Robin Pourzal

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2208029/publications.pdf

Version: 2024-02-01

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	Graphitic Tribological Layers in Metal-on-Metal Hip Replacements. Science, 2011, 334, 1687-1690.	12.6	199
2	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
3	Wear patterns of taper connections in retrieved large diameter metalâ€onâ€metal bearings. Journal of Orthopaedic Research, 2013, 31, 1116-1122.	2.3	101
4	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
5	Characterization of wear particles generated from CoCrMo alloy under sliding wear conditions. Wear, 2011, 271, 1658-1666.	3.1	73
6	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
7	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
8	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
9	Construction of a tribocorrosion test apparatus for the hip joint: Validation, test methodology and analysis. Wear, 2011, 271, 2651-2659.	3.1	55
10	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
11	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
12	What Factors Drive Taper Corrosion?. Journal of Arthroplasty, 2018, 33, 2707-2711.	3.1	49
13	Dominant Role of Molybdenum in the Electrochemical Deposition of Biological Macromolecules on Metallic Surfaces. Langmuir, 2013, 29, 4813-4822.	3.5	43
14	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
15	Alloy Microstructure Dictates Corrosion Modes in THA Modular Junctions. Clinical Orthopaedics and Related Research, 2017, 475, 3026-3043.	1.5	37
16	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
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	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

#	Article	IF	Citations
19	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
20	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
21	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
22	Corrosion of Modular Junctions in Femoral and Acetabular Components for Hip Arthroplasty and Its Local and Systemic Effects. , 2015, , 410-427.		18
23	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
24	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
25	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
26	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
27	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
28	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
29	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
30	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
31	Tribochemical Reactions in Metal-on-Metal Hip Joints Influence Wear and Corrosion. , 2013, , 292-309.		10
32	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
33	Microstructure of Retrievals Made from Standard Cast HC-CoCrMo Alloys. , 2013, , 251-267.		9
34	On the Formation Mechanism of Column Damage Within Modular Taper Junctions. Journal of Arthroplasty, 2021, 36, 2603-2611.e2.	3.1	8
35	The Biomaterials of Total Shoulder Arthroplasty. JBJS Reviews, 2020, 8, e19.00212-e19.00212.	2.0	6
36	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

#	Article	IF	Citations
37	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
38	Micro-Structural Alterations in MoM Hip Implants. Materials Science Forum, 2010, 638-642, 1872-1877.	0.3	5
39	Simultaneous Characterization of Implant Wear and Tribocorrosion Debris within its Corresponding Tissue Response Using Infrared Chemical Imaging. Biotribology, 2021, 26, 100163.	1.9	5
40	Imprinting and Column Damage on CoCrMo Head Taper Surfaces in Total Hip Replacements. , 2018, , 131-155.		5
41	Model validation for estimating taper microgroove deformation during total hip arthroplasty head-neck assembly. Journal of Biomechanics, 2022, 140, 111172.	2.1	5
42	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
43	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
44	What Do the Retrievals Really Tell Us?. , 2014, , 173-193.		3
45	Microstructure and Electrochemical Behavior of Contemporary Ti6Al4V Implant Alloys. Journal of Bio- and Tribo-Corrosion, 2022, 8, 1.	2.6	3
46	The Effect of Additive Manufacturing Parameters on Microstructure and Mechanical Properties of Biomedical Grade Ti-6Al-4V Alloy. , 2022, , 265-281.		3