Phillip K Koech

List of Publications by Year
in descending order

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52	3,328	218677	206112
papers	citations	26	48
		h-index	g-index

56	56	56	5291
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Evaluation of a Third Generation Single-Component Water-Lean Diamine Solvent for Post-Combustion CO₂ Capture. ACS Sustainable Chemistry and Engineering, 2022, 10, 4522-4528.	6.7	6
2	AMPHIPHILIC WATERâ€LEAN CARBON CAPTURE SOLVENT WETTING BEHAVIOR VIA DECOMPOSITION BY STAINLESSâ€STEEL INTERFACES. ChemSusChem, 2021, 14, 5283-5292.	6.8	1
3	Polymer-cement composites with adhesion and re-adhesion (healing) to casing capability for geothermal wellbore applications. Cement and Concrete Composites, 2020, 107, 103490.	10.7	9
4	Self-repairing polymer-modified cements for high temperature geothermal and fossil energy applications. Geothermics, 2020, 85, 101790.	3.4	12
5	A single-component water-lean post-combustion CO₂ capture solvent with exceptionally low operational heat and total costs of capture â€“ comprehensive experimental and theoretical evaluation. Energy and Environmental Science, 2020, 13, 4106-4113.	30.8	47
6	Molecularâ€Level Overhaul of Î³â€Aminopropyl Aminosilicone/Triethylene Glycol Postâ€Combustion CO₂â€Capture Solvents. ChemSusChem, 2020, 13, 3429-3438.	6.8	16
7	Directed Hydrogen Bond Placement: Low Viscosity Amine Solvents for CO₂ Capture. ACS Sustainable Chemistry and Engineering, 2019, 7, 7535-7542.	6.7	34
8	Insights into the physical and chemical properties of a cement-polymer composite developed for geothermal wellbore applications. Cement and Concrete Composites, 2019, 97, 279-287.	10.7	22
9	Atomic Origins of the Self-Healing Function in Cementâ€“Polymer Composites. ACS Applied Materials & Interfaces, 2018, 10, 3011-3019.	8.0	23
10	Water-Lean Solvents for Post-Combustion CO₂Capture: Fundamentals, Uncertainties, Opportunities, and Outlook. Chemical Reviews, 2017, 117, 9594-9624.	47.7	249
11	Polymer-Cement Composites with Self-Healing Ability for Geothermal and Fossil Energy Applications. Chemistry of Materials, 2017, 29, 4708-4718.	6.7	28
12	Phase-Change Aminopyridines as Carbon Dioxide Capture Solvents. Industrial & Engineering Chemistry Research, 2017, 56, 7534-7540.	3.7	14
13	Reinventing Design Principles for Developing Lowâ€Viscosity Carbon Dioxideâ€Binding Organic Liquids for Flue Gas Clean Up. ChemSusChem, 2017, 10, 636-642.	6.8	26
14	Integrated Solvent Design for CO2 Capture and Viscosity Tuning. Energy Procedia, 2017, 114, 726-734.	1.8	10
15	Are Water-lean Solvent Systems Viable for Post-Combustion CO2 Capture?. Energy Procedia, 2017, 114, 756-763.	1.8	18
16	Pore-Engineered Metalâ€“Organic Frameworks with Excellent Adsorption of Water and Fluorocarbon Refrigerant for Cooling Applications. Journal of the American Chemical Society, 2017, 139, 10601-10604.	13.7	128
17	Structureâ€“property reduced order model for viscosity prediction in single-component CO₂-binding organic liquids. Green Chemistry, 2016, 18, 6004-6011.	9.0	20
18	Dynamic Acid/Base Equilibrium in Single Component Switchable Ionic Liquids and Consequences on Viscosity. Journal of Physical Chemistry Letters, 2016, 7, 1646-1652.	4.6	33

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19	Live Cell Discovery of Microbial Vitamin Transport and Enzyme-Cofactor Interactions. ACS Chemical Biology, 2016, 11, 345-354.	3.4	28
20	Measuring the Absorption Rate of CO₂ in Nonaqueous CO₂â€Binding Organic Liquid Solvents with a Wettedâ€Wall Apparatus. ChemSusChem, 2015, 8, 3617-3625.	6.8	45
21	Evaluating Transformational Solvent Systems for Post-combustion CO2 Separations. Energy Procedia, 2014, 63, 8144-8152.	1.8	15
22	Improving the regeneration of CO2-binding organic liquids with a polarity change. Energy and Environmental Science, 2013, 6, 2233.	30.8	79
23	Low viscosity alkanolguanidine and alkanolamidine liquids for CO₂capture. RSC Advances, 2013, 3, 566-572.	3.6	64
24	CO2-Binding-Organic-Liquids-Enhanced CO2 Capture using Polarity-Swing-Assisted Regeneration. Energy Procedia, 2013, 37, 285-291.	1.8	17
25	Synthesis and characterization of p-type conductivity dopant 2-(3-(adamantan-1-yl)propyl)-3,5,6-trifluoro-7,7,8,8-tetracyanoquinodimethane. Journal of Materials Chemistry C, 2013, 1, 1876.	5.5	21
26	Composite organic radicalâ€“inorganic hybrid cathode for lithium-ion batteries. Journal of Power Sources, 2013, 233, 69-73.	7.8	11
27	Near independence of OLED operating voltage on transport layer thickness. Synthetic Metals, 2013, 163, 29-32.	3.9	4
28	Assessing Anhydrous Tertiary Alkanolamines for High-Pressure Gas Purifications. Industrial & Engineering Chemistry Research, 2013, 52, 17562-17572.	3.7	10
29	Controlled Nucleation and Growth Process of Li₂S₂/Li₂S in Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2013, 160, A1992-A1996.	2.9	89
30	Suite of Activity-Based Probes for Cellulose-Degrading Enzymes. Journal of the American Chemical Society, 2012, 134, 20521-20532.	13.7	67
31	Factors affecting the battery performance of anthraquinone-based organic cathode materials. Journal of Materials Chemistry, 2012, 22, 4032.	6.7	126
32	Characterization of solution processed, p-doped films using hole-only devices and organic field-effect transistors. Organic Electronics, 2012, 13, 3085-3090.	2.6	7
33	Chemically selective gas sweetening without thermal-swing regeneration. Energy and Environmental Science, 2011, 4, 1385.	30.8	37
34	Anhydrous tertiary alkanolamines as hybrid chemical and physical CO₂capture reagents with pressure-swing regeneration. Energy and Environmental Science, 2011, 4, 480-484.	30.8	62
35	Electrochemically Induced High Capacity Displacement Reaction of PEO/MoS₂/Graphene Nanocomposites with Lithium. Advanced Functional Materials, 2011, 21, 2840-2846.	14.9	491
36	Performance of single-component CO2-binding organic liquids (CO2BOLs) for post combustion CO2 capture. Chemical Engineering Journal, 2011, 171, 794-800.	12.7	76

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37	CO2 -binding organic liquids, an integrated acid gas capture system. Energy Procedia, 2011, 4, 216-223.	1.8	35
38	5.3: Control of Emission Zone in Blue Phosphorescent OLEDs by Material Design. Digest of Technical Papers SID International Symposium, 2010, 41, 47-49.	0.3	0
39	Pâ€188: Molecular Engineering of Host Materials for Blue Phosphorescent OLEDs: Past, Present and Future. Digest of Technical Papers SID International Symposium, 2010, 41, 1887-1889.	0.3	1
40	Exfoliated MoS₂ Nanocomposite as an Anode Material for Lithium Ion Batteries. Chemistry of Materials, 2010, 22, 4522-4524.	6.7	714
41	Emission zone control in blue organic electrophosphorescent devices through chemical modification of host materials. Applied Physics Letters, 2010, 96, 053306.	3.3	12
42	Synthesis and Application of Pyridine-Based Ambipolar Hosts: Control of Charge Balance in Organic Light-Emitting Devices by Chemical Structure Modification. Organic Letters, 2010, 12, 5534-5537.	4.6	37
43	Phosphine Oxide Based Electron Transporting and Hole Blocking Materials for Blue Electrophosphorescent Organic Light Emitting Devices. Chemistry of Materials, 2010, 22, 5678-5686.	6.7	50
44	Synthesis and Application of 1,3,4,5,7,8-Hexafluorotetracyanonaphthoquinodimethane (F6-TNAP): A Conductivity Dopant for Organic Light-Emitting Devices. Chemistry of Materials, 2010, 22, 3926-3932.	6.7	90
45	A reversible zwitterionic SO₂-binding organic liquid. Energy and Environmental Science, 2010, 3, 111-113.	30.8	72
46	Reversible zwitterionic liquids, the reaction of alkanol guanidines, alkanol amidines, and diamines with CO2. Green Chemistry, 2010, 12, 713.	9.0	158
47	Enantioselective total and formal syntheses of paroxetine (PAXIL) via phosphine-catalyzed enone Î±-arylation using arylbismuth(V) reagents: a regiochemical complement to Heck arylation. Tetrahedron, 2006, 62, 10594-10602.	1.9	42
48	Catalytic Addition of Metalo-Aldehyde Enolates to Ketones: A New Câ€”C Bond-Forming Hydrogenation.. ChemInform, 2004, 35, no.	0.0	0
49	Phosphine-Catalyzed Î±-Arylation of Enones and Enals Using Hypervalent Bismuth Reagents: Regiospecific Enolate Arylation via Nucleophilic Catalysis.. ChemInform, 2004, 35, no.	0.0	0
50	Catalytic Addition of Metallo-Aldehyde Enolates to Ketones:â€‰ A New Câ€’C Bond-Forming Hydrogenation. Organic Letters, 2004, 6, 691-694.	4.6	70
51	Phosphine Catalyzed Î±-Arylation of Enones and Enals Using Hypervalent Bismuth Reagents:Â Regiospecific Enolate Arylation via Nucleophilic Catalysis. Journal of the American Chemical Society, 2004, 126, 5350-5351.	13.7	91
52	Bench-Scale Testing and Process Performance Projections of CO₂Capture by CO₂â€“Binding Organic Liquids (CO₂BOLs) with and without Polarity-Swing-Assisted Regeneration. Energy & Fuels, 0, , .	5.1	11