Ralph T Yang

List of Publications by Citations

125 papers	12,391 citations	59 h-index	111 g-index
127 ext. papers	13,370 ext. citations	5.7 avg, IF	6.86 L-index

#	Paper	IF	Citations
125	**2003**,		780
124	Desulfurization of transportation fuels with zeolites under ambient conditions. *Science*, **2003**, 301, 79-81	33.3	772
123	Low-temperature selective catalytic reduction of NOx with NH3 over metal oxide and zeolite catalysts□A review. *Catalysis Today*, **2011**, 175, 147-156	5.3	699
122	Amine-Grafted MCM-48 and Silica Xerogel as Superior Sorbents for Acidic Gas Removal from Natural Gas. *Industrial & Engineering Chemistry Research*, **2003**, 42, 2427-2433	3.9	586
121	Performance and kinetics study for low-temperature SCR of NO with NH3 over MnOx□CeO2 catalyst. *Journal of Catalysis*, **2003**, 217, 434-441	7.3	485
120	Characterization and FTIR Studies of MnOx□CeO2 Catalyst for Low-Temperature Selective Catalytic Reduction of NO with NH3. *Journal of Physical Chemistry B*, **2004**, 108, 15738-15747	3.4	388
119	Gas Separation by Adsorption Processes. *Series on Chemical Engineering*, **1997**,	1.5	343
118	Desulfurization of transportation fuels by □complexation sorbents: Cu(I)-, Ni(II)-, and Zn(II)-zeolites. *Applied Catalysis B: Environmental*, **2005**, 56, 111-126	21.8	313
117	New sorbents for hydrogen storage by hydrogen spillover □a review. *Energy and Environmental Science*, **2008**, 1, 268	35.4	297
116	Theoretical basis for the Dubinin-Radushkevitch (D-R) adsorption isotherm equation. *Adsorption*, **1997**, 3, 189-195	2.6	296
115	Desulfurization of Liquid Fuels by Adsorption via □Complexation with Cu(I)□Y and Ag□Y Zeolites. *Industrial & Engineering Chemistry Research*, **2003**, 42, 123-129	3.9	286
114	Superior Fe-ZSM-5 Catalyst for Selective Catalytic Reduction of Nitric Oxide by Ammonia. *Journal of the American Chemical Society*, **1999**, 121, 5595-5596	16.4	258
113	Hydrogen storage in metal-organic and covalent-organic frameworks by spillover. *AICHE Journal*, **2008**, 54, 269-279	3.6	230
112	New Sorbents for Desulfurization by □Complexation: Thiophene/Benzene Adsorption. *Industrial & Engineering Chemistry Research*, **2002**, 41, 2487-2496	3.9	203
111	Desulfurization of Transportation Fuels by Adsorption. *Catalysis Reviews - Science and Engineering*, **2004**, 46, 111-150	12.6	195
110	Desulfurization of Commercial Liquid Fuels by Selective Adsorption via □Complexation with Cu(I)□Y Zeolite. *Industrial & Engineering Chemistry Research*, **2003**, 42, 3103-3110	3.9	195
109	Olefin/paraffin separations by adsorption: □Complexation vs. kinetic separation. *AICHE Journal*, **1998**, 44, 799-809	3.6	185

108	New sorbents for desulfurization of diesel fuels via π-complexation. *AICHE Journal*, **2004**, 50, 791-801	3.6	177
107	Significantly Increased CO2 Adsorption Performance of Nanostructured Templated Carbon by Tuning Surface Area and Nitrogen Doping. *Journal of Physical Chemistry C*, **2012**, 116, 1099-1106	3.8	175
106	CO2 capture from the atmosphere and simultaneous concentration using zeolites and amine-grafted SBA-15. *Environmental Science & Technology*, **2011**, 45, 10257-64	10.3	172
105	Increasing Selective CO2 Adsorption on Amine-Grafted SBA-15 by Increasing Silanol Density. *Journal of Physical Chemistry C*, **2011**, 115, 21264-21272	3.8	172
104	Hydrogen Storage Properties of Carbons Doped with Ruthenium, Platinum, and Nickel Nanoparticles. *Journal of Physical Chemistry C*, **2008**, 112, 12486-12494	3.8	161
103	New Sorbents for Desulfurization of Liquid Fuels by π-Complexation. *Industrial & Engineering Chemistry Research*, **2001**, 40, 6236-6239	3.9	153
102	Hydrogen Storage on Platinum Nanoparticles Doped on Superactivated Carbon. *Journal of Physical Chemistry C*, **2007**, 111, 11086-11094	3.8	148
101	New sorbents for olefin/paraffin separations by adsorption via π-complexation: synthesis and effects of substrates. *Chemical Engineering Science*, **2000**, 55, 2607-2616	4.4	129
100	Carbon Nanotubes as a Superior Sorbent for Nitrogen Oxides. *Industrial & Engineering Chemistry Research*, **2001**, 40, 4288-4291	3.9	126
99	Desulfurization of Diesel Fuels via π-Complexation with Nickel(II)-Exchanged X- and Y-Zeolites. *Industrial & Engineering Chemistry Research*, **2004**, 43, 1081-1089	3.9	120
98	Hydrogen Storage on Carbon-Based Adsorbents and Storage at Ambient Temperature by Hydrogen Spillover. *Catalysis Reviews - Science and Engineering*, **2010**, 52, 411-461	12.6	119
97	Ultrasound Enhanced Adsorption and Desorption of Phenol on Activated Carbon and Polymeric Resin. *Industrial & Engineering Chemistry Research*, **2001**, 40, 4912-4918	3.9	119
96	New Sorbents for Desulfurization of Diesel Fuels via π-Complexation: Layered Beds and Regeneration. *Industrial & Engineering Chemistry Research*, **2004**, 43, 769-776	3.9	118
95	Limits for Air Separation by Adsorption with LiX Zeolite. *Industrial & Engineering Chemistry Research*, **1997**, 36, 5358-5365	3.9	114
94	Ultra-active Fe/ZSM-5 catalyst for selective catalytic reduction of nitric oxide with ammonia. *Applied Catalysis B: Environmental*, **2005**, 60, 13-22	21.8	110
93	Desorption by ultrasound: Phenol on activated carbon and polymeric resin. *AICHE Journal*, **1998**, 44, 1519-1528	3.6	108
92	Corrected Horvath-Kawazoe equations for pore-size distribution. *AICHE Journal*, **2000**, 46, 734-750	3.6	108
91	Ab Initio Molecular Orbital Study of the Unified Mechanism and Pathways for Gas-Carbon Reactions. *Journal of Physical Chemistry A*, **1998**, 102, 6348-6356	2.8	108

90	Investigation on Hydrogenation of Metal-Organic Frameworks HKUST-1, MIL-53, and ZIF-8 by Hydrogen Spillover. *Journal of Physical Chemistry C*, **2013**, 117, 7565-7576	3.8	106
89	Superior ion-exchanged ZSM-5 catalysts for selective catalytic oxidation of ammonia to nitrogen. *Chemical Communications*, **2000**, 1651-1652	5.8	101
88	Effects of aromatics on desulfurization of liquid fuel by π-complexation and carbon adsorbents. *Chemical Engineering Science*, **2012**, 73, 208-217	4.4	96
87	Kinetics and Mechanistic Model for Hydrogen Spillover on Bridged Metal-Organic Frameworks. *Journal of Physical Chemistry C*, **2007**, 111, 3405-3411	3.8	94
86	Removal of NO by Reversible Adsorption on Fe-Mn Based Transition Metal Oxides. *Langmuir*, **2001**, 17, 4997-5003	4	90
85	Desulfurization of High-Sulfur Jet Fuel by π-Complexation with Copper and Palladium Halide Sorbents. *Industrial & Engineering Chemistry Research*, **2006**, 45, 7649-7655	3.9	87
84	New Sorbents for Olefin/Paraffin Separations and Olefin Purification for C4Hydrocarbons. *Industrial & Engineering Chemistry Research*, **1999**, 38, 3614-3621	3.9	87
83	Desulfurization of Jet Fuel JP-5 Light Fraction by MCM-41 and SBA-15 Supported Cuprous Oxide for Fuel Cell Applications. *Industrial & Engineering Chemistry Research*, **2009**, 48, 142-147	3.9	84
82	Low-Temperature SCR of NO with NH3 over USY-Supported Manganese Oxide-Based Catalysts. *Catalysis Letters*, **2003**, 87, 67-71	2.8	83
81	Activity, stability and hydrocarbon deactivation of Fe/Beta catalyst for SCR of NO with ammonia. *Applied Catalysis A: General*, **2009**, 368, 121-126	5.1	82
80	Effects of Pt Particle Size on Hydrogen Storage on Pt-Doped Metal-Organic Framework IRMOF-8. *Journal of Physical Chemistry C*, **2011**, 115, 4793-4799	3.8	80
79	Effect of Surface Oxygen Groups in Carbons on Hydrogen Storage by Spillover. *Industrial & Engineering Chemistry Research*, **2009**, 48, 2920-2926	3.9	78
78	Silver Ion-Exchanged Zeolites Y, X, and Low-Silica X:´ Observations of Thermally Induced Cation/Cluster Migration and the Resulting Effects on the Equilibrium Adsorption of Nitrogen. *Chemistry of Materials*, **2000**, 12, 3020-3031	9.6	74
77	Selective catalytic reduction of nitric oxide with hydrogen over Pd-based catalysts. *Journal of Catalysis*, **2006**, 237, 381-392	7.3	73
76	Hydrogen storage in carbon nanotubes: Residual metal content and pretreatment temperature. *AICHE Journal*, **2003**, 49, 1556-1568	3.6	72
75	Catalyzed hydrogen spillover for hydrogen storage. *Journal of the American Chemical Society*, **2009**, 131, 4224-6	16.4	70
74	Pt/MCM-41 catalyst for selective catalytic reduction of nitric oxide with hydrocarbons in the presence of excess oxygen. *Catalysis Letters*, **1998**, 52, 91-96	2.8	70
73	Effects of Nitrogen Compounds and Polyaromatic Hydrocarbons on Desulfurization of Liquid Fuels by Adsorption via π-Complexation with Cu(I)Y Zeolite. *Energy & Fuels*, **2006**, 20, 909-914	4.1	67

72	Adsorbents for Dioxins: A New Technique for Sorbent Screening for Low-Volatile Organics. *Industrial & Engineering Chemistry Research*, **1999**, 38, 2726-2731	3.9	67
71	Enhanced Hydrogen Spillover on Carbon Surfaces Modified by Oxygen Plasma. *Journal of Physical Chemistry C*, **2010**, 114, 1601-1609	3.8	64
70	Graphene and other carbon sorbents for selective adsorption of thiophene from liquid fuel. *AICHE Journal*, **2013**, 59, 29-32	3.6	63
69	Comparison of π-Complexations of Ethylene and Carbon Monoxide with Cu+and Ag+. *Industrial & Engineering Chemistry Research*, **1999**, 38, 2720-2725	3.9	63
68	Aromatics/Aliphatics Separation by Adsorption: New Sorbents for Selective Aromatics Adsorption by π-Complexation. *Industrial & Engineering Chemistry Research*, **2000**, 39, 3856-3867	3.9	60
67	Mixed cation zeolites: LixAgy-X as a superior adsorbent for air separation. *AICHE Journal*, **1999**, 45, 724-734	3.6	60
66	Anion and Cation Effects on Olefin Adsorption on Silver and Copper Halides:´Ab Initio Effective Core Potential Study of π-Complexation. *Journal of Physical Chemistry B*, **1999**, 103, 3206-3212	3.4	57
65	Hydrogen storage properties of B- and N-doped microporous carbon. *AICHE Journal*, **2009**, 55, 1823-1833	3.6	53
64	Superior Sorbent for Natural Gas Desulfurization. *Industrial & Engineering Chemistry Research*, **2008**, 47, 1238-1244	3.9	53
63	Desulfurization of Commercial Jet Fuels by Adsorption via π-Complexation with Vapor Phase Ion Exchanged Cu(I)-Y Zeolites. *Industrial & Engineering Chemistry Research*, **2004**, 43, 6142-6149	3.9	52
62	Influence of Residual Water on the Adsorption of Atmospheric Gases in Li-X Zeolite: Experiment and Simulation. *Industrial & Engineering Chemistry Research*, **2000**, 39, 1775-1780	3.9	52
61	Unique hydrogen adsorption properties of graphene. *AICHE Journal*, **2011**, 57, 2902-2908	3.6	51
60	Hydrogen Storage Properties of N-Doped Microporous Carbon. *Journal of Physical Chemistry C*, **2009**, 113, 21883-21888	3.8	51
59	Adsorption of Organic Vapors on Single-Walled Carbon Nanotubes. *Industrial & Engineering Chemistry Research*, **2006**, 45, 5524-5530	3.9	48
58	Structural effects on adsorption of atmospheric gases in mixed Li,Ag-X-zeolite. *AICHE Journal*, **2000**, 46, 2305-2317	3.6	47
57	Enhanced Hydrogen Storage on Pt-Doped Carbon by Plasma Reduction. *Journal of Physical Chemistry C*, **2010**, 114, 5956-5963	3.8	46
56	N2O Formation Pathways over Zeolite-Supported Cu and Fe Catalysts in NH3-SCR. *Energy & Fuels*, **2018**, 32, 2170-2182	4.1	44
55	Selective Adsorption of Organosulfur Compounds from Transportation Fuels by π-Complexation. *Separation Science and Technology*, **2005**, 39, 1717-1732	2.5	44

54	Adsorption of Nitrogen, Oxygen and Argon on Na-CeX Zeolites. *Adsorption*, **2002**, 8, 271-278	2.6	43
53	Selective catalytic reduction of nitric oxide with hydrogen on supported Pd: Enhancement by hydrogen spillover. *Applied Catalysis A: General*, **2016**, 514, 35-42	5.1	42
52	Kinetic separation of methane/carbon dioxide by molecular sieve carbons. *Separation Science and Technology*, **2002**, 37, 2505-2528	2.5	41
51	NH 3 -SCR of NO over one-pot Cu-SAPO-34 catalyst: Performance enhancement by doping Fe and MnCe and insight into N 2 O formation. *Applied Catalysis A: General*, **2017**, 543, 247-256	5.1	39
50	Catalytic reduction of nitric oxide with hydrogen and carbon monoxide in the presence of excess oxygen by Pd supported on pillared clays. *Applied Catalysis A: General*, **2004**, 259, 261-267	5.1	39
49	Concentration profile for linear driving force model for diffusion in a particle. *AICHE Journal*, **1999**, 45, 196-200	3.6	36
48	Performance of mesoporous silicas (MCM-41 and SBA-15) and carbon (CMK-3) in the removal of gas-phase naphthalene: adsorption capacity, rate and regenerability. *RSC Advances*, **2016**, 6, 21193-21203	3.7	36
47	Selective Catalytic Reduction of Nitric Oxide with Ammonia over ZSM-5 Based Catalysts for Diesel Engine Applications. *Catalysis Letters*, **2008**, 121, 111-117	2.8	35
46	Chemical Liquid Deposition Modified 4A Zeolite as a Size-Selective Adsorbent for Methane Upgrading, CO2 Capture and Air Separation. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 3301-3308	8.3	35
45	Nanostructured adsorbents for hydrogen storage at ambient temperature: high-pressure measurements and factors influencing hydrogen spillover. *RSC Advances*, **2013**, 3, 23935	3.7	33
44	Hydrogen Storage Properties of Low-Silica Type X Zeolites. *Industrial & Engineering Chemistry Research*, **2010**, 49, 3634-3641	3.9	33
43	Kinetic Separation of Oxygen and Argon Using Molecular Sieve Carbon. *Adsorption*, **2000**, 6, 15-22	2.6	29
42	Low-pressure performance evaluation of CO2, H2O and CH4 on Li-LSX as a superior adsorbent for air prepurification. *Chemical Engineering Science*, **2016**, 147, 100-108	4.4	29
41	Selective catalytic reduction of nitric oxide with ammonia over high-activity Fe/SSZ-13 and Fe/one-pot-synthesized Cu-SSZ-13 catalysts. *Catalysis Science and Technology*, **2016**, 6, 7561-7568	5.5	26
40	Glow discharge plasma-assisted template removal of SBA-15 at ambient temperature for high surface area, high silanol density, and enhanced CO adsorption capacity. *Langmuir*, **2014**, 30, 8124-30	4	26
39	Amine-Grafted Silica Gels for CO2 Capture Including Direct Air Capture. *Industrial & Engineering Chemistry Research*, **2020**, 59, 7072-7079	3.9	25
38	Selective catalytic reduction of nitric oxide by hydrogen over Zn-ZSM-5 and Pd and Pd/Ru based catalysts. *Applied Catalysis B: Environmental*, **2014**, 152-153, 162-171	21.8	24
37	Reverse Spillover of Hydrogen on Carbon-Based Nanomaterials: Evidence of Recombination Using Isotopic Exchange. *Journal of Physical Chemistry C*, **2009**, 113, 13933-13939	3.8	24

36	110th Anniversary: Recent Progress and Future Challenges in Selective Catalytic Reduction of NO by H2 in the Presence of O2. *Industrial & Engineering Chemistry Research*, **2019**, 58, 10140-10153	3.9	23
35	New adsorbents for purification: Selective removal of aromatics. *AICHE Journal*, **2002**, 48, 1457-1468	3.6	23
34	Improved Multisite Langmuir Model for Mixture Adsorption Using Multiregion Adsorption Theory. *Langmuir*, **2003**, 19, 2776-2781	4	23
33	Low-temperature SCR of NO with NH3 over noble metal promoted Fe-ZSM-5 catalysts. *Catalysis Letters*, **2005**, 100, 243-246	2.8	23
32	Synthesis and Characterization of the Sorption Properties of Oxygen-Binding Cobalt Complexes Immobilized in Nanoporous Materials. *Industrial & Engineering Chemistry Research*, **2000**, 39, 2252-2259	3.9	21
31	New nanostructured sorbents for desulfurization of natural gas. *Frontiers of Chemical Science and Engineering*, **2014**, 8, 8-19	4.5	20
30	Unified network model for adsorption–desorption in systems with hysteresis. *AICHE Journal*, **1999**, 45, 735-750	3.6	20
29	Synergism between palladium and nickel on Pd-Ni/TiO2 for H2-SCR: A transient DRIFTS study. *Journal of Catalysis*, **2020**, 381, 204-214	7.3	20
28	Morphology Effects of CeO2 Nanomaterials on the Catalytic Combustion of Toluene: A Combined Kinetics and Diffuse Reflectance Infrared Fourier Transform Spectroscopy Study. *ACS Catalysis*, **2021**, 11, 7876-7889	13.1	19
27	Adsorption thermodynamics and desorption properties of gaseous polycyclic aromatic hydrocarbons on mesoporous adsorbents. *Adsorption*, **2017**, 23, 361-371	2.6	18
26	Mixed-cation LiCa-LSX zeolite with minimum lithium for air separation. *AICHE Journal*, **2018**, 64, 406-415	3.6	18
25	Thermodynamic analysis of molecular simulations of N2 and O2 adsorption on zeolites under plateau special conditions. *Applied Surface Science*, **2019**, 480, 868-875	6.7	17
24	Template Removal from SBA-15 by Ionic Liquid for Amine Grafting: Applications to CO2 Capture and Natural Gas Desulfurization. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 8295-8304	8.3	17
23	Desorption Kinetics of Naphthalene and Acenaphthene over Two Activated Carbons via Thermogravimetric Analysis. *Energy & Fuels*, **2015**, 29, 5303-5310	4.1	16
22	Anion Effects on the Adsorption of Acetylene by Nickel Halides. *Langmuir*, **1999**, 15, 7647-7652	4	15
21	NO removal with efficient recycling of NO from iron-ore sintering flue gas: A novel cyclic adsorption process. *Journal of Hazardous Materials*, **2021**, 407, 124380	12.8	14
20	Reply to “Comment on “Kinetics and Mechanistic Model for Hydrogen Spillover on Bridged Metal-Organic Frameworks”” *Journal of Physical Chemistry C*, **2008**, 112, 3155-3156	3.8	8
19	Insights into adsorption separation of N2/O2 mixture on FAU zeolites under plateau special conditions: A molecular simulation study. *Separation and Purification Technology*, **2020**, 251, 117405	8.3	8

18	SCR of Nitric Oxide by Hydrogen over Pd and Ir Based Catalysts with Different Supports. *Catalysis Letters*, **2015**, 145, 1491-1499	2.8	6
17	Role of Oxygen in the Nitrous Oxide/Carbon Reaction. *Journal of Physical Chemistry B*, **2002**, 106, 2592-2596	3.4	6
16	CO2 capture (including direct air capture) and natural gas desulfurization of amine-grafted hierarchical bimodal silica. *Chemical Engineering Journal*, **2022**, 427, 131561	14.7	6
15	Getting insight into the influence of coexisting airborne nanoparticles on gas adsorption performance over porous materials. *Journal of Hazardous Materials*, **2020**, 386, 121928	12.8	5
14	Chemical Liquid Deposition (CLD)-Modified Fe-ZSM-5 for Enhanced Activity and Resistance to C3H6 Poisoning in Selective Catalytic Reduction with NH3 (NH3-SCR). *Industrial & Engineering Chemistry Research*, **2018**, 57, 13586-13590	3.9	5
13	Novel Y2O3 Doped MnO x Binary Metal Oxides for NO x Storage at Low Temperature in Lean Burn Condition. *Catalysis Letters*, **2009**, 129, 104-110	2.8	4
12	Complexation Sorbents and Applications191-230		4
11	Recovery of high-purity NO2 and SO2 products from iron-ore sintering flue gas by distillation: process design, optimization and analysis. *Separation and Purification Technology*, **2021**, 264, 118308	8.3	4
10	Superior Silver Sorbents for Removing 2-Vinyl Thiophene from Styrene by Complexation. *Industrial & Engineering Chemistry Research*, **2019**, 58, 1769-1772	3.9	3
9	Effect of intermittent purge on O2 production with rapid pressure swing adsorption technology. *Adsorption*, **2021**, 27, 181-189	2.6	3
8	Influence of water on amine loading for ordered mesoporous silica. *Chemical Engineering Science*, **2021**, 241, 116717	4.4	3
7	NEW SORBENTS FOR DESULFURIZATION OF TRANSPORTATION FUELS **2003**,		2
6	SBA-15 Functionalized with Amines in the Presence of Water: Applications to CO2 Capture and Natural Gas Desulfurization. *Industrial & Engineering Chemistry Research*, **2021**, 60, 6277-6286	3.9	2
5	Effects of operating temperature on the performance of small scale rapid cycle pressure swing adsorption air separation process. *Adsorption*, **2021**, 27, 205-212	2.6	1
4	Understanding the promotional effect of 3d transition metals (Fe, Co, Cu) on Pd/TiO2 for H2-SCR. *Catalysis Science and Technology*, **2021**, 11, 886-894	5.5	1
3	Separation of SO and NO with the Zeolite Membrane: Molecular Simulation Insights into the Advantageous NO Dimerization Effect.. *Langmuir*, **2022**, 38, 2751-2762	4	0
2	Tunable amine loading of amine grafted mesoporous silica grafted at room temperature: Applications for CO2 capture. *Chemical Engineering Science*, **2022**, 254, 117626	4.4	0
1	Condensation Separation of NO with Dimerization Reaction in the Presence of Noncondensable Gas: Critical Assessment and Model Development.. *ACS Omega*, **2022**, 7, 14735-14745	3.9	