Jose Berna

List of Publications by Year
in descending order

87 papers	2,943 citations	218381 26 h-index	182168 51 g-index
94 all docs	94 docs citations	94 times ranked	2544 citing authors

#	ARTICLE	IF	CITATIONS
1	Macroscopic transport by synthetic molecular machines. Nature Materials, 2005, 4, 704-710.	13.3	685
2	Catalytic â€œActive-Metalâ€•Template Synthesis of [2]Rotaxanes, [3]Rotaxanes, and Molecular Shuttles, and Some Observations on the Mechanism of the Cu(I)-Catalyzed Azideâˆ'Alkyne 1,3-Cycloaddition. Journal of the American Chemical Society, 2007, 129, 11950-11963.	6.6	248
3	Cadiotâ€“Chodkiewicz Active Template Synthesis of Rotaxanes and Switchable Molecular Shuttles with Weak Intercomponent Interactions. Angewandte Chemie - International Edition, 2008, 47, 4392-4396.	7.2	101
4	A Catalytic Palladium Active-Metal Template Pathway to [2]Rotaxanes. Angewandte Chemie - International Edition, 2007, 46, 5709-5713.	7.2	100
5	Azodicarboxamides as Template Binding Motifs for the Building of Hydrogen-Bonded Molecular Shuttles. Journal of the American Chemical Society, 2010, 132, 10741-10747.	6.6	100
6	Comparative inhibitory activity of the stilbenes resveratrol and oxyresveratrol on African swine fever virus replication. Antiviral Research, 2011, 91, 57-63.	1.9	77
7	Stereocontrolled Synthesis of Î²-Lactams within [2]Rotaxanes: Showcasing the Chemical Consequences of the Mechanical Bond. Journal of the American Chemical Society, 2016, 138, 8726-8729.	6.6	71
8	Photoswitchable interlocked thiodiglycolamide as a cocatalyst of a chalcogeno-Baylisâ€“Hillman reaction. Chemical Science, 2017, 8, 3775-3780.	3.7	68
9	Mechanically Interlocked Catalysts for Asymmetric Synthesis. ACS Catalysis, 2020, 10, 7719-7733.	5.5	66
10	Amide-based molecular shuttles (2001-2006). Pure and Applied Chemistry, 2007, 79, 39-54.	0.9	60
11	Action of tyrosinase on alpha and beta-arbutin: A kinetic study. PLoS ONE, 2017, 12, e0177330.	1.1	52
12	Redox divergent conversion of a [2]rotaxane into two distinct degenerate partners with different shuttling dynamics. Chemical Science, 2012, 3, 2314.	3.7	45
13	Smallâ€Molecule Recognition for Controlling Molecular Motion in Hydrogenâ€Bondâ€Assembled Rotaxanes. Angewandte Chemie - International Edition, 2014, 53, 6762-6767.	7.2	39
14	Dethreading of Tetraalkylsuccinamide-Based [2]Rotaxanes for Preparing Benzylic Amide Macrocycles. Journal of Organic Chemistry, 2015, 80, 10049-10059.	1.7	39
15	Interlocking the Catalyst: Thread versus Rotaxane-Mediated Enantiodivergent Michael Addition of Ketones to Î²-Nitrostyrene. Organic Letters, 2019, 21, 5192-5196.	2.4	38
16	Enantioselective Formation of 2â€Azetidinones by Ringâ€Assisted Cyclization of Interlocked <i>N</i>â€(Î±â€Methyl)benzyl Fumaramides. Angewandte Chemie - International Edition, 2018, 57, 6563-6567.	7.2	37
17	Action of ellagic acid on the melanin biosynthesis pathway. Journal of Dermatological Science, 2016, 82, 115-122.	1.0	36
18	Copper-Linked Rotaxanes for the Building of Photoresponsive Metal Organic Frameworks with Controlled Cargo Delivery. Journal of the American Chemical Society, 2020, 142, 13442-13449.	6.6	36

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19	Dampened circumrotation by CHâ‹¯Ï€ interactions in hydrogen bonded [2]rotaxanes. Chemical Communications, 2012, 48, 5677.	2.2	35
20	Light-responsive peptide [2]rotaxanes as gatekeepers of mechanised nanocontainers. Chemical Communications, 2015, 51, 14501-14504.	2.2	34
21	Versatile control of the submolecular motion of di(acylamino)pyridine-based [2]rotaxanes. Chemical Science, 2015, 6, 3087-3094.	3.7	34
22	Dielsâ€"Alder cycloaddition of 5-aryl-2-pyrones. Tetrahedron Letters, 2000, 41, 4955-4958.	0.7	29
23	Competitive binding for triggering a fluorescence response in a hydrazodicarboxamide-based [2]rotaxane. Organic and Biomolecular Chemistry, 2014, 12, 474-478.	1.5	29
24	Enhancing the selectivity of prolinamide organocatalysts using the mechanical bond in [2]rotaxanes. Chemical Science, 2020, 11, 3629-3635.	3.7	27
25	Mechanically interlocked molecules in metalâ€"organic frameworks. Chemical Society Reviews, 2022, 51, 4949-4976.	18.7	27
26	Tripod-Tripod Coupling of Triazides with Triphosphanes. The Synthesis, Characterization, and Stability in Solution of New Cage Compounds: Chiral Macrobicyclic Triphosphazides. Chemistry - A European Journal, 1998, 4, 2558-2570.	1.7	26
27	Remote Photoregulated Ring Gliding in a [2]Rotaxane via a Molecular Effector. Organic Letters, 2017, 19, 154-157.	2.4	26
28	Light-driven exchange between extended and contracted lasso-like isomers of a bistable [1]rotaxane. Organic and Biomolecular Chemistry, 2018, 16, 6980-6987.	1.5	26
29	Thermally and Photochemically Induced Dethreading of Fumaramideâ€Based Kinetically Stable Pseudo[2]rotaxanes. European Journal of Organic Chemistry, 2019, 2019, 3480-3488.	1.2	26
30	Unravelling the suicide inactivation of tyrosinase: A discrimination between mechanisms. Journal of Molecular Catalysis B: Enzymatic, 2012, 75, 11-19.	1.8	23
31	Helical Sense Bias Induced by Point Chirality in Cage Compounds. Angewandte Chemie - International Edition, 2002, 41, 1205-1208.	7.2	22
32	Hydroxylation of p-substituted phenols by tyrosinase: Further insight into the mechanism of tyrosinase activity. Biochemical and Biophysical Research Communications, 2012, 424, 228-233.	1.0	22
33	Photoinduced Pedaloâ€Type Motion in an Azodicarboxamideâ€Based Molecular Switch. Angewandte Chemie - International Edition, 2018, 57, 1792-1796.	7.2	21
34	Tyrosinase-Catalyzed Hydroxylation of 4-Hexylresorcinol, an Antibrowning and Depigmenting Agent: A Kinetic Study. Journal of Agricultural and Food Chemistry, 2015, 63, 7032-7040.	2.4	20
35	Further insight into the pH effect on the catalysis of mushroom tyrosinase. Journal of Molecular Catalysis B: Enzymatic, 2016, 125, 6-15.	1.8	20
36	Crystallization Mechanisms Applied to Understand the Crystal Formation of Rotaxanes. European Journal of Organic Chemistry, 2019, 2019, 3451-3463.	1.2	20

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37	Density Functional Theory and Quantum Theory of Atoms in Molecules Analysis: Influence of Intramolecular Interactions on Pirouetting Movement in Tetraalkylsuccinamide[2]rotaxanes. Crystal Growth and Design, 2017, 17, 5845-5857.	1.4	19
38	Enantioselective Formation of 2â€Azetidinones by Ringâ€Assisted Cyclization of Interlocked <i>N</i>â€(Î±â€Methyl)benzyl Fumaramides. Angewandte Chemie, 2018, 130, 6673-6677.	1.6	19
39	Design and synthesis of a new macrobicyclic tris(phosphazide). Tetrahedron Letters, 1998, 39, 7807-7810.	0.7	18
40	Characterization of the action of tyrosinase on resorcinols. Bioorganic and Medicinal Chemistry, 2016, 24, 4434-4443.	1.4	18
41	Action of 2,2â€²,4,4â€²-tetrahydroxybenzophenone in the biosynthesis pathway of melanin. International Journal of Biological Macromolecules, 2017, 98, 622-629.	3.6	18
42	Stereocontrol in the Synthesis of Î²-Lactams Arising from the Interlocked Structure of Benzylfumaramide-Based Hydrogen-Bonded [2]Rotaxanes. Synlett, 2019, 30, 893-902.	1.0	18
43	A rotaxane mimic of the photoactive yellow protein chromophore environment: effects of hydrogen bonding and mechanical interlocking on a coumaric amide derivative. Chemical Communications, 2007, , 1910.	2.2	17
44	Hydrogen Peroxide Helps in the Identification of Monophenols as Possible Substrates of Tyrosinase. Bioscience, Biotechnology and Biochemistry, 2013, 77, 2383-2388.	0.6	17
45	Action of tyrosinase on hydroquinone in the presence of catalytic amounts of o-diphenol. A kinetic study. Reaction Kinetics, Mechanisms and Catalysis, 2014, 112, 305-320.	0.8	17
46	Coâ€conformational Exchange Triggered by Molecular Recognition in a Di(acylamino)pyridineâ€Based Molecular Shuttle Containing Two Pyridine Rings at the Macrocycle. ChemPhysChem, 2016, 17, 1920-1926.	1.0	17
47	New macrobicyclic triphosphazides and triphosphazenes formed by self-assembly of tripodal triazides with triphosphanes. Tetrahedron, 2006, 62, 6190-6202.	1.0	16
48	Identification of p-hydroxybenzyl alcohol, tyrosol, phloretin and its derivate phloridzin as tyrosinase substrates. Bioorganic and Medicinal Chemistry, 2015, 23, 3738-3746.	1.4	16
49	Effective Encapsulation of C₆₀ by Metalâ€"Organic Frameworks with Polyamide Macrocyclic Linkers. Angewandte Chemie - International Edition, 2021, 60, 10814-10819.	7.2	16
50	Cyclization of interlocked fumaramides into Î²-lactams: experimental and computational mechanistic assessment of the key intercomponent proton transfer and the stereocontrolling active pocket. Chemical Science, 2021, 12, 747-756.	3.7	15
51	Kinetic characterization of oxyresveratrol as a tyrosinase substrate. IUBMB Life, 2015, 67, 828-836.	1.5	14
52	4-<i>n</i>-butylresorcinol, a depigmenting agent used in cosmetics, reacts with tyrosinase. IUBMB Life, 2016, 68, 663-672.	1.5	14
53	Synthesis and Molecular Structure of Î²â€Phosphinoyl Carboxamides: An Unexpected Case of Chiral Discrimination of Hydrogenâ€Bonded Dimers in the Solid State. Chemistry - A European Journal, 2010, 16, 3728-3735.	1.7	13
54	Competition between the donor and acceptor hydrogen bonds of the threads in the formation of [2]rotaxanes by clipping reaction. New Journal of Chemistry, 2017, 41, 13303-13318.	1.4	13

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55	Mechanically Interlocked Profragrances for the Controlled Release of Scents. Journal of Organic Chemistry, 2021, 86, 15045-15054.	1.7	13
56	Conformer Distribution in Rotaxanes Containing Nonsymmetric Threads: A Systematic Approach. European Journal of Organic Chemistry, 2018, 2018, 4978-4990.	1.2	12
57	Action of tyrosinase on caffeic acid and its n-nonyl ester. Catalysis and suicide inactivation. International Journal of Biological Macromolecules, 2018, 107, 2650-2659.	3.6	11
58	Mechanical bonding activation in rotaxane-based organocatalysts. Organic Chemistry Frontiers, 2021, 8, 4202-4210.	2.3	11
59	Component exchange as a synthetically advantageous strategy for the preparation of bicyclic cage compounds. Chemical Communications, 2008, , 2337.	2.2	10
60	Kinetic characterisation of o-aminophenols and aromatic o-diamines as suicide substrates of tyrosinase. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2012, 1824, 647-655.	1.1	10
61	Catalysis and inactivation of tyrosinase in its action on o-diphenols, o-aminophenols and o-phenylendiamines: Potential use in industrial applications. Journal of Molecular Catalysis B: Enzymatic, 2013, 91, 17-24.	1.8	10
62	Maximizing the [<i>c2</i>]daisy chain to lasso ratio through competitive self-templating clipping reactions. Chemical Communications, 2021, 58, 290-293.	2.2	10
63	4-Hydroxydibenzyl: a novel metabolite from the human gut microbiota after consuming resveratrol. Food and Function, 2022, 13, 7487-7493.	2.1	10
64	Macrobicyclic triphosphazides and tri-Î»5-phosphazenes derived from PhC(CH2PPh2)3. Two propeller-shaped diastereoisomers in the crystals. Tetrahedron, 2007, 63, 2078-2083.	1.0	9
65	Modulating the propeller-like shape of a tripodal C(CH2PPh2)3 fragment by the size of the substituent at the pivotal carbon atom in macrobicyclic tri-Î»5-phosphazenes. Tetrahedron, 2007, 63, 4450-4458.	1.0	9
66	Effects on Rotational Dynamics of Azo and Hydrazodicarboxamide-Based Rotaxanes. Molecules, 2017, 22, 1078.	1.7	9
67	Bimodal dynamics of mechanically constrained hydrogen bonds revealed by vibrational photon echoes. Journal of Chemical Physics, 2011, 134, 134504.	1.2	8
68	Structural and kinetic considerations on the catalysis of deoxyarbutin by tyrosinase. PLoS ONE, 2017, 12, e0187845.	1.1	8
69	Helical Chirality Transmission through a p-Phenylene Fragment in a Hexa-Î»5-phosphazene. Organic Letters, 2007, 9, 4631-4634.	2.4	7
70	Catalysis and inactivation of tyrosinase in its action on hydroxyhydroquinone. IUBMB Life, 2014, 66, 122-127.	1.5	7
71	Photoinduced Pedaloâ€Type Motion in an Azodicarboxamideâ€Based Molecular Switch. Angewandte Chemie, 2018, 130, 1810-1814.	1.6	7
72	Homo and heteroassembly of amide-based [2]rotaxanes using Î±,Î±â€²-dimethyl-p-xylylenediamines. Chemical Communications, 2019, 55, 6787-6790.	2.2	7

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73	Core level photoemission of rotaxanes: A summary on binding energies. Journal of Electron Spectroscopy and Related Phenomena, 2008, 165, 42-45.	0.8	6
74	Study of the inhibition of 3-/4-aminoacetophenones on tyrosinase. Reaction Kinetics, Mechanisms and Catalysis, 2017, 120, 1-13.	0.8	6
75	Effective Encapsulation of C₆₀ by Metalâ€“Organic Frameworks with Polyamide Macrocyclic Linkers. Angewandte Chemie, 2021, 133, 10909-10914.	1.6	6
76	On the protonation of a macrobicyclic cage: an inert tribenzylamine fragment and three robust aminophosphonium units. Tetrahedron Letters, 2006, 47, 5405-5408.	0.7	3
77	Center-to-propeller and propeller-to-propeller stereocontrol in a series of macrobicyclic tri-Î»5-phosphazenes. Tetrahedron Letters, 2007, 48, 3583-3586.	0.7	3
78	Linear and nonlinear optical properties of a rotaxane molecule. , 2006, , .		2
79	Palladium-Catalyzed Synthesis of Rotaxanes. Synfacts, 2007, 2007, 1158-1158.	0.0	2
80	Synthesis of an Adamantane-Based Tetralactam and Its Association with Dicarboxamides. Proceedings (mdpi), 2019, 41, 65.	0.2	2
81	Coupling the Individual Motions of the Machine-like Components of Zirconium(IV) Organic Frameworks. CheM, 2021, 7, 14-16.	5.8	2
82	Modulating the catalytic activity by the mechanical bond: organocatalysis with polyamide [2]rotaxanes bearing a secondary amino function at the thread. Organic Chemistry Frontiers, 2022, 9, 2690-2696.	2.3	2
83	The class of molecules with mobile parts: Catenanes and rotaxanes for nonlinear optical applications. , 2007, , .		1
84	Further Insights on the Assembly of Acylaminopyridine-based [2]Rotaxanes. , 0, , .		1
85	A Dynamic Molecular Shuttle. Synfacts, 2010, 2010, 1139-1139.	0.0	0
86	Titelbild: Photoinduced Pedaloâ€Type Motion in an Azodicarboxamideâ€Based Molecular Switch (Angew.) Tj ETQq0 0 0 rgBT /Overlock 1	1.6	0
87	Chemical Interconversion of Azo and Hydrazodicarboxamide-based [2]Rotaxanes. , 0, , .		0