# Miao-Quan Li

List of Publications by Year
in descending order

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| 81 | 1,766 | 279798 23 | 302126 39 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 82 | 82 | 82 | 967 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Constitutive model for high temperature deformation of titanium alloys using internal state variables. Mechanics of Materials, 2010, 42, 157-165. | 3.2 | 122 |
| 2 | The growth behavior of austenite grain in the heating process of 300M steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 4967-4972. | 5.6 | 109 |
| 3 | High temperature deformation behavior of a near alpha Ti600 titanium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 492, 24-28. | 5.6 | 88 |
| 4 | Surface nanocrystallization and gradient structure developed in the bulk TC4 alloy processed by shot peening. Journal of Alloys and Compounds, 2016, 685, 186-193. | 5.5 | 87 |
| 5 | Effect of the strain on the deformation behavior of isothermally compressed Tiâ€“6Alâ€“4V alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 505, 88-95. | 5.6 | 83 |
| 6 | High temperature deformation behavior of near alpha Tiâ€“5.6Alâ€“4.8Snâ€“2.0Zr alloy. Journal of Materials Processing Technology, 2007, 183, 71-76. | 6.3 | 81 |
| 7 | Nanostructure and surface roughness in the processed surface layer of Ti-6Al-4V via shot peening. Materials Characterization, 2017, 123, 83-90. | 4.4 | 76 |
| 8 | The modelling of dynamic recrystallization in the isothermal compression of 300M steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 574, 1-8. | 5.6 | 69 |
| 9 | The gradient crystalline structure and microhardness in the treated layer of TC17 via high energy shot peening. Applied Surface Science, 2015, 357, 197-203. | 6.1 | 55 |
| 10 | Effect of the strain on processing maps of titanium alloys in isothermal compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 504, 90-98. | 5.6 | 52 |
| 11 | Nanocrystallization mechanism of beta phase in Ti-6Al-4V subjected to severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 669, 7-13. | 5.6 | 45 |
| 12 | Effect of 0.770wt%H addition on the microstructure of Tiâ€“6Alâ€“4V alloy and mechanism of Î´ hydride formation. Journal of Alloys and Compounds, 2009, 481, 480-485. | 5.5 | 42 |
| 13 | Modeling of void closure in diffusion bonding process based on dynamic conditions. Science China Technological Sciences, 2012, 55, 2420-2431. | 4.0 | 38 |
| 14 | Structure response characteristics and surface nanocrystallization mechanism of alpha phase in Ti-6Al-4V subjected to high energy shot peening. Journal of Alloys and Compounds, 2019, 773, 860-871. | 5.5 | 38 |
| 15 | Effect of hydrogenation content on high temperature deformation behavior of Tiâ€“6Alâ€“4V alloy in isothermal compression. International Journal of Hydrogen Energy, 2008, 33, 2714-2720. | 7.1 | 35 |
| 16 | Constitutive model and optimal processing parameters of TC17 alloy with a transformed microstructure via kinetic analysis and processing maps. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 698, 302-312. | 5.6 | 34 |
| 17 | Microstructural evolution and modelling of the hot compression of a TC6 titanium alloy. Materials Characterization, 2002, 49, 203-209. | 4.4 | 33 |
| 18 | Detailed Evolution Mechanism of Interfacial Void Morphology in Diffusion Bonding. Journal of Materials Science and Technology, 2016, 32, 259-264. | 10.7 | 32 |

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|---|---|---|---|
| 19 | Grain refinement in near alpha Ti60 titanium alloy by the thermohydrogenation treatment. International Journal of Hydrogen Energy, 2007, 32, 626-629. | 7.1 | 30 |
| 20 | Bonding interface characteristic and shear strength of diffusion bonded Ti-17 titanium alloy. Transactions of Nonferrous Metals Society of China, 2015, 25, 80-87. | 4.2 | 28 |
| 21 | Effect of Processing Parameters on Microstructure and Mechanical Properties in High Temperature Deformation of Ti-6Al-4V Alloy. Rare Metal Materials and Engineering, 2009, 38, 19-24. | 0.8 | 27 |
| 22 | Lattice variations of Ti-6Al-4V alloy with hydrogen content. Materials Characterization, 2011, 62, 724-729. | 4.4 | 27 |
| 23 | Evolution mechanisms of the primary Î± and Î² phases during Î±/Î² deformation of an Î±/Î² titanium alloy TC8. Materials Characterization, 2016, 120, 115-123. | 4.4 | 27 |
| 24 | Microscopic observation of cold-deformed Alâ€“4Cuâ€“Mg alloy samples after semi-solid heat treatments. Materials Characterization, 2005, 54, 451-457. | 4.4 | 22 |
| 25 | Influence of pressure on interfacial microstructure evolution and atomic diffusion in the hot-press bonding of Ti-33Al-3V to TC17. Journal of Alloys and Compounds, 2017, 720, 131-138. | 5.5 | 22 |
| 26 | Modeling of constitutive relationships and microstructural variables of Tiâ€“6.62Alâ€“5.14Snâ€“1.82Zr alloy during high temperature deformation. Materials Characterization, 2008, 59, 1386-1394. | 4.4 | 21 |
| 27 | Effect of 0.16wt% hydrogen addition on high temperature deformation behavior of the Ti600 titanium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 513-514, 228-232. | 5.6 | 21 |
| 28 | Characteristics and formation mechanisms of defects in surface layer of TC17 subjected to high energy shot peening. Applied Surface Science, 2020, 509, 144711. | 6.1 | 21 |
| 29 | Deformation behavior and microstructural evolution during the semi-solid compression of Alâ€“4Cuâ€“Mg alloy. Materials Characterization, 2005, 54, 423-430. | 4.4 | 19 |
| 30 | Microstructure and mechanical properties of heat-treated Tiâ€“5Alâ€“2Snâ€“2Zrâ€“4Moâ€“4Cr. Transactions of Nonferrous Metals Society of China, 2015, 25, 2893-2900. | 4.2 | 19 |
| 31 | Deformation mechanisms of nanocrystalline alpha titanium in Ti-6Al-4V. Materials Letters, 2016, 185, 488-490. | 2.6 | 16 |
| 32 | Effect of hydrogen addition on the microstructure of TC21 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 7080-7085. | 5.6 | 15 |
| 33 | Prediction of flow stress in isothermal compression of Tiâ€“6Alâ€“4V alloy using fuzzy neural network. Materials & Design, 2010, 31, 3078-3083. | 5.1 | 15 |
| 34 | Finite Element Simulation of Deformation Behavior in Friction Welding of Al-Cu-Mg Alloy. Journal of Materials Engineering and Performance, 2006, 15, 627-631. | 2.5 | 13 |
| 35 | Deformation Behavior of TC6 Alloy in Isothermal Forging. Journal of Materials Engineering and Performance, 2005, 14, 671-676. | 2.5 | 12 |
| 36 | Evolution characterization of Î± lamellae during isothermal compression of TC17 alloy with colony-Î± microstructure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 712, 637-644. | 5.6 | 12 |

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|---|---|---|---|
| 37 | Twinning and twin intersections in Î³ grains of Ti-42.9Al-4.6Nb-2Cr. Journal of Materials Science and Technology, 2021, 88, 90-98. | 10.7 | 12 |
| 38 | Diffusion bonding of dissimilar titanium alloys via surface nanocrystallization treatment. Journal of Materials Research and Technology, 2022, 17, 1274-1288. | 5.8 | 12 |
| 39 | Application of Thermohydrogen Processing for Formation of Ultrafine Equiaxed Grains in Near Î± Ti600 Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 3009-3015. | 2.2 | 11 |
| 40 | Stress-induced twinning of nanocrystalline hexagonal close-packed titanium in Ti-6Al-4V. Materials Letters, 2016, 180, 47-50. | 2.6 | 11 |
| 41 | Plastic flow behavior of superalloy GH696 during hot deformation. Transactions of Nonferrous Metals Society of China, 2016, 26, 712-721. | 4.2 | 10 |
| 42 | Deformation behavior and processing maps during isothermal compression of TC21 alloy. Rare Metals, 2017, 36, 86-94. | 7.1 | 10 |
| 43 | Further refinement mechanisms of nanograins in nanocrystalline surface layer of TC17 subjected to severe plastic deformation. Applied Surface Science, 2021, 538, 147941. | 6.1 | 10 |
| 44 | Optimization of TC11 alloy forging parameters using processing maps. Rare Metals, 2011, 30, 222-226. | 7.1 | 9 |
| 45 | Grain size model for continuous dynamic recrystallization of titanium alloy in hot deformation. Science China Technological Sciences, 2018, 61, 1688-1695. | 4.0 | 9 |
| 46 | Fabrication and Microstructure Evolution of Semi-Solid LY11 Alloy by SIMA. Journal of Materials Engineering and Performance, 2003, 12, 249-253. | 2.5 | 8 |
| 47 | Acquiring a Novel Constitutive Equation of a TC6 Alloy at High-Temperature Deformation. Journal of Materials Engineering and Performance, 2005, 14, 263-266. | 2.5 | 8 |
| 48 | A set of microstructure-based constitutive equations in hot forming of a titanium alloy. International Journal of Minerals, Metallurgy, and Materials, 2006, 13, 435-441. | 0.2 | 8 |
| 49 | Deformation Behavior in the Isothermal Compression of Hydrogenated Tiâ€“5.6Alâ€“4.8Snâ€“2.0Zrâ€“1.0Mo Alloy. Journal of Materials Engineering and Performance, 2007, 16, 93-96. | 2.5 | 8 |
| 50 | Thermomechanical coupling simulation and experimental study in the isothermal ECAP processing of Ti-6Al-4V alloy. Rare Metals, 2010, 29, 613-620. | 7.1 | 8 |
| 51 | Modeling of grain size in isothermal compression of Ti-6Al-4V alloy using fuzzy neural network. Rare Metals, 2011, 30, 555-564. | 7.1 | 8 |
| 52 | Variation effect of strain rate on microstructure in isothermal compression of Ti-6Al-4V alloy. Rare Metals, 2012, 31, 7-11. | 7.1 | 8 |
| 53 | Microstructure evolution and its effect on flow stress of TC17 alloy during deformation in Î±+Î² two-phase region. Transactions of Nonferrous Metals Society of China, 2019, 29, 1430-1438. | 4.2 | 8 |
| 54 | Microstructure and Element Distribution during Partial Remelting of an Al-4Cu-Mg alloy. Journal of Materials Engineering and Performance, 2008, 17, 25-29. | 2.5 | 7 |

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|---|---|---|---|
| 55 | High-Temperature Deformation Behavior of Ti-6Al-4V Alloy without and with Hydrogenation Content of 0.27 wt.%. Journal of Materials Engineering and Performance, 2010, 19, 59-63. | 2.5 | 7 |
| 56 | Kinetic analysis and strain-compensated constitutive models of Ti-42.9Al-4.6Nbâ€“2Cr during isothermal compression. Progress in Natural Science: Materials International, 2020, 30, 260-269. | 4.4 | 7 |
| 57 | Microstructure evolution in the high temperature compression of Ti-5.6Al-4.8Sn-2.0Zr alloy. Rare Metals, 2010, 29, 533-537. | 7.1 | 6 |
| 58 | 3D finite element simulation of microstructure evolution in blade forging of Ti-6Al-4V alloy based on the internal state variable models. International Journal of Minerals, Metallurgy and Materials, 2012, 19, 122-130. | 4.9 | 6 |
| 59 | High Temperature Behavior of Isothermally Compressed M50 Steel. Journal of Iron and Steel Research International, 2015, 22, 969-976. | 2.8 | 6 |
| 60 | Three-dimensional Numerical Simulation and Experimental Analysis of Austenite Grain Growth Behavior in Hot Forging Processes of 300M Steel Large Components. Journal of Iron and Steel Research International, 2016, 23, 1012-1019. | 2.8 | 6 |
| 61 | Metadynamic recrystallization of 300M steel after isothermal compression. Materials at High Temperatures, 2017, 34, 279-288. | 1.0 | 6 |
| 62 | Quantitative characterization of Î²-solidifying Î³-TiAl alloy with duplex structure. Transactions of Nonferrous Metals Society of China, 2021, 31, 1993-2004. | 4.2 | 6 |
| 63 | Kinetic variables based constitutive model for high temperature deformation of Ti-46.5Alâ€“2Nbâ€“2Cr. Journal of Materials Research and Technology, 2021, 15, 3525-3537. | 5.8 | 6 |
| 64 | Deformation Behavior and Constitutive Equation Coupled the Grain Size of Semi-Solid Aluminum Alloy. Journal of Materials Engineering and Performance, 2010, 19, 1337-1343. | 2.5 | 5 |
| 65 | Formation of adiabatic shear band and deformation mechanisms during warm compression of Tiâ€“6Alâ€“4V alloy. Rare Metals, 2016, 35, 598-605. | 7.1 | 5 |
| 66 | Significance and interaction of bonding parameters with bonding ratio in press bonding of TC4 alloy. Rare Metals, 2016, 35, 235-241. | 7.1 | 5 |
| 67 | Prediction model for flow stress during isothermal compression in Î±Â+ÂÎ² phase field of TC4 alloy. Rare Metals, 2018, 37, 369-375. | 7.1 | 5 |
| 68 | Microscopic characterization of semi-solid aluminium alloys. International Journal of Minerals, Metallurgy and Materials, 2010, 17, 290-296. | 4.9 | 4 |
| 69 | Quantitative analysis on microstructure evolution of Ti-6Al-2Zr-2Sn-2Mo-1.5Cr-2Nb alloy during isothermal compression. Rare Metals, 2015, 34, 625-631. | 7.1 | 4 |
| 70 | Dynamic Recrystallization-Related Interface Phase Boundary Migration of TC17/TC4 Bond with Initial Equiaxed Microstructure. Jom, 2019, 71, 2253-2261. | 1.9 | 4 |
| 71 | Quantitative analysis of globularization and modeling of TC17 alloy with basketweave microstructure. Transactions of Nonferrous Metals Society of China, 2022, 32, 850-867. | 4.2 | 4 |
| 72 | FE-based coupling simulation of Ti60 alloy in isothermal upsetting process. Transactions of Nonferrous Metals Society of China, 2010, 20, 849-856. | 4.2 | 3 |

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|---|---|---|---|
| 73 | Prediction model for surface layer microhardness of processed TC17 via high energy shot peening. Transactions of Nonferrous Metals Society of China, 2017, 27, 1956-1963. | 4.2 | 3 |
| 74 | Fragmentation of Î± Grains Accelerated by the Growth of Î² Phase in Tiâ€“5Alâ€“2Snâ€“2Zrâ€“4Moâ€“4Cr during Hot Deformation. Advanced Engineering Materials, 2018, 20, 1700200. | 3.5 | 3 |
| 75 | Sensitivity analysis on globularized fraction of Î± lamellae in titanium alloys. Transactions of Nonferrous Metals Society of China, 2019, 29, 305-312. | 4.2 | 3 |
| 76 | Characterization of crystal structure in the bonding interface between TC17 and TC4 alloys. Materials Characterization, 2019, 153, 169-174. | 4.4 | 3 |
| 77 | Effect of processing parameters on flow behaviors and microstructure during high temperature deformation of GH4586 superalloy. Journal of Central South University, 2021, 28, 338-350. | 3.0 | 3 |
| 78 | The role of Î² phase in the morphology evolution of Î± lamellae in a dual-phase titanium alloy during high temperature compression. Journal of Alloys and Compounds, 2022, 910, 164901. | 5.5 | 3 |
| 79 | Internal state variable models for microstructure in high temperature deformation of titanium alloys. Science in China Series D: Earth Sciences, 2008, 51, 1921-1929. | 0.9 | 2 |
| 80 | Effect of hydrogenation on the microstructure of Ti-5.6Al-4.8Sn-2.0Zr alloy. Rare Metals, 2009, 28, 343-345. | 7.1 | 0 |
| 81 | Interfacial Microstructure Characteristics and Mechanical Properties of a Press Bonded Tiâ€“5Alâ€“2Snâ€“2Zrâ€“4Moâ€“4Cr Alloy. Crystals, 2021, 11, 1395. | 2.2 | 0 |