

# Cecilia Roque

## List of Publications by Year in descending order

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114  
papers

3,718  
citations

159585

30  
h-index

144013

57  
g-index

117  
all docs

117  
docs citations

117  
times ranked

4754  
citing authors

#	ARTICLE	IF	CITATIONS
1	A biotechnological perspective on the application of iron oxide magnetic colloids modified with polysaccharides. <i>Biotechnology Advances</i> , 2011, 29, 142-155.	11.7	307
2	Antibodies and Genetically Engineered Related Molecules: Production and Purification. <i>Biotechnology Progress</i> , 2004, 20, 639-654.	2.6	302
3	Affinity-based methodologies and ligands for antibody purification: Advances and perspectives. <i>Journal of Chromatography A</i> , 2007, 1160, 44-55.	3.7	226
4	Magnetic separations in biotechnology. <i>Biotechnology Advances</i> , 2013, 31, 1374-1385.	11.7	189
5	Challenges and opportunities in the purification of recombinant tagged proteins. <i>Biotechnology Advances</i> , 2014, 32, 366-381.	11.7	121
6	Studies on the molecular recognition between bioactive peptides and angiotensinâ€converting enzyme. <i>Journal of Molecular Recognition</i> , 2009, 22, 162-168.	2.1	114
7	Antibody-Conjugated Nanoparticles for Therapeutic Applications. <i>Current Medicinal Chemistry</i> , 2012, 19, 3103-3127.	2.4	106
8	Identification and Antibioticâ€susceptibility Profiling of Infectious Bacterial Agents: A Review of Current and Future Trends. <i>Biotechnology Journal</i> , 2019, 14, e1700750.	3.5	105
9	Protein- and Peptide-Based Biosensors in Artificial Olfaction. <i>Trends in Biotechnology</i> , 2018, 36, 1244-1258.	9.3	97
10	Bio-recognition and detection using liquid crystals. <i>Biosensors and Bioelectronics</i> , 2009, 25, 1-8.	10.1	94
11	An artificial protein L for the purification of immunoglobulins and Fab fragments by affinity chromatography. <i>Journal of Chromatography A</i> , 2005, 1064, 157-167.	3.7	86
12	Biocompatible and bioactive gum Arabic coated iron oxide magnetic nanoparticles. <i>Journal of Biotechnology</i> , 2009, 144, 313-320.	3.8	84
13	Renaissance of protein crystallization and precipitation in biopharmaceuticals purification. <i>Biotechnology Advances</i> , 2017, 35, 41-50.	11.7	81
14	Platforms for enrichment of phosphorylated proteins and peptides in proteomics. <i>Trends in Biotechnology</i> , 2012, 30, 100-110.	9.3	80
15	Seeing the Unseen: The Role of Liquid Crystals in Gasâ€Sensing Technologies. <i>Advanced Optical Materials</i> , 2020, 8, 1902117.	7.3	73
16	Tilapia fish microbial spoilage monitored by a single optical gas sensor. <i>Food Control</i> , 2018, 89, 72-76.	5.5	69
17	Effects of phase transfer ligands on monodisperse iron oxide magnetic nanoparticles. <i>Journal of Colloid and Interface Science</i> , 2015, 437, 147-155.	9.4	66
18	Gum Arabic coated magnetic nanoparticles with affinity ligands specific for antibodies. <i>Journal of Molecular Recognition</i> , 2010, 23, 462-471.	2.1	61

#	ARTICLE	IF	CITATIONS
19	Synthesis and screening of a rationally designed combinatorial library of affinity ligands mimicking protein L from <i>Peptostreptococcus magnus</i> . <i>Journal of Molecular Recognition</i> , 2005, 18, 213-224.	2.1	51
20	Tunable Gas Sensing Gels by Cooperative Assembly. <i>Advanced Functional Materials</i> , 2017, 27, 1700803.	14.9	50
21	Advances and applications of de novo designed affinity ligands in proteomics. <i>Biotechnology Advances</i> , 2006, 24, 17-26.	11.7	48
22	Anything but Conventional Chromatography Approaches in Bioseparation. <i>Biotechnology Journal</i> , 2020, 15, e1900274.	3.5	47
23	Preparation and characterization of a cellulose affinity membrane for human immunoglobulin G (IgG) purification. <i>Journal of Membrane Science</i> , 2010, 348, 224-230.	8.2	41
24	Machine learning for the meta-analyses of microbial pathogens' volatile signatures. <i>Scientific Reports</i> , 2018, 8, 3360.	3.3	40
25	Tackling Humidity with Designer Ionic Liquid-Based Gas Sensing Soft Materials. <i>Advanced Materials</i> , 2022, 34, e2107205.	21.0	38
26	Antibody immobilization on magnetic particles. <i>Journal of Molecular Recognition</i> , 2009, 22, 77-82.	2.1	33
27	Adsorption of gum Arabic on bioceramic nanoparticles. <i>Materials Science and Engineering C</i> , 2008, 28, 443-447.	7.3	32
28	An Historical Overview of Drug Discovery. <i>Methods in Molecular Biology</i> , 2010, 572, 3-12.	0.9	32
29	Dextran-Coated Magnetic Supports Modified with a Biomimetic Ligand for IgG Purification. <i>ACS Applied Materials &amp; Interfaces</i> , 2012, 4, 5907-5914.	8.0	32
30	Understanding the molecular recognition between antibody fragments and protein A biomimetic ligand. <i>Journal of Chromatography A</i> , 2012, 1244, 106-115.	3.7	32
31	Stimuli-Responsive magnetic nanoparticles for monoclonal antibody purification. <i>Biotechnology Journal</i> , 2013, 8, 709-717.	3.5	31
32	Magnetic aqueous two phase fishing: A hybrid process technology for antibody purification. <i>Journal of Chromatography A</i> , 2014, 1339, 59-64.	3.7	30
33	Lessons from nature: On the molecular recognition elements of the phosphoprotein binding-domains. <i>Biotechnology and Bioengineering</i> , 2005, 91, 546-555.	3.3	29
34	Potential of boronic acid functionalized magnetic particles in the adsorption of human antibodies under mammalian cell culture conditions. <i>Journal of Chromatography A</i> , 2011, 1218, 7821-7827.	3.7	29
35	Functional monolithic platforms: Chromatographic tools for antibody purification. <i>Biotechnology Journal</i> , 2013, 8, 671-681.	3.5	29
36	Anti-CD8 conjugated nanoparticles to target mammalian cells expressing CD8. <i>International Journal of Pharmaceutics</i> , 2010, 399, 80-86.	5.2	28

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37	A new method for the screening of solid-phase combinatorial libraries for affinity chromatography. <i>Journal of Molecular Recognition</i> , 2004, 17, 262-267.	2.1	27
38	Development and Validation of an HPLC/UV Method for Quantification of Bioactive Peptides in Fermented Milks. <i>Journal of Liquid Chromatography and Related Technologies</i> , 2007, 30, 2139-2147.	1.0	26
39	Fishing human monoclonal antibodies from a CHO cell supernatant with boronic acid magnetic particles. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2012, 903, 163-170.	2.3	23
40	Exploring the potential of magnetic antimicrobial agents for water disinfection. <i>Water Research</i> , 2014, 66, 160-168.	11.3	22
41	Boronic acid-modified magnetic materials for antibody purification. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20130875.	3.4	22
42	An extracellular polymer at the interface of magnetic bioseparations. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20140743.	3.4	22
43	Affitins for protein purification by affinity magnetic fishing. <i>Journal of Chromatography A</i> , 2016, 1457, 50-58.	3.7	22
44	The future of protein scaffolds as affinity reagents for purification. <i>Biotechnology and Bioengineering</i> , 2017, 114, 481-491.	3.3	22
45	Microfluidics in Gas Sensing and Artificial Olfaction. <i>Sensors</i> , 2020, 20, 5742.	3.8	22
46	Short communication: Effect of kefir grains on proteolysis of major milk proteins. <i>Journal of Dairy Science</i> , 2010, 93, 27-31.	3.4	21
47	Hybrid Monoliths for Magnetically Driven Protein Separations. <i>Advanced Functional Materials</i> , 2014, 24, 4528-4541.	14.9	20
48	Free Marine Natural Products Databases for Biotechnology and Bioengineering. <i>Biotechnology Journal</i> , 2019, 14, e1800607.	3.5	19
49	Affinity chromatography: history, perspectives, limitations and prospects. <i>Methods in Molecular Biology</i> , 2008, 421, 1-21.	0.9	19
50	Fluorescence recognition of proteinaceous binders in works of art by a novel integrated system of investigation. <i>Microscopy Research and Technique</i> , 2012, 75, 316-324.	2.2	17
51	A value-added exopolysaccharide as a coating agent for MRI nanoprobe. <i>Nanoscale</i> , 2015, 7, 14272-14283.	5.6	17
52	Rational design of affinity ligands for bioseparation. <i>Journal of Chromatography A</i> , 2020, 1619, 460871.	3.7	17
53	The interaction of polymer-coated magnetic nanoparticles with seawater. <i>Science of the Total Environment</i> , 2014, 487, 771-777.	8.0	16
54	Covalent coupling of gum arabic onto superparamagnetic iron oxide nanoparticles for MRI cell labeling: physicochemical and <i>in vitro</i> characterization. <i>Contrast Media and Molecular Imaging</i> , 2015, 10, 320-328.	0.8	16

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55	Effect of film thickness in gelatin hybrid gels for artificial olfaction. <i>Materials Today Bio</i> , 2019, 1, 100002.	5.5	16
56	Affinity Tags in Protein Purification and Peptide Enrichment: An Overview. <i>Methods in Molecular Biology</i> , 2014, 1129, 147-168.	0.9	15
57	Designed affinity ligands to capture human serum albumin. <i>Journal of Chromatography A</i> , 2019, 1583, 88-97.	3.7	15
58	Design, Synthesis, and Screening of Biomimetic Ligands for Affinity Chromatography. <i>Methods in Molecular Biology</i> , 2005, 310, 43-62.	0.9	14
59	Bioinspired and sustainable chitosan-based monoliths for antibody capture and release. <i>RSC Advances</i> , 2012, 2, 11285.	3.6	14
60	A Tailor-Made “Tag-Receptor” Affinity Pair for the Purification of Fusion Proteins. <i>ChemBioChem</i> , 2014, 15, 1423-1435.	2.6	14
61	Affinity Tags in Protein Purification and Peptide Enrichment: An Overview. <i>Methods in Molecular Biology</i> , 2021, 2178, 107-132.	0.9	14
62	De novo design, synthesis and screening of a combinatorial library of complementary ligands directed towards the surface of cutinase from <i>Fusarium solani</i> pisi. <i>Journal of Molecular Recognition</i> , 2006, 19, 372-378.	2.1	13
63	Structural evaluation of an alternative Protein A biomimetic ligand for antibody purification. <i>Journal of Computer-Aided Molecular Design</i> , 2014, 28, 25-34.	2.9	13
64	Optical Gas Sensing with Liquid Crystal Droplets and Convolutional Neural Networks. <i>Sensors</i> , 2021, 21, 2854.	3.8	13
65	Synergy between silk fibroin and ionic liquids for active gas-sensing materials. <i>Materials Today Bio</i> , 2022, 15, 100290.	5.5	13
66	Biobased Monoliths for Adenovirus Purification. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 6605-6612.	8.0	12
67	Mild and cost-effective green fluorescent protein purification employing small synthetic ligands. <i>Journal of Chromatography A</i> , 2015, 1418, 83-93.	3.7	12
68	Phosphopeptide Enrichment Using Various Magnetic Nanocomposites: An Overview. <i>Methods in Molecular Biology</i> , 2016, 1355, 193-209.	0.9	12
69	In situ magnetic separation of antibody fragments from <i>Escherichia coli</i> in complex media. <i>BMC Biotechnology</i> , 2013, 13, 44.	3.3	11
70	Tryptophan tags and de novo designed complementary affinity ligands for the expression and purification of recombinant proteins. <i>Journal of Chromatography A</i> , 2016, 1472, 55-65.	3.7	11
71	Nanoscale Events on Cyanobiphenyl-Based Self-Assembled Droplets Triggered by Gas Analytes. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 6261-6273.	8.0	11
72	Immobilization of enterokinase on magnetic supports for the cleavage of fusion proteins. <i>Journal of Biotechnology</i> , 2012, 161, 378-382.	3.8	10

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73	A green approach toward antibody purification: a sustainable biomimetic ligand for direct immobilization on (bio)polymeric supports. <i>Journal of Molecular Recognition</i> , 2013, 26, 662-671.	2.1	10
74	Mimicking nature: Phosphopeptide enrichment using combinatorial libraries of affinity ligands. <i>Journal of Chromatography A</i> , 2016, 1457, 76-87.	3.7	10
75	Ionogels Based on a Single Ionic Liquid for Electronic Nose Application. <i>Chemosensors</i> , 2021, 9, 201.	3.6	10
76	Retroviral particles are effectively purified on an affinity matrix containing peptides selected by phage display. <i>Biotechnology Journal</i> , 2016, 11, 1513-1524.	3.5	9
77	Petasis-Ugi ligands: New affinity tools for the enrichment of phosphorylated peptides. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2016, 1031, 86-93.	2.3	9
78	$\beta$ -Hairpins as peptidomimetics of human phosphoprotein-binding domains. <i>Organic and Biomolecular Chemistry</i> , 2019, 17, 3996-4004.	2.8	9
79	Stable and Oriented Liquid Crystal Droplets Stabilized by Imidazolium Ionic Liquids. <i>Molecules</i> , 2021, 26, 6044.	3.8	9
80	<i>In vitro</i> studies with mammalian cell lines and gum arabic-coated magnetic nanoparticles. <i>Journal of Molecular Recognition</i> , 2010, 23, 536-542.	2.1	8
81	Comparison of Fluorescence Labelling Techniques for the Selection of Affinity Ligands from Solid-Phase Combinatorial Libraries. <i>Separation Science and Technology</i> , 2010, 45, 2187-2193.	2.5	8
82	Affinity adsorbents for proline-rich peptide sequences: a new role for WW domains. <i>RSC Advances</i> , 2016, 6, 68979-68988.	3.6	8
83	Comparison of the Internal Dynamics of Metalloproteases Provides New Insights on Their Function and Evolution. <i>PLoS ONE</i> , 2015, 10, e0138118.	2.5	7
84	Discovery of phosphotyrosine-binding oligopeptides with supramolecular target selectivity. <i>Chemical Science</i> , 2021, 13, 210-217.	7.4	7
85	Magnetic acoustic resonance immunoassay (MARIA): a multifrequency acoustic approach for the non-labelled detection of biomolecular interactions. <i>Journal of Molecular Recognition</i> , 2006, 19, 379-385.	2.1	6
86	A theoretical and experimental approach toward the development of affinity adsorbents for GFP and GFP-fusion proteins purification. <i>Journal of Biotechnology</i> , 2014, 186, 13-20.	3.8	6
87	Small synthetic ligands for the enrichment of viral particles pseudotyped with amphotropic murine leukemia virus envelope. <i>Journal of Chromatography A</i> , 2016, 1438, 160-170.	3.7	6
88	Sustainable plant polyesters as substrates for optical gas sensors. <i>Materials Today Bio</i> , 2020, 8, 100083.	5.5	6
89	Magnetic Precipitation: A New Platform for Protein Purification. <i>Biotechnology Journal</i> , 2020, 15, 2000151.	3.5	5
90	Magnetic particles used in a new approach for designed protein crystallization. <i>CrystEngComm</i> , 2021, 23, 1083-1090.	2.6	5

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91	A purification platform for antibodies and derived fragments using a de novo designed affinity adsorbent. <i>Separation and Purification Technology</i> , 2021, 265, 118476.	7.9	5
92	<i>Affinity Chromatography</i> , 2008, , 1-23.		5
93	<i>Rationally Designed Ligands for Use in Affinity Chromatography</i> , 2008, 421, 93-110.		5
94	<i>An Optimized E-nose for Efficient Volatile Sensing and Discrimination</i> , 2019, , .		5
95	Noncontact excitation of quartz crystal resonator chips. <i>Applied Physics Letters</i> , 2006, 89, 083516.	3.3	4
96	An in silico and chemical approach towards small protein production and application in phosphoproteomics. <i>RSC Advances</i> , 2015, 5, 19743-19751.	3.6	4
97	Hydrolytic zinc metallopeptides using a computational multi-state design approach. <i>Catalysis Science and Technology</i> , 2019, 9, 6723-6736.	4.1	4
98	<i>Design and Evolution of an Opto-electronic Device for VOCs Detection</i> , 2018, 1, 48-55.		4
99	Native, engineered and de novo designed ligands targeting the SARS-CoV-2 spike protein. <i>Biotechnology Advances</i> , 2022, 59, 107986.	11.7	4
100	An affinity triggered MRI nanoprobe for pH-dependent cell labeling. <i>RSC Advances</i> , 2016, 6, 113503-113512.	3.6	3
101	Hybrid Magnetic-Polymeric Iron Oxide Nanoprobes for Magnetic Resonance Imaging. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 4410-4431.	0.9	3
102	Natural Multimerization Rules the Performance of Affinity-Based Physical Hydrogels for Stem Cell Encapsulation and Differentiation. <i>Biomacromolecules</i> , 2020, 21, 3081-3091.	5.4	3
103	Affinity-triggered hydrogels: Developments and prospects in biomaterials science. <i>Biomaterials</i> , 2021, 268, 120563.	11.4	3
104	Purification of human antibodies from animal cell cultures using gum arabic coated magnetic particles. <i>Journal of Chemical Technology and Biotechnology</i> , 2015, 90, 838-846.	3.2	2
105	Integration of Molecular Dynamics Based Predictions into the Optimization of De Novo Protein Designs: Limitations and Benefits. <i>Methods in Molecular Biology</i> , 2017, 1529, 181-201.	0.9	2
106	Magnetic fishing of recombinant green fluorescent proteins and tagged proteins with designed synthetic ligands. <i>Separation Science and Technology</i> , 2017, 52, 2909-2917.	2.5	2
107	Affinity-triggered Assemblies Based on a Designed Peptide-peptide Affinity Pair. <i>Biotechnology Journal</i> , 2019, 14, e1800559.	3.5	2
108	<i>Enhanced gas sensing with soft functional materials</i> , 2019, , .		2

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109	Wireless excitation of quartz crystals immersed in an aqueous fluid. <i>Analyst, The</i> , 2006, 131, 474.	3.5	1
110	Liquid Crystals: Tunable Gas Sensing Gels by Cooperative Assembly ( <i>Adv. Funct. Mater.</i> 27/2017). <i>Advanced Functional Materials</i> , 2017, 27, .	14.9	0
111	Versatile and Tunable Poly(Ethylene Glycol)-Based Hydrogels Crosslinked through the Ugi Reaction. <i>ChemPlusChem</i> , 2020, 85, 2737-2741.	2.8	0
112	Magnetic crystallization proof-of-concept: lysozyme and trypsin case study. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2018, 74, e183-e184.	0.1	0
113	Impact of Sensing Film's Production Method on Classification Accuracy by Electronic Nose. , 2019, , .		0
114	Learning to see VOCs with Liquid Crystal Droplets. , 2022, , .		0