

# Lingxin Kong

## List of Publications by Year in descending order

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103  
papers

1,256  
citations

331259

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h-index

525886

27  
g-index

122  
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122  
docs citations

122  
times ranked

644  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Sustainable extraction of lead and re-use of valuable metals from lead-rich secondary materials. <i>Journal of Cleaner Production</i> , 2019, 219, 110-116.   | 4.6 | 59        |
| 2  | Application of molecular interaction volume model in vacuum distillation of Pb-based alloys. <i>Vacuum</i> , 2012, 86, 1296-1299.   | 1.6 | 46        |
| 3  | Purification of crude selenium by vacuum distillation and analysis. <i>Journal of Materials Research and Technology</i> , 2020, 9, 2926-2933.   | 2.6 | 41        |
| 4  | Behavior Analysis of CaF <sub>2</sub> in Magnesia Carbothermic Reduction Process in Vacuum. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2012, 43, 657-661. | 1.0 | 38        |
| 5  | Impurities Removal From Metallurgical Grade Silicon Using Gas Blowing Refining Techniques. <i>Silicon</i> , 2014, 6, 79-85.   | 1.8 | 38        |
| 6  | Removal of impurities from crude lead with high impurities by vacuum distillation and its analysis. <i>Vacuum</i> , 2014, 105, 17-20.   | 1.6 | 37        |
| 7  | Vapor-liquid phase diagrams of Pb-Sn and Pb-Ag alloys in vacuum distillation. <i>Vacuum</i> , 2015, 119, 179-184.   | 1.6 | 35        |
| 8  | Deeply removing lead from Pb-Sn alloy with vacuum distillation. <i>Transactions of Nonferrous Metals Society of China</i> , 2013, 23, 1822-1831.  | 1.7 | 30        |
| 9  | Thermodynamics of removing impurities from crude lead by vacuum distillation refining. <i>Transactions of Nonferrous Metals Society of China</i> , 2014, 24, 1946-1950.   | 1.7 | 30        |
| 10 | Selective removal of heavy metal ions from aqueous solutions with surface functionalized silica nanoparticles by different functional groups. <i>Journal of Central South University</i> , 2014, 21, 3575-3579.         | 1.2 | 30        |
| 11 | Theoretical insights into the structural, relative stable, electronic, and gas sensing properties of Pb <sub>n</sub> Au <sub>n</sub> (n = 2-12) clusters: a DFT study. <i>RSC Advances</i> , 2017, 7, 45432-45441.      | 1.7 | 28        |
| 12 | Application of MIVM for Pb-Sn System in Vacuum Distillation. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2012, 43, 1649-1656.                              | 1.0 | 27        |
| 13 | Application of vacuum distillation in refining crude indium. <i>Rare Metals</i> , 2013, 32, 627-631.  | 3.6 | 27        |
| 14 | Analysis of Magnesia Carbothermic Reduction Process in Vacuum. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2014, 45, 1936-1941.                            | 1.0 | 27        |
| 15 | Study on Al Removal from MG-Si by Vacuum Refining. <i>Silicon</i> , 2015, 7, 269-274.   | 1.8 | 27        |
| 16 | Application of MIVM for Pb-Sn-Sb ternary system in vacuum distillation. <i>Vacuum</i> , 2014, 101, 324-327.   | 1.6 | 26        |
| 17 | Process optimization for vacuum distillation of Sn-Sb alloy by response surface methodology. <i>Vacuum</i> , 2014, 109, 127-134.  | 1.6 | 25        |
| 18 | Calculation of phase equilibrium in vacuum distillation by molecular interaction volume model. <i>Fluid Phase Equilibria</i> , 2012, 314, 78-81.  | 1.4 | 22        |

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|----|---|-----|-----------|
| 19 | Magnesium production by carbothermic reduction in vacuum. Journal of Magnesium and Alloys, 2015, 3, 149-154.  | 5.5 | 22        |
| 20 | Vapor-liquid phase equilibria of binary tin-antimony system in vacuum distillation: Experimental investigation and calculation. Fluid Phase Equilibria, 2016, 415, 176-183.   | 1.4 | 22        |
| 21 | Application of Molecular Interaction Volume Model for Phase Equilibrium of Sn-Based Binary System in Vacuum Distillation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 4405-4410. | 1.1 | 21        |
| 22 | Rational Design of Electrolyte Solvation Structures for Modulating $2e^-/4e^-$ Transfer in Sodium-Air Batteries. Advanced Functional Materials, 2022, 32, .   | 7.8 | 21        |
| 23 | Aluminum production by carbothermo-chlorination reduction of alumina in vacuum. Transactions of Nonferrous Metals Society of China, 2010, 20, 1505-1510.  | 1.7 | 19        |
| 24 | Boron Removal from Metallurgical Grade Silicon using a Refining Technique of Calcium Silicate Molten Slag Containing Potassium Carbonate. Silicon, 2015, 7, 247-252.  | 1.8 | 19        |
| 25 | Purification of indium by vacuum distillation and its analysis. Journal of Central South University, 2013, 20, 337-341.   | 1.2 | 18        |
| 26 | Synthesis of vanadium doped LiMnPO <sub>4</sub> by an improved solid-state method. Ceramics International, 2015, 41, 8171-8176.   | 2.3 | 18        |
| 27 | Experimental and modeling vapor-liquid equilibria: Separation of Bi from Sn by vacuum distillation. Vacuum, 2017, 135, 109-114.   | 1.6 | 18        |
| 28 | Carbothermal reduction-chlorination-disproportionation of alumina in vacuum. Transactions of Nonferrous Metals Society of China, 2012, 22, 215-221.   | 1.7 | 17        |
| 29 | Thermodynamic calculation and experimental investigation on the products of carbothermal reduction of Al <sub>2</sub> O <sub>3</sub> under vacuum. Vacuum, 2012, 86, 2005-2009.   | 1.6 | 17        |
| 30 | Application of MIVM for phase equilibrium of Sn-Pb-Sb system in vacuum distillation. Fluid Phase Equilibria, 2014, 364, 1-5.  | 1.4 | 16        |
| 31 | Measurement and modeling of phase equilibria for Sb-Sn and Bi-Sb-Sn alloys in vacuum distillation. Fluid Phase Equilibria, 2017, 442, 62-67.  | 1.4 | 16        |
| 32 | Preparation of Nickel Nanoparticles by Direct Current Arc Discharge Method and Their Catalytic Application in Hybrid Na-Air Battery. Nanomaterials, 2018, 8, 684.   | 1.9 | 16        |
| 33 | Color-tunable and upconversion luminescence of Gd <sub>2</sub> O <sub>2</sub> S:Er,Tb phosphor. Materials Chemistry and Physics, 2016, 169, 113-119.  | 2.0 | 15        |
| 34 | Effective separation and recovery of valuable metals from high value-added lead anode slime by sustainable vacuum distillation. Journal of Cleaner Production, 2021, 319, 128731.   | 4.6 | 15        |
| 35 | Selection of Low-Cost Ionic Liquid Electrocatalyst for CO <sub>2</sub> Reduction in Propylene Carbonate/Tetrabutylammonium Perchlorate. ChemElectroChem, 2018, 5, 2295-2300.  | 1.7 | 14        |
| 36 | Direct carbothermic reduction of porous calcium titanate to porous titanium. Materials Science and Engineering C, 2018, 91, 125-134.  | 3.8 | 14        |

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|----|---|-----|-----------|
| 37 | Recycling of Spent Indium-Gallium-Zinc Oxide Based on Molten Salt Electrolysis. ACS Sustainable Chemistry and Engineering, 2020, 8, 16296-16303.  | 3.2 | 14        |
| 38 | Ultrafine AlN synthesis by alumina carbothermal reduction under vacuum: Mechanism and experimental study. Powder Technology, 2021, 377, 843-846.  | 2.1 | 14        |
| 39 | Calculation and Characterization of Silicon-Boron Phases in Metallurgical Grade Silicon. Silicon, 2012, 4, 289-295.   | 1.8 | 13        |
| 40 | Application of MIVM for Sn-Zn System in Vacuum Distillation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 1205-1213.  | 1.1 | 13        |
| 41 | Fabrication of Ag <sub>2</sub> S electrode for CO <sub>2</sub> reduction in organic media. Ionics, 2019, 25, 1921-1927.   | 1.2 | 13        |
| 42 | Advances in Molten Salt Synthesis of Non-oxide Materials. Energy and Environmental Materials, 2023, 6, .  | 7.3 | 13        |
| 43 | Application of molecular interaction volume model in separation of Pb-Sn-Sb ternary alloy by vacuum distillation. Transactions of Nonferrous Metals Society of China, 2013, 23, 2408-2415.  | 1.7 | 12        |
| 44 | Influence of vacuum upon preparation and luminescence of Si <sup>4+</sup> and Ti <sup>4+</sup> codoped Gd <sub>2</sub> O <sub>2</sub> S:Eu phosphor. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 126, 46-52. | 2.0 | 11        |
| 45 | Promoting Homogeneous Interfacial Li <sup>+</sup> Migration by Using a Facile N <sub>2</sub> Plasma Strategy for All-Solid-State Lithium-Metal Batteries. Advanced Functional Materials, 2022, 32, .  | 7.8 | 11        |
| 46 | Effect of CH <sub>3</sub> COOH on Hydrometallurgical Purification of Metallurgical-Grade Silicon Using HCl-HF Leaching. Jom, 2018, 70, 527-532.   | 0.9 | 10        |
| 47 | A Novel Method of Fabricating Al-V Intermetallic Alloy through Electrode Heating. Metals, 2019, 9, 558.   | 1.0 | 10        |
| 48 | Effect of Sn <sup>4+</sup> content on properties of indium tin oxide nanopowders. Transactions of Nonferrous Metals Society of China, 2010, 20, 643-648.  | 1.7 | 8         |
| 49 | Theory Study of AlCl Disproportionation Reaction Mechanism on Al (110) Surface. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2010, 41, 137-145.   | 1.0 | 7         |
| 50 | Carbothermic reduction of alumina with carbon in vacuum. Journal of Central South University, 2012, 19, 1813-1816.  | 1.2 | 7         |
| 51 | Influence of Dy <sup>3+</sup> coactivator on the luminescence properties of Gd <sub>2</sub> O <sub>2</sub> S:Tb <sup>3+</sup> phosphor. Journal of Applied Physics, 2012, 111, 023101.  | 1.1 | 7         |
| 52 | Structural, Relative Stable, and Electronic Properties of PbnSnn (n=12) Clusters were Investigated Using Density Functional Theory. Journal of Cluster Science, 2017, 28, 2503-2516.  | 1.7 | 7         |
| 53 | Dynamic Simulation and Experimental Study of Magnesia Formed Between Magnesium Vapor and CO Under Vacuum. Jom, 2019, 71, 2791-2797.   | 0.9 | 7         |
| 54 | Highly Hierarchical Fibrillar Biogenic Silica with Mesoporous Structure Derived from the Perennial Plant <i>Equisetum Fluviatile</i> . ACS Applied Materials & Interfaces, 2020, 12, 35259-35265.   | 4.0 | 7         |

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|----|--|-----|-----------|
| 55 | Molecular dynamics simulation on diffusion properties of Pb-Mg alloy. Science China Technological Sciences, 2010, 53, 2328-2332.   | 2.0 | 6         |
| 56 | Investigation of chlorination process in aluminum production by carbothermic-chlorination reduction of Al <sub>2</sub> O <sub>3</sub> under vacuum. Vacuum, 2012, 86, 1113-1117.   | 1.6 | 6         |
| 57 | Application of molecular interaction volume model in separation of Sn-Zn alloy by vacuum distillation. Journal of Central South University, 2013, 20, 3372-3378.   | 1.2 | 6         |
| 58 | Prediction of Covalent Interactions Between Si and B, Fe, Al or Ca in Metallurgical Grade Silicon Using ab initio Molecular Dynamic Simulations. Silicon, 2015, 7, 253-259.  | 1.8 | 6         |
| 59 | The Density Functional Theory Investigation on the Structural, Relative Stable and Electronic Properties of Bimetallic PbnSbn (n=2, 12) Clusters. Journal of Cluster Science, 2018, 29, 1305-1311.   | 1.7 | 6         |
| 60 | Phase relations of CaO-Al <sub>2</sub> O <sub>3</sub> -Sc <sub>2</sub> O <sub>3</sub> ternary system. Journal of the American Ceramic Society, 2019, 102, 2863-2870.   | 1.9 | 6         |
| 61 | Theoretical study on Sn-Sb-based lead-free solder by ab initio molecular dynamics simulation. Journal of Materials Research, 2019, 34, 2543-2553.  | 1.2 | 6         |
| 62 | Study on the effective distribution coefficient of impurity separation in the preparation of high purity aluminum. Journal of Materials Research and Technology, 2020, 9, 10366-10376.   | 2.6 | 6         |
| 63 | Prediction of Vapor-Liquid Equilibria for Pb-Pd and Pb-Pt Alloys Using Ab Initio Methods in Vacuum Distillation. Journal of Solution Chemistry, 2017, 46, 1514-1521.   | 0.6 | 5         |
| 64 | Experimental Investigation of Molybdenum Disulfide Purification Through Vacuum Distillation. Journal of Sustainable Metallurgy, 2020, 6, 419-427.  | 1.1 | 5         |
| 65 | Preparation of High-Purity Tin by Zone Melting. Russian Journal of Non-Ferrous Metals, 2020, 61, 9-20.   | 0.2 | 5         |
| 66 | Kinetics study of Pb evaporation from pure Pb and Pb-Ag alloy in vacuum evaporation process. Journal of Materials Research and Technology, 2021, 15, 7012-7021.  | 2.6 | 5         |
| 67 | The lead removal evolution from hazardous waste cathode ray tube funnel glass under enhancement of red mud melting and synthesizing value-added glass-ceramics via reutilization of silicate resources. Journal of Hazardous Materials, 2022, 429, 128334. | 6.5 | 5         |
| 68 | Synthesis and characterization of LiCo <sub>x</sub> Mn <sub>2-x</sub> O <sub>4</sub> cathode materials. Journal Wuhan University of Technology, Materials Science Edition, 2007, 22, 307-310.  | 0.4 | 4         |
| 69 | Molecular dynamics simulation on thermodynamic properties of Pb-Ag alloys. Rare Metals, 2010, 29, 323-326.   | 3.6 | 4         |
| 70 | Silica behavior in the alumina carbothermic reduction-chlorination process. Jom, 2011, 63, 116-119.  | 0.9 | 4         |
| 71 | Extraction of aluminum from alumina by disproportionation process of AlCl <sub>3</sub> in vacuum. Transactions of Nonferrous Metals Society of China, 2013, 23, 2781-2785.   | 1.7 | 4         |
| 72 | Effect of CaCl <sub>2</sub> on Microstructure of Calciothermic Reduction Products of Ti <sub>2</sub> O <sub>3</sub> to Prepare Porous Titanium. Metals, 2018, 8, 698.  | 1.0 | 4         |

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|----|---|-----|-----------|
| 73 | Decomposition of Al <sub>4</sub> O <sub>4</sub> C in the presence of C at high temperatures in vacuum. International Journal of Materials Research, 2018, 109, 399-404.   | 0.1 | 4         |
| 74 | Color-tunable and upconversion luminescence of Gd <sub>2</sub> O <sub>2</sub> S:Er,Tm phosphor: experimental investigations and first-principles calculation. Applied Physics A: Materials Science and Processing, 2019, 125, 1.                                      | 1.1 | 4         |
| 75 | Electrode heating effects on preparation of Al-65V alloy. Journal of Central South University, 2020, 27, 1-9.   | 1.2 | 4         |
| 76 | Vacuum Gasification-Directional Condensation for Separation of Tellurium from Lead Anode Slime. Metals, 2021, 11, 1535.   | 1.0 | 4         |
| 77 | Thermodynamic and kinetic analyses of vacuum synthesis of AlN by the alumina carbothermal reduction nitridation method. Journal of the American Ceramic Society, 2022, 105, 3850-3861.  | 1.9 | 4         |
| 78 | Calculation of interaction of AlCl, AlCl <sub>2</sub> and AlCl <sub>3</sub> on Al <sub>4</sub> C <sub>3</sub> (001) Al <sub>4</sub> CO <sub>4</sub> (001) and Al <sub>2</sub> CO (001) planes. Journal of Central South University, 2015, 22, 43-58.                  | 1.2 | 3         |
| 79 | (Vapor + Liquid) Equilibrium (VLE) for Binary Lead-Antimony System in Vacuum Distillation: New Data and Modeling Using Nonrandom Two-Liquid (NRTL) Model. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 4494-4501. | 1.1 | 3         |
| 80 | Ab Initio Molecular Dynamics Studies of Pb <sub>m</sub> Sb <sub>n</sub> (m + n = 9) Alloy Clusters. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 4905-4913.   | 1.1 | 3         |
| 81 | Cooperative upconversion luminescence of Er <sup>3+</sup> in Gd <sub>2</sub> O <sub>3</sub> :xSx phosphor. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 190, 312-317.   | 2.0 | 3         |
| 82 | Calculation of the second virial coefficients of alkali metals by modified Peng-Robinson equation. Journal of Mathematical Chemistry, 2018, 56, 2768-2784.  | 0.7 | 3         |
| 83 | Theoretical Study on Growth Mechanism of Al <sub>n</sub> N <sub>n</sub> (n = 2-9) Clusters. Russian Journal of Physical Chemistry A, 2020, 94, 1456-1463.   | 0.1 | 3         |
| 84 | Preparation of Antimony Sulfide and Enrichment of Gold by Sulfuration-Volatilization from Electrodeposited Antimony. Minerals (Basel, Switzerland), 2022, 12, 264.  | 0.8 | 3         |
| 85 | A DFT Study of Al <sub>n</sub> Ti <sub>n</sub> (n = 12) Alloy Clusters. Physica Status Solidi (B): Basic Research, 2022, 259, .   | 0.7 | 3         |
| 86 | Preparation of a Porous Flow-Through Electrode for CO <sub>2</sub> Reduction to CO in a Multi-Chamber Electrolyzer in an Organic Electrolyte. Energy & Fuels, 2022, 36, 3771-3777.  | 2.5 | 3         |
| 87 | A secret handshake scheme for mobile-hierarchy architecture based underground emergency response system. , 2015, , .  |     | 2         |
| 88 | Reactions and microstructure evolution in Al <sub>2</sub> O <sub>3</sub> -Al system in vacuum. Asia-Pacific Journal of Chemical Engineering, 2018, 13, e2144.   | 0.8 | 2         |
| 89 | Prediction of activities of all components in Sn-Ag-Cu and Sn-Ag-Cu-Zn lead-free solders using modified molecular interaction volume model. Results in Chemistry, 2021, 3, 100143.  | 0.9 | 2         |
| 90 | Vacuum separation of zinc-silver alloy: Measurement and modeling of vapor-liquid equilibrium. Vacuum, 2021, 189, 110245.  | 1.6 | 2         |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 91  | Insight into the Self-Assembled Three-Dimensional Sandwich-Like Hollow Silicon Nanoarray/Graphene Lithium Storage Architecture by Sonication-Assisted Functionalization. <i>Energy &amp; Fuels</i> , 2022, 36, 3283-3292. | 2.5 | 2         |
| 92  | Lattice Boltzmann Method Modeling of Flow Structures and Level Fluctuations in a Continuous Casting Process. <i>ACS Omega</i> , 2019, 4, 13131-13142.   | 1.6 | 1         |
| 93  | Vacuum decomposition thermodynamics and experiments of recycled lead carbonate from waste lead acid battery. <i>Thermal Science</i> , 2021, 25, 25-38.  | 0.5 | 1         |
| 94  | Hydrothermal synthesis and enhanced photocatalytic activity of Na <sub>0.5</sub> Gd <sub>0.5</sub> MoO <sub>4</sub> . <i>Journal of Materials Science</i> , 2021, 56, 16612-16622.  | 1.7 | 1         |
| 95  | The Investigation of Removal and Occurrence State of Impurity Elements During Crude Tin Vacuum Distillation. <i>Journal of Sustainable Metallurgy</i> , 2022, 8, 700-714.   | 1.1 | 1         |
| 96  | Application of MIVM for Sn-Ag and Sn-In Alloys in Vacuum Distillation. , 0, , 367-374.  |     | 0         |
| 97  | Study on Hardness, Microstructure, Distribution of the Self-lubricating Phase, Friction and Wear Property of 1Cr13MoS after Heat Treatment. <i>Materials</i> , 2019, 12, 3171.  | 1.3 | 0         |
| 98  | Prediction of Partial Molar Enthalpies and Mixing Enthalpies for Sn-Based Binary Alloys by the Wilson Equation. <i>Journal of Solution Chemistry</i> , 2020, 49, 458-465.   | 0.6 | 0         |
| 99  | Study on Evaporation Kinetics of Zn in Bi-Zn and Bi-Sn-Zn Systems Under Vacuum Condition. <i>Journal of Sustainable Metallurgy</i> , 2021, 7, 995-1003.   | 1.1 | 0         |
| 100 | Mechanism of Carbothermic Reduction of Magnesia and Reverse Reaction. , 0, , 511-516.   |     | 0         |
| 101 | Vacuum Distillation Refining of Crude Tin - Thermodynamics Analysis and Experiments on the Removal of Arsenic from the Crude Tin. , 0, , 223-230.   |     | 0         |
| 102 | Vapor-Liquid Equilibria for Zinc-Nickel Binary Alloy System: Measurement and Modeling Using Simplified Molecular Interaction Volume Model. <i>Journal of Solution Chemistry</i> , 2022, 51, 384.                          | 0.6 | 0         |
| 103 | Phase Relations in the CaO-B <sub>2</sub> O <sub>3</sub> -Sc <sub>2</sub> O <sub>3</sub> Ternary System. <i>Journal of Phase Equilibria and Diffusion</i> , 2022, 43, 98-108.   | 0.5 | 0         |