# Alistair W T King

List of Publications by Year
in descending order

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|---|---|---|---|
| 80 papers | 4,033 citations | 126708 33 h-index | 118652 62 g-index |
| 95 all docs | 95 docs citations | 95 times ranked | 3786 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Dissolution of Wood in Ionic Liquids. Journal of Agricultural and Food Chemistry, 2007, 55, 9142-9148. | 2.4 | 850 |
| 2 | Role of Solvent Parameters in the Regeneration of Cellulose from Ionic Liquid Solutions. Biomacromolecules, 2012, 13, 2896-2905. | 2.6 | 236 |
| 3 | Distillable Acidâ€“Base Conjugate Ionic Liquids for Cellulose Dissolution and Processing. Angewandte Chemie - International Edition, 2011, 50, 6301-6305. | 7.2 | 208 |
| 4 | Ioncell-F: A High-strength regenerated cellulose fibre. Nordic Pulp and Paper Research Journal, 2015, 30, 43-57. | 0.3 | 190 |
| 5 | Thorough Chemical Modification of Wood-Based Lignocellulosic Materials in Ionic Liquids. Biomacromolecules, 2007, 8, 3740-3748. | 2.6 | 183 |
| 6 | Predicting Cellulose Solvating Capabilities of Acidâ€“Base Conjugate Ionic Liquids. ChemSusChem, 2013, 6, 2161-2169. | 3.6 | 121 |
| 7 | Chemical Modification of Reducing Endâ€Groups in Cellulose Nanocrystals. Angewandte Chemie - International Edition, 2021, 60, 66-87. | 7.2 | 83 |
| 8 | Impact of Amphiphilic Biomass-Dissolving Ionic Liquids on Biological Cells and Liposomes. Environmental Science & Technology, 2015, 49, 1870-1878. | 4.6 | 78 |
| 9 | Tosylation and acylation of cellulose in 1-allyl-3-methylimidazolium chloride. Cellulose, 2008, 15, 481-488. | 2.4 | 76 |
| 10 | Superhydrophobic Paper from Nanostructured Fluorinated Cellulose Esters. ACS Applied Materials & Interfaces, 2018, 10, 11280-11288. | 4.0 | 75 |
| 11 | Effect of Ionic Liquids on Zebrafish (Danio rerio) Viability, Behavior, and Histology; Correlation between Toxicity and Ionic Liquid Aggregation. Environmental Science & Technology, 2016, 50, 7116-7125. | 4.6 | 74 |
| 12 | In Situ Determination of Lignin Phenolics and Wood Solubility in Imidazolium Chlorides Using<sup>31</sup>P NMR. Journal of Agricultural and Food Chemistry, 2009, 57, 8236-8243. | 2.4 | 72 |
| 13 | Relative and inherent reactivities of imidazolium-based ionic liquids: the implications for lignocellulose processing applications. RSC Advances, 2012, 2, 8020. | 1.7 | 72 |
| 14 | Amphiphilic and Phaseâ€Separable Ionic Liquids for Biomass Processing. ChemSusChem, 2014, 7, 1422-1434. | 3.6 | 60 |
| 15 | Sustainability of cellulose dissolution and regeneration in 1,5-diazabicyclo[4.3.0]non-5-enium acetate: a batch simulation of the IONCELL-F process. RSC Advances, 2015, 5, 69728-69737. | 1.7 | 60 |
| 16 | Ionic Liquids for the Production of Man-Made Cellulosic Fibers: Opportunities and Challenges. Advances in Polymer Science, 2015, , 133-168. | 0.4 | 58 |
| 17 | Molecular Weight Distributions and Linkages in Lignocellulosic Materials Derivatized from Ionic Liquid Media. Journal of Agricultural and Food Chemistry, 2011, 59, 829-838. | 2.4 | 57 |
| 18 | Liquid-State NMR Analysis of Nanocelluloses. Biomacromolecules, 2018, 19, 2708-2720. | 2.6 | 57 |

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|---|---|---|---|
| 19 | Unique reactivity of nanoporous cellulosic materials mediated by surface-confined water. Nature Communications, 2021, 12, 2513. | 5.8 | 57 |
| 20 | A new method for rapid degree of substitution and purity determination of chloroform-soluble cellulose esters, using 31P NMR. Analytical Methods, 2010, 2, 1499. | 1.3 | 50 |
| 21 | Enhancement of ionic liquid-aided fractionation of birchwood. Part 1: autohydrolysis pretreatment. RSC Advances, 2013, 3, 16365. | 1.7 | 45 |
| 22 | Correlation between Ionic Liquid Cytotoxicity and Liposomeâ€“Ionic Liquid Interactions. Chemistry - A European Journal, 2018, 24, 2669-2680. | 1.7 | 43 |
| 23 | Synthesis of Cellulose Methylcarbonate in Ionic Liquids using Dimethylcarbonate. ChemSusChem, 2015, 8, 77-81. | 3.6 | 41 |
| 24 | Homogenous esterification of cellulose pulp in [DBNH][OAc]. Cellulose, 2017, 24, 5341-5354. | 2.4 | 41 |
| 25 | Assembling Native Elementary Cellulose Nanofibrils via a Reversible and Regioselective Surface Functionalization. Journal of the American Chemical Society, 2021, 143, 17040-17046. | 6.6 | 41 |
| 26 | Crystallinity reduction and enhancement in the chemical reactivity of cellulose by non-dissolving pre-treatment with tetrabutylphosphonium acetate. Cellulose, 2020, 27, 5545-5562. | 2.4 | 39 |
| 27 | Hydrophobic Interactions Determining Functionalized Lignocellulose Solubility in Dialkylimidazolium Chlorides, as Probed by <sup>31</sup>P NMR. Biomacromolecules, 2009, 10, 458-463. | 2.6 | 38 |
| 28 | Impact of Surface-Active Guanidinium-, Tetramethylguanidinium-, and Cholinium-Based Ionic Liquids on Vibrio Fischeri Cells and Dipalmitoylphosphatidylcholine Liposomes. Scientific Reports, 2017, 7, 46673. | 1.6 | 38 |
| 29 | Highly compatible wood thermoplastic composites from lignocellulosic material modified in ionic liquids: Preparation and thermal properties. Journal of Applied Polymer Science, 2009, 111, 2468-2476. | 1.3 | 36 |
| 30 | Efficiency of hydrophobic phosphonium ionic liquids and DMSO as recyclable cellulose dissolution and regeneration media. RSC Advances, 2017, 7, 17451-17461. | 1.7 | 36 |
| 31 | On the solubility of wood in non-derivatising ionic liquids. Green Chemistry, 2013, 15, 2374. | 4.6 | 35 |
| 32 | Fast and highly efficient acetylation of xylans in ionic liquid systems. Cellulose, 2013, 20, 2813-2824. | 2.4 | 35 |
| 33 | Experimental and Theoretical Thermodynamic Study of Distillable Ionic Liquid 1,5-Diazabicyclo[4.3.0]non-5-enium Acetate. Industrial & Engineering Chemistry Research, 2016, 55, 10445-10454. | 1.8 | 35 |
| 34 | 2D Assignment and quantitative analysis of cellulose and oxidized celluloses using solution-state NMR spectroscopy. Cellulose, 2020, 27, 7929-7953. | 2.4 | 34 |
| 35 | Solvent Welding and Imprinting Cellulose Nanofiber Films Using Ionic Liquids. Biomacromolecules, 2019, 20, 502-514. | 2.6 | 31 |
| 36 | Fractionation of Lignocellulosic Materials with Ionic Liquids. 1. Effect of Mechanical Treatment. Industrial & Engineering Chemistry Research, 2011, 50, 12349-12357. | 1.8 | 30 |

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|---|---|---|---|
| 37 | A comparative study of water-immiscible organic solvents in the production of furfural from xylose and birch hydrolysate. Journal of Industrial and Engineering Chemistry, 2019, 72, 354-363. | 2.9 | 30 |
| 38 | Stereoselective reductase-catalysed deoxygenation of sulfoxides in aerobic and anaerobic bacteria. Organic and Biomolecular Chemistry, 2004, 2, 554. | 1.5 | 29 |
| 39 | Solutionâ€State Oneâ€and Twoâ€Dimensional NMR Spectroscopy of Highâ€Molecularâ€Weight Cellulose. ChemSusChem, 2016, 9, 880-892. | 3.6 | 29 |
| 40 | Cellulose hydrolysis with thermo- and alkali-tolerant cellulases in cellulose-dissolving superbase ionic liquids. RSC Advances, 2013, 3, 20001. | 1.7 | 26 |
| 41 | Application of mild autohydrolysis to facilitate the dissolution of wood chips in direct-dissolution solvents. Green Chemistry, 2016, 18, 3286-3294. | 4.6 | 26 |
| 42 | High-Performance Acetylated Ioncell-F Fibers with Low Degree of Substitution. ACS Sustainable Chemistry and Engineering, 2018, 6, 9418-9426. | 3.2 | 26 |
| 43 | Improved Reactivity of Cellulose via Its Crystallinity Reduction by Nondissolving Pretreatment with an Ionic Liquid. ACS Sustainable Chemistry and Engineering, 2019, 7, 9164-9171. | 3.2 | 26 |
| 44 | Binary mixtures of ionic liquids-DMSO as solvents for the dissolution and derivatization of cellulose: Effects of alkyl and alkoxy side chains. Carbohydrate Polymers, 2019, 212, 206-214. | 5.1 | 26 |
| 45 | Fractionation of Lignocellulosic Materials Using Ionic Liquids: Part 2. Effect of Particle Size on the Mechanisms of Fractionation. Industrial & Engineering Chemistry Research, 2013, 52, 3958-3966. | 1.8 | 25 |
| 46 | Coaxial Spinning of All-Cellulose Systems for Enhanced Toughness: Filaments of Oxidized Nanofibrils Sheathed in Cellulose II Regenerated from a Protic Ionic Liquid. Biomacromolecules, 2020, 21, 878-891. | 2.6 | 25 |
| 47 | The molecular structure and multifunctionality of the cryptic plant polymer suberin. Materials Today Bio, 2020, 5, 100039. | 2.6 | 24 |
| 48 | Regioselective and water-assisted surface esterification of never-dried cellulose: nanofibers with adjustable surface energy. Green Chemistry, 2021, 23, 6966-6974. | 4.6 | 24 |
| 49 | Extraction of Wheat Straw with Aqueous Tetra-n-Butylphosphonium Hydroxide. BioResources, 2013, 9, . | 0.5 | 23 |
| 50 | Feasibility of thermal separation in recycling of the distillable ionic liquid [DBNH][OAc] in cellulose fiber production. Chemical Engineering Research and Design, 2016, 114, 287-298. | 2.7 | 23 |
| 51 | Diverting Hydrogenations with Wilkinson's Catalyst towards Highly Reactive Rhodium(I) Species. Angewandte Chemie - International Edition, 2015, 54, 14321-14325. | 7.2 | 21 |
| 52 | Phosphonium-based ionic liquids in electrokinetic capillary chromatography for the separation of neutral analytes. Journal of Chromatography A, 2012, 1253, 171-176. | 1.8 | 20 |
| 53 | Immobilization of a phosphonium ionic liquid on a silica monolith for hydrophilic interaction chromatography. Journal of Chromatography A, 2018, 1552, 53-59. | 1.8 | 20 |
| 54 | MECHANICAL PULPING: Effect of autohydrolysis on the lignin structure and the kinetics of delignification of birch wood. Nordic Pulp and Paper Research Journal, 2011, 26, 386-391. | 0.3 | 19 |

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|---|---|---|---|
| 55 | Oxygen delignification of conventional and high alkali cooked softwood Kraft pulps, and study of the residual lignin structure. RSC Advances, 2014, 4, 17469-17477. | 1.7 | 19 |
| 56 | Amination and thiolation of chloroacetyl cellulose through reactive dissolution in N,N-dimethylformamide. Carbohydrate Polymers, 2015, 116, 60-66. | 5.1 | 19 |
| 57 | Plasticized Cellulosic Films by Partial Esterification and Welding in Low-Concentration Ionic Liquid Electrolyte. Biomacromolecules, 2019, 20, 2105-2114. | 2.6 | 19 |
| 58 | Knoevenagel Condensation for Modifying the Reducing End Groups of Cellulose Nanocrystals. ACS Macro Letters, 2019, 8, 1642-1647. | 2.3 | 19 |
| 59 | Effect of ionic liquids on the interaction between liposomes and common wastewater pollutants investigated by capillary electrophoresis. Journal of Chromatography A, 2015, 1405, 178-187. | 1.8 | 18 |
| 60 | WtFâ€Nano: Oneâ€Pot Dewatering and Waterâ€Free Topochemical Modification of Nanocellulose in Ionic Liquids or Î³â€Valerolactone. ChemSusChem, 2017, 10, 4879-4890. | 3.6 | 14 |
| 61 | Challenges in Synthesis and Analysis of Asymmetrically Grafted Cellulose Nanocrystals via Atom Transfer Radical Polymerization. Biomacromolecules, 2021, 22, 2702-2717. | 2.6 | 14 |
| 62 | On the Mechanism of the Reactivity of 1,3â€Dialkylimidazolium Salts under Basic to Acidic Conditions: A Combined Kinetic and Computational Study. Angewandte Chemie - International Edition, 2018, 57, 11613-11617. | 7.2 | 13 |
| 63 | Determination of the distribution constants of aromatic compounds and steroids in biphasic micellar phosphonium ionic liquid/aqueous buffer systems by capillary electrokinetic chromatography. Journal of Chromatography A, 2013, 1308, 144-151. | 1.8 | 12 |
| 64 | Highly regioselective surface acetylation of cellulose and shaped cellulose constructs in the gas-phase. Green Chemistry, 2022, 24, 5604-5613. | 4.6 | 12 |
| 65 | Parameters affecting monolayer organisation of substituted polysaccharides on solid substrates upon Langmuirâ€“Schaefer deposition. Reactive and Functional Polymers, 2016, 99, 100-106. | 2.0 | 11 |
| 66 | Interactions of Ionic Liquids and Spirocyclic Compounds with Liposome Model Membranes. A Steady-State Fluorescence Anisotropy Study. Scientific Reports, 2019, 9, 18349. | 1.6 | 10 |
| 67 | Inhibition of hyperthermostable xylanases by superbase ionic liquids. Process Biochemistry, 2020, 95, 148-156. | 1.8 | 10 |
| 68 | Clustered Single Cellulosic Fiber Dissolution Kinetics and Mechanisms through Optical Microscopy under Limited Dissolving Conditions. Biomacromolecules, 2018, 19, 1635-1645. | 2.6 | 7 |
| 69 | On the Mechanism of the Reactivity of 1,3â€Dialkylimidazolium Salts under Basic to Acidic Conditions: A Combined Kinetic and Computational Study. Angewandte Chemie, 2018, 130, 11787-11791. | 1.6 | 4 |
| 70 | Phase-separation of cellulose from ionic liquid upon cooling: preparation of microsized particles. Cellulose, 2021, 28, 10921-10938. | 2.4 | 4 |
| 71 | Pervaporation recovery of [AMIM]Cl during wood dissolution; effect of [AMIM]Cl properties on the membrane performance. Journal of Membrane Science, 2013, 444, 9-15. | 4.1 | 3 |
| 72 | CHAPTER 5: REDUCTION OF BIOMASS RECALCITRANCE VIA IONIC LIQUID PRETREATMENTS. Materials and Energy, 2014, , 95-125. | 2.5 | 3 |

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|---|---|---|---|
| 73 | Screening of glycoside hydrolases and ionic liquids for fibre modification. Journal of Chemical Technology and Biotechnology, 2018, 93, 818-826. | 1.6 | 3 |
| 74 | Dioxygenase-catalysed mono-, di- and tri-oxygenation of dialkyl sulfides and thioacetals: chemoenzymatic synthesis of enantiopure cis-diol sulfoxides. Journal of the Chemical Society, Perkin Transactions 1, 2001, , 3288-3296. | 1.3 | 2 |
| 75 | Immobilization of natural lipid biomembranes and their interactions with choline carboxylates. A nanoplasmonic sensing study. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183115. | 1.4 | 2 |
| 76 | Chemische Modifizierung der reduzierenden Enden von Cellulosenanokristallen. Angewandte Chemie, 2021, 133, 66-88. | 1.6 | 2 |
| 77 | Thermoâ€reversible cellulose micro phaseâ€separation in mixtures of methyltributylphosphonium acetate and Î³â€valerolactone or DMSO. ChemPhysChem, 2022, , . | 1.0 | 2 |
| 78 | Enhanced activity of hyperthermostable Pyrococcus horikoshii endoglucanase in superbase ionic liquids. Biotechnology Letters, 0, , . | 1.1 | 2 |
| 79 | Characterization and applications of a trioctyl(3/4-vinylbenzyl)phosphonium stationary phase for use in capillary liquid chromatography. Journal of Chromatography A, 2022, 1666, 462866. | 1.8 | 1 |
| 80 | Modification of Lignocellulosics in the Dissolved State for Added Functionality. , 2020, , 65-90. | | 0 |