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	Exfoliated MoS₂ Nanocomposite as an Anode Material for Lithium Ion Batteries. Chemistry of Materials, 2010, 22, 4522-4524.	6.7	714
2	Electrochemically Induced High Capacity Displacement Reaction of PEO/MoS₂/Graphene Nanocomposites with Lithium. Advanced Functional Materials, 2011, 21, 2840-2846.	14.9	491
3	Water-Lean Solvents for Post-Combustion CO₂Capture: Fundamentals, Uncertainties, Opportunities, and Outlook. Chemical Reviews, 2017, 117, 9594-9624.	47.7	249
4	Reversible zwitterionic liquids, the reaction of alkanol guanidines, alkanol amidines, and diamines with CO2. Green Chemistry, 2010, 12, 713.	9.0	158
5	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
6	Factors affecting the battery performance of anthraquinone-based organic cathode materials. Journal of Materials Chemistry, 2012, 22, 4032.	6.7	126
7	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
8	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
9	Controlled Nucleation and Growth Process of Li₂S₂/Li₂S in Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2013, 160, A1992-A1996.	2.9	89
10	Improving the regeneration of CO2-binding organic liquids with a polarity change. Energy and Environmental Science, 2013, 6, 2233.	30.8	79
11	Performance of single-component CO2-binding organic liquids (CO2BOLs) for post combustion CO2 capture. Chemical Engineering Journal, 2011, 171, 794-800.	12.7	76
12	A reversible zwitterionic SO₂-binding organic liquid. Energy and Environmental Science, 2010, 3, 111-113.	30.8	72
13	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
14	Suite of Activity-Based Probes for Cellulose-Degrading Enzymes. Journal of the American Chemical Society, 2012, 134, 20521-20532.	13.7	67
15	Low viscosity alkanolguanidine and alkanolamidine liquids for CO₂capture. RSC Advances, 2013, 3, 566-572.	3.6	64
16	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
17	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
18	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

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19	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
20	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
21	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
22	Chemically selective gas sweetening without thermal-swing regeneration. Energy and Environmental Science, 2011, 4, 1385.	30.8	37
23	CO2 -binding organic liquids, an integrated acid gas capture system. Energy Procedia, 2011, 4, 216-223.	1.8	35
24	Directed Hydrogen Bond Placement: Low Viscosity Amine Solvents for CO₂ Capture. ACS Sustainable Chemistry and Engineering, 2019, 7, 7535-7542.	6.7	34
25	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
26	Live Cell Discovery of Microbial Vitamin Transport and Enzyme-Cofactor Interactions. ACS Chemical Biology, 2016, 11, 345-354.	3.4	28
27	Polymer-Cement Composites with Self-Healing Ability for Geothermal and Fossil Energy Applications. Chemistry of Materials, 2017, 29, 4708-4718.	6.7	28
28	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
29	Atomic Origins of the Self-Healing Function in Cementâ€“Polymer Composites. ACS Applied Materials & Interfaces, 2018, 10, 3011-3019.	8.0	23
30	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
31	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
32	Structureâ€“property reduced order model for viscosity prediction in single-component CO₂-binding organic liquids. Green Chemistry, 2016, 18, 6004-6011.	9.0	20
33	Are Water-lean Solvent Systems Viable for Post-Combustion CO2 Capture?. Energy Procedia, 2017, 114, 756-763.	1.8	18
34	CO2-Binding-Organic-Liquids-Enhanced CO2 Capture using Polarity-Swing-Assisted Regeneration. Energy Procedia, 2013, 37, 285-291.	1.8	17
35	Molecularâ€Level Overhaul of Î³â€Aminopropyl Aminosilicone/Triethylene Glycol Postâ€Combustion CO₂â€Capture Solvents. ChemSusChem, 2020, 13, 3429-3438.	6.8	16
36	Evaluating Transformational Solvent Systems for Post-combustion CO2 Separations. Energy Procedia, 2014, 63, 8144-8152.	1.8	15

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37	Phase-Change Aminopyridines as Carbon Dioxide Capture Solvents. Industrial & Engineering Chemistry Research, 2017, 56, 7534-7540.	3.7	14
38	Emission zone control in blue organic electrophosphorescent devices through chemical modification of host materials. Applied Physics Letters, 2010, 96, 053306.	3.3	12
39	Self-repairing polymer-modified cements for high temperature geothermal and fossil energy applications. Geothermics, 2020, 85, 101790.	3.4	12
40	Composite organic radicalâ€“inorganic hybrid cathode for lithium-ion batteries. Journal of Power Sources, 2013, 233, 69-73.	7.8	11
41	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
42	Assessing Anhydrous Tertiary Alkanolamines for High-Pressure Gas Purifications. Industrial & Engineering Chemistry Research, 2013, 52, 17562-17572.	3.7	10
43	Integrated Solvent Design for CO2 Capture and Viscosity Tuning. Energy Procedia, 2017, 114, 726-734.	1.8	10
44	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
45	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
46	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
47	Near independence of OLED operating voltage on transport layer thickness. Synthetic Metals, 2013, 163, 29-32.	3.9	4
48	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
49	AMPHIPHILIC WATERâ€LEAN CARBON CAPTURE SOLVENT WETTING BEHAVIOR VIA DECOMPOSITION BY STAINLESSâ€STEEL INTERFACES. ChemSusChem, 2021, 14, 5283-5292.	6.8	1
50	Catalytic Addition of Metalo-Aldehyde Enolates to Ketones: A New Câ€”C Bond-Forming Hydrogenation.. ChemInform, 2004, 35, no.	0.0	0
51	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
52	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