# Xiao-Qiang Li

List of Publications by Year
in descending order

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| 104 | 2,545 | 257101 | 223531 |
|---|---|---|---|
| papers | citations | 24 h-index | 46 g-index |

| 104 | 104 | 104 | 2324 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | New Developments of Ti-Based Alloys for Biomedical Applications. Materials, 2014, 7, 1709-1800. | 1.3 | 756 |
| 2 | Ultrafine grained Ti-based composites with ultrahigh strength and ductility achieved by equiaxing microstructure. Materials & Design, 2015, 79, 1-5. | 5.1 | 89 |
| 3 | Fine-grained 93Wâ€“5.6Niâ€“1.4Fe heavy alloys with enhanced performance prepared by spark plasma sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 573, 245-252. | 2.6 | 76 |
| 4 | Bulk WCâ€“Al2O3 composites prepared by spark plasma sintering. International Journal of Refractory Metals and Hard Materials, 2012, 30, 51-56. | 1.7 | 71 |
| 5 | Biomedical TiNbZrTaSi alloys designed by d-electron alloy design theory. Materials and Design, 2015, 85, 7-13. | 3.3 | 64 |
| 6 | Effect of ultrasonic surface rolling at low temperatures on surface layer microstructure and properties of HIP Ti-6Al-4V alloy. Surface and Coatings Technology, 2017, 316, 75-84. | 2.2 | 59 |
| 7 | ZrO2 (3Y) toughened WC composites prepared by spark plasma sintering. Journal of Alloys and Compounds, 2013, 572, 62-67. | 2.8 | 56 |
| 8 | Wear mechanisms of WCâ€“10Ni3Al carbide tool in dry turning of Ti6Al4V. International Journal of Refractory Metals and Hard Materials, 2015, 48, 272-285. | 1.7 | 52 |
| 9 | Fabrication, characterization, and mechanical properties of 93Wâ€“4.9Niâ€“2.1Fe/95Wâ€“2.8Niâ€“1.2Feâ€“1Al2O3 heavy alloy composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 636, 452-458. | 2.6 | 50 |
| 10 | Nucleation and growth mechanism of crystalline phase for fabrication of ultrafine-grained Ti66Nb13Cu8Ni6.8Al6.2 composites by spark plasma sintering and crystallization of amorphous phase. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 528, 486-493. | 2.6 | 47 |
| 11 | Non-isothermal and isothermal crystallization kinetics and their effect on microstructure of sintered and crystallized TiNbZrTaSi bulk alloys. Journal of Non-Crystalline Solids, 2016, 432, 440-452. | 1.5 | 43 |
| 12 | Densification and microstructure evolution during SPS consolidation process in W-Ni-Fe system. Transactions of Nonferrous Metals Society of China, 2011, 21, 493-501. | 1.7 | 41 |
| 13 | Microstructure and characterization of WC-2.8 wt% Al2O3-6.8 wt% ZrO2 composites produced by spark plasma sintering. Ceramics International, 2016, 42, 14182-14188. | 2.3 | 40 |
| 14 | Preparation and mechanical properties of WC-10 Ni3Al cemented carbides with plate-like triangular prismatic WC grains. Journal of Alloys and Compounds, 2012, 544, 134-140. | 2.8 | 39 |
| 15 | Microstructure and mechanical properties of fine-grained Wâ€“7Niâ€“3Fe heavy alloy by spark plasma sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 551, 95-99. | 2.6 | 39 |
| 16 | 93Wâ€“5.6Niâ€“1.4Fe heavy alloys with enhanced performance prepared by cyclic spark plasma sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 599, 233-241. | 2.6 | 39 |
| 17 | Fabrication and properties of in situ reduced graphene oxideâ€toughened zirconia composite ceramics. Journal of the American Ceramic Society, 2018, 101, 3498-3507. | 1.9 | 38 |
| 18 | Spark-Plasma Sintering of W-5.6Ni-1.4Fe Heavy Alloys: Densification and Grain Growth. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 923-933. | 1.1 | 36 |

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|---|---|---|---|
| 19 | The oxidation behavior of the WCâ€“10wt.% Ni3Al composite fabricated by spark plasma sintering. Journal of Alloys and Compounds, 2015, 629, 148-154. | 2.8 | 34 |
| 20 | Effects of brazing temperature and testing temperature on the microstructure and shear strength of Î³-TiAl joints. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 634, 91-98. | 2.6 | 33 |
| 21 | Wear behavior of the micro-grooved texture on WC-Ni 3 Al cermet prepared by laser surface texturing. International Journal of Refractory Metals and Hard Materials, 2018, 72, 211-222. | 1.7 | 29 |
| 22 | Zirconia-toughened WC with/without VC and Cr3C2. Ceramics International, 2014, 40, 2011-2016. | 2.3 | 28 |
| 23 | Dynamic deformation behavior of 93W-5.6Ni-1.4Fe heavy alloy prepared by spark plasma sintering. International Journal of Refractory Metals and Hard Materials, 2016, 58, 117-124. | 1.7 | 27 |
| 24 | WCâ€“Si3N4 composites prepared by two-step spark plasma sintering. International Journal of Refractory Metals and Hard Materials, 2015, 50, 133-139. | 1.7 | 26 |
| 25 | Highâ€Strength AlCrFeCoNi High Entropy Alloys Fabricated by Using Metallic Glass Powder as Precursor. Advanced Engineering Materials, 2016, 18, 348-353. | 1.6 | 26 |
| 26 | In-situ elongated Î²-Si3N4 grains toughened WC composites prepared by one/two-step spark plasma sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 561, 445-451. | 2.6 | 25 |
| 27 | Effect of Multi-Pass Ultrasonic Surface Rolling on the Mechanical and Fatigue Properties of HIP Ti-6Al-4V Alloy. Materials, 2017, 10, 133. | 1.3 | 25 |
| 28 | Effect of sintering temperature on phase constitution and mechanical properties of WC-1.0 wt% carbon nanotube composites. Ceramics International, 2018, 44, 164-169. | 2.3 | 24 |
| 29 | Effect of Heating Rate on Densification and Grain Growth During Spark Plasma Sintering of 93W-5.6Ni-1.4Fe Heavy Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 4323-4336. | 1.1 | 23 |
| 30 | Microstructure and properties of ultra-fine tungsten heavy alloys prepared by mechanical alloying and electric current activated sintering. Transactions of Nonferrous Metals Society of China, 2010, 20, 443-449. | 1.7 | 22 |
| 31 | Friction and Wear Behavior of 30CrMnSiA Steel at Elevated Temperatures. Journal of Materials Engineering and Performance, 2016, 25, 1407-1415. | 1.2 | 21 |
| 32 | Cr3C2 and VC doped WCâ€“Si3N4 composites prepared by spark plasma sintering. International Journal of Refractory Metals and Hard Materials, 2013, 41, 540-546. | 1.7 | 17 |
| 33 | Machining performance of a grooved tool in dry machining Ti-6Al-4ÂV. International Journal of Advanced Manufacturing Technology, 2014, 73, 613-622. | 1.5 | 17 |
| 34 | In-situ elongated aluminium borate grains toughening WC- 1.87â€¯wt % Al2O3- 4.13â€¯wt % ZrO2 composite via spark plasma sintering. Ceramics International, 2019, 45, 19610-19616. | 2.3 | 17 |
| 35 | Microstructure and formation mechanism in a surface carburized tungsten heavy alloy. Journal of Alloys and Compounds, 2019, 787, 560-569. | 2.8 | 17 |
| 36 | Effect of shot peening on microstructure and contact fatigue crack growth mechanism of shaft steel. Materials Chemistry and Physics, 2021, 274, 125116. | 2.0 | 17 |

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| 37 | Experimental study on the laser-matter-plume interaction and its effects on ablation characteristics during nanosecond pulsed laser scanning ablation process. Optics Express, 2019, 27, 23204. | 1.7 | 17 |
| 38 | Effects of cutting parameters on dry cutting of aluminum bronze alloy. International Journal of Advanced Manufacturing Technology, 2014, 70, 669-678. | 1.5 | 16 |
| 39 | Synergistic effects of a combined surface modification technology on rolling contact fatigue behaviors of 20CrMoH steel under different contact stresses. International Journal of Fatigue, 2021, 153, 106487. | 2.8 | 16 |
| 40 | Bulk TiB2-Based Ceramic Composites with Improved Mechanical Property Using Feâ€“Niâ€“Tiâ€“Al as a Sintering Aid. Materials, 2014, 7, 7105-7117. | 1.3 | 14 |
| 41 | Transitional/eutectic microstructure of Al 2 O 3 â€“ZrO 2 (Y 2 O 3 ) ceramics prepared by spark plasma sintering. Materials Letters, 2016, 175, 212-214. | 1.3 | 14 |
| 42 | Study on high temperature deformation behavior of WC-10Âwt %Ni3Al cemented carbide. Journal of Alloys and Compounds, 2020, 820, 153156. | 2.8 | 14 |
| 43 | Microstructure evolution and superelasticity of Ti-24Nb-xZr alloys fabricated by spark plasma sintering. Journal of Alloys and Compounds, 2020, 823, 153875. | 2.8 | 14 |
| 44 | Microstructure and magnetic properties of anisotropic Ndâ€“Feâ€“B magnets prepared by spark plasma sintering and hot deformation. Transactions of Nonferrous Metals Society of China, 2014, 24, 3142-3151. | 1.7 | 13 |
| 45 | Microstructure evolution and mechanical properties of TiAl/GH536 joints vacuum brazed with Tiâ€“Zrâ€“Cuâ€“Ni filler metal. Intermetallics, 2022, 142, 107468. | 1.8 | 13 |
| 46 | Abrasion wear behavior of WCâ€“10Ni3Al cermet with plate-like triangular prismatic WC grains. Ceramics International, 2015, 41, 5147-5158. | 2.3 | 12 |
| 47 | The wear and fatigue behaviours of hollow head & sodium filled engine valve. Tribology International, 2018, 128, 75-88. | 3.0 | 12 |
| 48 | M3B2-type borides effect on the wide gap brazing of K417G alloy with mixed powder. Journal of Alloys and Compounds, 2020, 821, 153431. | 2.8 | 12 |
| 49 | Influence of particle size distribution on properties of SiC particles reinforced aluminum matrix composites with high SiC particle content. Journal of Composite Materials, 2016, 50, 1049-1058. | 1.2 | 11 |
| 50 | Brazeability evaluation of Ti-Zr-Cu-Ni-Co-Mo filler for vacuum brazing TiAl-based alloy. Transactions of Nonferrous Metals Society of China, 2019, 29, 754-763. | 1.7 | 11 |
| 51 | Influence of Effective Laser Energy on the Structure and Mechanical Properties of Laser Melting Deposited Ti6Al4V Alloy. Materials, 2020, 13, 962. | 1.3 | 11 |
| 52 | High temperature compressive properties and microstructure of WC-Ni3Al cermets prepared by spark plasma sintering. Vacuum, 2020, 175, 109281. | 1.6 | 11 |
| 53 | Fabrication of highly dissimilar TC4/steel joint with V/Cu composite transition layer by laser melting deposition. Journal of Alloys and Compounds, 2021, 862, 158319. | 2.8 | 11 |
| 54 | Effect of carburization on microstructure and rolling contact fatigue property of 95Wâ€“3.4Niâ€“1.6Fe heavy alloy. Transactions of Nonferrous Metals Society of China, 2016, 26, 3161-3169. | 1.7 | 10 |

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| 55 | Microstructure and shear strength of Î³-TiAl/GH536 joints brazed with Tiâ˜Zrâ˜Cuâ˜Niâ˜Feâ˜Coâ˜Mo filler alloy. Transactions of Nonferrous Metals Society of China, 2020, 30, 2143-2155. | 1.7 | 10 |
| 56 | Microstructural evolution and mechanical properties of Alloy 718 fabricated by selective laser melting following different post-treatments. Rare Metals, 2021, 40, 3222. | 3.6 | 10 |
| 57 | Microstructure and Mechanical Properties of SPSed (Spark Plasma Sintered) Ti<SUB>66</SUB>Nb<SUB>13</SUB>Cu<SUB>8</SUB>Ni<SUB>6.8</SUB>Al<SUB>6.2</SUB> Bulk Alloys with and without WC Addition. Materials Transactions, 2009, 50, 1720-1724. | 0.4 | 9 |
| 58 | Reciprocating wear behavior of WCâ€“10Ni3Al cermet in contact with Ti6Al4V. Wear, 2014, 321, 16-24. | 1.5 | 9 |
| 59 | Comparison of TiAlâ€Based Intermetallics Joints Brazed with Amorphous and Crystalline Tiâ€“Zrâ€“Cuâ€“Niâ€“Coâ€“Mo Fillers. Advanced Engineering Materials, 2016, 18, 341-347. | 1.6 | 9 |
| 60 | Effect of Tempering Temperatures on Tensile Properties and Rotary Bending Fatigue Behaviors of 17Cr2Ni2MoVNb Steel. Metals, 2018, 8, 507. | 1.0 | 9 |
| 61 | Study on Microstructure and Mechanical Properties of WC-10Ni3Al Cemented Carbide Prepared by Different Ball-Milling Suspension. Materials, 2019, 12, 2224. | 1.3 | 9 |
| 62 | The influence of sintering temperature and pressure on microstructure and mechanical properties of carbonyl iron powder materials fabricated by electric current activated sintering. Vacuum, 2017, 137, 137-147. | 1.6 | 8 |
| 63 | Dynamic mechanical behavior of 93Wâ€“4.9Niâ€“2.1Fe/95Wâ€“2.8Niâ€“1.2Feâ€“1Al2O3 heavy alloy composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 729, 349-356. | 2.6 | 8 |
| 64 | Microstructure and mechanical properties of TiAl/Ni-based superalloy joints vacuum brazed with Tiâ€“Zrâ€“Feâ€“Cuâ€“Niâ€“Coâ€“Mo filler metal. Rare Metals, 2021, 40, 2134-2142. | 3.6 | 8 |
| 65 | Effects of Al2O3â€“ZrO2 content on the densification, microstructure, and mechanical properties of cemented tungsten carbides. Materials Chemistry and Physics, 2022, 276, 125330. | 2.0 | 8 |
| 66 | Microstructures and fatigue behaviors of 25CrNi2MoV steel under electropulsing-assisted ultrasonic surface rolling. International Journal of Fatigue, 2022, 158, 106733. | 2.8 | 8 |
| 67 | Preparation of SiCp/Al compositeâ€“bismuthate glass material and its application in mirror blanks. RSC Advances, 2015, 5, 52167-52173. | 1.7 | 7 |
| 68 | Effect of Pulsed Magnetic Field on Spark Plasma Sintering of Iron-Based Powders. Materials Transactions, 2010, 51, 1308-1312. | 0.4 | 6 |
| 69 | Spark Plasma Sintered Hydroxyapatite/Multiwalled Carbon Nanotube Composites With Preferred Crystal Orientation. Advanced Engineering Materials, 2010, 12, 1161-1165. | 1.6 | 6 |
| 70 | SPS densification behavior of W-5.6Ni-1.4Fe heavy alloy powders. Rare Metals, 2011, 30, 581-587. | 3.6 | 6 |
| 71 | Fabrication of Ultrafine-Grained Ti<sub>66</sub>Nb<sub>18</sub>Cu<sub>6.4</sub>Ni<sub>6.1</sub>Al<sub>3.5</sub> Composites with High Strength and Distinct Plasticity by Spark Plasma Sintering and Crystallization of Amorphous Phase. Materials Transactions, 2012, 53, 531-536. | 0.4 | 6 |
| 72 | Properties of SiC<sub>p</sub>/6061-Al metal matrix composites prepared by infiltrating molten aluminum into ternary packing of SiC preforms. Journal of Composite Materials, 2015, 49, 3609-3619. | 1.2 | 6 |

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|---|---|---|---|
| 73 | Surface modification layer of Tiâ€“6Alâ€“4V produced by surface rolling and thermal oxidation. Surface Innovations, 2017, 5, 232-242. | 1.4 | 6 |
| 74 | Deformation induced precipitation of MgZn2-type laves phase in Ti-Fe-Co alloy. Journal of Alloys and Compounds, 2019, 778, 795-802. | 2.8 | 6 |
| 75 | Microstructure and tribological properties of carburized 95Wâ€“3.5Niâ€“1.0Feâ€“0.5Co heavy alloy. Rare Metals, 2019, 38, 165-172. | 3.6 | 6 |
| 76 | Fabrication of in situ elongated Î²-Sialon grains bonded to tungsten carbide via two-step spark plasma sintering. Ceramics International, 2021, 47, 27324-27333. | 2.3 | 6 |
| 77 | Corrosion Behavior of WCâ€“10 wt % Ni3Al Composite in Acidic Media. Journal of Superhard Materials, 2019, 41, 345-354. | 0.5 | 5 |
| 78 | A comparison of wear behaviour of heat-resistant steel engine valves and TiAl engine valves. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2020, 234, 1549-1562. | 1.0 | 5 |
| 79 | Wide-Gap Brazing of K417G Alloy Assisted by In Situ Precipitation of M3B2 Boride Particles. Materials, 2020, 13, 3140. | 1.3 | 5 |
| 80 | Ultrafine porous boron nitride nanofiberâ€toughened WC composites. International Journal of Applied Ceramic Technology, 2020, 17, 941-948. | 1.1 | 5 |
| 81 | Concurrent Hardening and Toughening of a Tungsten Heavy Alloy via a Novel Carburizing Cyclic Heat Treatment. Advanced Engineering Materials, 2021, 23, 2001283. | 1.6 | 5 |
| 82 | Microstructure and oxidation resistance of CoNiCrAlY coating manufactured by laser powder bed fusion. Surface and Coatings Technology, 2021, 427, 127846. | 2.2 | 5 |
| 83 | Examination of Electrical Conduction of Carbonyl Iron Powder Compacts. Materials Transactions, 2015, 56, 696-702. | 0.4 | 4 |
| 84 | Serrated Flow Behavior of Titaniumâ€Based Composites with Different In Situ TiC Contents. Advanced Engineering Materials, 2015, 17, 1383-1390. | 1.6 | 4 |
| 85 | Design and operation of a new multifunctional wear apparatus for engine valve train components. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2018, 232, 259-276. | 1.0 | 4 |
| 86 | Mechanical Properties of WC-Si3N4 Composites With Ultrafine Porous Boron Nitride Nanofiber Additive. Frontiers in Materials, 2021, 8, . | 1.2 | 4 |
| 87 | Reutilization of a reflected laser beam as an effective approach for machining metallic materials with low laser absorptivity. Optics Express, 2019, 27, 12048. | 1.7 | 4 |
| 88 | Effects of Alloy Composition on Microstructure and Mechanical Properties of Iron-Based Materials Fabricated by Ball Milling and Spark Plasma Sintering. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 476-487. | 1.1 | 3 |
| 89 | Optimization of Friction Welding Process Parameters for 42Cr9Si2 Hollow Head and Sodium Filled Engine Valve and Valve Performance Evaluation. Materials, 2019, 12, 1123. | 1.3 | 3 |
| 90 | Effect of filler metal on the microstructural evolution and mechanical properties of wide gap brazed K417G superalloy joints. Vacuum, 2021, 184, 109967. | 1.6 | 3 |

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|---|---|---|---|
| 91 | Research on microstructural and property evolution in laser cladded HAZ. Surface Engineering, 2021, 37, 1514-1522. | 1.1 | 3 |
| 92 | Effect of Shot Peening on Microstructures and Highâ€Temperature Tribological Properties of 4Cr9Si2 Valve Steel. Steel Research International, 0, , 2100250. | 1.0 | 3 |
| 93 | Interfacial characterization and mechanical properties of additively manufactured IN718/CoNiCrAlY laminate. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 850, 143578. | 2.6 | 3 |
| 94 | Effect of Minor Alloying Substitution on Glass-Forming Ability and Crystallization Behavior of a Ni<sub>57</sub>Zr<sub>22</sub>X<sub>8</sub>Nb<sub>8</sub>Al<sub>5</sub&g (X = Ti, Cu) Alloy Synthesized by Mechanical Alloying. Materials Transactions, 2013, 54, 1844-1850. | 1.4 | 2 |
| 95 | Sinter-hardening with concurrent improved plasticity in iron alloys induced by spark plasma sintering. Journal of Materials Research, 2014, 29, 981-988. | 1.2 | 2 |
| 96 | Wear behavior and mechanism of a sliding pair of 0. 1C-3Cr-2W-V nitrided steel rubbing against an aluminum bronze alloy. Journal of Iron and Steel Research International, 2016, 23, 281-288. | 1.4 | 2 |
| 97 | Study on Strain Rateâ€“Dependent Deformation Mechanism of WCâ€“10â€‰wt% Ni 3 Al Cemented Carbide by Micropillar Compression. Advanced Engineering Materials, 2020, 22, 1900953. | 1.6 | 2 |
| 98 | Drop Tower Experiment to Study the Effect of Microgravity on Friction Behavior: Experimental Set-up and Preliminary Results. Microgravity Science and Technology, 2020, 32, 1095-1104. | 0.7 | 2 |
| 99 | Evolution of the Fretting Wear Damage of a Complex Phase Compound Layer for a Nitrided High-Carbon High-Chromium Steel. Metals, 2020, 10, 1391. | 1.0 | 2 |
| 100 | Study on High Temperature Friction and Wear Characteristics of 4Cr9Si2 Valve Steel. Mechanisms and Machine Science, 2018, , 1535-1546. | 0.3 | 1 |
| 101 | Preparation and Anodizing of SiCp/Al Composites with Relatively High Fraction of SiCp. Scanning, 2018, 2018, 1-13. | 0.7 | 1 |
| 102 | Brazing Oxide Dispersion-Strengthened Fe-Based Steels with a Cu-Based Filler Metal. Journal of Materials Engineering and Performance, 2019, 28, 2184-2191. | 1.2 | 1 |
| 103 | The Î£Â=Â2 and Î£Â=Â13a grain boundary distributions in cemented tungsten carbides with/without metallic binders. Materials Characterization, 2021, 173, 110872. | 1.9 | 1 |
| 104 | Preparation of in situ and ex situ reinforced Fe-10Cr-1Cu-1Ni-1Mo-2C containing NbC particles by milling and hot pressing. International Journal of Minerals, Metallurgy and Materials, 2015, 22, 157-166. | 2.4 | 0 |