

Chuanzhong Chen

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1161067/publications.pdf>

Version: 2024-02-01

122
papers

4,252
citations

159585

30
h-index

123424

61
g-index

122
all docs

122
docs citations

122
times ranked

3249
citing authors

#	ARTICLE	IF	CITATIONS
1	Research status of laser cladding on titanium and its alloys: A review. <i>Materials & Design</i> , 2014, 58, 412-425.	5.1	451
2	High temperature oxidation behavior and research status of modifications on improving high temperature oxidation resistance of titanium alloys and titanium aluminides: A review. <i>Journal of Alloys and Compounds</i> , 2016, 685, 784-798.	5.5	366
3	Review of the biocompatibility of micro-arc oxidation coated titanium alloys. <i>Materials and Design</i> , 2015, 85, 640-652.	7.0	271
4	Research and development status of laser cladding on magnesium alloys: A review. <i>Optics and Lasers in Engineering</i> , 2017, 93, 195-210.	3.8	215
5	Biological properties of calcium phosphate biomaterials for bone repair: a review. <i>RSC Advances</i> , 2018, 8, 2015-2033.	3.6	134
6	Effect of process parameters on the microstructure evolution and wear property of the laser cladding coatings on Ti-6Al-4V alloy. <i>Journal of Alloys and Compounds</i> , 2017, 692, 989-996.	5.5	131
7	Laser surface alloying on aluminum and its alloys: A review. <i>Optics and Lasers in Engineering</i> , 2018, 100, 23-37.	3.8	125
8	Microstructures and wear properties of laser cladding Co-based composite coatings on Ti-6Al-4V. <i>Materials & Design</i> , 2015, 80, 174-181.	5.1	114
9	Comparison of laser-clad and furnace-melted Ni-based alloy microstructures. <i>Surface and Coatings Technology</i> , 2001, 137, 122-135.	4.8	111
10	Research status of laser additive manufacturing for metal: a review. <i>Journal of Materials Research and Technology</i> , 2021, 15, 855-884.	5.8	110
11	Pulsed laser deposition and its current research status in preparing hydroxyapatite thin films. <i>Applied Surface Science</i> , 2005, 252, 1538-1544.	6.1	101
12	Microstructures and properties of TiN reinforced Co-based composite coatings modified with Y ₂ O ₃ by laser cladding on Ti-6Al-4V alloy. <i>Journal of Alloys and Compounds</i> , 2015, 650, 178-184.	5.5	98
13	A study on wear resistance and microcrack of the Ti ₃ Al/TiAl + TiC ceramic layer deposited by laser cladding on Ti-6Al-4V alloy. <i>Applied Surface Science</i> , 2010, 257, 1550-1555.	6.1	90
14	Microstructure and wear property of the Ti ₅ Si ₃ /TiC reinforced Co-based coatings fabricated by laser cladding on Ti-6Al-4V. <i>Optics and Laser Technology</i> , 2017, 92, 156-162.	4.6	89
15	Research status of magnesium alloys by micro-arc oxidation: a review. <i>Surface Engineering</i> , 2017, 33, 731-738.	2.2	70
16	Microstructure and properties of Ti-Al coating and Ti-Al-Si system coatings on Ti-6Al-4V fabricated by laser surface alloying. <i>Surface and Coatings Technology</i> , 2017, 309, 805-813.	4.8	68
17	In vitro degradation and electrochemical corrosion evaluations of microarc oxidized pure Mg, Mg-Ca and Mg-Ca-Zn alloys for biomedical applications. <i>Materials Science and Engineering C</i> , 2015, 47, 85-96.	7.3	67
18	Chitosan composite scaffolds for articular cartilage defect repair: a review. <i>RSC Advances</i> , 2018, 8, 3736-3749.	3.6	62

#	ARTICLE	IF	CITATIONS
19	Degradable magnesium-based alloys for biomedical applications: The role of critical alloying elements. <i>Journal of Biomaterials Applications</i> , 2019, 33, 1348-1372.	2.4	61
20	Catalytic FeP decorated carbon black as a multifunctional conducting additive for high-performance lithium-sulfur batteries. <i>Carbon</i> , 2021, 172, 96-105.	10.3	60
21	Microstructure and property of composite coatings on titanium alloy deposited by laser cladding with Co ₄₂ +TiN mixed powders. <i>Journal of Alloys and Compounds</i> , 2016, 686, 74-81.	5.5	57
22	Microstructure and high-temperature oxidation resistance of Ti-Al-Nb coatings on a Ti-6Al-4V alloy fabricated by laser surface alloying. <i>Surface and Coatings Technology</i> , 2018, 344, 479-488.	4.8	53
23	Influence of Cu on microstructure and wear resistance of TiC/TiB/TiN reinforced composite coating fabricated by laser cladding. <i>Materials Chemistry and Physics</i> , 2012, 133, 741-745.	4.0	52
24	Hydroxyapatite coating on Ti6Al4V alloy by a sol-gel method. <i>Journal of Materials Science: Materials in Medicine</i> , 2008, 19, 2281-2286.	3.6	45
25	Surface modification of titanium alloy with laser cladding RE oxides reinforced Ti ₃ Al matrix composites. <i>Composites Part B: Engineering</i> , 2012, 43, 1207-1212.	12.0	45
26	Phase constituents and microstructure of laser cladding Al ₂ O ₃ /Ti ₃ Al reinforced ceramic layer on titanium alloy. <i>Journal of Alloys and Compounds</i> , 2011, 509, 4882-4886.	5.5	44
27	Microstructure of yttrium calcium phosphate bioceramic coatings synthesized by laser cladding. <i>Applied Surface Science</i> , 2007, 253, 4016-4020.	6.1	39
28	Structure and in vitro bioactivity of ceramic coatings on magnesium alloys by microarc oxidation. <i>Applied Surface Science</i> , 2016, 388, 114-119.	6.1	39
29	Controlled sulfidation towards achieving core-shell 1D-NiMoO ₄ @ 2D-NiMoS ₄ architecture for high-performance asymmetric supercapacitor. <i>Journal of Alloys and Compounds</i> , 2019, 804, 27-34.	5.5	39
30	Microstructure and high temperature oxidation behavior of Ti-Al-Nb-Si coatings on Ti-6Al-4V alloy. <i>Journal of Alloys and Compounds</i> , 2018, 765, 46-57.	5.5	34
31	High-temperature oxidation behavior of Ni-based superalloys with Nb and Y and the interface characteristics of oxidation scales. <i>Surface and Interface Analysis</i> , 2015, 47, 362-370.	1.8	33
32	P-doped CoSe ₂ nanoparticles embedded in 3D honeycomb-like carbon network for long cycle-life Na-ion batteries. <i>Journal of Materials Science and Technology</i> , 2021, 77, 100-107.	10.7	32
33	Fabrication of Co-Based Coatings on Titanium Alloy by Laser Cladding with CeO ₂ Addition. <i>Materials and Manufacturing Processes</i> , 2016, 31, 1461-1467.	4.7	30
34	Dissolution and precipitation behaviors of silicon-containing ceramic coating on Mg-Zn-Ca alloy in simulated body fluid. <i>Colloids and Surfaces B: Biointerfaces</i> , 2014, 122, 746-751.	5.0	28
35	Effects of calcium salts on microstructure and corrosion behavior of micro-arc oxidation coatings on Mg-2Zn-1Ca-0.8 Mn alloy. <i>Materials Letters</i> , 2017, 196, 42-45.	2.6	27
36	Microstructures and wear properties of YPSZ/CeO ₂ reinforced composites deposited by laser cladding. <i>Composites Part B: Engineering</i> , 2012, 43, 896-901.	12.0	26

#	ARTICLE	IF	CITATIONS
37	The effect of Nb and Si on the hot corrosion behaviors of TiAl coatings on a Ti-6Al-4V alloy. <i>Corrosion Science</i> , 2020, 168, 108578.	6.6	26
38	In-situ TiB ₂ -TiC reinforced Fe-Al composite coating on 6061 aluminum alloy by laser surface modification. <i>Journal of Materials Processing Technology</i> , 2021, 294, 117107.	6.3	24
39	RESEARCH STATUS ABOUT SURFACE MODIFICATION OF BIOMEDICAL Ti AND ITS ALLOYS BY MICRO-ARC OXIDATION. <i>Surface Review and Letters</i> , 2006, 13, 35-43.	1.1	23
40	THE EFFECT OF RARE EARTH ON THE STRUCTURE AND PERFORMANCE OF LASER CLAD COATINGS. <i>Surface Review and Letters</i> , 2006, 13, 509-517.	1.1	23
41	The role of the pressure in pulsed laser deposition of bioactive glass films. <i>Journal of Non-Crystalline Solids</i> , 2008, 354, 4000-4004.	3.1	23
42	Influence of laser remelting on the microstructure and phases constitution of plasma sprayed hydroxyapatite coatings. <i>Applied Surface Science</i> , 2005, 250, 98-103.	6.1	22
43	Preparation and characterization of a calcium-phosphate-silicon coating on a Mg-Zn-Ca alloy via two-step micro-arc oxidation. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 15110-15119.	2.8	22
44	Enhanced corrosion resistance of magnesium alloy by plasma electrolytic oxidation plus hydrothermal treatment. <i>Surface and Coatings Technology</i> , 2021, 424, 127662.	4.8	22
45	Mixed-valent MnSiO ₃ /C nanocomposite for high-performance asymmetric supercapacitor. <i>Journal of Colloid and Interface Science</i> , 2019, 556, 239-248.	9.4	21
46	Preparation and characterization of composite coating on Mg-1.74Zn-0.55Ca alloy by micro-arc oxidation combined with sol-gel method. <i>Materials Letters</i> , 2019, 255, 126578.	2.6	21
47	Formation of calcium phosphate coating on Mg-Zn-Ca alloy by micro-arc oxidation technique. <i>Materials Letters</i> , 2016, 164, 575-578.	2.6	20
48	Formation of silicon-calcium-phosphate-containing coating on Mg-Zn-Ca alloy by a two-step micro-arc oxidation technique. <i>Materials Letters</i> , 2018, 212, 37-40.	2.6	20
49	Effects of sol-gel processing parameters on the phases and microstructures of HA films. <i>Colloids and Surfaces B: Biointerfaces</i> , 2007, 57, 237-242.	5.0	19
50	Physical Properties and Formation Mechanism of Copper/Glass Modified Laser Nanocrystals-Amorphous Reinforced Coatings. <i>Journal of Physical Chemistry C</i> , 2013, 117, 4568-4573.	3.1	19
51	Preparation and microstructure of MAO/CS composite coatings on Mg alloy. <i>Materials Letters</i> , 2020, 271, 127729.	2.6	19
52	Ag-containing antibacterial self-healing micro-arc oxidation coatings on Mg-Zn-Sr alloys. <i>Surface Engineering</i> , 2021, 37, 926-941.	2.2	19
53	Influence of silicon on growth mechanism of micro-arc oxidation coating on cast Al-Si alloy. <i>Royal Society Open Science</i> , 2018, 5, 172428.	2.4	18
54	THE CURRENT TECHNIQUES FOR PREPARING BIOGLASS COATINGS. <i>Surface Review and Letters</i> , 2005, 12, 505-513.	1.1	17

#	ARTICLE	IF	CITATIONS
55	The influence of Nb on hot corrosion behavior of Ni-based superalloy at 800 °C in a mixture of Na ₂ SO ₄ •NaCl. Journal of Materials Research, 2014, 29, 2596-2603.	2.6	17
56	Se-doped CoP nanoparticles confined in 3D porous carbon frameworks with enlarged interlayer spacings boost potassium-ion storage. Applied Surface Science, 2021, 543, 148867.	6.1	17
57	Fabrication of Ni-Based Superalloys Containing Nb and Their High Temperature Oxidation Behaviors. Materials and Manufacturing Processes, 2015, 30, 1364-1369.	4.7	16
58	Pulsed laser deposition of hydroxyapatite thin films under Ar atmosphere. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 429, 25-29.	5.6	15
59	Influence of Nb and Y on Hot Corrosion Behavior of Ni-Cr-based Superalloys. Materials and Manufacturing Processes, 2015, 30, 677-684.	4.7	15
60	Preparation of Si-containing oxide coating and biomimetic apatite induction on magnesium alloy. Applied Surface Science, 2016, 388, 148-154.	6.1	15
61	High-content Co-Nx sites on carbon nanotubes for effective sulfur catalysis in lithium-sulfur batteries. Applied Surface Science, 2021, 541, 148632.	6.1	15
62	Bioactivity of hydroxyapatite/wollastonite composite films deposited by pulsed laser. Ceramics International, 2018, 44, 10204-10209.	4.8	14
63	Effect of the second-step voltages on the structural and corrosion properties of silicon-calcium-phosphate (Si-CaP) coatings on Mg-Zn-Ca alloy. Royal Society Open Science, 2018, 5, 172410.	5.2	14
64	Improving the corrosion resistance of micro-arc oxidation coated Mg-Zn-Ca alloy. RSC Advances, 2020, 10, 8244-8254.	3.6	14
65	Characterization of Hydroxyapatite Films Prepared by Pulsed Laser Deposition. Crystal Growth and Design, 2008, 8, 219-223.	3.0	13
66	PHASE CONSTITUENTS AND MICROSTRUCTURE OF Ti ₃ Al/Fe ₃ Al + TiN/TiB ₂ COMPOSITE COATING ON TITANIUM ALLOY. Surface Review and Letters, 2011, 18, 103-108.	1.1	13
67	Influence of Al ₂ O ₃ -Y ₂ O ₃ and Ce-Al-Ni amorphous alloy on physical properties of laser synthetic composite coatings on titanium alloys. Surface and Coatings Technology, 2014, 247, 55-60.	4.8	13
68	Effect of Na ₂ WO ₄ on Growth Process and Corrosion Resistance of Micro-arc Oxidation Coatings on 2A12 Aluminum Alloys in CH ₃ COONa Electrolyte. Journal of Materials Engineering and Performance, 2016, 25, 297-303.	2.5	13
69	Effects of sintering temperature on the properties of alumina/hydroxyapatite composites. Journal of Sol-Gel Science and Technology, 2017, 84, 23-27.	2.4	13
70	Bioactive MAO/CS composite coatings on Mg-Zn-Ca alloy for orthopedic applications. Progress in Organic Coatings, 2021, 152, 106112.	3.9	13
71	In situ formed TiB ₂ /TiC complex structure in laser-alloyed coatings with improved wear property. Ceramics International, 2022, 48, 7056-7062.	4.8	13
72	Effects of the substrate temperature on the bioglass films deposited by pulsed laser. Applied Surface Science, 2008, 254, 6897-6901.	6.1	12

#	ARTICLE	IF	CITATIONS
73	Effect of SiC/nano-CeO ₂ on wear resistance and microstructures of Ti ₃ Al/3Ni matrix laser-cladded composite coating on Ti-6Al-4V alloy. Surface and Interface Analysis, 2012, 44, 559-564.	1.8	11
74	Layer by layer assembled chitosan (TiO ₂)-heparin composite coatings on MAO-coated Mg alloys. Materials Letters, 2020, 281, 128640.	2.6	11
75	Characterization and biodegradation behavior of micro-arc oxidation coatings formed on Mg-Zn-Ca alloys in two different electrolytes. RSC Advances, 2016, 6, 104808-104818.	3.6	10
76	Microstructure and wear resistance of composite coating by laser cladding Ni60A/B4C pre-placed powders on Ti-6Al-4V substrate. Science and Engineering of Composite Materials, 2017, 24, 541-546.	1.4	10
77	Effect of calcium on the microstructure and corrosion behavior of microarc oxidized Mg-xCa alloys. Biointerphases, 2018, 13, 011003.	1.6	10
78	Dendrite-Free Li Metal Anodes and the Formation of Plating Textures with a High Transference Number Modified Separator. Small, 2021, 17, e2101881.	10.0	10
79	THE APPLICATION OF PULSED LASER DEPOSITION IN PRODUCING BIOACTIVE CERAMIC FILMS. Surface Review and Letters, 2005, 12, 401-408.	1.1	8
80	MICROSTRUCTURE AND ELEMENT DISTRIBUTIONS OF CERAMIC-LIKE COATINGS ON THE AZ91 ALLOY BY MICRO-ARC OXIDATION. Surface Review and Letters, 2006, 13, 63-68.	1.1	8
81	DEVELOPMENT OF LASER CLADDING WEAR-RESISTANT COATING ON TITANIUM ALLOYS. Surface Review and Letters, 2006, 13, 645-654.	1.1	8
82	Laser Cladding Induced Spherical Graphitic Phases by Super-Assembly of Graphene-Like Microstructures and the Antifriction Behavior. ACS Central Science, 2021, 7, 318-326.	11.3	8
83	MICROSTRUCTURE AND GROWTH PROCESS OF Al ₂ O ₃ FILM ON PURE ALUMINUM BY MICRO-ARC OXIDATION. Surface Review and Letters, 2005, 12, 781-785.	1.1	7
84	ADVANCEMENT IN PREPARATION OF HYDROXYAPATITE/BIOGLASS GRADED COATINGS BY ELECTROPHORETIC DEPOSITION. Surface Review and Letters, 2005, 12, 773-779.	1.1	7
85	Effect of ZrO ₂ (YPSZ) on Microstructure Characteristic and Wear Resistance of the Ti ₃ Al/TiC Laser-Cladded Ceramic Layer on Titanium Alloy. International Journal of Applied Ceramic Technology, 2012, 9, 947-952.	2.1	7
86	Effect of current density on the microstructure and corrosion resistance of microarc oxidized ZK60 magnesium alloy. Biointerphases, 2014, 9, 031009.	1.6	7
87	Effect of phosphate additives on the microstructure, bioactivity, and degradability of microarc oxidation coatings on Mg-Zn-Ca-Mn alloy. Biointerphases, 2016, 11, 031006.	1.6	7
88	CHARACTERIZATION OF SOME METHODS OF PREPARATION FOR BIOACTIVE GLASS COATING ON IMPLANTS. Surface Review and Letters, 2006, 13, 93-102.	1.1	6
89	MICRO-STRUCTURES OF HARD COATINGS DEPOSITED ON TITANIUM ALLOYS BY LASER ALLOYING TECHNIQUE. Surface Review and Letters, 2013, 20, 1350007.	1.1	6
90	Microstructure and mechanical behavior of the laser synthesized composites modified by micro/nano scale rare earth oxides. Journal of Alloys and Compounds, 2022, 895, 162641.	5.5	6

#	ARTICLE	IF	CITATIONS
91	Corrosion behaviour of micro-arc oxidation coatings on Mg ² Sr prepared in poly(ethylene) Tj ETQq1 1 0.784314.rgBT /Overlock 10	3.8	5
92	Laser surface remelting and resolidifying process of Zn ²⁷ wt.% Al alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 323, 103-109.	5.6	4
93	Effects of technological parameters on the microstructure of laser remelted hydroxyapatite (HA) coatings. Journal Physics D: Applied Physics, 2006, 39, 1169-1173.	2.8	4
94	INFLUENCE OF THE TECHNICAL PARAMETERS ON BIOACTIVE FILMS DEPOSITED BY PULSED LASER. Surface Review and Letters, 2007, 14, 283-291.	1.1	4
95	The influences of target properties and deposition times on pulsed laser deposited hydroxyapatite films. Applied Surface Science, 2008, 255, 619-621.	6.1	4
96	DEVELOPMENT OF PREPARATION OF THE FUNCTIONAL THIN FILMS BY PULSED LASER DEPOSITION. Surface Review and Letters, 2005, 12, 597-604.	1.1	3
97	THE TARGET MORPHOLOGY DURING PULSED LASER DEPOSITION OF HYDROXYAPATITE THIN FILMS. Surface Review and Letters, 2005, 12, 539-543.	1.1	3
98	APPLICATIONS OF ELECTROPHORETIC DEPOSITION IN THE COATING AND POROUS MATERIALS FABRICATIONS. Surface Review and Letters, 2006, 13, 103-109.	1.1	3
99	DEVELOPMENT OF HYDROXYAPATITE COATING PREPARED BY SOL-GEL TECHNIQUE. Surface Review and Letters, 2006, 13, 737-745.	1.1	3
100	Laser alloying with Fe ₄ Ti on AA6061 for improved wear resistance. Surface Engineering, 2021, 37, 1503-1513.	2.2	3
101	Influence of Surface Post-Processing on Crystal Refinement and Characteristics of Hopeite Coating by Phosphating. Coatings, 2021, 11, 541.	2.6	3
102	MECHANICAL PROPERTIES AND HIGH TEMPERATURE OXIDATION BEHAVIOR OF TiAl COATING REINFORCED BY NITRIDES ON Ti ₆ Al ₄ V ALLOY. Surface Review and Letters, 2016, 23, 1650031.	1.1	2
103	Effect of Temperature on the Chip Soldering Process with AuGa0.03 Alloy Solder. Crystals, 2020, 10, 59.	2.2	2
104	Carbon nanotubes modified by Co ₃ O ₄ nanoparticles as efficient sulfur host for high-performance lithium-sulfur batteries. Journal of Materials Science: Materials in Electronics, 2021, 32, 17716-17725.	2.2	2
105	PREPARATION AND MICROSTRUCTURE OF THIN TiO ₂ FILMS CONTAINING Ca AND P USING MICRO-ARC OXIDATION. Surface Review and Letters, 2005, 12, 555-559.	1.1	1
106	SOLIDIFICATION MECHANISM OF LASER REMELTED BIOACTIVE HA COATINGS. Surface Review and Letters, 2005, 12, 819-823.	1.1	1
107	STRUCTURE AND ELEMENT DISTRIBUTION OF Al ₂ O ₃ COATING ON ZL109 ALLOY BY PLASMA ELECTROLYSIS OXIDATION. Surface Review and Letters, 2006, 13, 503-507.	1.1	1
108	EFFECTS OF TECHNICAL PARAMETERS ON THE PULSED LASER DEPOSITED FERROELECTRIC FILMS. Surface Review and Letters, 2006, 13, 687-695.	1.1	1

#	ARTICLE	IF	CITATIONS
109	CHARACTERIZATION OF ISOTHERMAL OXIDATION OF AIR PLASMA SPRAYED NiCrAlY COATINGS. Surface Review and Letters, 2006, 13, 551-555.	1.1	1
110	HYDROXYAPATITE THIN FILMS ON TITANIUM DEPOSITED BY KrF LASER. Surface Review and Letters, 2006, 13, 451-455.	1.1	1
111	MICROSTRUCTURE OF PLASMA-SPRAYED Al ₂ O ₃ -ZrO ₂ COMPOSITE COATINGS. Surface Review and Letters, 2006, 13, 545-549.	1.1	1
112	SURFACE BEHAVIOR OF BIOACTIVE GLASS OF Si-Na-Ca-P SYSTEM IN SIMULATED BODY FLUID. Surface Review and Letters, 2007, 14, 49-55.	1.1	1
113	Microstructure characteristics of laser alloying composite coatings in nitrogen protective atmosphere. Science and Engineering of Composite Materials, 2013, .	1.4	1
114	WEAR PROPERTIES AND CHARACTERIZATION OF LASER-DEPOSITED NI-BASE COMPOSITES ON 304 STAINLESS STEEL. Surface Review and Letters, 2020, 27, 1950219.	1.1	1
115	BONDING ZONE MORPHOLOGIES CHARACTERISTICS OF LASER REMELTED HA COATINGS. Surface Review and Letters, 2006, 13, 655-660.	1.1	0
116	Fabrication and characterization of hydroxyapatite microspheres obtained by ultrasonic atomization method. Frontiers of Materials Science in China, 2007, 1, 210-214.	0.5	0
117	The Reliability Design of Switch Chip Based on THENA Process Stimulation System. Journal of Physics: Conference Series, 2020, 1650, 032107.	0.4	0
118	Influence of temperature on the soldering process of CLCC-3 package components using AuSn20 solder. AIP Advances, 2020, 10, 055105.	1.3	0
119	Ultrasonic Induced Refinement of Induction Heated Oxide Coating on Titanium. Coatings, 2021, 11, 812.	2.6	0
120	Research status of laser cladding material system on titanium alloy. Journal of Physics: Conference Series, 2022, 2256, 012021.	0.4	0
121	The Application of Freeze-casting Method for Fabrication of Calcium Phosphate Biomaterials. , 2022, , .		0
122	The Application of 3D Printing Technology in Fabrication of Calcium Phosphate-based Biomaterials for Bone Repairment. , 2022, , .		0