

David A Leigh

List of Publications by Citations

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329
papers

28,961
citations

90
h-index

162
g-index

368
ext. papers

31,708
ext. citations

13.7
avg, IF

7.48
L-index

#	Paper	IF	Citations
329	Synthetic molecular motors and mechanical machines. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 72-191	16.4	2241
328	Artificial Molecular Machines. <i>Chemical Reviews</i> , 2015 , 115, 10081-206	68.1	1206
327	Unidirectional rotation in a mechanically interlocked molecular rotor. <i>Nature</i> , 2003 , 424, 174-9	50.4	760
326	Macroscopic transport by synthetic molecular machines. <i>Nature Materials</i> , 2005 , 4, 704-10	27	639
325	Photoinduction of fast, reversible translational motion in a hydrogen-bonded molecular shuttle. <i>Science</i> , 2001 , 291, 2124-8	33.3	559
324	Strategies and tactics for the metal-directed synthesis of rotaxanes, knots, catenanes, and higher order links. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 9260-327	16.4	555
323	Sequence-specific peptide synthesis by an artificial small-molecule machine. <i>Science</i> , 2013 , 339, 189-93	33.3	546
322	Active metal template synthesis of rotaxanes, catenanes and molecular shuttles. <i>Chemical Society Reviews</i> , 2009 , 38, 1530-41	58.5	504
321	A reversible synthetic rotary molecular motor. <i>Science</i> , 2004 , 306, 1532-7	33.3	501
320	Artificial molecular motors. <i>Chemical Society Reviews</i> , 2017 , 46, 2592-2621	58.5	497
319	A molecular information ratchet. <i>Nature</i> , 2007 , 445, 523-7	50.4	491
318	Artificial switchable catalysts. <i>Chemical Society Reviews</i> , 2015 , 44, 5341-70	58.5	465
317	Cover Picture: Light-Driven Transport of a Molecular Walker in Either Direction along a Molecular Track (Angew. Chem. Int. Ed. 1/2011). <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 1-1	16.4	382
316	The application of CuAAC 'click' chemistry to catenane and rotaxane synthesis. <i>Chemical Society Reviews</i> , 2010 , 39, 1240-51	58.5	374
315	Catenanes: fifty years of molecular links. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 6110-50	16.4	346
314	A synthetic molecular pentafoil knot. <i>Nature Chemistry</i> , 2011 , 4, 15-20	17.6	328
313	Catalytic "click" rotaxanes: a substoichiometric metal-template pathway to mechanically interlocked architectures. <i>Journal of the American Chemical Society</i> , 2006 , 128, 2186-7	16.4	300

312	A synthetic small molecule that can walk down a track. <i>Nature Chemistry</i> , 2010 , 2, 96-101	17.6	274
311	An autonomous chemically fuelled small-molecule motor. <i>Nature</i> , 2016 , 534, 235-40	50.4	269
310	Rise of the Molecular Machines. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 10080-8	16.4	267
309	Hybrid organic-inorganic rotaxanes and molecular shuttles. <i>Nature</i> , 2009 , 458, 314-8	50.4	241
308	Template synthesis of molecular knots. <i>Chemical Society Reviews</i> , 2013 , 42, 1700-12	58.5	235
307	Facile Synthesis and Solid-State Structure of a Benzylic Amide [2]Catenane. <i>Angewandte Chemie International Edition in English</i> , 1995 , 34, 1209-1212		234
306	Beyond switches: ratcheting a particle energetically uphill with a compartmentalized molecular machine. <i>Journal of the American Chemical Society</i> , 2006 , 128, 4058-73	16.4	221
305	Catalytic "active-metal" template synthesis of [2]rotaxanes, [3]rotaxanes, and molecular shuttles, and some observations on the mechanism of the cu(i)-catalyzed azide-alkyne 1,3-cycloaddition. <i>Journal of the American Chemical Society</i> , 2007 , 129, 11950-63	16.4	220
304	Peptide-Based Molecular Shuttles. <i>Journal of the American Chemical Society</i> , 1997 , 119, 11092-11093	16.4	219
303	Walking molecules. <i>Chemical Society Reviews</i> , 2011 , 40, 3656-76	58.5	218
302	Rotary and linear molecular motors driven by pulses of a chemical fuel. <i>Science</i> , 2017 , 358, 340-343	33.3	212
301	Electrochemically switchable hydrogen-bonded molecular shuttles. <i>Journal of the American Chemical Society</i> , 2003 , 125, 8644-54	16.4	208
300	Chemoselective formation of successive triazole linkages in one pot: "click-click" chemistry. <i>Organic Letters</i> , 2006 , 8, 4505-7	6.2	202
299	Patterning through controlled submolecular motion: rotaxane-based switches and logic gates that function in solution and polymer films. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 3062-7	16.4	199
298	Influencing intramolecular motion with an alternating electric field. <i>Nature</i> , 2000 , 406, 608-11	50.4	199
297	A rotaxane-based switchable organocatalyst. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 5166-6	16.4	197
296	A Star of David catenane. <i>Nature Chemistry</i> , 2014 , 6, 978-82	17.6	193
295	A generic basis for some simple light-operated mechanical molecular machines. <i>Journal of the American Chemical Society</i> , 2004 , 126, 12210-1	16.4	187

- 294 Molecular Knots. *Angewandte Chemie - International Edition*, **2017**, 56, 11166-11194 16.4 186
- 293 Glycylglycine Rotaxanes□The Hydrogen Bond Directed Assembly of Synthetic Peptide Rotaxanes. *Angewandte Chemie International Edition in English*, **1997**, 36, 728-732 182
- 292 Benzylic Imine Catenates: Readily Accessible Octahedral Analogues of the Sauvage Catenates. *Angewandte Chemie - International Edition*, **2001**, 40, 1538-1543 16.4 177
- 291 Information storage using supramolecular surface patterns. *Science*, **2003**, 299, 531 33.3 176
- 290 Stiff, and sticky in the right places: the dramatic influence of preorganizing guest binding sites on the hydrogen bond-directed assembly of rotaxanes. *Journal of the American Chemical Society*, **2001**, 123, 5983-9 16.4 175
- 289 A switchable [2]rotaxane asymmetric organocatalyst that utilizes an acyclic chiral secondary amine. *Journal of the American Chemical Society*, **2014**, 136, 4905-8 16.4 169
- 288 Braiding a molecular knot with eight crossings. *Science*, **2017**, 355, 159-162 33.3 168
- 287 Shuttling through anion recognition. *Angewandte Chemie - International Edition*, **2004**, 43, 1222-4 16.4 167
- 286 Organic Magic Rings□ The Hydrogen Bond-Directed Assembly of Catenanes under Thermodynamic Control. *Journal of the American Chemical Society*, **1999**, 121, 1599-1600 16.4 164
- 285 Allosteric initiation and regulation of catalysis with a molecular knot. *Science*, **2016**, 352, 1555-9 33.3 163
- 284 Photoisomerization of a rotaxane hydrogen bonding template: light-induced acceleration of a large amplitude rotational motion. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 10-4 11.5 163
- 283 Remarkable positional discrimination in bistable light- and heat-switchable hydrogen-bonded molecular shuttles. *Angewandte Chemie - International Edition*, **2003**, 42, 2296-300 16.4 162
- 282 A chemically-driven molecular information ratchet. *Journal of the American Chemical Society*, **2008**, 130, 1836-8 16.4 161
- 281 Chiroptical switching in a bistable molecular shuttle. *Journal of the American Chemical Society*, **2003**, 125, 13360-1 16.4 159
- 280 Strategien und Taktiken für die metallgesteuerte Synthese von Rotaxanen, Knoten, Catenanen und Verschlingungen höherer Ordnung. *Angewandte Chemie*, **2011**, 123, 9428-9499 3.6 156
- 279 Three state redox-active molecular shuttle that switches in solution and on a surface. *Journal of the American Chemical Society*, **2008**, 130, 2593-601 16.4 149
- 278 Structurally Diverse and Dynamically Versatile Benzylic Amide [2]Catenanes Assembled Directly from Commercially Available Precursors. *Angewandte Chemie International Edition in English*, **1995**, 34, 1212-1216 143
- 277 An AAAADDDD quadruple hydrogen-bond array. *Nature Chemistry*, **2011**, 3, 244-48 17.6 142

- 276 Light-driven transport of a molecular walker in either direction along a molecular track. *Angewandte Chemie - International Edition*, **2011**, 50, 285-90 16.4 134
- 275 Pick-up, transport and release of a molecular cargo using a small-molecule robotic arm. *Nature Chemistry*, **2016**, 8, 138-43 17.6 129
- 274 The in situ activation of thioglycosides with bromine: an improved glycosylation method. *Journal of Organic Chemistry*, **1990**, 55, 2860-2863 4.2 127
- 273 Active-metal template synthesis of a molecular trefoil knot. *Angewandte Chemie - International Edition*, **2011**, 50, 12280-4 16.4 125
- 272 Rotaxane Catalysts. *ACS Catalysis*, **2014**, 4, 4490-4497 13.1 123
- 271 Stereodivergent synthesis with a programmable molecular machine. *Nature*, **2017**, 549, 374-378 50.4 123
- 270 Genesis of the Nanomachines: The 2016 Nobel Prize in Chemistry. *Angewandte Chemie - International Edition*, **2016**, 55, 14506-14508 16.4 121
- 269 Efficient assembly of threaded molecular machines for sequence-specific synthesis. *Journal of the American Chemical Society*, **2014**, 136, 5811-4 16.4 117
- 268 A 3D interlocked structure from a 2D template: structural requirements for the assembly of a square-planar metal-coordinated [2]rotaxane. *Angewandte Chemie - International Edition*, **2004**, 43, 3914-8 16.4 116
- 267 Hydrogen Bond-Assembled Synthetic Molecular Motors and Machines 133-177 116
- 266 Active metal template synthesis of [2]catenanes. *Journal of the American Chemical Society*, **2009**, 131, 15924-9 16.4 114
- 265 The Synthesis and Solubilization of Amide Macrocycles via Rotaxane Formation. *Journal of the American Chemical Society*, **1996**, 118, 10662-10663 16.4 114
- 264 An unusual nickel-copper-mediated alkyne homocoupling reaction for the active-template synthesis of [2]rotaxanes. *Journal of the American Chemical Society*, **2010**, 132, 6243-8 16.4 113
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- 262 Pentameric circular iron(II) double helicates and a molecular pentafoil knot. *Journal of the American Chemical Society*, **2012**, 134, 9488-97 16.4 111
- 261 Rotaxane-based propeptides: protection and enzymatic release of a bioactive pentapeptide. *Angewandte Chemie - International Edition*, **2009**, 48, 6443-7 16.4 105
- 260 Selecting reactions and reactants using a switchable rotaxane organocatalyst with two different active sites. *Chemical Science*, **2015**, 6, 140-143 9.4 104
- 259 Molecular machines with bio-inspired mechanisms. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 9397-9404 11.5 103

- 258 A three-compartment chemically-driven molecular information ratchet. *Journal of the American Chemical Society*, **2012**, 134, 8321-3 16.4 103
- 257 An ion-pair template for rotaxane formation and its exploitation in an orthogonal interaction anion-switchable molecular shuttle. *Angewandte Chemie - International Edition*, **2008**, 47, 8036-9 16.4 101
- 256 Catenane: fünfzig Jahre molekulare Verschlingungen. *Angewandte Chemie*, **2015**, 127, 6208-6249 3.6 100
- 255 Switching "on" and "off" the expression of chirality in peptide rotaxanes. *Journal of the American Chemical Society*, **2002**, 124, 2939-50 16.4 99
- 254 Catenane Chameleons: Environment-Sensitive Translational Isomerism in Amphiphilic Benzylic Amide [2]Catenanes. *Angewandte Chemie International Edition in English*, **1996**, 35, 306-310 99
- 253 Asymmetric Catalysis with a Mechanically Point-Chiral Rotaxane. *Journal of the American Chemical Society*, **2016**, 138, 1749-51 16.4 98
- 252 Extremely strong and readily accessible AAA-DDD triple hydrogen bond complexes. *Journal of the American Chemical Society*, **2007**, 129, 476-7 16.4 98
- 251 Ligand-assisted nickel-catalysed sp³sp³ homocoupling of unactivated alkyl bromides and its application to the active template synthesis of rotaxanes. *Chemical Science*, **2010**, 1, 383 9.4 96
- 250 [2]Rotaxanes through palladium active-template oxidative heck cross-couplings. *Journal of the American Chemical Society*, **2007**, 129, 12092-3 16.4 96
- 249 Hydrogen bond-assembled fullerene molecular shuttle. *Organic Letters*, **2003**, 5, 689-91 6.2 96
- 248 A mechanically interlocked molecular system programmed for the delivery of an anticancer drug. *Chemical Science*, **2015**, 6, 2608-2613 9.4 95
- 247 Complexation-induced translational isomerism: shuttling through stepwise competitive binding. *Angewandte Chemie - International Edition*, **2005**, 45, 77-83 16.4 95
- 246 Entropy-driven translational isomerism: a tristable molecular shuttle. *Angewandte Chemie - International Edition*, **2003**, 42, 5886-9 16.4 95
- 245 Cadiot-Chodkiewicz active template synthesis of rotaxanes and switchable molecular shuttles with weak intercomponent interactions. *Angewandte Chemie - International Edition*, **2008**, 47, 4392-6 16.4 92
- 244 Exploring the activation modes of a rotaxane-based switchable organocatalyst. *Journal of the American Chemical Society*, **2014**, 136, 15775-80 16.4 91
- 243 Goldberg Active Template Synthesis of a [2]Rotaxane Ligand for Asymmetric Transition-Metal Catalysis. *Journal of the American Chemical Society*, **2015**, 137, 7656-9 16.4 91
- 242 A single synthetic small molecule that generates force against a load. *Nature Nanotechnology*, **2011**, 6, 553-7 28.7 91
- 241 Operation mechanism of a molecular machine revealed using time-resolved vibrational spectroscopy. *Science*, **2010**, 328, 1255-8 33.3 91

- 240 A catalytic palladium active-metal template pathway to [2]rotaxanes. *Angewandte Chemie - International Edition*, **2007**, 46, 5709-13 16.4 91
- 239 A switchable palladium-complexed molecular shuttle and its metastable positional isomers. *Journal of the American Chemical Society*, **2007**, 129, 15085-90 16.4 90
- 238 Water lubricates hydrogen-bonded molecular machines. *Nature Chemistry*, **2013**, 5, 929-34 17.6 88
- 237 Die Evolution molekularer Maschinen. *Angewandte Chemie*, **2015**, 127, 10218-10226 3.6 87
- 236 AAA-DDD triple hydrogen bond complexes. *Journal of the American Chemical Society*, **2009**, 131, 14116-22 16.4 87
- 235 Controlled submolecular translational motion in synthesis: a mechanically interlocking auxiliary. *Angewandte Chemie - International Edition*, **2004**, 43, 3260-4 16.4 86
- 234 An artificial molecular machine that builds an asymmetric catalyst. *Nature Nanotechnology*, **2018**, 13, 381-385 28.7 85
- 233 Getting harder: cobalt(III)-template synthesis of catenanes and rotaxanes. *Journal of the American Chemical Society*, **2009**, 131, 3762-71 16.4 85
- 232 Smart Rotaxanes: Shape Memory and Control in Tertiary Amide Peptido[2]rotaxanes. *Journal of the American Chemical Society*, **1999**, 121, 4124-4129 16.4 84
- 231 Stereoselective synthesis of a composite knot with nine crossings. *Nature Chemistry*, **2018**, 10, 1083-1088 17.6 83
- 230 The self-sorting behavior of circular helicates and molecular knots and links. *Angewandte Chemie - International Edition*, **2014**, 53, 7823-7 16.4 81
- 229 Controlling the Frequency of Macrocyclic Ring Rotation in Benzylic Amide [2]Catenanes. *Journal of the American Chemical Society*, **1998**, 120, 6458-6467 16.4 79
- 228 Enhanced hydrogen bonding induced by optical excitation: unexpected subnanosecond photoinduced dynamics in a peptide-based [2]rotaxane. *Journal of the American Chemical Society*, **2001**, 123, 11327-8 16.4 78
- 227 Switching between Anion-Binding Catalysis and Aminocatalysis with a Rotaxane Dual-Function Catalyst. *Journal of the American Chemical Society*, **2017**, 139, 9376-9381 16.4 77
- 226 Two axles threaded using a single template site: active metal template macrobicyclic [3]rotaxanes. *Journal of the American Chemical Society*, **2010**, 132, 315-20 16.4 77
- 225 A Rotaxane-Based Switchable Organocatalyst. *Angewandte Chemie*, **2012**, 124, 5256-5259 3.6 76
- 224 Sequence isomerism in [3]rotaxanes. *Journal of the American Chemical Society*, **2010**, 132, 4954-9 16.4 76
- 223 Benzylic Imine Catenates: Readily Accessible Octahedral Analogues of the Sauvage Catenates. *Angewandte Chemie*, **2001**, 113, 1586-1591 3.6 76

222	A Solomon link through an interwoven molecular grid. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 7555-9	16.4	75
221	Tetrameric cyclic double helicates as a scaffold for a molecular Solomon link. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 6464-7	16.4	75
220	Gold(I)-template catenane and rotaxane synthesis. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 6999-7003	16.4	75
219	Switchable dual binding mode molecular shuttle. <i>Organic Letters</i> , 2006 , 8, 5377-9	6.2	74
218	The effect of mechanical interlocking on crystal packing: predictions and testing. <i>Journal of the American Chemical Society</i> , 2002 , 124, 225-33	16.4	74
217	Crystallization-resistant photorefractive polymer composite with high diffraction efficiency and reproducibility. <i>Applied Physics Letters</i> , 1996 , 68, 2801-2803	3.4	74
216	Dissipative Catalysis with a Molecular Machine. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 9876-9880	16.4	70
215	Design, synthesis, and operation of small molecules that walk along tracks. <i>Journal of the American Chemical Society</i> , 2010 , 132, 16134-45	16.4	68
214	Rare and diverse binding modes introduced through mechanical bonding. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 4557-64	16.4	68
213	One template, multiple rings: controlled iterative addition of macrocycles onto a single binding site rotaxane thread. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 5015-9	16.4	67
212	"Magic rod" rotaxanes: the hydrogen bond-directed synthesis of molecular shuttles under thermodynamic control. <i>Organic Letters</i> , 2003 , 5, 1907-10	6.2	67
211	Einfache Synthese eines Benzylamid-[2]Catenans und seine Festkörperstruktur. <i>Angewandte Chemie</i> , 1995 , 107, 1324-1327	3.6	67
210	Lanthanide template synthesis of a molecular trefoil knot. <i>Journal of the American Chemical Society</i> , 2014 , 136, 13142-5	16.4	66
209	Phosphorus-based functional groups as hydrogen bonding templates for rotaxane formation. <i>Journal of the American Chemical Society</i> , 2011 , 133, 12304-10	16.4	66
208	En route to a molecular sheaf: active metal template synthesis of a [3]rotaxane with two axles threaded through one ring. <i>Journal of the American Chemical Society</i> , 2011 , 133, 12298-303	16.4	66
207	Strong and Selective Anion Binding within the Central Cavity of Molecular Knots and Links. <i>Journal of the American Chemical Society</i> , 2015 , 137, 9812-5	16.4	65
206	Shuttling through reversible covalent chemistry. <i>Chemical Communications</i> , 2004 , 2262-3	5.8	65
205	Reducing Molecular Shuttling to a Single Dimension. <i>Angewandte Chemie - International Edition</i> , 2000 , 39, 350-353	16.4	65

204	Lanthanide Template Synthesis of Trefoil Knots of Single Handedness. <i>Journal of the American Chemical Society</i> , 2015 , 137, 10437-42	16.4	62
203	An allosterically regulated molecular shuttle. <i>Angewandte Chemie - International Edition</i> , 2006 , 45, 1385-90	16.4	62
202	Tying a Molecular Overhand Knot of Single Handedness and Asymmetric Catalysis with the Corresponding Pseudo-D-Symmetric Trefoil Knot. <i>Journal of the American Chemical Society</i> , 2016 , 138, 13159-13162	16.4	61
201	Diels-Alder active-template synthesis of rotaxanes and metal-ion-switchable molecular shuttles. <i>Journal of the American Chemical Society</i> , 2010 , 132, 5309-14	16.4	60
200	Active template synthesis of rotaxanes and molecular shuttles with switchable dynamics by four-component Pd(II)-promoted Michael additions. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 3381-4	16.4	59
199	How Do Benzylic Amide [2]Catenane Rings Rotate?. <i>Journal of the American Chemical Society</i> , 1999 , 121, 2364-2379	16.4	58
198	Unusual host-guest binding: H bonding in a bridged catenane: the first solid-state structure of a calix[4]resorcinarene with underivatized hydroxy groups. <i>Journal of the Chemical Society Chemical Communications</i> , 1994 , 389-390		58
197	Nitrone [2]rotaxanes: simultaneous chemical protection and electrochemical activation of a functional group. <i>Journal of the American Chemical Society</i> , 2010 , 132, 9465-70	16.4	57
196	Beyond switches: Rotaxane- and catenane-based synthetic molecular motors. <i>Pure and Applied Chemistry</i> , 2008 , 80, 17-29	2.1	57
195	Structural, Electrochemical, and Photophysical Properties of a Molecular Shuttle Attached to an Acid-Terminated Self-Assembled Monolayer. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 15192-15199	3.4	57
194	Patterning through Controlled Submolecular Motion: Rotaxane-Based Switches and Logic Gates that Function in Solution and Polymer Films. <i>Angewandte Chemie</i> , 2005 , 117, 3122-3127	3.6	56
193	Molekulare Knoten. <i>Angewandte Chemie</i> , 2017 , 129, 11318-11347	3.6	55
192	Amide-based molecular shuttles (2001-2006). <i>Pure and Applied Chemistry</i> , 2007 , 79, 39-54	2.1	54
191	Mechanically linked polycarbonate. <i>Journal of the American Chemical Society</i> , 2003 , 125, 2200-7	16.4	54
190	Sequence-Specific Peptide Synthesis by a Rotaxane-Based Molecular Machine. <i>Journal of the American Chemical Society</i> , 2017 , 139, 10875-10879	16.4	53
189	Synthesis, structure, and dynamic properties of hybrid organic-inorganic rotaxanes. <i>Journal of the American Chemical Society</i> , 2010 , 132, 15435-44	16.4	53
188	Conformational Self-Recognition as the Origin of Dewetting in Bistable Molecular Surfaces. <i>Journal of Physical Chemistry B</i> , 2001 , 105, 10826-10830	3.4	53
187	Shuttling through Anion Recognition. <i>Angewandte Chemie</i> , 2004 , 116, 1242-1244	3.6	52

186	The mechanism of formation of amide-based interlocked compounds: prediction of a new rotaxane-forming motif. <i>Chemistry - A European Journal</i> , 2004 , 10, 4960-9	4.8	49
185	AAAA-DDDD quadruple hydrogen-bond arrays featuring NH \cdots N and CH \cdots N hydrogen bonds. <i>Journal of the American Chemical Society</i> , 2013 , 135, 9939-43	16.4	48
184	Light-Driven Transport of a Molecular Walker in Either Direction along a Molecular Track. <i>Angewandte Chemie</i> , 2011 , 123, 299-304	3.6	48
183	Remarkable Positional Discrimination in Bistable Light- and Heat-Switchable Hydrogen-Bonded Molecular Shuttles. <i>Angewandte Chemie</i> , 2003 , 115, 2398-2402	3.6	48
182	Glycylglycin-Rotaxane \Rightarrow Wasserstoffbrückenvermittelte Selbstorganisation synthetischer Peptid-Rotaxane. <i>Angewandte Chemie</i> , 1997 , 109, 752-756	3.6	47
181	From reactants to products via simple hydrogen-bonding networks: Information transmission in chemical reactions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002 , 99, 4967-71	11.5	47
180	Probing the structure of a rotaxane with two-dimensional infrared spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 13378-82	11.5	46
179	Pyridyl-Acyl Hydrazone Rotaxanes and Molecular Shuttles. <i>Journal of the American Chemical Society</i> , 2017 , 139, 7104-7109	16.4	44
178	Rotaxane building blocks bearing blocked isocyanate stoppers: polyrotaxanes through post-assembly chain extension. <i>Angewandte Chemie - International Edition</i> , 2003 , 42, 3379-83	16.4	44
177	Grafting of Benzylic Amide Macrocycles onto Acid-Terminated Self-Assembled Monolayers Studied by XPS, RAIRS, and Contact Angle Measurements. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 10863-10872	16.4	44
176	A small molecule that walks non-directionally along a track without external intervention. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 5480-3	16.4	43
175	Sulfur-containing amide-based [2]rotaxanes and molecular shuttles. <i>Chemical Science</i> , 2011 , 2, 1922	9.4	42
174	A metal-complex-tolerant CuAAC 'click' protocol exemplified through the preparation of homo- and mixed-metal-coordinated [2]rotaxanes. <i>Chemical Communications</i> , 2007 , 4218-20	5.8	42
173	Probing the mobility of catenane rings in single molecules. <i>Chemical Science</i> , 2014 , 5, 1449	9.4	41
172	Toward metal complexes that can directionally walk along tracks: controlled stepping of a molecular biped with a palladium(II) foot. <i>Journal of the American Chemical Society</i> , 2014 , 136, 2094-100	16.4	41
171	C60-azacrown ethers: the first monoaminated fullerene derivatives. <i>Journal of the Chemical Society Chemical Communications</i> , 1994 , 397		41
170	Dynamic Control of Chiral Space Through Local Symmetry Breaking in a Rotaxane Organocatalyst. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 14955-14958	16.4	40
169	Second generation specific-enzyme-activated rotaxane propeptides. <i>Chemical Communications</i> , 2012 , 48, 2083-5	5.8	40

168	Half-rotation in a [2]catenane via interconvertible Pd(II) coordination modes. <i>Chemical Communications</i> , 2005 , 4919-21	5.8	40
167	Controlled Submolecular Translational Motion in Synthesis: A Mechanically Interlocking Auxiliary. <i>Angewandte Chemie</i> , 2004 , 116, 3322-3326	3.6	40
166	A 3D Interlocked Structure from a 2D Template: Structural Requirements for the Assembly of a Square-Planar Metal-Coordinated [2]Rotaxane. <i>Angewandte Chemie</i> , 2004 , 116, 4004-4008	3.6	40
165	Spontaneous Assembly of Rotaxanes from a Primary Amine, Crown Ether and Electrophile. <i>Journal of the American Chemical Society</i> , 2018 , 140, 6049-6052	16.4	39
164	Tuning magnetic properties using targeted structural distortion: New additions to a family of Mn ₆ single-molecule magnets. <i>Inorganica Chimica Acta</i> , 2008 , 361, 3420-3426	2.7	39
163	Self-Sorting Assembly of Molecular Trefoil Knots of Single Handedness. <i>Journal of the American Chemical Society</i> , 2019 , 141, 14249-14256	16.4	38
162	One-dimensional random walk of a synthetic small molecule toward a thermodynamic sink. <i>Journal of the American Chemical Society</i> , 2013 , 135, 8639-45	16.4	38
161	The confinement of buckminsterfullerene in one-dimensional channels. <i>Journal of the Chemical Society Chemical Communications</i> , 1993 , 533		38
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