David J Nelson

List of Publications by Year
in descending order

72 papers	3,523 citations	185998 28 h-index	138251 58 g-index
92 all docs	92 docs citations	92 times ranked	3344 citing authors

#	Article	IF	Citations
1	Quantifying and understanding the electronic properties of N-heterocyclic carbenes. Chemical Society Reviews, 2013, 42, 6723.	18.7	918
2	Quantifying and understanding the steric properties of N-heterocyclic carbenes. Chemical Communications, 2017, 53, 2650-2660.	2.2	271
3	What can NMR spectroscopy of selenoureas and phosphinidenes teach us about the Ï€-accepting abilities of N-heterocyclic carbenes?. Chemical Science, 2015, 6, 1895-1904.	3.7	244
4	Key processes in ruthenium-catalysed olefin metathesis. Chemical Communications, 2014, 50, 10355.	2.2	136
5	Oxidative Addition of Aryl Electrophiles to a Prototypical Nickel(0) Complex: Mechanism and Structure/Reactivity Relationships. Organometallics, 2017, 36, 1662-1672.	1.1	135
6	Methoxy-Functionalized <i>N</i>-Heterocyclic Carbenes. Organometallics, 2014, 33, 2048-2058.	1.1	97
7	What is the initiation step of the Grubbs-Hoveyda olefinmetathesiscatalyst?. Chemical Communications, 2011, 47, 5428-5430.	2.2	86
8	Optimizing Catalyst and Reaction Conditions in Gold(I) Catalysisâ€“Ligand Development. Chemical Reviews, 2021, 121, 8559-8612.	23.0	85
9	Exploring the Coordination of Cyclic Selenoureas to Gold(I). Organometallics, 2014, 33, 3640-3645.	1.1	78
10	How phenyl makes a difference: mechanistic insights into the ruthenium(<scp>ii</scp>)-catalysed isomerisation of allylic alcohols. Chemical Science, 2014, 5, 180-188.	3.7	60
11	Efficient Câ€“N and Câ€“S Bond Formation Using the Highly Active [Ni(allyl)Cl(IPr*^{OMe})] Precatalyst. European Journal of Organic Chemistry, 2014, 2014, 3127-3131.	1.2	59
12	Insights into the Decomposition of Olefin Metathesis Precatalysts. Angewandte Chemie - International Edition, 2014, 53, 8995-8999.	7.2	58
13	Accessible Syntheses of Late Transition Metal (Pre)Catalysts Bearing Nâ€Heterocyclic Carbene Ligands. European Journal of Inorganic Chemistry, 2015, 2015, 2012-2027.	1.0	58
14	Olefin Metathesis by Grubbsâ€“Hoveyda Complexes: Computational and Experimental Studies of the Mechanism and Substrate-Dependent Kinetics. ACS Catalysis, 2013, 3, 1929-1939.	5.5	54
15	On the Mechanism of the Digold(I)â€“Hydroxideâ€Catalysed Hydrophenoxylation of Alkynes. Chemistry - A European Journal, 2016, 22, 1125-1132.	1.7	51
16	Halide Abstraction Competes with Oxidative Addition in the Reactions of Aryl Halides with [Ni(PMe_nPh_(3âˆ’<i>n</i>))₄]. Chemistry - A European Journal, 2017, 23, 16728-16733.	1.7	46
17	Synergic Effects Between N-Heterocyclic Carbene and Chelating Benzylideneâ€“Ether Ligands Toward the Initiation Step of Hoveydaâ€“Grubbs Type Ru Complexes. ACS Catalysis, 2013, 3, 259-264.	5.5	45
18	Interrogating Pd(II) Anion Metathesis Using a Bifunctional Chemical Probe: A Transmetalation Switch. Journal of the American Chemical Society, 2018, 140, 126-130.	6.6	44

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19	Searching for the Hidden Hydrides: The Competition between Alkene Isomerization and Metathesis with Grubbs Catalysts. European Journal of Organic Chemistry, 2012, 2012, 5673-5677.	1.2	41
20	Hydroxide complexes of the late transition metals: Organometallic chemistry and catalysis. Coordination Chemistry Reviews, 2017, 353, 278-294.	9.5	39
21	Iridium(I) Hydroxides: Powerful Synthons for Bond Activation. Chemistry - A European Journal, 2013, 19, 7904-7916.	1.7	38
22	Recyclable NHC Catalyst for the Development of a Generalized Approach to Continuous Buchwaldâ€"Hartwig Reaction and Workup. Organic Process Research and Development, 2016, 20, 551-557.	1.3	38
23	Design Concepts for N-Heterocyclic Carbene Ligands. Trends in Chemistry, 2020, 2, 1096-1113.	4.4	38
24	A Highly Active Cationic Ruthenium Complex for Alkene Isomerisation: Aâ€‰Catalyst for the Synthesis of High Value Molecules. ChemCatChem, 2013, 5, 2848-2851.	1.8	37
25	Synthesis and characterisation of an N-heterocyclic carbene with spatially-defined steric impact. Dalton Transactions, 2016, 45, 11772-11780.	1.6	36
26	Reactions of nickel(0) with organochlorides, organobromides, and organoiodides: mechanisms and structure/reactivity relationships. Catalysis Science and Technology, 2021, 11, 2980-2996.	2.1	36
27	Prediction of ring formation efficiency via diene ring closing metathesis (RCM) reactions using the M06 density functional. Chemical Physics Letters, 2009, 476, 37-40.	1.2	33
28	CO₂fixation employing an iridium(<scp>i</scp>)-hydroxide complex. Chemical Communications, 2014, 50, 286-288.	2.2	32
29	Solvent effects on Grubbsâ€™ pre-catalyst initiation rates. Dalton Transactions, 2013, 42, 4110-4113.	1.6	30
30	Synthesis, characterization and luminescence studies of gold(I)â€"NHC amide complexes. Beilstein Journal of Organic Chemistry, 2013, 9, 2216-2223.	1.3	29
31	Exploring the Limits of Catalytic Ammoniaâ€"Borane Dehydrogenation Using a Bis(<i>N</i>-heterocyclic) Tj ETQq1 1 0.784314 rgBT /Ov	1.1	26
32	Why is RCM Favoured Over Dimerisation? Predicting and Estimating Thermodynamic Effective Molarities by Solution Experiments and Electronic Structure Calculations. Chemistry - A European Journal, 2011, 17, 13087-13094.	1.7	25
33	Evaluation of an olefin metathesis pre-catalyst with a bulky and electron-rich N-heterocyclic carbene. Journal of Organometallic Chemistry, 2015, 780, 43-48.	0.8	25
34	Insights into mechanism and selectivity in ruthenium(<scp>ii</scp>)-catalysed <i>ortho</i>-arylation reactions directed by Lewis basic groups. Catalysis Science and Technology, 2018, 8, 3174-3182.	2.1	24
35	Nickel versus Palladium in Cross-Coupling Catalysis: On the Role of Substrate Coordination to Zerovalent Metal Complexes. Synthesis, 2020, 52, 565-573.	1.2	24
36	Straightforward access to chalcogenoureas derived from N-heterocyclic carbenes and their coordination chemistry. Dalton Transactions, 2020, 49, 12068-12081.	1.6	24

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37	Steric effects determine the mechanisms of reactions between bis(N-heterocyclic carbene)-nickel(0) complexes and aryl halides. Chemical Communications, 2018, 54, 10646-10649.	2.2	23
38	Coinage metal complexes of selenoureas derived from N-heterocyclic carbenes. Dalton Transactions, 2018, 47, 10671-10684.	1.6	23
39	Deuteration of boranes: catalysed versus non-catalysed processes. Dalton Transactions, 2013, 42, 4105.	1.6	22
40	The Electrophilic Fluorination of Enol Esters Using SelectFluor: Aâ€‰Polar Twoâ€Electron Process. Chemistry - A European Journal, 2019, 25, 5574-5585.	1.7	22
41	From ruthenium olefin metathesis catalyst to (Î·5-3-phenylindenyl)hydrido complex via alcoholysis. Chemical Communications, 2014, 50, 2205.	2.2	21
42	Aldehydes and ketones influence reactivity and selectivity in nickel-catalysed Suzukiâ€“Miyaura reactions. Chemical Science, 2020, 11, 1905-1911.	3.7	21
43	Does the rate of competing isomerisation during alkene metathesis depend on pre-catalyst initiation rate?. Dalton Transactions, 2014, 43, 4674-4679.	1.6	19
44	Iridium(i) hydroxides in catalysis: rearrangement of allylic alcohols to ketones. Organic and Biomolecular Chemistry, 2014, 12, 6672-6676.	1.5	19
45	The preference for dual-gold(<scp>i</scp>) catalysis in the hydro(alkoxylation vs. phenoxylation) of alkynes. Organic and Biomolecular Chemistry, 2017, 15, 6416-6425.	1.5	18
46	Unexpected Nickel Complex Speciation Unlocks Alternative Pathways for the Reactions of Alkyl Halides with dppf-Nickel(0). ACS Catalysis, 2020, 10, 10717-10725.	5.5	18
47	Lewis Acidâ€Promoted Oxidative Addition at a [Ni⁰(diphosphine)₂] Complex: The Critical Role of a Secondary Coordination Sphere. Chemistry - A European Journal, 2021, 27, 16021-16027.	1.7	16
48	Half-sandwich nickel(II) complexes bearing 1,3-di(cycloalkyl)imidazol-2-ylidene ligands. Beilstein Journal of Organic Chemistry, 2015, 11, 2171-2178.	1.3	15
49	On the relationship between structure and reaction rate in olefin ring-closing metathesis. Chemical Communications, 2010, 46, 7145.	2.2	14
50	Toward a Simulation Approach for Alkene Ring-closing Metathesis: Scope and Limitations of a Model for RCM. Journal of Organic Chemistry, 2011, 76, 8386-8393.	1.7	13
51	A quantitative empirical directing group scale for selectivity in iridium-catalysed hydrogen isotope exchange reactions. Catalysis Science and Technology, 2020, 10, 7249-7255.	2.1	12
52	The Effect of Added Ligands on the Reactions of [Ni(COD)(dppf)] with Alkyl Halides: Halide Abstraction May Be Reversible. Organometallics, 2021, 40, 1997-2007.	1.1	12
53	Synthesis and Reactivity of New Bis(N-heterocyclic carbene) Iridium(I) Complexes. Inorganic Chemistry, 2013, 52, 12674-12681.	1.9	11
54	Mechanism of the Transmetalation of Organosilanes to Gold. ChemistryOpen, 2016, 5, 60-64.	0.9	11

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55	Trisubstituted cyclooctene synthesis at the limits of relay ring-closing metathesis: a racemic difluorinated analogue of fucose. Tetrahedron, 2009, 65, 9637-9646.	1.0	10
56	Metallate Complexes of the Late Transition Metals: Organometallic Chemistry and Catalysis. Advances in Organometallic Chemistry, 2018, , 283-327.	0.5	9
57	Pyrrolo[3,2,1-ij]quinolin-4-one and Pyrrolo[3,2,1-ij]quinolin-6-one. Synthesis, 2009, 2009, 2171-2174.	1.2	8
58	Metabolomic Profiling of the Immune Stimulatory Effect of Eicosenoids on PMA-Differentiated THP-1 Cells. Vaccines, 2019, 7, 142.	2.1	8
59	Mechanistic insight into organic and industrial transformations: general discussion. Faraday Discussions, 2019, 220, 282-316.	1.6	8
60	Towards microfluidic reactors for in situ synchrotron infrared studies. Review of Scientific Instruments, 2016, 87, 024101.	0.6	7
61	An Nâ€Heterocyclic Carbene with a Saturated Backbone and Spatiallyâ€Defined Steric Impact. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2019, 645, 105-112.	0.6	7
62	Evaluating a Dispersion of Sodium in Sodium Chloride for the Synthesis of Lowâ€Valent Nickel Complexes**. European Journal of Inorganic Chemistry, 2022, 2022, .	1.0	6
63	Competitive gold/nickel transmetalation. Chemical Communications, 2021, 58, 68-71.	2.2	6
64	Synthesis of Gold(I)â^'Trifluoromethyl Complexes and their Role in Generating Spectroscopic Evidence for a Gold(I)â^'Difluorocarbene Species. Chemistry - A European Journal, 2021, 27, 8461-8467.	1.7	5
65	Reactions of N-heterocyclic Carbene-Based Chalcogenoureas with Halogens: A Diverse Range of Outcomes. Dalton Transactions, 2022, , .	1.6	5
66	The Influence of Structure on Reactivity in Alkene Metathesis. Advances in Physical Organic Chemistry, 2014, , 81-188.	0.5	2
67	Are rate and selectivity correlated in iridium-catalysed hydrogen isotope exchange reactions?. Catalysis Science and Technology, 2021, 11, 5498-5504.	2.1	2
68	Inhibition of (dppf)nickel-catalysed Suzukiâ€"Miyaura cross-coupling reactions by Î±-halo-N-heterocycles. Chemical Science, 2021, 12, 14074-14082.	3.7	2
69	Letter to the Editor concerning: â€œCarbonâ€"Heteroatom Coupling Using Pdâ€"PEPPSI Complexesâ€•by Valente et al.. Organic Process Research and Development, 2014, 18, 456-457.	1.3	1
70	Operando Neutron Scattering: Following Reactions in Real Time Using Neutrons. Topics in Catalysis, 2021, 64, 693-698.	1.3	1
71	In the Lab: Rational Studies Towards Efficient, Scalable Catalytic Reactions. Johnson Matthey Technology Review, 2014, 58, 173-175.	0.5	0
72	Highlights from the 54th EUCHEM BÃ¼rgenstock Conference on Stereochemistry, Brunnen, Switzerland, May 2019. Chemical Communications, 2019, 55, 10043-10046.	2.2	0