

Carlos A Valdez

List of Publications by Year in descending order

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54
papers

1,639
citations

304602

22
h-index

302012

39
g-index

56
all docs

56
docs citations

56
times ranked

2312
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanically robust 3D graphene macroassembly with high surface area. <i>Chemical Communications</i> , 2012, 48, 8428.	2.2	227
2	Predicting a Drug's Membrane Permeability: A Computational Model Validated With <i>in Vitro</i> Permeability Assay Data. <i>Journal of Physical Chemistry B</i> , 2017, 121, 5228-5237.	1.2	185
3	Encapsulated liquid sorbents for carbon dioxide capture. <i>Nature Communications</i> , 2015, 6, 6124.	5.8	161
4	Toward a Small Molecule, Biomimetic Carbonic Anhydrase Model: Theoretical and Experimental Investigations of a Panel of Zinc(II) Aza-Macrocyclic Catalysts. <i>Inorganic Chemistry</i> , 2012, 51, 6803-6812.	1.9	82
5	Synthesis and Electrochemistry of 2-Ethenyl and 2-Ethanyl Derivatives of 5-Nitroimidazole and Antimicrobial Activity against <i>Giardia lamblia</i> . <i>Journal of Medicinal Chemistry</i> , 2009, 52, 4038-4053.	2.9	70
6	Evaluation of a Carbonic Anhydrase Mimic for Industrial Carbon Capture. <i>Environmental Science & Technology</i> , 2013, 47, 10049-10055.	4.6	68
7	An Efficient, Optimized Synthesis of Fentanyl and Related Analogs. <i>PLoS ONE</i> , 2014, 9, e108250.	1.1	65
8	Analysis of chemical warfare agents by gas chromatography-mass spectrometry: methods for their direct detection and derivatization approaches for the analysis of their degradation products. <i>Reviews in Analytical Chemistry</i> , 2018, 37, .	1.5	61
9	Hydrolytic Reactivity Trends among Potential Prodrugs of the O^{2-} -Glycosylated Diazeniumdiolate Family. Targeting Nitric Oxide to Macrophages for Antileishmanial Activity. <i>Journal of Medicinal Chemistry</i> , 2008, 51, 3961-3970.	2.9	40
10	Countermeasures for Preventing and Treating Opioid Overdose. <i>Clinical Pharmacology and Therapeutics</i> , 2021, 109, 578-590.	2.3	38
11	Exploration of the versatility of ring opening metathesis polymerization: an approach for gaining access to low density polymeric aerogels. <i>RSC Advances</i> , 2012, 2, 8672.	1.7	32
12	Autonomously Responsive Membranes for Chemical Warfare Protection. <i>Advanced Functional Materials</i> , 2020, 30, 2000258.	7.8	32
13	Effective methylation of phosphonic acids related to chemical warfare agents mediated by trimethyloxonium tetrafluoroborate for their qualitative detection and identification by gas chromatography-mass spectrometry. <i>Analytica Chimica Acta</i> , 2016, 933, 134-143.	2.6	31
14	Part 1: Tracing Russian VX to its synthetic routes by multivariate statistics of chemical attribution signatures. <i>Talanta</i> , 2018, 186, 586-596.	2.9	31
15	Gas Chromatography-Mass Spectrometry Analysis of Synthetic Opioids Belonging to the Fentanyl Class: A Review. <i>Critical Reviews in Analytical Chemistry</i> , 2022, 52, 1938-1968.	1.8	29
16	Sugar-Modified Conjugated Diene Analogues of Adenosine and Uridine: Synthesis, Interaction with S-Adenosyl-L-homocysteine Hydrolase, and Antiviral and Cytostatic Effects. <i>Journal of Medicinal Chemistry</i> , 2002, 45, 2651-2658.	2.9	27
17	Diazeniumdiolate Ions as Leaving Groups in Anomeric Displacement Reactions: A Protection/Deprotection Strategy for Ionic Diazeniumdiolates. <i>Journal of the American Chemical Society</i> , 2005, 127, 14188-14189.	6.6	27
18	Modeling, synthesis and characterization of zinc containing carbonic anhydrase active site mimics. <i>Energy Procedia</i> , 2011, 4, 2090-2095.	1.8	27

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19	Tailored synthesis of nitric oxide-releasing polyurethanes using O ₂ -protected diazeniumdiolated chain extenders. <i>Journal of Materials Chemistry</i> , 2010, 20, 3107.	6.7	26
20	Part 2: Forensic attribution profiling of Russian VX in food using liquid chromatography-mass spectrometry. <i>Talanta</i> , 2018, 186, 597-606.	2.9	26
21	Methylation protocol for the retrospective detection of isopropyl-, pinacolyl- and cyclohexylmethylphosphonic acids, indicative markers for the nerve agents sarin, soman and cyclosarin, at low levels in soils using EI-GC-MS. <i>Science of the Total Environment</i> , 2019, 683, 175-184.	3.9	26
22	Efficient derivatization of methylphosphonic and aminoethylsulfonic acids related to nerve agents simultaneously in soils using trimethyloxonium tetrafluoroborate for their enhanced, qualitative detection and identification by EI-GC-MS and GC-SP. <i>Forensic Science International</i> , 2018, 288, 159-168.	1.3	23
23	Part 3: Solid phase extraction of Russian VX and its chemical attribution signatures in food matrices and their detection by GC-MS and LC-MS. <i>Talanta</i> , 2018, 186, 607-614.	2.9	23
24	Analysis of Organophosphorus-Based Nerve Agent Degradation Products by Gas Chromatography-Mass Spectrometry (GC-MS): Current Derivatization Reactions in the Analytical Chemist's Toolbox. <i>Molecules</i> , 2021, 26, 4631.	1.7	21
25	The biodistribution and pharmacokinetics of the oxime acetylcholinesterase reactivator RS194B in guinea pigs. <i>Chemico-Biological Interactions</i> , 2017, 277, 159-167.	1.7	20
26	Statistical analysis of the chemical attribution signatures of 3-methylfentanyl and its methods of production. <i>Talanta</i> , 2018, 186, 645-654.	2.9	19
27	Designing small-molecule catalysts for CO ₂ capture. <i>Energy Procedia</i> , 2011, 4, 817-823.	1.8	18
28	Derivatization of pinacolyl alcohol with phenyldimethylchlorosilane for enhanced detection by gas chromatography-mass spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 5231-5234.	1.9	18
29	Doubly Homologated Dihalovinyl and Acetylene Analogues of Adenosine: Synthesis, Interaction with S-Adenosyl-L-homocysteine Hydrolase, and Antiviral and Cytostatic Effects. <i>Journal of Medicinal Chemistry</i> , 2000, 43, 1180-1186.	2.9	17
30	Kinetics and speciation of paraoxon hydrolysis by zinc(II)-azamacrocyclic catalysts. <i>Inorganica Chimica Acta</i> , 2015, 436, 123-131.	1.2	17
31	Comparison and Analysis of Zinc and Cobalt-Based Systems as Catalytic Entities for the Hydration of Carbon Dioxide. <i>PLoS ONE</i> , 2013, 8, e66187.	1.1	13
32	Developing an approach for first-principles catalyst design: application to carbon-capture catalysis. <i>Acta Crystallographica Section C, Structural Chemistry</i> , 2014, 70, 123-131.	0.2	12
33	Rapid and mild silylation of amino alcohols at room temperature mediated by N-methylimidazole for enhanced detectability by gas chromatography/electron ionization mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2014, 28, 2217-2221.	0.7	12
34	Solution-State Structure and Affinities of Cyclodextrin:Fentanyl Complexes by Nuclear Magnetic Resonance Spectroscopy and Molecular Dynamics Simulation. <i>Journal of Physical Chemistry B</i> , 2016, 120, 2423-2433.	1.2	11
35	Assessing the reliability of the NIST library during routine GC-MS analyses: Structure and spectral data corroboration for 5,5-diphenyl-1,3-dioxolan-4-one during a recent OPCW proficiency test. <i>Journal of Mass Spectrometry</i> , 2018, 53, 419-422.	0.7	11
36	Deterministic Control over High-Z Doping of Polycyclopentadiene-Based Aerogel Coatings. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 8111-8119.	4.0	10

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37	³¹ P-Edited Diffusion-Ordered ¹ H NMR Spectroscopy for the Spectral Isolation and Identification of Organophosphorus Compounds Related to Chemical Weapons Agents and Their Degradation Products. <i>Analytical Chemistry</i> , 2012, 84, 10478-10484.	3.2	9
38	NMR spectroscopic investigation of inclusion complexes between cyclodextrins and the neurotoxin tetramethylenedisulfotetramine. <i>Magnetic Resonance in Chemistry</i> , 2012, 50, 229-235.	1.1	8
39	Computational Analysis of a Zn-Bound Tris(imidazolyl) Calix[6]arene Aqua Complex: Toward Incorporating Second-Coordination Sphere Effects into Carbonic Anhydrase Biomimetics. <i>Journal of Chemical Theory and Computation</i> , 2013, 9, 1320-1327.	2.3	8
40	Development of a CNS-permeable reactivator for nerve agent exposure: an iterative, multi-disciplinary approach. <i>Scientific Reports</i> , 2021, 11, 15567.	1.6	8
41	Rearrangement of Nitropyridylenemalonate 1-Oxides. A Novel Method for the Synthesis of Aminopyridine Derivatives. <i>Tetrahedron</i> , 2000, 56, 7667-7671.	1.0	7
42	Chemical tagging of chlorinated phenols for their facile detection and analysis by NMR spectroscopy. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 3539-3543.	1.9	6
43	Carbene-based Difluoromethylation of Bisphenols: Application to the Instantaneous Tagging of Bisphenol A in Spiked Soil for Its Detection and Identification by Electron Ionization Gas Chromatography-Mass Spectrometry. <i>Scientific Reports</i> , 2019, 9, 17360.	1.6	6
44	RHODIUM(I)-CATALYZED REGIO- AND STEREOSELECTIVE CHLOROESTERIFICATION OF FURANOSE-DERIVED TERMINAL ALKYNES WITH ETHYL CHLOROFORMATE. <i>Journal of Carbohydrate Chemistry</i> , 2001, 20, 71-79.	0.4	5
45	Transactinide studies with sulfur macrocyclic extractant using mercury. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2020, 326, 215-222.	0.7	5
46	Acylation as a successful derivatization strategy for the analysis of pinacolyl alcohol in a glycerol-rich matrix by GC-MS: application during an OPCW Proficiency Test. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 3145-3151.	1.9	5
47	Structural modification of fentanyls for their retrospective identification by gas chromatographic analysis using chloroformate chemistry. <i>Scientific Reports</i> , 2021, 11, 22489.	1.6	4
48	Simultaneous and Practical Difluoromethylation of Triclosan, 2,4,6-Trichlorophenol and Pentachlorophenol in Soils for their Qualitative Detection by Electron Ionization GC-MS. <i>Analytical Chemistry Letters</i> , 2017, 7, 11-19.	0.4	3
49	Trocylation of 3-quinuclidinol, a key marker for the chemical warfare agent 3-quinuclidinyl benzilate, for its enhanced detection at low levels in complex soil matrices by electron ionization gas chromatography-mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2021, 35, e9123.	0.7	3
50	Trimethyloxonium-mediated methylation strategies for the rapid and simultaneous analysis of chlorinated phenols in various soils by electron impact gas chromatography-mass spectrometry. <i>Scientific Reports</i> , 2022, 12, 1401.	1.6	3
51	The Total Synthesis of (âˆ”)-Tetrodotoxin: A Historical Account. <i>Studies in Natural Products Chemistry</i> , 2016, 47, 235-260.	0.8	2
52	Unsaturated Sulfur Crown Ethers Can Extract Mercury(II) and Show Promise for Future Copernicium(II) Studies: A Combined Experimental and Computational Study. <i>Inorganic Chemistry</i> , 2022, 61, 807-817.	1.9	1
53	Kinetic Studies on the Green and Practical Iodide-mediated Dealkylation of Tributylphosphate (TBP) using Nuclear Magnetic Resonance Spectroscopy. <i>Analytical Chemistry Letters</i> , 2017, 7, 470-478.	0.4	0
54	Extraction of ¹⁹⁷ mHg with TIBPS in HNO ₃ and HCl media. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2022, 331, 1629.	0.7	0