygen content and biocompatible graphene nanosheets obtained by anodic exfoliation of different graphite types. <i>Carbon</i> , <b>2015</b> , 94, 729-739	10.4	63
61	Studies on pyrolysis of Nomex polyaramid fibers. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2001</b> , 58-59, 105-115	6	63
60	Studies on the Thermal Degradation of Poly (p-phenylene benzobisoxazole). <i>Chemistry of Materials</i> , <b>2003</b> , 15, 4052-4059	9.6	61
59	Impact of Covalent Functionalization on the Aqueous Processability, Catalytic Activity, and Biocompatibility of Chemically Exfoliated MoS Nanosheets. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 27974-27986	9.5	56
58	A quantitative analysis of the dispersion behavior of reduced graphene oxide in solvents. <i>Carbon</i> , <b>2014</b> , 75, 390-400	10.4	54
57	Investigating the Dispersion Behavior in Solvents, Biocompatibility, and Use as Support for Highly Efficient Metal Catalysts of Exfoliated Graphitic Carbon Nitride. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 24032-45	9.5	44
56	N <sub>2</sub> Physisorption on Carbon Nanotubes: Computer Simulation and Experimental Results. <i>Journal of Physical Chemistry B</i> , <b>2003</b> , 107, 8905-8916	3.4	40
55	Carbon molecular sieve cloths prepared by chemical vapour deposition of methane for separation of gas mixtures. <i>Microporous and Mesoporous Materials</i> , <b>2005</b> , 77, 109-118	5.3	39
54	Identifying efficient natural bioreductants for the preparation of graphene and graphene-metal nanoparticle hybrids with enhanced catalytic activity from graphite oxide. <i>Carbon</i> , <b>2013</b> , 63, 30-44	10.4	38
53	Porous texture evolution in Nomex-derived activated carbon fibers. <i>Journal of Colloid and Interface Science</i> , <b>2002</b> , 252, 169-76	9.3	38
52	Determining the thickness of chemically modified graphenes by scanning probe microscopy. <i>Carbon</i> , <b>2010</b> , 48, 2657-2660	10.4	37
51	Global and Local Oxidation Behavior of Reduced Graphene Oxide. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 7956-7966	3.8	34
50	Oxidized graphitic carbon nitride nanosheets as an effective adsorbent for organic dyes and tetracycline for water remediation. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 809, 151783	5.7	30

49	A simple strategy to improve the yield of graphene nanosheets in the anodic exfoliation of graphite foil. <i>Carbon</i> , <b>2017</b> , 115, 625-628	10.4	29
48	Nitrogen doped mesoporous carbon aerogels and implications for electrocatalytic oxygen reduction reactions. <i>Microporous and Mesoporous Materials</i> , <b>2016</b> , 230, 135-144	5.3	29
47	Fibrous Carbon Molecular Sieves by Chemical Vapor Deposition of Benzene. Gas Separation Ability. <i>Chemistry of Materials</i> , <b>2002</b> , 14, 4328-4333	9.6	29
46	Developing green photochemical approaches towards the synthesis of carbon nanofiber- and graphene-supported silver nanoparticles and their use in the catalytic reduction of 4-nitrophenol. <i>RSC Advances</i> , <b>2013</b> , 3, 18323	3.7	28
45	Effect of Phosphoric Acid on Chemical Transformations during Nomex Pyrolysis. <i>Chemistry of Materials</i> , <b>2004</b> , 16, 2639-2647	9.6	28
44	Consequences of Nitrogen Doping and Oxygen Enrichment on Titanium Local Order and Photocatalytic Performance of TiO <sub>2</sub> Anatase. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 6770-6780	3.8	27
43	Aqueous Exfoliation of Transition Metal Dichalcogenides Assisted by DNA/RNA Nucleotides: Catalytically Active and Biocompatible Nanosheets Stabilized by Acid-Base Interactions. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 2835-2845	9.5	27
42	Characterization of aramid based activated carbon fibres by adsorption and immersion techniques. <i>Carbon</i> , <b>2002</b> , 40, 1376-1380	10.4	26
41	Surface Characterization of PBO Fibers. <i>Macromolecules</i> , <b>2003</b> , 36, 8662-8672	5.5	26
40	Highly efficient silver-assisted reduction of graphene oxide dispersions at room temperature: mechanism, and catalytic and electrochemical performance of the resulting hybrids. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 7295-7305	13	25
39	Aqueous Cathodic Exfoliation Strategy toward Solution-Processable and Phase-Preserved MoS <sub>2</sub> Nanosheets for Energy Storage and Catalytic Applications. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 36991-37003	9.5	24
38	Nanoporous carbon fibres by pyrolysis of nomex polyaramid fibres. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2005</b> , 79, 529-532	4.1	24
37	Combining thermal analysis with other techniques to monitor the decomposition of poly(m-phenylene isophthalamide). <i>Magyar Árvad Közlönyek</i> , <b>2002</b> , 70, 37-43	0	22
36	Efficient Pt electrocatalysts supported onto flavin mononucleotide-exfoliated pristine graphene for the methanol oxidation reaction. <i>Electrochimica Acta</i> , <b>2017</b> , 231, 386-395	6.7	19
35	Thermal decomposition of poly(p-phenylene benzobisoxazole) fibres: monitoring the chemical and nanostructural changes by Raman spectroscopy and scanning probe microscopy. <i>Polymer Degradation and Stability</i> , <b>2004</b> , 86, 263-268	4.7	18
34	High quality, low-oxidized graphene via anodic exfoliation with table salt as an efficient oxidation-preventing co-electrolyte for water/oil remediation and capacitive energy storage applications. <i>Applied Materials Today</i> , <b>2018</b> , 11, 246-254	6.6	17
33	Carbon molecular sieves for air separation from Nomex aramid fibers. <i>Journal of Colloid and Interface Science</i> , <b>2002</b> , 254, 414-6	9.3	16
32	Real-time monitoring of polymer swelling on the nanometer scale by atomic force microscopy. <i>Langmuir</i> , <b>2006</b> , 22, 4728-33	4	15

31	Effect of some precursor characteristics on the porous texture of activated carbon fibres prepared from Nomex aramid fibres. <i>Microporous and Mesoporous Materials</i> , <b>2000</b> , 41, 319-321	5.3	15
30	High Performance Na-O Batteries and Printed Microsupercapacitors Based on Water-Processable, Biomolecule-Assisted Anodic Graphene. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 494-506	9.5	15
29	Macrophage inflammatory and metabolic responses to graphene-based nanomaterials differing in size and functionalization. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2020</b> , 186, 110709	6	15
28	Chemical and structural modifications of carbon nanofibers with different degrees of graphitic order following oxygen plasma treatments. <i>Materials Chemistry and Physics</i> , <b>2013</b> , 138, 615-622	4.4	14
27	Preparation, characterization and fundamental studies on graphenes by liquid-phase processing of graphite. <i>Journal of Alloys and Compounds</i> , <b>2012</b> , 536, S450-S455	5.7	14
26	Formation of crystalline inclusion compounds of poly (vinyl chloride) of different stereoregularity with Cyclodextrin. <i>Journal of Polymer Science Part A</i> , <b>2007</b> , 45, 2503-2513	2.5	13
25	The use of microcalorimetry to assess the size exclusion properties of carbon molecular sieves. <i>Thermochimica Acta</i> , <b>2004</b> , 420, 141-144	2.9	13
24	Grafting of adipic anhydride to carbon nanotubes through a Diels-Alder cycloaddition/oxidation cascade reaction. <i>Carbon</i> , <b>2016</b> , 98, 421-431	10.4	12
23	Following changes in the porous texture of Nomex-derived activated carbon fibres with the molecular probe technique. <i>Microporous and Mesoporous Materials</i> , <b>2003</b> , 64, 11-19	5.3	10
22	A scanning tunnelling microscopy insight into the preparation of carbon molecular sieves by chemical vapour deposition. <i>Journal of Materials Chemistry</i> , <b>2003</b> , 13, 1513-1516		10
21	Flavin mononucleotide-exfoliated graphene flakes as electrodes for the electrochemical determination of uric acid in the presence of ascorbic acid. <i>Journal of Electroanalytical Chemistry</i> , <b>2016</b> , 783, 41-48	4.1	9
20	Activation of two-dimensional MoS <sub>2</sub> nanosheets by wet-chemical sulfur vacancy engineering for the catalytic reduction of nitroarenes and organic dyes. <i>Applied Materials Today</i> , <b>2020</b> , 20, 100678	6.6	9
19	Diffusion of molecular hydrogen in carbon aerogel. <i>Carbon</i> , <b>2016</b> , 98, 572-581	10.4	8
18	Discovery of effective solvents for platelet-type graphite nanofibers. <i>Carbon</i> , <b>2013</b> , 53, 222-230	10.4	8
17	An aqueous cathodic delamination route towards high quality graphene flakes for oil sorption and electrochemical charge storage applications. <i>Chemical Engineering Journal</i> , <b>2019</b> , 372, 1226-1239	14.7	7
16	Thermoresponsive biodegradable HEMA-lactate-Dextran-co-NIPA cryogels for controlled release of simvastatin. <i>Artificial Cells, Nanomedicine and Biotechnology</i> , <b>2015</b> , 43, 40-9	6.1	7
15	N-containing carbons from styrene-divinylbenzene copolymer by urea treatment. <i>Applied Surface Science</i> , <b>2012</b> , 258, 2410-2415	6.7	7
14	Surface modification of high-performance polymeric fibers by an oxygen plasma. A comparative study of poly(p-phenylene terephthalamide) and poly(p-phenylene benzobisoxazole). <i>Journal of Chromatography A</i> , <b>2011</b> , 1218, 3781-90	4.5	7

13	Electrochemical Synthesis and Characterization of Flavin Mononucleotide-Exfoliated Pristine Graphene/Polypyrrole Composites. <i>ChemElectroChem</i> , <b>2017</b> , 4, 1487-1497	4.3	6
12	A biosupramolecular approach to graphene: Complementary nucleotide-nucleobase combinations as enhanced stabilizers towards aqueous-phase exfoliation and functional graphene-nucleotide hydrogels. <i>Carbon</i> , <b>2018</b> , 129, 321-334	10.4	4
11	The solvent effect on the sidewall functionalization of multi-walled carbon nanotubes with maleic anhydride. <i>Carbon</i> , <b>2014</b> , 78, 401-414	10.4	3
10	A Simple and Expedient Route to Phosphate-Functionalized, Water-Processable Graphene for Capacitive Energy Storage. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 54860-54873	9.5	2
9	Surface modification of high-surface area graphites by oxygen plasma treatments. <i>Applied Surface Science</i> , <b>2021</b> , 575, 151675	6.7	2
8	MoS flakes stabilized with DNA/RNA nucleotides: In vitro cell response. <i>Materials Science and Engineering C</i> , <b>2019</b> , 100, 11-22	8.3	2
7	A direct route to activated two-dimensional cobalt oxide nanosheets for electrochemical energy storage, catalytic and environmental applications. <i>Journal of Colloid and Interface Science</i> , <b>2019</b> , 539, 263-276	9.3	2
6	Boosting the Performance of Graphene Cathodes in Na-O Batteries by Exploiting the Multifunctional Character of Small Biomolecules. <i>Small</i> , <b>2021</b> , 17, e2005034	11	2
5	Heteropolyacids supported on boron nitride and carbon nitride for catalytic and catalytic photo-assisted alcohol dehydration. <i>Catalysis Today</i> , <b>2021</b> , 380, 209-222	5.3	2
4	A comparison of different carbon filaments on the nanometer and atomic scales by scanning tunneling microscopy. <i>Materials Letters</i> , <b>2007</b> , 61, 4787-4790	3.3	1
3	Molecular Functionalization of 2H-Phase MoS Nanosheets via an Electrolytic Route for Enhanced Catalytic Performance. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 33157-33171	9.5	1
2	<sup>13</sup> C-NMR Observed Conformations and Motions of Neat Liquid and Crystalline n-Hexatriacontane and as a Guest in the Narrow Channels of Its Inclusion Compound Formed with $\beta$ -Cyclodextrin. <i>ACS Symposium Series</i> , <b>2011</b> , 265-277	0.4	
1	Cytotoxicity of Nucleotide-Stabilized Graphene Dispersions on Osteosarcoma and Healthy Cells: On the Way to Safe Theranostics Agents.. <i>ACS Applied Bio Materials</i> , <b>2021</b> , 4, 4384-4393	4.1	