Gwenael Rapenne

List of Publications by Year
in descending order

96	3,039	136950	168389
papers	citations	32 h-index	53 g-index

110	110	110	2439
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Controlled clockwise and anticlockwise rotational switching of aÂmolecular motor. Nature Nanotechnology, 2013, 8, 46-51.	31.5	240
2	Rolling a single molecular wheel at the atomic scale. Nature Nanotechnology, 2007, 2, 95-98.	31.5	177
3	Copper(I)- or Iron(II)-Templated Synthesis of Molecular Knots Containing Two Tetrahedral or Octahedral Coordination Sites. Journal of the American Chemical Society, 1999, 121, 994-1001.	13.7	172
4	Efficient synthesis of a molecular knot by copper(I)-induced formation of the precursor followed by ruthenium(II)-catalysed ring closing metathesis. Chemical Communications, 1997, , 2053-2054.	4.1	114
5	Recent progress in development of photoacid generators. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2018, 34, 41-51.	11.6	90
6	Molecule Concept Nanocars: Chassis, Wheels, and Motors?. ACS Nano, 2013, 7, 11-14.	14.6	85
7	Simultaneous and coordinated rotational switching of all molecular rotors in a network. Nature Nanotechnology, 2016, 11, 706-712.	31.5	84
8	Synthesis of technomimetic molecules: towards rotation control in single-molecular machines and motors. Organic and Biomolecular Chemistry, 2005, 3, 1165.	2.8	83
9	Resolution of a Molecular Trefoil Knot. Journal of the American Chemical Society, 1996, 118, 10932-10933.	13.7	80
10	Prototypes of molecular motors based on star-shaped organometallic ruthenium complexes. Chemical Society Reviews, 2009, 38, 1551.	38.1	80
11	Technomimetic molecules: synthesis of a molecular wheelbarrow. Tetrahedron Letters, 2003, 44, 6261-6263.	1.4	75
12	Imaging of a molecular wheelbarrow by scanning tunneling microscopy. Surface Science, 2005, 584, L153-L158.	1.9	74
13	Technomimetic molecules: synthesis of ruthenium(ii) 1,2,3,4,5-penta(p-bromophenyl)cyclopentadienyl hydrotris(indazolyl)borate, an organometallic molecular turnstile. Chemical Communications, 2003, , 2434.	4.1	70
14	The design of a nanoscale molecular barrow. Nanotechnology, 2002, 13, 330-335.	2.6	69
15	Synthesis of catenanes and molecular knots by copper(I)-directed formation of the precursors followed by ruthenium(II)-catalysed ring-closing metathesis. Coordination Chemistry Reviews, 1999, 185-186, 167-176.	18.8	67
16	A Dicopper(I) Trefoil Knot withm-Phenylene Bridges between the Ligand Subunits: Synthesis, Resolution, and Absolute Configuration. Chemistry - A European Journal, 1999, 5, 1432-1439.	3.3	66
17	The first nanocar race. Nature Reviews Materials, 2017, 2, .	48.7	65
18	Molecular machines: synthesis and characterization of two prototypes of molecular wheelbarrows. Tetrahedron, 2007, 63, 7018-7026.	1.9	60

#	Article	IF	Citations
19	A chiral molecular propeller designed for unidirectional rotations on a surface. Nature Communications, 2019, 10, 3742.	12.8	58
20	Chiroptical Properties of an Optically Pure Dicopper(I) Trefoil Knot and Its Enantioselectivity in Luminescence Quenching Reactions. Chemistry - A European Journal, 2000, 6, 2129-2134.	3.3	57
21	Design and synthesis of the active part of a potential molecular motor. New Journal of Chemistry, 2005, 29, 288.	2.8	56
22	Synthesis of triester-functionalized molecular motors incorporating bis-acetylide trans-platinum insulating fragments. New Journal of Chemistry, 2006, 30, 1429.	2.8	50
23	Synthesis and Reactivity of [Penta(4â€halogenophenyl)cyclopentadienyl][hydrotris(indazolyl)borato]ruthenium(II) Complexes: Rotationâ€induced Fosbury Flop in an Organometallic Molecular Turnstile. Chemistry - A European Journal, 2008, 14, 8147-8156.	3.3	50
24	Electron-triggered motions in technomimetic molecules. Dalton Transactions, 2007, , 177-186.	3.3	46
25	Synthesis of Molecular Motors Incorporatingpara-Phenylene-Conjugated or Bicyclo[2.2.2]octane-Insulated Electroactive Groups. Chemistry - A European Journal, 2007, 13, 5622-5631.	3.3	44
26	A star-shaped ruthenium complex with five ferrocenyl-terminated arms bridged by trans-platinum fragments. Chemical Communications, 2006, , 2283.	4.1	43
27	Directed synthesis of symmetric and dissymmetric molecular motors built around a ruthenium cyclopentadienyl tris(indazolyl)borate complex. Tetrahedron, 2008, 64, 11462-11468.	1.9	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 cyclotriveratrylene tether. Chemical Communications, 1999, , 1121-1122.	4.1	38
29	Synthesis of New Tripodal Tri-Functionalized Hydrotris(indazol-1-yl)borate Ligands and X-ray Structures of Their Cyclopentadieneruthenium Complexes. European Journal of Inorganic Chemistry, 2006, 2006, 980-987.	2.0	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. Coordination Chemistry Reviews, 2008, 252, 1451-1459.	18.8	36
31	Synthesis of Polycyclic Aromatic Hydrocarbonâ€Based Nanovehicles Equipped with Triptycene Wheels. Chemistry - A European Journal, 2012, 18, 3023-3031.	3.3	34
32	Synthesis and STM Imaging of Symmetric and Dissymmetric Ethynylâ€Bridged Dimers of Boronâ€“Subphthalocyanine Bowlâ€Shaped Nanowheels. Chemistry - A European Journal, 2012, 18, 8925-8928.	3.3	32
33	Resolution of topologically chiral molecular objects. Chirality, 1998, 10, 125-133.	2.6	30
34	Resolution, X-ray structure and absolute configuration of a double-stranded helical diiron(II) bis(terpyridine) complex. Chemical Communications, 1999, , 1853-1854.	4.1	29
35	Dual Photochemical Bond Cleavage for a Diarylethene-Based Phototrigger Containing both Methanolic and Acetic Sources. Journal of Organic Chemistry, 2016, 81, 11282-11290.	3.2	25
36	Hierarchical Emergence and Dynamic Control of Chirality in a Photoresponsive Dinuclear Complex. Journal of Physical Chemistry Letters, 2018, 9, 2151-2157.	4.6	25

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37	Scorpionate Hydrotris(indazolyl)borate Ligands as Tripodal Platforms for Surfaceâ€Mounted Molecular Gears and Motors. European Journal of Inorganic Chemistry, 2016, 2016, 2214-2226.	2.0	24
38	Resolution of topologically chiral molecular objects. Chirality, 1998, 10, 125-133.	2.6	23
39	Modular synthesis of pentaarylcyclopentadienyl Ru-based molecular machines via sequential Pd-catalysed cross couplings. Chemical Communications, 2019, 55, 14689-14692.	4.1	23
40	Starâ€Shaped Ruthenium Complexes as Prototypes of Molecular Gears. Chemistry - A European Journal, 2019, 25, 16328-16339.	3.3	21
41	Roomâ€Temperature Electronic Template Effect of the SmSi(111)â€8Ã—2 Interface for Selfâ€Alignment of Organic Molecules. ChemPhysChem, 2008, 9, 1437-1441.	2.1	20
42	Directional molecular sliding at room temperature on a silicon runway. Nanoscale, 2013, 5, 7005.	5.6	20
43	Biomimetic and Technomimetic Single Molecular Machines. Chemistry Letters, 2019, 48, 299-308.	1.3	20
44	Molecular Gears: From Solution to Surfaces. Chemistry - A European Journal, 2021, 27, 12019-12031.	3.3	20
45	Desymmetrization on both ligands of pentaphenylcyclopentadienylhydrotris(indazolyl) borate ruthenium(II) complexes: Prototypes of organometallic molecular gears and motors. Coordination Chemistry Reviews, 2015, 287, 79-88.	18.8	19
46	Transmitting Stepwise Rotation among Three Molecule-Gear on the Au(111) Surface. Journal of Physical Chemistry Letters, 2020, 11, 6892-6899.	4.6	19
47	Title is missing!. Helvetica Chimica Acta, 2000, 83, 1209-1223.	1.6	18
48	Launching and landing single molecular wheelbarrows on a Cu(100) surface. Chemical Physics Letters, 2006, 431, 219-222.	2.6	18
49	Controlled Directional Motions of Molecular Vehicles, Rotors, and Motors: From Metallic to Silicon Surfaces, a Strategy to Operate at Higher Temperatures. ChemPhysChem, 2016, 17, 1742-1751.	2.1	16
50	STM manipulation of a subphthalocyanine double-wheel molecule on Au(111). Journal of Physics Condensed Matter, 2012, 24, 404001.	1.8	15
51	Terarylenes as Photoactivatable Hydride Donors. Journal of Organic Chemistry, 2018, 83, 13700-13706.	3.2	15
52	From the Synthesis of Nanovehicles to Participation in the First Nanocar Raceâ€”View from the French Team. Molecules, 2018, 23, 612.	3.8	15
53	Desymmetrised pentaporphyrinic gears mounted on metallo-organic anchors. Chemical Science, 2021, 12, 4709-4721.	7.4	15
54	Expedient Synthesis of Thioetherâ€Functionalized Hydrotris(indazolyl)borate as an Anchoring Platform for Rotary Molecular Machines. European Journal of Organic Chemistry, 2018, 2018, 4731-4739.	2.4	14

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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.	2.8	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.	1.4	11
58	Design and synthesis of mono-molecular machines. Journal of Physics Condensed Matter, 2006, 18, S1797-S1808.	1.8	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.	1.9	11
61	Regioselectivity in Tetherâ€Directed Remote Functionalization â€“ The Addition of a Cyclotriveratryleneâ€Based Trimalonate to C₆₀ Revisited. European Journal of Organic Chemistry, 2010, 2010, 4402-4411.	2.4	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.	2.4	11
63	Surface manipulation of a curved polycyclic aromatic hydrocarbon-based nano-vehicle molecule equipped with triptycene wheels. Nanotechnology, 2018, 29, 495401.	2.6	11
64	Dipolar Nanocars Based on a Porphyrin Backbone. Chemistry - A European Journal, 2020, 26, 12010-12018.	3.3	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.	3.1	10
66	Mechanics of Molecule-Gears with Six Long Teeth. Journal of Physical Chemistry C, 2020, 124, 22625-22630.	3.1	10
67	Molecular Rotor Functionalized with a Photoresponsive Brake. Inorganic Chemistry, 2021, 60, 3492-3501.	4.0	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.	1.9	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.	2.4	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.	2.4	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.	4.6	7
72	A new synthon for the incorporation of [60]fullerene in macrocycles. New Journal of Chemistry, 1999, 23, 1125-1127.	2.8	6

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73	Bridging the Gap: Making the Link in Mechanically Interlocked Chiral Molecules. Angewandte Chemie - International Edition, 2010, 49, 8792-8794.	13.8	6
74	Synthesis of Functionalized Monoâ€; Bisâ€; and Trisethynyltriptycenes for Oneâ€Dimensional Selfâ€Assembly on Surfaces. Chemistry - A European Journal, 2015, 21, 15013-15019.	3.3	6
75	Photochromic Diarylethenes Designed for Surface Deposition: From Selfâ€Assembled Monolayers to Single Molecules. ChemPlusChem, 2019, 84, 564-577.	2.8	6
76	A Morse manipulator molecule for the modulation of metallic shockley surface states. Chemical Physics Letters, 2007, 434, 280-285.	2.6	4
77	Improved synthesis of 6-[(ethylthio)methyl]-1H-indazole. Heterocyclic Communications, 2015, 21, 5-8.	1.2	4
78	Adsorption of Terarylenes on Ag(111) and NaCl(001)/Ag(111): A Scanning Tunneling Microscopy and Density Functional Theory Study. Journal of Physical Chemistry C, 2018, 122, 5978-5991.	3.1	4
79	Divergent Synthesis of Molecular Winch Prototypes. Chemistry - A European Journal, 2021, 27, 16242-16249.	3.3	2
80	Rotative Single Molecular Motors on Metallic Surfaces. , 2018, , 803-809.		1
81	Dipolar Nanocars Based on a Porphyrin Backbone. Chemistry - A European Journal, 2020, 26, 11913-11913.	3.3	1
82	Systematic studies of structural variations in terarylene photohydride generators. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 397, 112594.	3.9	1
83	Photophysical properties of 1,2,3,4,5-pentaarylcyclopentadienylâ€“hydrotris(indazolyl)borate ruthenium(<scp>ii</scp>) complexes. Physical Chemistry Chemical Physics, 2021, 23, 17049-17056.	2.8	1
84	Chiroptical Properties of an Optically Pure Dicopper(I) Trefoil Knot and Its Enantioselectivity in Luminescence Quenching Reactions. Chemistry - A European Journal, 2000, 6, 2129-2134.	3.3	1
85	Progress Towards a Rotary Molecular Motor. AIP Conference Proceedings, 2004, , .	0.4	0
86	Molecular-Scale Rotation Movement: Synthesis of Molecular Motors. ChemInform, 2004, 35, no.	0.0	0
87	Scorpionate Hydrotris(indazolyl)borate Ligands as Tripodal Platforms for Surface-Mounted Molecular Gears and Motors. European Journal of Inorganic Chemistry, 2016, 2016, 2203-2203.	2.0	0
88	Ruthenium complexes of sterically-hindered pentaarylcyclopentadienyl ligands. RSC Advances, 2021, 11, 20207-20215.	3.6	0
89	Frontispiece: Molecular Gears: From Solution to Surfaces. Chemistry - A European Journal, 2021, 27, .	3.3	0
90	Machines molÃ©culaires : mÃ©canique des molÃ©cules. J3eA, 2003, 2, 003.	0.0	0

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91	Triptycene or Subphthalocyanine Wheels and Polyaromatic Hydrocarbon Nanovehicles. Advances in Atom and Single Molecule Machines, 2015, , 65-79.	0.0	0
92	Single-Molecular Motors and Gears Based on Star-shaped Ruthenium Complexes. Advances in Atom and Single Molecule Machines, 2015, , 109-126.	0.0	0
93	Design and Synthesis of a Nano-winch. Advances in Atom and Single Molecule Machines, 2020, , 81-98.	0.0	0
94	Prototypes of Molecular Gears with an Organometallic Piano-Stool Architecture. Advances in Atom and Single Molecule Machines, 2020, , 65-80.	0.0	0
95	Nanocars based on Polyaromatic or Porphyrinic Chassis. Yuki Gosei Kagaku Kyokaishi/Journal of Synthetic Organic Chemistry, 2021, 79, 1050-1055.	0.1	0
96	Invited: Prototypes of molecular machines: motors, gears and vehicles. , 2021, , .		0