Robin Pourzal

List of Publications by Year
in descending order

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46 papers	1,465 citations	361413 20 h-index	330143 37 g-index
47 all docs	47 docs citations	47 times ranked	1034 citing authors

#	Article	IF	Citations
1	Interaction of surface topography and taper mismatch on headâ€stem modular junction contact mechanics during assembly in modern total hip replacement. Journal of Orthopaedic Research, 2023, 41, 418-425.	2.3	6
2	Corrosion Behavior of Selective Laser Melting (SLM) Manufactured Ti6Al4V Alloy in Saline and BCS Solution. Journal of Bio- and Tribo-Corrosion, 2022, 8, 1.	2.6	4
3	Alloys Used in Different Temporomandibular Joint Reconstruction Replacement Prostheses Exhibit Variable Microstructures and Electrochemical Properties. Journal of Oral and Maxillofacial Surgery, 2022, 80, 798-813.	1.2	6
4	Microstructure and Electrochemical Behavior of Contemporary Ti6Al4V Implant Alloys. Journal of Bio- and Tribo-Corrosion, 2022, 8, 1.	2.6	3
5	The Effect of Additive Manufacturing Parameters on Microstructure and Mechanical Properties of Biomedical Grade Ti-6Al-4V Alloy. , 2022, , 265-281.		3
6	Model validation for estimating taper microgroove deformation during total hip arthroplasty head-neck assembly. Journal of Biomechanics, 2022, 140, 111172.	2.1	5
7	Are Damage Modes Related to Microstructure and Material Loss in Severely Damaged CoCrMo Femoral Heads?. Clinical Orthopaedics and Related Research, 2021, 479, 2083-2096.	1.5	13
8	Fretting-corrosion in hip taper modular junctions: The influence of topography and pH levels â€“ An in-vitro study. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 118, 104443.	3.1	13
9	Simultaneous Characterization of Implant Wear and Tribocorrosion Debris within its Corresponding Tissue Response Using Infrared Chemical Imaging. Biotribology, 2021, 26, 100163.	1.9	5
10	On the Formation Mechanism of Column Damage Within Modular Taper Junctions. Journal of Arthroplasty, 2021, 36, 2603-2611.e2.	3.1	8
11	Fourier transform infrared spectroscopic imaging of wear and corrosion products within joint capsule tissue from total hip replacements patients. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 513-526.	3.4	10
12	In Vitro Evidence for Cellâ€Accelerated Corrosion Within Modular Junctions of Total Hip Replacements. Journal of Orthopaedic Research, 2020, 38, 393-404.	2.3	23
13	Wear particles induce a new macrophage phenotype with the potential to accelerate material corrosion within total hip replacement interfaces. Acta Biomaterialia, 2020, 101, 586-597.	8.3	40
14	The Biomaterials of Total Shoulder Arthroplasty. JBJS Reviews, 2020, 8, e19.00212-e19.00212.	2.0	6
15	Joint line elevation and tibial slope are associated with increased polyethylene wear in cruciateâ€retaining total knee replacement. Journal of Orthopaedic Research, 2020, 38, 1596-1606.	2.3	17
16	Modelling changes in modular taper micromechanics due to surgeon assembly technique in total hip arthroplasty. Bone and Joint Journal, 2020, 102-B, 33-40.	4.4	12
17	What Surgeons Need to Know About Adverse Local Tissue Reaction in Total Hip Arthroplasty. Journal of Arthroplasty, 2020, 35, S55-S59.	3.1	33
18	Metal wear particles in hematopoietic marrow of the axial skeleton in patients with prior revision for mechanical failure of a hip or knee arthroplasty. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 1930-1936.	3.4	14

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19	What Factors Drive Taper Corrosion?. Journal of Arthroplasty, 2018, 33, 2707-2711.	3.1	49
20	Mechanical, chemical and biological damage modes within headâ€neck tapers of CoCrMo and Ti6Al4V contemporary hip replacements. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 1672-1685.	3.4	68
21	Dual-taper modular hip implant: Investigation of 3-dimensional surface scans for component contact, shape, and fit. Arthroplasty Today, 2018, 4, 370-375.	1.6	3
22	Wear Characteristics of Conventional Ultrahigh-Molecular-Weight Polyethylene Versus Highly Cross-Linked Polyethylene in Total Ankle Arthroplasty. Foot and Ankle International, 2018, 39, 1335-1344.	2.3	22
23	Imprinting and Column Damage on CoCrMo Head Taper Surfaces in Total Hip Replacements. , 2018, , 131-155.		5
24	Nanoscale surface modification by anodic oxidation increased bone ingrowth and reduced fibrous tissue in the porous coating of titaniumâ€“alloy femoral hip arthroplasty implants. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2017, 105, 283-290.	3.4	29
25	Serum Metal Levels for Diagnosis of Adverse Local Tissue ReactionsÂSecondary to Corrosion in Metal-on-Polyethylene TotalÂHipÂArthroplasty. Journal of Arthroplasty, 2017, 32, S272-S277.	3.1	57
26	Alloy Microstructure Dictates Corrosion Modes in THA Modular Junctions. Clinical Orthopaedics and Related Research, 2017, 475, 3026-3043.	1.5	37
27	Does Surface Topography Play a Role in Taper Damage in Head-neck Modular Junctions?. Clinical Orthopaedics and Related Research, 2016, 474, 2232-2242.	1.5	49
28	How Does Wear Rate Compare in Well-functioning Total Hip and Knee Replacements? A Postmortem Polyethylene Liner Study. Clinical Orthopaedics and Related Research, 2016, 474, 1867-1875.	1.5	21
29	Corrosion of Modular Junctions in Femoral and Acetabular Components for Hip Arthroplasty and Its Local and Systemic Effects. , 2015, , 410-427.		18
30	Contact Mechanics and Plastic Deformation at the Local Surface Topography Level After Assembly of Modular Head-Neck Junctions in Modern Total Hip Replacement Devices. , 2015, , 59-82.		11
31	Tribolayer formation in a metal-on-metal (MoM) hip joint: An electrochemical investigation. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 29, 199-212.	3.1	71
32	What Do the Retrievals Really Tell Us?. , 2014, , 173-193.		3
33	Design of a Tribocorrosion Bioreactor for the Analysis of Immune Cell Response to in Situ Generated Wear Products. Journal of Long-Term Effects of Medical Implants, 2014, 24, 65-76.	0.7	10
34	Wear patterns of taper connections in retrieved large diameter metalâ€onâ€metal bearings. Journal of Orthopaedic Research, 2013, 31, 1116-1122.	2.3	101
35	Dominant Role of Molybdenum in the Electrochemical Deposition of Biological Macromolecules on Metallic Surfaces. Langmuir, 2013, 29, 4813-4822.	3.5	43
36	Microstructure of Retrievals Made from Standard Cast HC-CoCrMo Alloys. , 2013, , 251-267.		9

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37	Tribochemical Reactions in Metal-on-Metal Hip Joints Influence Wear and Corrosion. , 2013, , 292-309.		10
38	New insights into hard phases of CoCrMo metal-on-metal hip replacements. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 12, 39-49.	3.1	93
39	Graphitic Tribological Layers in Metal-on-Metal Hip Replacements. Science, 2011, 334, 1687-1690.	12.6	199
40	In Vivo Wear of a Squeaky Alumina-on-Alumina Hip Prosthesis. Journal of Bone and Joint Surgery - Series A, 2011, 93, e27.	3.0	10
41	Characterization of wear particles generated from CoCrMo alloy under sliding wear conditions. Wear, 2011, 271, 1658-1666.	3.1	73
42	Construction of a tribocorrosion test apparatus for the hip joint: Validation, test methodology and analysis. Wear, 2011, 271, 2651-2659.	3.1	55
43	Micro-Structural Alterations in MoM Hip Implants. Materials Science Forum, 2010, 638-642, 1872-1877.	0.3	5
44	Wear mechanisms in metal-on-metal bearings: The importance of tribochemical reaction layers. Journal of Orthopaedic Research, 2009, 28, n/a-n/a.	2.3	109
45	Micro-structural alterations within different areas of articulating surfaces of a metal-on-metal hip resurfacing system. Wear, 2009, 267, 689-694.	3.1	34
46	Subsurface changes of a MoM hip implant below different contact zones. Journal of the Mechanical Behavior of Biomedical Materials, 2009, 2, 186-191.	3.1	49