Robin Noel Perutz

List of Publications by Year in descending order

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102 papers 6,972 citations

43 h-index 82 g-index

105 all docs 105 docs citations

105 times ranked 4682 citing authors

| # | Article | IF | CITATIONS |
|----|--|--------------------|-----------|
| 1 | Metathesis by Partner Interchange in Ïfâ€Bond Ligands: Expanding Applications of the Ïfâ€CAM Mechanism. Angewandte Chemie - International Edition, 2022, 61, . | 13.8 | 36 |
| 2 | Direct Evidence for Competitive Câ€"H Activation by a Well-Defined Silver XPhos Complex in Palladium-Catalyzed Câ€"H Functionalization. Organometallics, 2022, 41, 3175-3184. | 2.3 | 11 |
| 3 | Photochemistry of transition metal carbonyls. Chemical Society Reviews, 2022, 51, 5300-5329. | 38.1 | 17 |
| 4 | Electrocatalytic Proton Reduction by a Cobalt(III) Hydride Complex with Phosphinopyridine PN Ligands. Inorganic Chemistry, 2020, 59, 18055-18067. | 4.0 | 5 |
| 5 | Towards measuring reactivity on micro-to-millisecond timescales with laser pump, NMR probe spectroscopy. Faraday Discussions, 2019, 220, 28-44. | 3.2 | 1 |
| 6 | Photochemical Oxidative Addition of Germane and Diphenylgermane to Ruthenium Dihydride Complexes. Organometallics, 2019, 38, 626-637. | 2.3 | 8 |
| 7 | Benchmarking of Halogen Bond Strength in Solution with Nickel Fluorides: Bromine versus lodine and Perfluoroaryl versus Perfluoroalkyl Donors. Chemistry - A European Journal, 2019, 25, 9237-9241. | 3.3 | 13 |
| 8 | Competing Pathways in the Photochemistry of Ru(H) ₂ (CO)(PPh ₃) ₃ . Organometallics, 2018, 37, 855-868. | 2.3 | 8 |
| 9 | Self-complementary nickel halides enable multifaceted comparisons of intermolecular halogen bonds: fluoride ligands <i>vs.</i> other halides. Chemical Science, 2018, 9, 3767-3781. | 7.4 | 27 |
| 10 | Hydrogen bonding vs. halogen bonding: the solvent decides. Chemical Science, 2017, 8, 5392-5398. | 7.4 | 176 |
| 11 | Coherent evolution of para hydrogen induced polarisation using laser pump, NMR probe spectroscopy: Theoretical framework and experimental observation. Journal of Magnetic Resonance, 2017, 278, 25-38. | 2.1 | 10 |
| 12 | Selectivity of Câ€"H Activation and Competition between Câ€"H and Câ€"F Bond Activation at Fluorocarbons. Chemical Reviews, 2017, 117, 8710-8753. | 47.7 | 265 |
| 13 | Photochemistry of Transition Metal Hydrides. Chemical Reviews, 2016, 116, 8506-8544. | 47.7 | 108 |
| 14 | Light-Induced Activation of a Molybdenum Oxotransferase Model within a Ru(II)–Mo(VI) Dyad. Inorganic Chemistry, 2016, 55, 12583-12594. | 4.0 | 9 |
| 15 | Platinum(0)-mediated C–O bond activation of ethers via an SN2 mechanism. Dalton Transactions, 2016, 45, 18842-18850. | 3.3 | 4 |
| 16 | Photochemical pump and NMR probe to monitor the formation and kinetics of hyperpolarized metal dihydrides. Chemical Science, 2016, 7, 7087-7093. | 7.4 | 16 |
| 17 | Detection of If-alkane complexes of manganese by NMR and IR spectroscopy in solution: (Î-csup>5-Ccsub>5Hcsub>5)Mn(CO)csub>2(ethane) and (Î-csup>5-Ccsub>5Hcsub>5)Mn(CO)csub>2(isopentane). Chemical Science, 2015, 6, 418-424. | 7.4 | 28 |
| 18 | Activation of B–H, Si–H, and C–F Bonds with Tpâ€2Rh(PMe ₃) Complexes: Kinetics, Mechanism and Selectivity. Journal of the American Chemical Society, 2015, 137, 1258-1272. | n, _{13.7} | 39 |

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| 19 | A Ruthenium Dihydrogen Germylene Complex and the Catalytic Synthesis of Digermoxane. Organometallics, 2015, 34, 4158-4163. | 2.3 | 25 |
| 20 | Electronic Fine‶uning of Oxygen Atom Transfer Reactivity of <i>cis</i> êDioxomolybdenum(VI) Complexes with Thiosemicarbazone Ligands. European Journal of Inorganic Chemistry, 2015, 2015, 3562-3571. | 2.0 | 16 |
| 21 | The Role of Fluorine Substituents in the Regioselectivity of Intramolecular C–H Bond Functionalization of Benzylamines at Palladium(II). Organometallics, 2015, 34, 4376-4386. | 2.3 | 17 |
| 22 | The Contrasting Character of Early and Late Transition Metal Fluorides as Hydrogen Bond Acceptors. Journal of the American Chemical Society, 2015, 137, 11820-11831. | 13.7 | 29 |
| 23 | Comparison of rhenium–porphyrin dyads for CO ₂ photoreduction: photocatalytic studies and charge separation dynamics studied by time-resolved IR spectroscopy. Chemical Science, 2015, 6, 6847-6864. | 7.4 | 81 |
| 24 | Metal Hydrides Form Halogen Bonds: Measurement of Energetics of Binding. Journal of the American Chemical Society, 2014, 136, 1288-1291. | 13.7 | 35 |
| 25 | Highly fluorinated naphthalenes and bifurcated C–Hâ√F–C hydrogen bonding. CrystEngComm, 2014, 16, 9711-9720. | 2.6 | 21 |
| 26 | Oxidative addition of ether O-methyl bonds at a Pt(0) centre. Chemical Communications, 2014, 50, 3914-3917. | 4.1 | 6 |
| 27 | A solvent-resistant halogen bond. Chemical Science, 2014, 5, 4179-4183. | 7.4 | 122 |
| 28 | Photochemical Reactions of Fluorinated Pyridines at Half-Sandwich Rhodium Complexes: Competing Pathways of Reaction. Organometallics, 2014, 33, 45-52. | 2.3 | 15 |
| 29 | Photochemical Pump and NMR Probe: Chemically Created NMR Coherence on a Microsecond Time Scale. Journal of the American Chemical Society, 2014, 136, 10124-10131. | 13.7 | 39 |
| 30 | Computational Studies Explain the Importance of Two Different Substituents on the Chelating Bis(amido) Ligand for Transfer Hydrogenation by Bifunctional Cp*Rh(III) Catalysts. Organometallics, 2014, 33, 3433-3442. | 2.3 | 39 |
| 31 | Selective Photochemistry at Stereogenic Metal and Ligand Centers of <i>ci>cis</i> -[Ru(diphosphine) ₂ (H) ₂): Preparative, NMR, Solid State, and Laser Flash Studies. Journal of the American Chemical Society, 2012, 134, 3480-3497. | 13.7 | 23 |
| 32 | Hydrofluoroarylation of Alkynes with Ni Catalysts. Câ€"H Activation via Ligand-to-Ligand Hydrogen Transfer, an Alternative to Oxidative Addition. Organometallics, 2012, 31, 1300-1314. | 2.3 | 161 |
| 33 | Câ^'F and Câ^'H Bond Activation of Fluorobenzenes and Fluoropyridines at Transition Metal Centers: How Fluorine Tips the Scales. Accounts of Chemical Research, 2011, 44, 333-348. | 15.6 | 430 |
| 34 | Manganese Alkane Complexes: An IR and NMR Spectroscopic Investigation. Journal of the American Chemical Society, 2011, 133, 2303-2310. | 13.7 | 84 |
| 35 | Energetics of Halogen Bonding of Group 10 Metal Fluoride Complexes. Journal of the American Chemical Society, 2011, 133, 14338-14348. | 13.7 | 64 |
| 36 | Liquid injection field desorption/ionization of transition metal fluoride complexes. Journal of Fluorine Chemistry, 2010, 131, 1213-1217. | 1.7 | 23 |

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| 37 | Selective Activation of the <i>ortho</i> Câ°F Bond in Pentafluoropyridine by Zerovalent Nickel: Reaction via a Metallophosphorane Intermediate Stabilized by Neighboring Group Assistance from the Pyridyl Nitrogen. Organometallics, 2010, 29, 1824-1831. | 2.3 | 87 |
| 38 | Design and synthesis of water soluble (metallo)porphyrins with pendant arms: studies of binding to xanthine oxidase. New Journal of Chemistry, 2010, 34, 1125. | 2.8 | 9 |
| 39 | Importance of palladium–carbon bond energies in direct arylation of polyfluorinated benzenes. Dalton Transactions, 2010, 39, 10510. | 3.3 | 54 |
| 40 | Photoinduced N2 loss as a route to long-lived organometallic alkane complexes: A time-resolved IR and NMR study. Chemical Science, 2010, 1, 622. | 7.4 | 44 |
| 41 | Exceptional Sensitivity of Metalâ 'Aryl Bond Energies to <i>ortho</i> -Fluorine Substituents: Influence of the Metal, the Coordination Sphere, and the Spectator Ligands on Mâ 'C/Hâ 'C Bond Energy Correlations. Journal of the American Chemical Society, 2009, 131, 7817-7827. | 13.7 | 172 |
| 42 | A systematic approach to the generation of long-lived metal alkane complexes: combined IR and NMR study of (Tp)Re(CO)2(cyclopentane). Chemical Communications, 2009, , 1401. | 4.1 | 27 |
| 43 | Competing Câ^'F Activation Pathways in the Reaction of Pt(0) with Fluoropyridines: Phosphine-Assistance versus Oxidative Addition. Journal of the American Chemical Society, 2008, 130, 15499-15511. | 13.7 | 101 |
| 44 | Metal Fluorides Form Strong Hydrogen Bonds and Halogen Bonds: Measuring Interaction Enthalpies and Entropies in Solution. Journal of the American Chemical Society, 2008, 130, 7842-7844. | 13.7 | 143 |
| 45 | A Catalytic Foothold for Fluorocarbon Reactions. Science, 2008, 321, 1168-1169. | 12.6 | 39 |
| 46 | Stereochemical Nonrigidity of a Chiral Rhodium Boryl Hydride Complex: ÂA If -Borane Complex as Transition State for Isomerization. Journal of the American Chemical Society, 2008, 130, 4375-4385. | 13.7 | 20 |
| 47 | Sequential C–F activation and borylation of fluoropyridines via intermediate Rh(i) fluoropyridyl complexes: a multinuclear NMR investigation. Chemical Communications, 2007, , 3664. | 4.1 | 93 |
| 48 | The σ-CAM Mechanism: σâ€Complexes as the Basis of σ-Bond Metathesis at Late-Transition-Metal Centers. Angewandte Chemie - International Edition, 2007, 46, 2578-2592. | 13.8 | 534 |
| 49 | Validation of the Mâ^'C/Hâ^'C Bond Enthalpy Relationship through Application of Density Functional Theory. Journal of the American Chemical Society, 2006, 128, 8350-8357. | 13.7 | 73 |
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| 51 | Ir-Catalyzed Borylation of CH Bonds in N-Containing Heterocycles: Regioselectivity in the Synthesis of Heteroaryl Boronate Esters. Angewandte Chemie - International Edition, 2006, 45, 489-491. | 13.8 | 206 |
| 52 | C–F Bond activation at Ni(0) and simple reactions of square planar Ni(ii) fluoride complexes. Dalton Transactions, 2005, , 3686. | 3.3 | 62 |
| 53 | Photochemical reactions of (\hat{l} -5-cyclopentadienyl)bis(t-butylacrylate) rhodium with silanes: Dynamics of isomer interconversion via Rh(\hat{l} -2-silane) species. Dalton Transactions, 2004, , 3331-3337. | 3.3 | 16 |
| 54 | Contrasting Reactivity of Fluoropyridines at Palladium and Platinum:  Câ^'F Oxidative Addition at Palladium, Pâ^'C and Câ^'F Activation at Platinum. Organometallics, 2004, 23, 6140-6149. | 2.3 | 147 |

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| 55 | Platinum Bis(tricyclohexylphosphine) Silyl Hydride Complexes. Organometallics, 2004, 23, 5744-5756. | 2.3 | 68 |
| 56 | Light-Controlled Ion Switching:  Direct Observation of the Complete Nanosecond Release and Microsecond Recapture Cycle of an Azacrown-Substituted [(bpy)Re(CO)3L]+ Complex. Journal of Physical Chemistry A, 2004, 108, 9037-9047. | 2.5 | 29 |
| 57 | A Comparison of Câ^'F and Câ^'H Bond Activation by Zerovalent Ni and Pt:Â A Density Functional Study. Journal of the American Chemical Society, 2004, 126, 5268-5276. | 13.7 | 184 |
| 58 | Synthesis and Characterization of a Siderophore-based Luminescent Sensor for Molybdate. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2003, 629, 2421-2426. | 1.2 | 7 |
| 59 | Direct Measurement of the Stability of the Supramolecular Synthon C6H6·C6F6. Journal of Physical Chemistry B, 2003, 107, 13855-13861. | 2.6 | 42 |
| 60 | cis–trans Isomerisation of CpRe(CO)2(H)(ArF) (ArF= C6FnH5Ⱂn; n = 0–5) is the rate determining step in C–H activation of fluoroarenes: a DFT study. Dalton Transactions, 2003, , 4065-4074. | 3.3 | 53 |
| 61 | Replacement of [RuH2(PMe3)4] by [RuH2(PEt3)4] switches reaction products: synthesis of fluoride-bridged diruthenium complexes. Dalton Transactions, 2003, , 2184. Bond energy M–C/H–C correlations: dual theoretical and experimental approach to the sensitivity of | 3.3 | 17 |
| 62 | M–C bond strength to substituentsElectronic supplementary information (ESI) available: methods of calculation; Fig. S1: Comparison of calculated and experimental C–H bond dissociation energies for organic molecules; Table S1, comparison of calculated and experimental CO-stretching frequencies; Table S2, total energies, BDE for Re–C and H–C; Table S3, NPA charges q(C) and q(aryl) for the organic | 4.1 | 89 |
| 63 | fragments C6H6âe ^{ce} . Chemical Communications, 2003, , 490-491. Organometallic chemistry and catalysisElectronic supplementary information (ESI) available: List of Posters. See http://www.rsc.org/suppdata/dt/b3/b311889d/. Dalton Transactions, 2003, , ix. | 3.3 | 1 |
| 64 | Exchange Processes in Complexes with Two Ruthenium (î·2-Silane) Linkages:Â Role of the Secondary Interactions between Silicon and Hydrogen Atoms. Organometallics, 2002, 21, 5347-5357. | 2.3 | 75 |
| 65 | Routes to fluorinated organic derivatives by nickel mediated C–F activation of heteroaromatics. Chemical Communications, 2002, , 2749-2757. | 4.1 | 213 |
| 66 | NMR characterisation of unstable solvent and dihydride complexes generated at low temperature by in-situ UV irradiation. Chemical Communications, 2002, , 2836-2837. | 4.1 | 26 |
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| 69 | Catalytic C–F activation of polyfluorinated pyridines by nickel-mediated cross-coupling reactions. Chemical Communications, 2001, , 2254-2255. | 4.1 | 137 |
| 70 | The reaction of the unsaturated rhenium fragment $\{Re(\hat{l}\cdot 5-C5Me5)(CO)2\}$ with 1,4-difluorobenzene. Thermal intramolecular conversion of a rhenium (difluorophenyl)(hydride) to $Re(\hat{l}\cdot 2-C6H4F2)$ and a [1,4]-metallotropic shift. Dalton Transactions RSC, 2001, , 1452-1461. | 2.3 | 42 |
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| 74 | Chemistry of nickel tetrafluoropyridyl derivatives: their versatile behaviour with Brønsted acids and the Lewis acid BF3 â€. Dalton Transactions RSC, 2000, , 2013-2018. | 2.3 | 60 |
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| 76 | Hydrogen Bonding in Transition Metal Complexes:Â Synthesis, Dynamics, and Reactivity of Platinum Hydride Bifluoride Complexes. Journal of the American Chemical Society, 2000, 122, 8685-8693. | 13.7 | 83 |
| 77 | Structure and Dynamic Exchange in Rhodium î·2-Naphthalene and Rhodium î·2-Phenanthrene Complexes:Â Quantitative NOESY and EXSY Studies. Organometallics, 2000, 19, 672-683. | 2.3 | 24 |
| 78 | Nickel-Assisted Carbon-Fluorine Bond Activation of 2,4,6-Trifluoropyrimidine: Synthesis of New Pyrimidine and Pyrimidinone Derivatives. Angewandte Chemie - International Edition, 1999, 38, 3326-3329. | 13.8 | 120 |
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| 80 | Synthesis and reactions of the rhenium fulvene complexes [Re(η6-C5Me4CH2)(CO)2(C6F4R)] (Râ€=â€F or CF products derived from initial C–F activation. Journal of the Chemical Society Dalton Transactions, 1998, , 3079-3086. | 3): 1.1 | 41 |
| 81 | Inertness of the Arylâ^'F Bond toward Oxidative Addition to Osmium and Rhodium Complexes: Thermodynamic or Kinetic Origin?. Journal of the American Chemical Society, 1998, 120, 12634-12640. | 13.7 | 90 |
| 82 | Ultrafast Time-Resolved UVâ^'Visible and Infrared Absorption Spectroscopy of Binuclear Rhenium(I) Polypyridyl Complexes in Solution. Journal of Physical Chemistry A, 1998, 102, 1252-1260. | 2.5 | 37 |
| 83 | Photochemistry of Os(dmpe)2H2:  Matrix, Transient Solution, and NMR Studies of 16-Electron Os(dmpe)2 (dmpe = Me2PCH2CH2PMe2). Organometallics, 1998, 17, 5557-5564. | 2.3 | 12 |
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| 85 | Structure and dynamics of the Î-2-hexafluorobenzene complexes [Re(Î-5-C5H4R)(CO) 2(Î-2-C6F6)] (Râ€=â€H o | r) Tj ETQq 1.1 | 1 1 0.784 <mark>3</mark> 3 47 |
| 86 | Synthesis, molecular structure and NMR spectroscopy of a transition-metal bifluoride complex: formation via C–F activation or reaction with Et3NA·3HF. Chemical Communications, 1997, , 187-188. | 4.1 | 58 |
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| 88 | Transient Photochemistry, Matrix Isolation, and Molecular Structure ofcis-Ru(dmpm)2H2(dmpm =) Tj ETQq0 0 0 rg | gBT /Overl | ock 10 Tf 50 |
| 89 | Facile Insertion of CO2into the Ruâ [^] H Bonds of Ru(dmpe)2H2(dmpe = Me2PCH2CH2PMe2):Â Identification of Three Ruthenium Formate Complexes. Organometallics, 1996, 15, 5166-5169. | 2.3 | 75 |
| 90 | Transition Metal Alkane Complexesâ€. Chemical Reviews, 1996, 96, 3125-3146. | 47.7 | 481 |

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| 91 | Facile intermolecular aromatic C–F bond activation reaction of [Ru(dmpe)2H2](dmpe =) Tj ETQq1 1 0.784314 | rgBT /Ove | erlock 10 Tf 5 |
| 92 | Photochemical intermolecular Câ€"H and Câ€"F insertion of rhodium into pentafluoroanisole to generate a metallacycle; conversion to a cyclic carbene complex. Chemical Communications, 1996, , 961-962. | 4.1 | 25 |
| 93 | Laser Flash Photolysis and Matrix Isolation Studies of Ru[R2PCH2CH2PR2]2H2 (R = C2H5, C6H5, C2F5): Control of Oxidative Addition Rates by Phosphine Substituents. Journal of the American Chemical Society, 1995, 117, 10047-10054. | 13.7 | 49 |
| 94 | Picosecond Photolysis of a Metal Dihydride: Rapid Reductive Elimination of Dihydrogen from Ru(dmpe)2H2 (dmpe = (CH3)2PCH2CH2P(CH3)2). The Journal of Physical Chemistry, 1994, 98, 3562-3563. | 2.9 | 15 |
| 95 | eta.2-Coordination and carbon-fluorine activation of hexafluorobenzene by cyclopentadienylrhodium and -iridium complexes. Journal of the American Chemical Society, 1993, 115, 1429-1440. | 13.7 | 115 |
| 96 | Control of .eta.2-coordination vs. carbon-hydrogen bond activation by rhodium: the role of aromatic resonance energies. Journal of the American Chemical Society, 1993, 115, 7685-7695. | 13.7 | 97 |
| 97 | Matrix isolation and transient photochemistry of ruthenium complex Ru(dmpe)2H2: characterization and reactivity of Ru(dmpe)2 (dmpe = Me2PCH2CH2PMe2). Journal of the American Chemical Society, 1992, 114, 7425-7435. | 13.7 | 58 |
| 98 | Thermal and photochemical reactions of rhodium(trialkylsilyl)hydride complexes: NMR and bonding of poly(silyl)(hydride) complexes. Journal of the Chemical Society Chemical Communications, 1991, , 28. | 2.0 | 36 |
| 99 | Inter―und intramolekulare photochemische Câ€Hâ€Aktivierung mit Aren(carbonyl)osmiumâ€Komplexen in Matrix und in Lösung. Angewandte Chemie, 1989, 101, 1721-1723. | 2.0 | 16 |
| 100 | Inter- and Intramolecular Photochemical C?H Activation in Matrices and in Solution with (?6-Arene)(carbonyl)osmium Complexes. Angewandte Chemie International Edition in English, 1989, 28, 1690-1692. | 4.4 | 22 |
| 101 | Photolysis and spectroscopy with polarized light: key to the photochemistry of pentacarbonylchromium and related species. Inorganic Chemistry, 1978, 17, 147-154. | 4.0 | 94 |
| 102 | Metathesis by partner interchange in Ïfâ€bond ligands: expanding applications of the Ïf AM mechanism. Angewandte Chemie, 0, , . | 2.0 | 6 |