

Yasuo Izumi

List of Publications by Year in descending order

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103
papers

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citations

201674

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times ranked

3384
citing authors

#	ARTICLE	IF	CITATIONS
1	Anchoring and reactivation of single-site Co ^{II} porphyrin over TiO ₂ for the efficient photocatalytic CO ₂ reduction. <i>Journal of Catalysis</i> , 2022, 413, 588-602.	6.2	8
2	Efficient and Selective Interplay Revealed: CO ₂ Reduction to CO over ZrO ₂ by Light with Further Reduction to Methane over Ni ⁰ by Heat Converted from Light. <i>Angewandte Chemie</i> , 2021, 133, 9127-9136.	2.0	6
3	Efficient and Selective Interplay Revealed: CO ₂ Reduction to CO over ZrO ₂ by Light with Further Reduction to Methane over Ni ⁰ by Heat Converted from Light. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 9045-9054.	13.8	27
4	Local Silver Site Temperature Critically Reflected Partial and Complete Photooxidation of Ethanol Using Ag ⁺ /TiO ₂ as Revealed by Extended X-ray Absorption Fine Structure Debye-Waller Factor. <i>Journal of Physical Chemistry C</i> , 2021, 125, 14689-14701.	3.1	5
5	Polarizability and Catalytic Activity Determine Good Titanium Oxide Crystals but Not Homogeneity in Solar Cells Using Photocatalysts on Both Electrodes. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 1406-1416.	6.7	3
6	Efficient photocatalytic CO ₂ reduction mediated by transitional metal borides: metal site-dependent activity and selectivity. <i>Journal of Materials Chemistry A</i> , 2020, 8, 21833-21841.	10.3	23
7	Stabilizing Atomically Dispersed Catalytic Sites on Tellurium Nanosheets with Strong Metal-Support Interaction Boosts Photocatalysis. <i>Small</i> , 2020, 16, e2002356.	10.0	45
8	Optimization of high voltage-type solar cell comprising thin TiO ₂ on anode and thin Ag ⁺ /TiO ₂ photocatalysts on cathode. <i>Solar Energy</i> , 2020, 208, 604-611.	6.1	3
9	Targeted removal of interfacial adventitious carbon towards directional charge delivery to isolated metal sites for efficient photocatalytic H ₂ production. <i>Nano Energy</i> , 2020, 76, 105077.	16.0	24
10	Single Cobalt Atom Anchored Black Phosphorous Nanosheets as an Effective Cocatalyst Promotes Photocatalysis. <i>ChemCatChem</i> , 2020, 12, 3870-3879.	3.7	34
11	Dual origins of photocatalysis: Light-induced band-gap excitation of zirconium oxide and ambient heat activation of gold to enable ¹³ CO ₂ photoreduction/conversion. <i>Catalysis Today</i> , 2020, 356, 544-556.	4.4	6
12	Dual Photocatalytic Roles of Light: Charge Separation at the Band Gap and Heat via Localized Surface Plasmon Resonance To Convert CO ₂ into CO over Silver-Zirconium Oxide. <i>Journal of the American Chemical Society</i> , 2019, 141, 6292-6301.	13.7	68
13	Probing the role of nickel dopant in aqueous colloidal ZnS nanocrystals for efficient solar-driven CO ₂ reduction. <i>Applied Catalysis B: Environmental</i> , 2019, 244, 1013-1020.	20.2	50
14	Optimized photoreduction of CO ₂ exclusively into methanol utilizing liberated reaction space in layered double hydroxides comprising zinc, copper, and gallium. <i>Applied Surface Science</i> , 2018, 447, 687-696.	6.1	23
15	Why Is Water More Reactive Than Hydrogen in Photocatalytic CO ₂ Conversion at Higher Pressures? Elucidation by Means of X-Ray Absorption Fine Structure and Gas Chromatography-Mass Spectrometry. <i>Frontiers in Chemistry</i> , 2018, 6, 408.	3.6	6
16	Solar Cell with Photocatalyst Layers on Both the Anode and Cathode Providing an Electromotive Force of Two Volts per Cell. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 11892-11903.	6.7	5
17	Selective Photoconversion of Carbon Dioxide into Methanol Using Layered Double Hydroxides at 0.4-0.6 MPa. <i>Energy Technology</i> , 2017, 5, 892-900.	3.8	13
18	Efficient volcano-type dependence of photocatalytic CO ₂ conversion into methane using hydrogen at reaction pressures up to 0.80 MPa. <i>Journal of Catalysis</i> , 2017, 345, 39-52.	6.2	24

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19	A solar cell for maximizing voltage up to the level difference of two photocatalysts: optimization and clarification of the electron pathway. <i>RSC Advances</i> , 2017, 7, 19996-20006.	3.6	3
20	Is water more reactive than H ₂ in photocatalytic CO ₂ conversion into fuels using semiconductor catalysts under high reaction pressures?. <i>Journal of Catalysis</i> , 2017, 352, 452-465.	6.2	17
21	Recent Advances in the Preferential Thermal-/Photo-Oxidation of Carbon Monoxide: Noble Versus Inexpensive Metals and Their Reaction Mechanisms. <i>Catalysis Surveys From Asia</i> , 2016, 20, 141-166.	2.6	18
22	Harnessing self-supported Au nanoparticles on layered double hydroxides comprising Zn and Al for enhanced phenol decomposition under solar light. <i>Applied Catalysis B: Environmental</i> , 2016, 199, 260-271.	20.2	43
23	Photocatalytic Conversion of Carbon Dioxide Using Zn-Cu-Ga Layered Double Hydroxides Assembled with Cu Phthalocyanine: Cu in Contact with Gaseous Reactant is Needed for Methanol Generation. <i>Oil and Gas Science and Technology</i> , 2015, 70, 841-852.	1.4	9
24	Tailoring assemblies of plasmonic silver/gold and zinc-gallium layered double hydroxides for photocatalytic conversion of carbon dioxide using UV-visible light. <i>Applied Catalysis A: General</i> , 2015, 504, 238-247.	4.3	70
25	Photofuel cell comprising titanium oxide and bismuth oxychloride (BiOCl) photocatalysts that uses acidic water as a fuel. <i>Journal of Materials Chemistry A</i> , 2015, 3, 8389-8404.	10.3	51
26	Recent Advances (2012-2015) in the Photocatalytic Conversion of Carbon Dioxide to Fuels Using Solar Energy: Feasibility for a New Energy. <i>ACS Symposium Series</i> , 2015, , 1-46.	0.5	20
27	Binary metal (Ti, Cu) oxyhydroxy-organic (terephthalate) framework: An interface model nanocatalyst for hydrogen purification. <i>Journal of Catalysis</i> , 2015, 332, 1-12.	6.2	6
28	Preferential Photooxidation of CO in Hydrogen across the Crystalline Face Boundary over Spheroidal ZnO Promoted by Cu Ions. <i>Journal of Physical Chemistry C</i> , 2015, 119, 21585-21598.	3.1	10
29	Recyclable PhotoFuel Cell for Use of Acidic Water as a Medium. <i>Oil and Gas Science and Technology</i> , 2015, 70, 853-862.	1.4	5
30	Photoconversion of carbon dioxide in zinc-copper-gallium layered double hydroxides: The kinetics to hydrogen carbonate and further to CO/methanol. <i>Applied Catalysis B: Environmental</i> , 2014, 144, 561-569.	20.2	58
31	X-ray evaluation of the boundary between polymer electrolyte and platinum and carbon functionalization to conduct protons in polymer electrolyte fuel cells. <i>Journal of Power Sources</i> , 2014, 258, 83-88.	7.8	3
32	A photofuel cell comprising titanium oxide and silver(Ag/O) photocatalysts for use of acidic water as a fuel. <i>Chemical Communications</i> , 2014, 50, 3067-3070.	4.1	25
33	Photocatalytic conversion of carbon dioxide into methanol in reverse fuel cells with tungsten oxide and layered double hydroxide photocatalysts for solar fuel generation. <i>Catalysis Science and Technology</i> , 2014, 4, 1644-1651.	4.1	49
34	Photocatalytic Conversion of Carbon Dioxide into Fuels Using Layered Double Hydroxides Coupled with Hydrogen or Water. , 2013, , 589-602.		1
35	Cluster-derived Ir-Sn/SiO ₂ catalysts for the catalytic dehydrogenation of propane: a spectroscopic study. <i>Dalton Transactions</i> , 2013, 42, 12714.	3.3	5
36	Recent advances in the photocatalytic conversion of carbon dioxide to fuels with water and/or hydrogen using solar energy and beyond. <i>Coordination Chemistry Reviews</i> , 2013, 257, 171-186.	18.8	582

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37	Catalytic conversion of carbon dioxide into dimethyl carbonate using reduced copper-cerium oxide catalysts as low as 353 K and 1.3 MPa and the reaction mechanism. <i>Frontiers in Chemistry</i> , 2013, 1, 8.	3.6	53
38	Photocatalytic conversion of carbon dioxide into methanol using optimized layered double hydroxide catalysts. <i>Catalysis Today</i> , 2012, 185, 263-269.	4.4	119
39	Polymer electrolyte fuel cell supplied with carbon dioxide. Can be the reductant water instead of hydrogen?. <i>Applied Catalysis B: Environmental</i> , 2012, 117-118, 317-320.	20.2	7
40	Preferential oxidation of carbon monoxide in hydrogen using zinc oxide photocatalysts promoted and tuned by adsorbed copper ions. <i>Journal of Catalysis</i> , 2012, 287, 190-202.	6.2	24
41	Photocatalytic conversion of carbon dioxide into methanol using zinc-copper-M(III) (M=aluminum,) <i>Tj ETQq1 1 0.784314 rgBT / Ovr</i>	6.2	256
42	Monitoring of Photochemical Self-assembly of [Mo7O24]6- to {Mo142}-blue Nanoring by Using Mo K-edge XAFS. <i>Chemistry Letters</i> , 2010, 39, 132-133.	1.3	1
43	Synthesis and Site Structure of a Replica Platinum-Carbon Composite Formed Utilizing Ordered Mesopores of Aluminum-MCM-41 for Catalysis in Fuel Cells. <i>Journal of Physical Chemistry C</i> , 2010, 114, 1260-1267.	3.1	8
44	Arsenic Removal from Dilute Solutions by High Surface Area Mesoporous Iron Oxyhydroxide. <i>Water, Air and Soil Pollution</i> , 2009, 9, 203-211.	0.8	10
45	Site Structure and Photocatalytic Role of Sulfur or Nitrogen-Doped Titanium Oxide with Uniform Mesopores under Visible Light. <i>Journal of Physical Chemistry C</i> , 2009, 113, 6706-6718.	3.1	91
46	Monitoring of Sulfur Sites Doped in/on Titanium Oxide to Enable Photocatalysis under Visible Light Using S K-edge XANES. <i>Chemistry Letters</i> , 2009, 38, 912-913.	1.3	7
47	State-sensitive monitoring of gold nanoparticle sites on titania and the interaction of the positive Au site with O2 by Au L1-selecting X-ray absorption fine structure. <i>Inorganica Chimica Acta</i> , 2008, 361, 1149-1156.	2.4	6
48	Photo-oxidation over mesoporous V-TiO2 catalyst under visible light monitored by vanadium K25,2-selecting XANES spectroscopy. <i>Materials Letters</i> , 2008, 62, 861-864.	2.6	4
49	Specific Oxidative Dehydrogenation Reaction Mechanism over Vanadium(IV/III) Sites in TiO2 with Uniform Mesopores under Visible Light. <i>Bulletin of the Chemical Society of Japan</i> , 2008, 81, 1241-1249.	3.2	10
50	Selective Butanol Synthesis over Rhodium-Molybdenum Catalysts Supported in Ordered Mesoporous Silica. <i>Journal of Physical Chemistry C</i> , 2007, 111, 10073-10081.	3.1	16
51	State-Sensitive Monitoring of Active and Promoter Sites. Applications to Au/Titania and Pt-Sn/Silica Catalysts by XAFS Combined with X-Ray Fluorescence Spectrometry. <i>AIP Conference Proceedings</i> , 2007, ,	0.4	1
52	X-ray Absorption Fine Structure Combined with X-ray Fluorescence Spectroscopy. Monitoring of Vanadium Sites in Mesoporous Titania, Excited under Visible Light by Selective Detection of Vanadium K2_{5,2} Fluorescence. <i>Analytical Chemistry</i> , 2007, 79, 6933-6940.	6.5	27
53	Photo-oxidation of ethanol on mesoporous vanadium-titanium oxide catalysts and the relation to vanadium(IV) and (V) sites. <i>Applied Catalysis A: General</i> , 2007, 325, 276-282.	4.3	56
54	X-ray absorption fine structure combined with X-ray fluorescence spectrometry. <i>Materials Letters</i> , 2007, 61, 3833-3836.	2.6	2

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55	Optimization of an Iron Intercalated Montmorillonite Preparation for the Removal of Arsenic at Low Concentrations. <i>Engineering in Life Sciences</i> , 2007, 7, 52-60.	3.6	24
56	Direct Detection of Redox Reactions of Sulfur-containing Compounds on Ferrite Nanoparticle (FP) Surface. <i>Chemistry Letters</i> , 2006, 35, 974-975.	1.3	8
57	Creation of micro and mesoporous FeIII materials utilizing organic template followed by carboxylates exchange for the low concentrations of arsenite removal. <i>Microporous and Mesoporous Materials</i> , 2006, 94, 243-253.	4.4	7
58	Oxidation state of vanadium in amorphous MnV2O6 formed during discharge-charge cycle and the improvement of its synthesis condition. <i>Solid State Ionics</i> , 2006, 177, 1347-1353.	2.7	33
59	Sulfur K-edge extended X-ray absorption fine structure spectroscopy of homoleptic thiolato complexes with Zn(II) and Cd(II). <i>Journal of Inorganic Biochemistry</i> , 2006, 100, 239-249.	3.5	6
60	Monitoring Trace Amounts of Lead and Arsenic Adsorption by X-ray Absorption Fine Structure Combined with Fluorescence Spectrometry. <i>Physica Scripta</i> , 2005, , 933.	2.5	4
61	Synthesis of Clay-Cerium Hydroxide Conjugates for the Adsorption of Arsenic. <i>Adsorption Science and Technology</i> , 2005, 23, 607-618.	3.2	11
62	Chiral Self-Dimerization of Vanadium Complexes on a SiO2 Surface for Asymmetric Catalytic Coupling of 2-Naphthol: A Structure, Performance, and Mechanism. <i>Journal of Physical Chemistry B</i> , 2005, 109, 9905-9916.	2.6	46
63	Characterization of Intercalated Iron(III) Nanoparticles and Oxidative Adsorption of Arsenite on Them Monitored by X-ray Absorption Fine Structure Combined with Fluorescence Spectrometry. <i>Journal of Physical Chemistry B</i> , 2005, 109, 3227-3232.	2.6	27
64	X-ray Absorption Fine Structure Combined with X-ray Fluorescence Spectrometry. Improvement of Spectral Resolution at the Absorption Edges of 9-29 keV. <i>Analytical Chemistry</i> , 2005, 77, 6969-6975.	6.5	22
65	X-ray Absorption Fine Structure Combined with X-ray Fluorescence Spectrometry. Part 15. Monitoring of Vanadium Site Transformations on Titania and in Mesoporous Titania by Selective Detection of the Vanadium K-edge Fluorescence. <i>Journal of Physical Chemistry B</i> , 2005, 109, 14884-14891.	2.6	24
66	Nitric Oxide Reduction by Carbon Monoxide over Supported Hexaruthenium Cluster Catalysts. 1. The Active Site Structure That Depends on Supporting Metal Oxide and Catalytic Reaction Conditions. <i>Journal of Physical Chemistry B</i> , 2003, 107, 9022-9028.	2.6	6
67	32 X-ray absorption fine structure utilizing a fluorescence spectrometer: Site selective structure determination of environmental catalysts and adsorbents. <i>Studies in Surface Science and Catalysis</i> , 2003, 145, 177-180.	1.5	0
68	0.6-3.0 wt% of Vanadium on/in Titania Monitored by X-ray Absorption Fine Structure Combined with Fluorescence Spectrometry. <i>Chemistry Letters</i> , 2002, 31, 1154-1155.	1.3	5
69	X-ray Absorption Fine Structure Combined with Fluorescence Spectrometry for Monitoring Trace Amounts of Lead Adsorption in the Environmental Conditions. <i>Analytical Chemistry</i> , 2002, 74, 3819-3823.	6.5	36
70	Monitoring of Trace Amounts of Lead on an Adsorbent by X-ray Absorption Spectroscopy Combined with a Fluorescence Spectrometer. <i>Journal of Physical Chemistry B</i> , 2002, 106, 1518-1520.	2.6	16
71	Structure of low concentrations of vanadium on TiO2 determined by XANES and ab initio calculations. <i>Chemical Communications</i> , 2002, , 2402-2403.	4.1	16
72	Nanoparticles of Amorphous Ruthenium Sulfide Easily Obtainable from a TiO2-Supported Hexanuclear Cluster Complex [Ru6C(CO)16]2+: A Highly Active Catalyst for the Reduction of SO2 with H2. <i>Chemistry - A European Journal</i> , 2002, 8, 3260.	3.3	19

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73	Simultaneous Removal of NO and N ₂ O over Pd-ZSM-5 Catalysts and FT-IR Observations of their Decomposition Routes to N ₂ . Bulletin of the Chemical Society of Japan, 2001, 74, 1499-1505.	3.2	11
74	Site-selective XAFS spectroscopy tuned to surface active sites of copper catalysts. Journal of Electron Spectroscopy and Related Phenomena, 2001, 119, 193-199.	1.7	24
75	Site-selective XAFS spectroscopy tuned to surface active sites of Cu/ZnO and Cr/SiO ₂ catalysts. Journal of Synchrotron Radiation, 2001, 8, 605-607.	2.4	5
76	Oxygen atom radical formation on the sol-gel molybdenum-silica catalysts characterized by X-ray absorption fine structure spectroscopy. Studies in Surface Science and Catalysis, 2000, 130, 3201-3206.	1.5	1
77	Supported ruthenium carbido-cluster catalysts for the catalytic removal of nitrogen monoxide and sulfur dioxide: the preparation process monitored by sulfur K-edge X-ray absorption near-edge structure. Studies in Surface Science and Catalysis, 2000, 143, 361-368.	1.5	0
78	Site-Selective X-Ray Absorption Fine Structure (XAFS) Spectroscopy. (1) Design of Fluorescence Spectrometer and Emission Spectra. Bulletin of the Chemical Society of Japan, 2000, 73, 2017-2023.	3.2	18
79	Site-Selective X-Ray Absorption Fine Structure (XAFS) Spectroscopy (2). XAFS Spectra Tuned to Surface Active Sites of Cu/ZnO and Cr/SiO ₂ Catalysts. Bulletin of the Chemical Society of Japan, 2000, 73, 1581-1587.	3.2	18
80	Rapid and sensitive XAFS using a tunable X-ray undulator at BL10XU of SPring-8. Journal of Synchrotron Radiation, 2000, 7, 89-94.	2.4	10
81	Nitrous oxide decomposition active site on Ni-MgO catalysts characterized by X-ray absorption fine structure spectroscopy. Chemical Communications, 2000, , 1053-1054.	4.1	9
82	Rapid and sensitive XAFS using a tunable X-ray undulator. Journal of Synchrotron Radiation, 1999, 6, 155-157.	2.4	15
83	Ligand K-Edge and Metal L-Edge X-ray Absorption Spectroscopy and Density Functional Calculations of Oxomolybdenum Complexes with Thiolate and Related Ligands: Implications for Sulfite Oxidase. Journal of the American Chemical Society, 1999, 121, 10035-10046.	13.7	69
84	Ethanol Synthesis from Carbon Dioxide on [Rh ₁₀ Se]/TiO ₂ Catalyst Characterized by X-Ray Absorption Fine Structure Spectroscopy. Journal of Catalysis, 1998, 175, 236-244.	6.2	24
85	Characterization of Active Site on Cobalt-Magnesium Oxide by X-Ray Absorption Fine Structure Spectroscopy. Chemistry Letters, 1998, 27, 727-728.	1.3	1
86	Molecular sensing techniques for the characterization and design of new ammonia catalysts. Applied Surface Science, 1997, 121-122, 488-491.	6.1	37
87	Catalysis on Ruthenium Clusters Supported on CeO ₂ or Ni-Doped CeO ₂ : Adsorption Behavior of H ₂ and Ammonia Synthesis. The Journal of Physical Chemistry, 1996, 100, 9421-9428.	2.9	45
88	Ethanol synthesis from carbon dioxide on TiO ₂ -supported [Rh ₁₀ Se] catalyst. Chemical Communications, 1996, , 389.	4.1	39
89	New Supported [Ru ₆ N] Clusters as a Potential Transition Metal Nitride Catalyst. Chemistry Letters, 1995, 24, 137-138.	1.3	1
90	Promoted Catalysis by Supported [Ru ₆ N] Clusters in N ₂ and/or H ₂ : Structural and Chemical Controls. The Journal of Physical Chemistry, 1995, 99, 10346-10353.	2.9	14

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91	Preparation of [Ru ₆ N] Clusters on MgO, K ⁺ /MgO, Cs ⁺ /MgO, and Al ₂ O ₃ and the Reactivities with H ₂ and N ₂ . The Journal of Physical Chemistry, 1995, 99, 10336-10345.	2.9	13
92	CO-breathing structure change and catalysis for oxygenate synthesis from carbon monoxide/hydrogen on supported ruthenium carbido [Ru ₆ C] clusters: structural and chemical controls by interstitial carbido carbon. The Journal of Physical Chemistry, 1994, 98, 594-602.	2.9	32
93	Adsorbed Hydrogen Effect on the Adsorption and Reactivity of N ₂ Molecules on Ru/MgO and Ru ⁺ /Cs ⁺ /MgO: Hydrogen Dipole Effect Enhanced by Doped Cs ⁺ . Bulletin of the Chemical Society of Japan, 1994, 67, 3191-3200.	3.2	18
94	Selective carbonyl insertion and ethene hydroformylation on a [Ru ₆ C(CO) ₁₆ Me] ⁺ /SiO ₂ catalyst. Journal of the Chemical Society Dalton Transactions, 1993, , 3667-3673.	1.1	6
95	Carbon monoxide-breathing ruthenium carbido clusters on magnesium oxide (MgO) in CO/H ₂ reaction conditions. Journal of the American Chemical Society, 1993, 115, 6462-6463.	13.7	14
96	Promoting effect and hydrogen spillover in supported SeRh ₆ -cluster catalysts. Studies in Surface Science and Catalysis, 1993, 77, 241-246.	1.5	2
97	Selenium-doped hexarhodium carbonyl clusters on magnesia: structures and promoting effects in ethene hydroformylation. The Journal of Physical Chemistry, 1992, 96, 10942-10948.	2.9	12
98	Methylruthenium carbidocarbonyl clusters supported on inorganic oxides: characterization and selective acetaldehyde formation. Journal of the Chemical Society Dalton Transactions, 1992, , 2287.	1.1	5
99	Selective synthesis of oxygenates in the CO ⁺ /H ₂ reaction on supported ruthenium carbido-cluster catalysts. Journal of the Chemical Society Chemical Communications, 1992, , 1395-1396.	2.0	11
100	Promoting effects of Se on Rh/SiO ₂ catalysis for ethene hydroformylation. Journal of Catalysis, 1991, 132, 566-570.	6.2	15
101	Promoting effects of Se on Rh/ZrO ₂ catalysis for ethene hydroformylation. Journal of Catalysis, 1991, 127, 631-644.	6.2	32
102	Promoting effects of Se on the activity and selectivity of Rh ⁺ /ZrO ₂ catalyst for ethene hydroformylation. Journal of the Chemical Society Chemical Communications, 1988, , 1327-1328.	2.0	6
103	Study of stereochemical properties of molecular orbitals by Penning ionization electron spectroscopy. Effects of through-space/through-bond interactions on electron distributions. Journal of the American Chemical Society, 1985, 107, 8082-8086.	13.7	34