Wear of surface engineered metal-on-metal hip prosthe

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Citation Report

#	Article	IF	Citations
1	Tribological characteristics of CrCN coatings at elevated temperature. Vacuum, 2005, 80, 113-116.	1.6	48
2	Comparison of wear of ultra high molecular weight polyethylene acetabular cups against alumina ceramic and chromium nitride coated femoral heads. Wear, 2005, 259, 972-976.	1.5	27
4	Tribology of Hip Joints from Natural Hip Joints, Cartilage Substitution, Artificial Replacements to Cartilage Tissue Engineering. Journal of Biomechanical Science and Engineering, 2006, 1, 69-81.	0.1	2
5	PRESIDENTIAL GUEST LECTURE: Tribology of Alternative Bearings. Clinical Orthopaedics and Related Research, 2006, 453, 25-34.	0.7	183
6	Enhancement of adhesive strength of DLC film prepared by PBIID on Coâ€“Cr alloy for biomaterial. Thin Solid Films, 2006, 506-507, 59-62.	0.8	11
7	Metal-on-metal bearings surfaces: Materials, manufacture, design, optimization, and alternatives. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2006, 220, 119-133.	1.0	64
8	The clinical significance of metal ion release from cobalt-chromium metal-on-metal hip joint arthroplasty. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2006, 220, 385-398.	1.0	116
9	Tribological behaviour of Cl-implanted TiN coatings for biomedical applications. Wear, 2007, 262, 1337-1345.	1.5	28
10	High lubricious surface of cobaltâ€“chromiumâ€“molybdenum alloy prepared by grafting poly(2-methacryloyloxyethyl phosphorylcholine). Biomaterials, 2007, 28, 3121-3130.	5.7	58
11	Onset of nanoscale wear of metallic implant materials: Influence of surface residual stresses and contact loads. Wear, 2007, 263, 1117-1123.	1.5	28
12	Enhanced wear and fatigue properties of Tiâ€“6Alâ€“4V alloy modified by plasma carburizing/CrN coating. Journal of Materials Science: Materials in Medicine, 2007, 18, 925-931.	1.7	13
13	Biocompatibility of diamond-like nanocomposite thin films. Journal of Materials Science: Materials in Medicine, 2007, 18, 493-500.	1.7	31
14	The effect of roughness on the tribological behavior of the prosthetic pair UHMWPE/TiN-coated stainless steel. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2008, 84B, 98-107.	1.6	14
15	Surface-engineered metal-on-metal bearings improve the friction and wear properties of local area contact in total joint arthroplasty. Surface and Coatings Technology, 2008, 202, 4775-4779.	2.2	11
16	Gradient CrCN cathodic arc PVD coatings. Surface and Coatings Technology, 2008, 203, 670-674.	2.2	22
17	Potential of wear resistant coatings on Tiâ€“6Alâ€“4V for artificial hip joint bearing surfaces. Wear, 2008, 264, 505-517.	1.5	71
18	Reasons for inferior performance of ceramic on a-C:H-coated Tiâ€“6Alâ€“4V in hip simulator testing compared to ball on flat reciprocating sliding tests. Wear, 2008, 265, 1727-1733.	1.5	4
19	Tribology in joint replacement. , 2008, , 31-55.		5

#	Article	IF	Citations
20	Femoral stem wear in cemented total hip replacement. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2008, 222, 583-592.	1.0	42
22	Investigation of relative micromotion at the stemâ€"cement interface in total hip replacement. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2009, 223, 955-964.	1.0	24
23	Biological response to micronâ€•and nanometerâ€•sized particles known as potential wear products from artificial hip joints: Part I: Selection and characterization of model particles. Journal of Biomedical Materials Research - Part A, 2009, 89A, 379-389.	2.1	2
24	Superlubricious surface mimicking articular cartilage by grafting poly(2â€•methacryloyloxyethyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 2009, 91A, 730-741.	2.1	46
25	Surface engineering: A low wearing solution for metalâ€•onâ€•metal hip surface replacements. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2009, 90B, 558-565.	1.6	39
26	A metaâ€•analysis of designâ€•and manufacturingâ€•related parameters influencing the wear behavior of metalâ€•onâ€•metal hip joint replacements. Journal of Orthopaedic Research, 2009, 27, 1473-1480.	1.2	24
27	Mixing and matching in ceramic-on-metal hip arthroplasty: An in-vitro hip simulator study. Journal of Biomechanics, 2009, 42, 2439-2446.	0.9	32
28	What results in fretting wear on polished femoral stems. Tribology International, 2009, 42, 1605-1614.	3.0	27
29	Gradient CrCN cathodic arc PVD coatings. Thin Solid Films, 2009, 517, 5894-5899.	0.8	21
30	Evolution of bearing surfaces in total hip arthroplasty: a review. Current Orthopaedic Practice, 2010, 21, 198-208.	0.1	4
31	Ceramicâ€Onâ€Metal for Total Hip Replacement: Mixing and Matching Can Lead to High Wear. Artificial Organs, 2010, 34, 319-323.	1.0	31
32	Metal-on-Metal Total Hip Arthroplasty. Journal of Bone and Joint Surgery - Series A, 2010, 92, 1675-1683.	1.4	47
33	Tribological and corrosion testing of surface engineered surgical grade CoCrMo alloy. Wear, 2011, 271, 2125-2131.	1.5	35
34	The potential role of cobalt ions released from metal prosthesis on the inhibition of Hv1 proton channels and the decrease in Staphyloccocus epidermidis killing by human neutrophils. Biomaterials, 2011, 32, 1769-1777.	5.7	32
35	Lubrication and wear modelling of artificial hip joints: A review. Tribology International, 2011, 44, 532-549.	3.0	255
36	Investigation into Tribological Properties of TD-Treated D2 Steel for Applications in Dry Machining of Aluminum Alloy. Advanced Materials Research, 0, 314-316, 263-266.	0.3	2
37	Wear-Resistant Ceramic Films and Coatings. , 2011, , 127-155.		10
38	Biomedical Thin Films: Mechanical Properties. , 2011, , 63-73.		4

#	Article	IF	Citations
39	The influence of bone cement type on production of fretting wear on the femoral stem surface: A preliminary study. Clinical Biomechanics, 2012, 27, 666-672.	0.5	34
40	Cobalt-based orthopaedic alloys: Relationship between forming route, microstructure and tribological performance. Materials Science and Engineering C, 2012, 32, 1222-1229.	3.8	65
41	The effect of a novel CoCr electropolishing technique on CoCr-UHMWPE bearing frictional performance for total joint replacements. Tribology International, 2012, 47, 204-211.	3.0	7
42	Nanostructure transition in Crâ€“Câ€“N coatings deposited by pulsed closed field unbalanced magnetron sputtering. Thin Solid Films, 2012, 520, 4264-4269.	0.8	5
43	Surface modification of 316L stainless steel with magnetron sputtered TiN/VN nanoscale multilayers for bio implant applications. Journal of Materials Science: Materials in Medicine, 2012, 23, 329-338.	1.7	29
44	Wear of CoCrMo alloys used in metal-on-metal hip joints: A tribocorrosion appraisal. Wear, 2013, 297, 1081-1094.	1.5	169
45	Structure and composition of silicon nitride and silicon carbon nitride coatings for joint replacements. Surface and Coatings Technology, 2013, 235, 827-834.	2.2	37
46	Biotribological study of multilayer coated metal-on-metal hip prostheses in a hip joint simulator. Wear, 2013, 301, 234-242.	1.5	26
47	Protein adhesion to Chromium Nitride coatings. Vacuum, 2013, 88, 169-172.	1.6	0
49	Wear Debris Characterization and Corresponding Biological Response: Artificial Hip and Knee Joints. Materials, 2014, 7, 980-1016.	1.3	117
50	Tribological interactions of hybrid hard bearings in total hip arthroplasty (THA). , 2014, , 147-156.		0
51	Effect of surface modification by nitrogen ion implantation on the electrochemical and cellular behaviors of super-elastic NiTi shape memory alloy. Journal of Materials Science: Materials in Medicine, 2014, 25, 2605-2617.	1.7	24
52	Effects of microstructures on the sliding behavior of hot-pressed CoCrMo alloys. Wear, 2014, 319, 200-210.	1.5	29
53	Tribology in joint replacement*Note: This chapter is an updated version of Chapter 2, from the first edition of Joint replacement technology, edited by P. A. Revell and published by Woodhead Publishing, 2008*. , 2014, , 31-61.		4
54	Nondestructive microimaging during preclinical pin-on-plate testing of novel materials for arthroplasty. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2014, 228, 159-164.	1.0	2
55	Investigation of Wear and Corrosion of a High-Carbon Stellite Alloy for Hip Implants. Journal of Materials Engineering and Performance, 2014, 23, 1223-1230.	1.2	15
57	On the matter of synovial fluid lubrication: Implications for Metal-on-Metal hip tribology. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 34, 338-348.	1.5	56
58	Tribological role of synovial fluid compositions on artificial joints - a systematic review of the last 10â€‰years. Lubrication Science, 2014, 26, 387-410.	0.9	64

#	Article	IF	Citations
59	Advanced Stellite alloys with improved metal-on-metal bearing for hip implants. Materials & Design, 2014, 60, 424-432.	5.1	14
60	Evaluation of Two Total Hip Bearing Materials for Resistance to Wear Using a Hip Simulator. Lubricants, 2015, 3, 459-474.	1.2	6
61	Lessons Learnt from Metal-On-Metal Hip Arthroplasties will Lead to Safer Innovation for all Medical Devices. HIP International, 2015, 25, 347-354.	0.9	15
62	Titanium-Nitride Coating of Orthopaedic Implants: A Review of the Literature. BioMed Research International, 2015, 2015, 1-9.	0.9	192
63	Diamond-Like Carbon Coatings for Joint Arthroplasty. , 2015, , 395-412.		1
64	Chromium nitride coating for large diameter metal-on-polyethylene hip bearings under extreme adverse hip simulator conditions. Wear, 2015, 328-329, 363-368.	1.5	8
65	Effects of molybdenum content on the wear/erosion and corrosion performance of low-carbon Stellite alloys. Materials & Design, 2015, 78, 95-106.	5.1	51
66	Toxicology of wear particles of cobalt-chromium alloy metal-on-metal hip implants Part I: Physicochemical properties in patient and simulator studies. Nanomedicine: Nanotechnology, Biology, and Medicine, 2015, 11, 1201-1215.	1.7	64
67	Lessons from retrievals: Retrievals help understand the reason for revision of coated hip arthroplasties. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2015, 229, 804-811.	1.0	5
68	Measurement outcomes from hip simulators. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2016, 230, 398-405.	1.0	6
69	Development of superlattice CrN/NbN coatings for joint replacements deposited by high power impulse magnetron sputtering. Journal of Materials Science: Materials in Medicine, 2016, 27, 147.	1.7	19
70	Corrosion, ion release and Mottâ€“Schottky probe of chromium oxide coatings in saline solution with potential for orthopaedic implant applications. Materials Research Express, 2016, 3, 045401.	0.8	14
71	Morphology and Dissolution Rate of Wear Debris from Silicon Nitride Coatings. ACS Biomaterials Science and Engineering, 2016, 2, 998-1004.	2.6	16
72	Tribological characterization of zirconia coatings deposited on Ti6Al4V components for orthopedic applications. Materials Science and Engineering C, 2016, 62, 643-655.	3.8	35
73	Wear Characteristics of Conventional and Squeeze-Film Artificial Hip Joints. Journal of Tribology, 2017, 139, .	1.0	1
74	Biotribological study of multi-nano-layers as a coating for total hip prostheses. Wear, 2017, 376-377, 243-250.	1.5	3
75	Surface Engineering for Bio-Medical Implants. , 0, , 449-480.		1
76	1.8 Wear-Resistant Ceramic Films and Coatings â˜†. , 2017, , 165-203.		7

#	Article	IF	Citations
77	Chromium oxide coatings with the potential for eliminating the risk of chromium ion release in orthopaedic implants. Royal Society Open Science, 2017, 4, 170218.	1.1	20
78	3.8 Biomedical Thin Films: Mechanical Properties â˜†. , 2017, , 128-143.		2
79	Effect of carbon ion implantation on the tribology of metal-on-metal bearings for artificial joints. International Journal of Nanomedicine, 2017, Volume 12, 4111-4116.	3.3	4
80	Improvement of discharge and microstructure of Cr-C-N coatings by electromagnetically enhanced magnetron sputtering. Vacuum, 2018, 148, 98-105.	1.6	5
81	Laser processed calcium phosphate reinforced CoCrMo for load-bearing applications: Processing and wear induced damage evaluation. Acta Biomaterialia, 2018, 66, 118-128.	4.1	57
82	Tribological performance of DLC coating under aqueous solutions. Lubrication Science, 2019, 31, 262-272.	0.9	0
83	Surface, structural, electrical and mechanical modifications of pulsed laser deposited ZrN thin films by implantation of MeV carbon ions. Nuclear Instruments & Methods in Physics Research B, 2019, 448, 61-69.	0.6	15
84	Effects of consecutive processing between cleaning and deposition on adhesion of diamond-like carbon prepared by plasma-based ion implantation and deposition. Nuclear Instruments & Methods in Physics Research B, 2019, 449, 58-61.	0.6	1
85	Additively manufactured calcium phosphate reinforced CoCrMo alloy: Bio-tribological and biocompatibility evaluation for load-bearing implants. Additive Manufacturing, 2019, 28, 312-324.	1.7	47
86	Characteristics of different cathodic arc deposition coatings on CoCrMo for biomedical applications. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 97, 212-221.	1.5	18
87	Materials for Hip Prostheses: A Review of Wear and Loading Considerations. Materials, 2019, 12, 495.	1.3	202
88	A novel ceramic coating for reduced metal ion release in metalâ€onâ€metal hip surgery. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 1760-1771.	1.6	3
89	Alumina and tricalcium phosphate added CoCr alloy for load-bearing implants. Additive Manufacturing, 2020, 36, 101553.	1.7	12
90	Medical Device Failureâ€”Implant Retrieval, Evaluation, and Failure Analysis. , 2020, , 1485-1495.		2
91	Titaniumâ€“Silicon on CoCr Alloy for Load-Bearing Implants Using Directed Energy Deposition-Based Additive Manufacturing. ACS Applied Materials & Interfaces, 2020, 12, 51263-51272.	4.0	14
92	Structure and Tribological Properties of AlCrN + CrCN Coating. Coatings, 2020, 10, 1084.	1.2	4
93	Polyethylene wear and metal release of TiNbN-coated knee implants. Wear, 2020, 458-459, 203426.	1.5	5
94	A comparative study of the corrosion and ion release behaviour of chromium oxide coatings exposed to saline, Ringerâ€™s and Hankâ€™s physiological solutions. Corrosion Science, 2020, 167, 108533.	3.0	18

#	Article	IF	Citations
95	Corrosion and Mott-Schottky probe of chromium nitride coatings exposed to saline solution for engineering and biomedical applications. , 2020, , 239-265.		10
96	Hard Cr2O3 coatings on SS316L substrates prepared by reactive magnetron sputtering technique: a potential candidate for orthopedic implants. Environmental Science and Pollution Research, 2021, 28, 25146-25154.	2.7	8
97	Anatomization of wear behaviour of materials for total hip arthroplasty bearing surfaces: A review. Materials Today: Proceedings, 2021, 44, 176-186.	0.9	4
98	Tailor-made design, fabrication and validation of SrO doped nanostructured ZTA ceramic Femoral head â€“ Acetabular socket liner assembly. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 114, 104178.	1.5	5
99	Assessment of bone healing using (<scp>Ti,Mg)N</scp> thin film coated plates and screws: Rabbit femur model. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2021, 109, 227-237.	1.6	2
100	Intervertebral disc joint replacement technology. , 2021, , 637-674.		0
101	Additive manufacturing of alumina-silica reinforced Ti6Al4V for articulating surfaces of load-bearing implants. Ceramics International, 2021, 47, 18875-18885.	2.3	6
102	Understanding wear behavior of 3D-Printed calcium phosphate-reinforced CoCrMo in biologically relevant media. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 120, 104564.	1.5	2
103	Tribology in joint replacement. , 2021, , 29-63.		1
104	Tribology of Bearing Materials. , 2008, , 33-44.		5
106	The Bearing Surfaces in Total Hip Arthroplasty â€“ Options, Material Characteristics and Selection. , 0, , .		19
107	Micro-Abrasive Wear Testing of Surface Engineered Surgical Grade CoCrMo Alloy for Biotribological Applications. Materials Performance and Characterization, 2016, 5, 472-484.	0.2	0
108	A tribocorrosion appraisal of a dual layer PVD coated CoCrMo alloy tribopair. Surface and Coatings Technology, 2022, 442, 128341.	2.2	7
109	Current status and future potential of wear-resistant coatings and articulating surfaces for hip and knee implants. Materials Today Bio, 2022, 15, 100270.	2.6	27
110	Effects of Carbon Doping and DC Bias Voltage on Microstructure and Mechanical Properties of AlCrCN Films Synthesized via HiPIMS. Materials, 2022, 15, 5729.	1.3	1
111	Designing hybrid PEEK composite with improved tribo-mechanical properties using neural network. Materials Today: Proceedings, 2022, , .	0.9	0