

Gwenael Rapenne

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4786089/publications.pdf>

Version: 2024-02-01

96
papers

3,039
citations

136740

32
h-index

168136

53
g-index

110
all docs

110
docs citations

110
times ranked

2439
citing authors

#	ARTICLE	IF	CITATIONS
1	Controlled clockwise and anticlockwise rotational switching of a molecular motor. <i>Nature Nanotechnology</i> , 2013, 8, 46-51.	15.6	240
2	Rolling a single molecular wheel at the atomic scale. <i>Nature Nanotechnology</i> , 2007, 2, 95-98.	15.6	177
3	Copper(I)- or Iron(II)-Templated Synthesis of Molecular Knots Containing Two Tetrahedral or Octahedral Coordination Sites. <i>Journal of the American Chemical Society</i> , 1999, 121, 994-1001.	6.6	172
4	Efficient synthesis of a molecular knot by copper(I)-induced formation of the precursor followed by ruthenium(II)-catalysed ring closing metathesis. <i>Chemical Communications</i> , 1997, , 2053-2054.	2.2	114
5	Recent progress in development of photoacid generators. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2018, 34, 41-51.	5.6	90
6	Molecule Concept Nanocars: Chassis, Wheels, and Motors?. <i>ACS Nano</i> , 2013, 7, 11-14.	7.3	85
7	Simultaneous and coordinated rotational switching of all molecular rotors in a network. <i>Nature Nanotechnology</i> , 2016, 11, 706-712.	15.6	84
8	Synthesis of technomimetic molecules: towards rotation control in single-molecular machines and motors. <i>Organic and Biomolecular Chemistry</i> , 2005, 3, 1165.	1.5	83
9	Resolution of a Molecular Trefoil Knot. <i>Journal of the American Chemical Society</i> , 1996, 118, 10932-10933.	6.6	80
10	Prototypes of molecular motors based on star-shaped organometallic ruthenium complexes. <i>Chemical Society Reviews</i> , 2009, 38, 1551.	18.7	80
11	Technomimetic molecules: synthesis of a molecular wheelbarrow. <i>Tetrahedron Letters</i> , 2003, 44, 6261-6263.	0.7	75
12	Imaging of a molecular wheelbarrow by scanning tunneling microscopy. <i>Surface Science</i> , 2005, 584, L153-L158.	0.8	74
13	Technomimetic molecules: synthesis of ruthenium(ii) 1,2,3,4,5-penta(p-bromophenyl)cyclopentadienyl hydrotris(indazolyl)borate, an organometallic molecular turnstile. <i>Chemical Communications</i> , 2003, , 2434.	2.2	70
14	The design of a nanoscale molecular barrow. <i>Nanotechnology</i> , 2002, 13, 330-335.	1.3	69
15	Synthesis of catenanes and molecular knots by copper(I)-directed formation of the precursors followed by ruthenium(II)-catalysed ring-closing metathesis. <i>Coordination Chemistry Reviews</i> , 1999, 185-186, 167-176.	9.5	67
16	A Dicopper(I) Trefoil Knot with m-Phenylene Bridges between the Ligand Subunits: Synthesis, Resolution, and Absolute Configuration. <i>Chemistry - A European Journal</i> , 1999, 5, 1432-1439.	1.7	66
17	The first nanocar race. <i>Nature Reviews Materials</i> , 2017, 2, .	23.3	65
18	Molecular machines: synthesis and characterization of two prototypes of molecular wheelbarrows. <i>Tetrahedron</i> , 2007, 63, 7018-7026.	1.0	60

#	ARTICLE	IF	CITATIONS
19	A chiral molecular propeller designed for unidirectional rotations on a surface. <i>Nature Communications</i> , 2019, 10, 3742.	5.8	58
20	Chiroptical Properties of an Optically Pure Dicopper(I) Trefoil Knot and Its Enantioselectivity in Luminescence Quenching Reactions. <i>Chemistry - A European Journal</i> , 2000, 6, 2129-2134.	1.7	57
21	Design and synthesis of the active part of a potential molecular motor. <i>New Journal of Chemistry</i> , 2005, 29, 288.	1.4	56
22	Synthesis of triester-functionalized molecular motors incorporating bis-acetylide trans-platinum insulating fragments. <i>New Journal of Chemistry</i> , 2006, 30, 1429.	1.4	50
23	Synthesis and Reactivity of [Penta(4-halogenophenyl)cyclopentadienyl][hydrotris(indazolyl)borato]ruthenium(II) Complexes: Rotation-Induced Fosbury Flop in an Organometallic Molecular Turnstile. <i>Chemistry - A European Journal</i> , 2008, 14, 8147-8156.	1.7	50
24	Electron-triggered motions in technomimetic molecules. <i>Dalton Transactions</i> , 2007, , 177-186.	1.6	46
25	Synthesis of Molecular Motors Incorporating para-Phenylene-Conjugated or Bicyclo[2.2.2]octane-Insulated Electroactive Groups. <i>Chemistry - A European Journal</i> , 2007, 13, 5622-5631.	1.7	44
26	A star-shaped ruthenium complex with five ferrocenyl-terminated arms bridged by trans-platinum fragments. <i>Chemical Communications</i> , 2006, , 2283.	2.2	43
27	Directed synthesis of symmetric and dissymmetric molecular motors built around a ruthenium cyclopentadienyl tris(indazolyl)borate complex. <i>Tetrahedron</i> , 2008, 64, 11462-11468.	1.0	39
28	Regioselective one-step synthesis of trans-3,trans-3,trans-3 and e,e,e [60]fullerene tris-adducts directed by a C3-symmetrical cyclotrimeratrylene tether. <i>Chemical Communications</i> , 1999, , 1121-1122.	2.2	38
29	Synthesis of New Tripodal Tri-Functionalized Hydrotris(indazol-1-yl)borate Ligands and X-ray Structures of Their Cyclopentadienylruthenium Complexes. <i>European Journal of Inorganic Chemistry</i> , 2006, 2006, 980-987.	1.0	36
30	The chemistry of 1,2,3,4,5-pentaphenylcyclopentadienyl hydrotris(indazolyl)borate ruthenium(II) complexes, building blocks for the construction of potential organometallic molecular motors. <i>Coordination Chemistry Reviews</i> , 2008, 252, 1451-1459.	9.5	36
31	Synthesis of Polycyclic Aromatic Hydrocarbon-Based Nanovehicles Equipped with Triptycene Wheels. <i>Chemistry - A European Journal</i> , 2012, 18, 3023-3031.	1.7	34
32	Synthesis and STM Imaging of Symmetric and Dissymmetric Ethynyl-Bridged Dimers of Boron-Subphthalocyanine Bowl-Shaped Nanowheels. <i>Chemistry - A European Journal</i> , 2012, 18, 8925-8928.	1.7	32
33	Resolution of topologically chiral molecular objects. <i>Chirality</i> , 1998, 10, 125-133.	1.3	30
34	Resolution, X-ray structure and absolute configuration of a double-stranded helical diiron(II) bis(terpyridine) complex. <i>Chemical Communications</i> , 1999, , 1853-1854.	2.2	29
35	Dual Photochemical Bond Cleavage for a Diarylethene-Based Phototrigger Containing both Methanolic and Acetic Sources. <i>Journal of Organic Chemistry</i> , 2016, 81, 11282-11290.	1.7	25
36	Hierarchical Emergence and Dynamic Control of Chirality in a Photoresponsive Dinuclear Complex. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 2151-2157.	2.1	25

#	ARTICLE	IF	CITATIONS
37	Scorpionate Hydrotris(indazolyl)borate Ligands as Tripodal Platforms for Surface-Mounted Molecular Gears and Motors. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 2214-2226.	1.0	24
38	Resolution of topologically chiral molecular objects. <i>Chirality</i> , 1998, 10, 125-133.	1.3	23
39	Modular synthesis of pentaarylcyclopentadienyl Ru-based molecular machines via sequential Pd-catalysed cross couplings. <i>Chemical Communications</i> , 2019, 55, 14689-14692.	2.2	23
40	Star-Shaped Ruthenium Complexes as Prototypes of Molecular Gears. <i>Chemistry - A European Journal</i> , 2019, 25, 16328-16339.	1.7	21
41	Room-Temperature Electronic Template Effect of the SmSi(111)-2 Interface for Self-Alignment of Organic Molecules. <i>ChemPhysChem</i> , 2008, 9, 1437-1441.	1.0	20
42	Directional molecular sliding at room temperature on a silicon runway. <i>Nanoscale</i> , 2013, 5, 7005.	2.8	20
43	Biomimetic and Technomimetic Single Molecular Machines. <i>Chemistry Letters</i> , 2019, 48, 299-308.	0.7	20
44	Molecular Gears: From Solution to Surfaces. <i>Chemistry - A European Journal</i> , 2021, 27, 12019-12031.	1.7	20
45	Desymmetrization on both ligands of pentaphenylcyclopentadienylhydrotris(indazolyl) borate ruthenium(II) complexes: Prototypes of organometallic molecular gears and motors. <i>Coordination Chemistry Reviews</i> , 2015, 287, 79-88.	9.5	19
46	Transmitting Stepwise Rotation among Three Molecule-Gear on the Au(111) Surface. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 6892-6899.	2.1	19
47	Title is missing!. <i>Helvetica Chimica Acta</i> , 2000, 83, 1209-1223.	1.0	18
48	Launching and landing single molecular wheelbarrows on a Cu(100) surface. <i>Chemical Physics Letters</i> , 2006, 431, 219-222.	1.2	18
49	Controlled Directional Motions of Molecular Vehicles, Rotors, and Motors: From Metallic to Silicon Surfaces, a Strategy to Operate at Higher Temperatures. <i>ChemPhysChem</i> , 2016, 17, 1742-1751.	1.0	16
50	STM manipulation of a subphthalocyanine double-wheel molecule on Au(111). <i>Journal of Physics Condensed Matter</i> , 2012, 24, 404001.	0.7	15
51	Tertiarylenes as Photoactivatable Hydride Donors. <i>Journal of Organic Chemistry</i> , 2018, 83, 13700-13706.	1.7	15
52	From the Synthesis of Nanovehicles to Participation in the First Nanocar Race—View from the French Team. <i>Molecules</i> , 2018, 23, 612.	1.7	15
53	Desymmetrised pentaporphyritic gears mounted on metallo-organic anchors. <i>Chemical Science</i> , 2021, 12, 4709-4721.	3.7	15
54	Expedient Synthesis of Thioether-Functionalized Hydrotris(indazolyl)borate as an Anchoring Platform for Rotary Molecular Machines. <i>European Journal of Organic Chemistry</i> , 2018, 2018, 4731-4739.	1.2	14

#	ARTICLE	IF	CITATIONS
55	Single Rotating Molecule-Machines: Nanovehicles and Molecular Motors. Topics in Current Chemistry, 2014, 354, 253-277.	4.0	13
56	Synthesis and analytical resolution of chiral pyrazoles derived from (5R)-dihydrocarvone. New Journal of Chemistry, 2009, 33, 293-299.	1.4	12
57	Breaking the symmetry in the molecular motor family: synthesis of a dissymmetrized pentaphenyl cyclopentadienyl ligand and its ruthenium tris(indazolyl)borate complex. Tetrahedron Letters, 2006, 47, 8741-8744.	0.7	11
58	Design and synthesis of mono-molecular machines. Journal of Physics Condensed Matter, 2006, 18, S1797-S1808.	0.7	11
59	HPLC separation and VCD spectroscopy of chiral pyrazoles derived from (5R)-dihydrocarvone. Tetrahedron: Asymmetry, 2007, 18, 1911-1917.	1.8	11
60	A family of electron-triggered molecular motors based on aromatic building blocks. Pure and Applied Chemistry, 2008, 80, 659-667.	0.9	11
61	Regioselectivity in Tetherâ€Directed Remote Functionalization â€ The Addition of a Cyclotriveratryleneâ€Based Trimalonate to C ₆₀ Revisited. European Journal of Organic Chemistry, 2010, 2010, 4402-4411.	1.2	11
62	Synthesis and Photochromism of Chloroâ€and tertâ€Butylâ€Functionalized Terarylene Derivatives for Surface Deposition. European Journal of Organic Chemistry, 2017, 2017, 2451-2461.	1.2	11
63	Surface manipulation of a curved polycyclic aromatic hydrocarbon-based nano-vehicle molecule equipped with triptycene wheels. Nanotechnology, 2018, 29, 495401.	1.3	11
64	Dipolar Nanocars Based on a Porphyrin Backbone. Chemistry - A European Journal, 2020, 26, 12010-12018.	1.7	11
65	Scanning Tunneling Microscope Tip-Induced Formation of a Supramolecular Network of Terarylene Molecules on Cu(111). Journal of Physical Chemistry C, 2017, 121, 25384-25389.	1.5	10
66	Mechanics of Molecule-Gears with Six Long Teeth. Journal of Physical Chemistry C, 2020, 124, 22625-22630.	1.5	10
67	Molecular Rotor Functionalized with a Photoresponsive Brake. Inorganic Chemistry, 2021, 60, 3492-3501.	1.9	10
68	Synthesis of a photoswitchable azobenzene-functionalized tris(indazol-1-yl) borate ligand and its ruthenium(II) cyclopentadienide complex. Tetrahedron, 2010, 66, 1885-1891.	1.0	9
69	Synthesis of substituted indazoles and their corresponding tris(indazolyl)borate tripodal ligands as key building blocks for molecular motors. Inorganica Chimica Acta, 2009, 362, 4276-4283.	1.2	8
70	Synthesis and electrochemical characteristics of a donorâ€acceptor porphyrinate rotor mounted on a naphthalocyaninato europium complex. Inorganica Chimica Acta, 2012, 380, 181-186.	1.2	7
71	Energy Storage upon Photochromic 6-Ï Photocyclization and Efficient On-Demand Heat Release with Oxidation Stimuli. Journal of Physical Chemistry Letters, 2021, 12, 11391-11398.	2.1	7
72	A new synthon for the incorporation of [60]fullerene in macrocycles. New Journal of Chemistry, 1999, 23, 1125-1127.	1.4	6

#	ARTICLE	IF	CITATIONS
73	Bridging the Gap: Making the Link in Mechanically Interlocked Chiral Molecules. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 8792-8794.	7.2	6
74	Synthesis of Functionalized Mono-, Bis-, and Triethynyltritycenes for One-Dimensional Self-Assembly on Surfaces. <i>Chemistry - A European Journal</i> , 2015, 21, 15013-15019.	1.7	6
75	Photochromic Diarylethenes Designed for Surface Deposition: From Self-Assembled Monolayers to Single Molecules. <i>ChemPlusChem</i> , 2019, 84, 564-577.	1.3	6
76	A Morse manipulator molecule for the modulation of metallic shockley surface states. <i>Chemical Physics Letters</i> , 2007, 434, 280-285.	1.2	4
77	Improved synthesis of 6-[(ethylthio)methyl]-1 <i>H</i> -indazole. <i>Heterocyclic Communications</i> , 2015, 21, 5-8.	0.6	4
78	Adsorption of Terarylenes on Ag(111) and NaCl(001)/Ag(111): A Scanning Tunneling Microscopy and Density Functional Theory Study. <i>Journal of Physical Chemistry C</i> , 2018, 122, 5978-5991.	1.5	4
79	Divergent Synthesis of Molecular Winch Prototypes. <i>Chemistry - A European Journal</i> , 2021, 27, 16242-16249.	1.7	2
80	Rotative Single Molecular Motors on Metallic Surfaces. , 2018, , 803-809.		1
81	Dipolar Nanocars Based on a Porphyrin Backbone. <i>Chemistry - A European Journal</i> , 2020, 26, 11913-11913.	1.7	1
82	Systematic studies of structural variations in terarylene photohydride generators. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2020, 397, 112594.	2.0	1
83	Photophysical properties of 1,2,3,4,5-pentaarylcyclopentadienyl-hydrotris(indazolyl)borate ruthenium(II) complexes. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 17049-17056.	1.3	1
84	Chiroptical Properties of an Optically Pure Dicopper(I) Trefoil Knot and Its Enantioselectivity in Luminescence Quenching Reactions. , 2000, 6, 2129.		1
85	Progress Towards a Rotary Molecular Motor. <i>AIP Conference Proceedings</i> , 2004, , .	0.3	0
86	Molecular-Scale Rotation Movement: Synthesis of Molecular Motors. <i>ChemInform</i> , 2004, 35, no.	0.1	0
87	Scorpionate Hydrotris(indazolyl)borate Ligands as Tripodal Platforms for Surface-Mounted Molecular Gears and Motors. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 2203-2203.	1.0	0
88	Ruthenium complexes of sterically-hindered pentaarylcyclopentadienyl ligands. <i>RSC Advances</i> , 2021, 11, 20207-20215.	1.7	0
89	Frontispiece: Molecular Gears: From Solution to Surfaces. <i>Chemistry - A European Journal</i> , 2021, 27, .	1.7	0
90	Machines moléculaires : mécanique des molécules. <i>J3eA</i> , 2003, 2, 003.	0.0	0

#	ARTICLE	IF	CITATIONS
91	Triptycene or Subphthalocyanine Wheels and Polyaromatic Hydrocarbon Nanovehicles. <i>Advances in Atom and Single Molecule Machines</i> , 2015, , 65-79.	0.0	0
92	Single-Molecular Motors and Gears Based on Star-shaped Ruthenium Complexes. <i>Advances in Atom and Single Molecule Machines</i> , 2015, , 109-126.	0.0	0
93	Design and Synthesis of a Nano-winch. <i>Advances in Atom and Single Molecule Machines</i> , 2020, , 81-98.	0.0	0
94	Prototypes of Molecular Gears with an Organometallic Piano-Stool Architecture. <i>Advances in Atom and Single Molecule Machines</i> , 2020, , 65-80.	0.0	0
95	Nanocars based on Polyaromatic or Porphyrinic Chassis. <i>Yuki Gosei Kagaku Kyokaiishi/Journal of Synthetic Organic Chemistry</i> , 2021, 79, 1050-1055.	0.0	0
96	Invited: Prototypes of molecular machines: motors, gears and vehicles. , 2021, , .		0