Ara Nazarian

List of Publications by Year
in descending order

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108 papers	4,730 citations	172207 29 h-index	110170 64 g-index
111 all docs	111 docs citations	111 times ranked	6038 citing authors

#	Article	IF	Citations
1	Design of biodegradable, implantable devices towards clinical translation. Nature Reviews Materials, 2020, 5, 61-81.	23.3	440
2	Clinical trial of a farnesyltransferase inhibitor in children with Hutchinsonâ€“Gilford progeria syndrome. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16666-16671.	3.3	315
3	Bone fracture healing in mechanobiological modeling: A review of principles and methods. Bone Reports, 2017, 6, 87-100.	0.2	292
4	Biomechanics and Mechanobiology of Trabecular Bone: A Review. Journal of Biomechanical Engineering, 2015, 137, .	0.6	286
5	Adhesive capsulitis of the shoulder: review of pathophysiology and current clinical treatments. Shoulder and Elbow, 2017, 9, 75-84.	0.7	211
6	Onâ€Ðemand Dissolution of a Dendritic Hydrogelâ€based Dressing for Secondâ€Ðegree Burn Wounds through Thiolâ€“Thioester Exchange Reaction. Angewandte Chemie - International Edition, 2016, 55, 9984-9987.	7.2	185
7	Bone Volume Fraction Explains the Variation in Strength and Stiffness of Cancellous Bone Affected by Metastatic Cancer and Osteoporosis. Calcified Tissue International, 2008, 83, 368-379.	1.5	174
8	A Dendritic Thioester Hydrogel Based on Thiolâ€“Thioester Exchange as a Dissolvable Sealant System for Wound Closure. Angewandte Chemie - International Edition, 2013, 52, 14070-14074.	7.2	163
9	Time-lapsed microstructural imaging of bone failure behavior. Journal of Biomechanics, 2004, 37, 55-65.	0.9	155
10	Thermoplastic moulding of regenerated silk. Nature Materials, 2020, 19, 102-108.	13.3	138
11	Clinical Trial of the Protein Farnesylation Inhibitors Lonafarnib, Pravastatin, and Zoledronic Acid in Children With Hutchinson-Gilford Progeria Syndrome. Circulation, 2016, 134, 114-125.	1.6	131
12	Quantitative micro-computed tomography: A non-invasive method to assess equivalent bone mineral density. Bone, 2008, 43, 302-311.	1.4	113
13	The interaction of microstructure and volume fraction in predicting failure in cancellous bone. Bone, 2006, 39, 1196-1202.	1.4	93
14	CT-based Structural Rigidity Analysis Is More Accurate Than Mirels Scoring for Fracture Prediction in Metastatic Femoral Lesions. Clinical Orthopaedics and Related Research, 2016, 474, 643-651.	0.7	84
15	Compressive axial mechanical properties of rat bone as functions of bone volume fraction, apparent density and micro-ct based mineral density. Journal of Biomechanics, 2010, 43, 953-960.	0.9	80
16	Densitometric, morphometric and mechanical distributions in the human proximal femur. Journal of Biomechanics, 2007, 40, 2573-2579.	0.9	74
17	Risk Factors and Pooled Rate of Prolonged Opioid Use Following Trauma or Surgery. Journal of Bone and Joint Surgery - Series A, 2018, 100, 1332-1340.	1.4	73
18	Changes in Contact Area in Meniscus Horizontal Cleavage Tears Subjected to Repair and Resection. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2017, 33, 617-624.	1.3	72

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19	Hutchinson-gilford progeria is a skeletal dysplasia. Journal of Bone and Mineral Research, 2011, 26, 1670-1679.	3.1	69
20	Meta-analysis and Systematic Review of Skin Graft Donor-site Dressings with Future Guidelines. Plastic and Reconstructive Surgery - Global Open, 2018, 6, e1928.	0.3	69
21	Medial Patellofemoral Ligament Reconstruction Combined With Bony Procedures for Patellar Instability: Current Indications, Outcomes, and Complications. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2016, 32, 1421-1427.	1.3	63
22	Analysis of a New All-Inside Versus Inside-Out Technique for Repairing Radial Meniscal Tears. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2015, 31, 293-298.	1.3	57
23	Specimen size and porosity can introduce error into Î¼CT-based tissue mineral density measurements. Bone, 2009, 44, 176-184.	1.4	56
24	Recent Advances in Dendritic Macromonomers for Hydrogel Formation and Their Medical Applications. Biomacromolecules, 2016, 17, 1235-1252.	2.6	52
25	Rehabilitation following meniscal repair: a systematic review. BMJ Open Sport and Exercise Medicine, 2018, 4, e000212.	1.4	46
26	Quantitative 31P NMR spectroscopy and 1H MRI measurements of bone mineral and matrix density differentiate metabolic bone diseases in rat models. Bone, 2010, 46, 1582-1590.	1.4	44
27	Treatment Planning and Fracture Prediction in Patients with Skeletal Metastasis with CT-Based Rigidity Analysis. Clinical Cancer Research, 2015, 21, 2514-2519.	3.2	43
28	Active agents, biomaterials, and technologies to improve biolubrication and strengthen soft tissues. Biomaterials, 2018, 181, 210-226.	5.7	42
29	Design and implementation of a novel mechanical testing system for cellular solids. , 2005, 73B, 400-411.		36
30	Intraarticular injection of relaxin-2 alleviates shoulder arthrofibrosis. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12183-12192.	3.3	34
31	Computational modeling of human bone fracture healing affected by different conditions of initial healing stage. BMC Musculoskeletal Disorders, 2019, 20, 562.	0.8	33
32	Medications as a Risk Factor for Fragility Hip Fractures: A Systematic Review and Meta-analysis. Calcified Tissue International, 2020, 107, 1-9.	1.5	33
33	Comparison of All-Inside Meniscal Repair Devices With Matched Inside-Out Suture Repair. American Journal of Sports Medicine, 2011, 39, 2634-2639.	1.9	32
34	Scapular Dyskinesis: From Basic Science to Ultimate Treatment. International Journal of Environmental Research and Public Health, 2020, 17, 2974.	1.2	31
35	Biomechanical Evaluation of an All-Inside Suture-Based Device for Repairing Longitudinal Meniscal Tears. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2015, 31, 428-434.	1.3	29
36	Comparative Efficacy and Safety of Nonsurgical Treatment Options for Enthesopathy of the Extensor Carpi Radialis Brevis: A Systematic Review and Meta-analysis of Randomized Placebo-Controlled Trials. American Journal of Sports Medicine, 2019, 47, 3019-3029.	1.9	28

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37	Accuracy and Measurement Error of the Medial Clear Space of the Ankle. Foot and Ankle International, 2017, 38, 443-451.	1.1	27
38	Genetic reduction of mTOR extends lifespan in a mouse model of Hutchinsonâ€Gilford Progeria syndrome. Aging Cell, 2021, 20, e13457.	3.0	27
39	A prospective study of radiographic manifestations in Hutchinson-Gilford progeria syndrome. Pediatric Radiology, 2012, 42, 1089-1098.	1.1	26
40	A hydrogel sealant for the treatment of severe hepatic and aortic trauma with a dissolution feature for post-emergent care. Materials Horizons, 2017, 4, 222-227.	6.4	26
41	Post-traumatic elbow stiffness: Pathogenesis and current treatments. Shoulder and Elbow, 2020, 12, 38-45.	0.7	26
42	Comparison of adverse events and postoperative mobilization following knee extensor mechanism rupture repair: A systematic review and network meta-analysis. Injury, 2017, 48, 2793-2799.	0.7	25
43	Clinical Management of Arthrofibrosis. JBJS Reviews, 2020, 8, e19.00223-e19.00223.	0.8	23
44	3D Bioprinted Bacteriostatic Hyperelastic Bone Scaffold for Damage-Specific Bone Regeneration. Polymers, 2021, 13, 1099.	2.0	22
45	The effect of docosahexaenoic acid on bone microstructure in young mice and bone fracture in neonates. Journal of Surgical Research, 2014, 191, 148-155.	0.8	20
46	Shoulder biomechanics of RC repair and Instability: A systematic review of cadaveric methodology. Journal of Biomechanics, 2019, 82, 280-290.	0.9	20
47	Evaluation of musculoskeletal phenotype of the G608G progeria mouse model with lonafarnib, pravastatin, and zoledronic acid as treatment groups. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 12029-12040.	3.3	20
48	Concept of a Radiofrequency Device for Osteopenia/Osteoporosis Screening. Scientific Reports, 2020, 10, 3540.	1.6	20
49	In situ gelling and dissolvable hydrogels for use as on-demand wound dressings for burns. Biomaterials Science, 2021, 9, 6842-6850.	2.6	20
50	Does CT-based Rigidity Analysis Influence Clinical Decision-making in Simulations of Metastatic Bone Disease?. Clinical Orthopaedics and Related Research, 2016, 474, 652-659.	0.7	19
51	Comparison of surgical and non-surgical treatments for 3- and 4-part proximal humerus fractures: A network meta-analysis. Shoulder and Elbow, 2020, 12, 99-108.	0.7	19
52	A Biomechanical Evaluation of All-Inside 2-Stitch Meniscal Repair Devices With Matched Inside-Out Suture Repair. American Journal of Sports Medicine, 2014, 42, 194-199.	1.9	18
53	Tensile properties of rat femoral bone as functions of bone volume fraction, apparent density and volumetric bone mineral density. Journal of Biomechanics, 2011, 44, 2482-2488.	0.9	17
54	InÂvivo kinetic evaluation of an adhesive capsulitis model in rats. Journal of Shoulder and Elbow Surgery, 2015, 24, 1809-1816.	1.2	17

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55	Onâ€Demand Dissolution of a Dendritic Hydrogelâ€based Dressing for Secondâ€Degree Burn Wounds through Thiolâ€“Thioester Exchange Reaction. Angewandte Chemie, 2016, 128, 10138-10141.	1.6	17
56	Cost-Effectiveness of Supervised versus Unsupervised Rehabilitation for Rotator-Cuff Repair: Systematic Review and Meta-Analysis. International Journal of Environmental Research and Public Health, 2020, 17, 2852.	1.2	17
57	The effect of simulated scapular winging on glenohumeral joint translations. Journal of Shoulder and Elbow Surgery, 2013, 22, 986-992.	1.2	16
58	Computed tomography-based rigidity analysis: a review of the approach in preclinical and clinical studies. BoneKEy Reports, 2014, 3, 587.	2.7	16
59	Multi-purpose VHP-female version 3.0 cross-platform computational human model. , 2016, , .		16
60	Functional dependence of cancellous bone shear properties on trabecular microstructure evaluated using timeâ€lapsed microâ€computed tomographic imaging and torsion testing. Journal of Orthopaedic Research, 2009, 27, 1667-1674.	1.2	15
61	Application of Structural Rigidity Analysis to Assess Fidelity of Healed Fractures in Rat Femurs with Critical Defects. Calcified Tissue International, 2010, 86, 397-403.	1.5	15
62	Hierarchical analysis and multi-scale modelling of rat cortical and trabecular bone. Journal of the Royal Society Interface, 2015, 12, 20150070.	1.5	15
63	Design and validation of a testing system to assess torsional cancellous bone failure in conjunction with time-lapsed micro-computed tomographic imaging. Journal of Biomechanics, 2008, 41, 3496-3501.	0.9	13
64	The Effect of Supraspinatus Tears on Glenohumeral Translations in Passive Pitching Motion. American Journal of Sports Medicine, 2014, 42, 2455-2462.	1.9	13
65	Effects of Different Loading Patterns on the Trabecular Bone Morphology of the Proximal Femur Using Adaptive Bone Remodeling. Journal of Biomechanical Engineering, 2015, 137, .	0.6	13
66	Conservative versus accelerated rehabilitation after rotator cuff repair: a systematic review and meta-analysis. BMC Musculoskeletal Disorders, 2021, 22, 637.	0.8	13
67	Finite element analysis and computed tomography based structural rigidity analysis of rat tibia with simulated lytic defects. Journal of Biomechanics, 2013, 46, 2701-2709.	0.9	12
68	Short term results of anterior cruciate ligament augmentation in professional and amateur athletes. Journal of Orthopaedics and Traumatology, 2017, 18, 171-176.	1.0	12
69	Predicting factors of muscle necrosis in acute compartment syndrome of the lower extremity. Injury, 2020, 51, 522-526.	0.7	12
70	Seasonal impact on surgical site infections in hip fracture surgery: Analysis of 330,803 cases using a nationwide inpatient database. Injury, 2021, 52, 898-904.	0.7	12
71	Tendinopathy and tendon material response to load: What we can learn from small animal studies. Acta Biomaterialia, 2021, 134, 43-56.	4.1	12
72	Further improvements on the factors affecting bone mineral density measured by quantitative micro-computed tomography. Bone, 2012, 50, 611-618.	1.4	11

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73	Limb reconstruction with decellularized, non-demineralized bone in a young leporine model. Biomedical Materials (Bristol), 2015, 10, 015021.	1.7	11
74	Association between Hemiarthroplasty vs. Total Hip Arthroplasty and Major Surgical Complications among Patients with Femoral Neck Fracture. Journal of Clinical Medicine, 2020, 9, 3203.	1.0	11
75	Non-invasive assessment of failure torque in rat bones with simulated lytic lesions using computed tomography based structural rigidity analysis. Journal of Biomechanics, 2011, 44, 552-556.	0.9	10
76	Preliminary evaluation of a robotic apparatus for the analysis of passive glenohumeral joint kinematics. Journal of Orthopaedic Surgery and Research, 2013, 8, 24.	0.9	10
77	Limitations of Global Morphometry in Predicting Trabecular Bone Failure. Journal of Bone and Mineral Research, 2014, 29, 134-141.	3.1	10
78	Posterior Capsular Plication Constrains the Glenohumeral Joint by Drawing the Humeral Head Closer to the Glenoid and Resisting Abduction. Orthopaedic Journal of Sports Medicine, 2015, 3, 232596711559934.	0.8	10
79	Evolution of knowledge on meniscal biomechanics: a 40Âyear perspective. BMC Musculoskeletal Disorders, 2021, 22, 625.	0.8	10
80	The efficacy of a lysine-based dendritic hydrogel does not differ from those of commercially available tissue sealants and adhesives: an ex vivo study. BMC Musculoskeletal Disorders, 2015, 16, 116.	0.8	9
81	Biomechanical properties of an intramedullary suture anchor fixation compared to tension band wiring in osteoporotic olecranon fractures- A cadaveric study. Journal of Orthopaedics, 2020, 17, 144-149.	0.6	9
82	DIRECT PERCUTANEOUS GENE DELIVERY TO ENHANCE HEALING OF SEGMENTAL BONE DEFECTS. Journal of Bone and Joint Surgery - Series A, 2006, 88, 355-365.	1.4	9
83	Effects of dietary omega-3 fatty acids on bones of healthy mice. Clinical Nutrition, 2019, 38, 2145-2154.	2.3	8
84	Effect of rotator cuff muscle activation on glenohumeral kinematics: A cadaveric study. Journal of Biomechanics, 2020, 105, 109798.	0.9	7
85	Revision Arthroplasty Versus Open Reduction and Internal Fixation of Vancouver Type-B2 and B3 Periprosthetic Femoral Fractures. JBJS Reviews, 2021, 9, .	0.8	7
86	Influence of disruption of the acromioclavicular and coracoclavicular ligaments on glenohumeral motion: a kinematic evaluation. BMC Musculoskeletal Disorders, 2016, 17, 480.	0.8	6
87	Risk factors for developing acute compartment syndrome in the pediatric population: a systematic review and meta-analysis. European Journal of Orthopaedic Surgery and Traumatology, 2020, 30, 839-844.	0.6	6
88	Lateral Release With Tibial Tuberosity Transfer Alters Patellofemoral Biomechanics Promoting Multidirectional Patellar Instability. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2022, 38, 953-964.	1.3	6
89	A Historical Analysis of Randomized Controlled Trials in Rotator Cuff Tears. International Journal of Environmental Research and Public Health, 2020, 17, 6863.	1.2	5
90	Association between hospital surgical volume and complications after total hip arthroplasty in femoral neck fracture: A propensity score-matched cohort study. Injury, 2021, 52, 3002-3010.	0.7	5

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91	Pressure Distribution in the Ankle and Subtalar Joint With Routine and Oversized Foot Orthoses. Foot and Ankle International, 2018, 39, 994-1000.	1.1	4
92	Bone Remodeling Under Vibration: A Computational Model of Bone Remodeling Incorporating the Modal Behavior of Bone. Journal of Biomechanical Engineering, 2018, 140, .	0.6	4
93	Glenohumeral Joint Kinematics following Clavicular Fracture and Repairs. PLoS ONE, 2017, 12, e0164549.	1.1	4
94	VHP-Female CAD human model family for antenna modeling. , 2016, , .		3
95	The effect of the rotator interval on glenohumeral kinematics during abduction. BMC Musculoskeletal Disorders, 2016, 17, 46.	0.8	3
96	Proximity of the Lateral Calcaneal Artery With a Modified Extensile Lateral Approach Compared to Standard Extensile Approach. Foot and Ankle International, 2017, 38, 318-323.	1.1	3
97	Novel on-body microwave antenna array testbed for highly-sensitive measurements of wrist bone signature. , 2017, , .		3
98	3D printing-assisted fabrication of a patient-specific antibacterial radial head prosthesis with high periprosthetic bone preservation. Biomedical Materials (Bristol), 2021, 16, 035027.	1.7	3
99	Lateral release associated with MPFL reconstruction in patients with acute patellar dislocation. BMC Musculoskeletal Disorders, 2022, 23, 139.	0.8	3
100	Virtual Humans for antenna/implant modeling. , 2017, , .		2
101	Rat Model of Adhesive Capsulitis of the Shoulder. Journal of Visualized Experiments, 2018, , .	0.2	2
102	Anatomical axes of the proximal and distal halves of the femur in a normally aligned healthy population: implications for surgery. Journal of Orthopaedic Surgery and Research, 2018, 13, 21.	0.9	2
103	Tendon lengthening after achilles tendon ruptureâ€"passive effects on the ankle joint in a cadaveric pilot study simulating weight bearing. Injury, 2020, 51, 532-536.	0.7	2
104	Non-Invasive Prediction of Fracture Risk Due to Benign and Metastatic Skeletal Defects. Materials Research Society Symposia Proceedings, 2004, 844, 1.	0.1	1
105	Hyperflexion and Femoral Interference Screw Insertion in ACL Reconstruction. Orthopaedic Journal of Sports Medicine, 2018, 6, 232596711878881.	0.8	1
106	Consideration of medial anatomical structures at risk when placing quadricortical syndesmotic fixation: A cadaveric study. Injury, 2020, 51, 527-531.	0.7	1
107	Factors Associated with Development of Traumatic Acute Compartment Syndrome: A Systematic Review and Meta-analysis. Archives of Bone and Joint Surgery, 2021, 9, 263-271.	0.1	1
108	Enhancing fracture repair: cell-based approaches. OTA International the Open Access Journal of Orthopaedic Trauma, 2022, 5, e168.	0.4	1