

Mohammad Atai

List of Publications by Year in descending order

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106
papers

3,643
citations

172386

29
h-index

149623

56
g-index

108
all docs

108
docs citations

108
times ranked

4292
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface modification of TiO ₂ nano-particles with silane coupling agent and investigation of its effect on the properties of polyurethane composite coating. <i>Progress in Organic Coatings</i> , 2009, 65, 222-228.	1.9	392
2	Hydroxyapatite nanorods as novel fillers for improving the properties of dental adhesives: Synthesis and application. <i>Dental Materials</i> , 2010, 26, 471-482.	1.6	233
3	Antibacterial, physical and mechanical properties of flowable resin composites containing zinc oxide nanoparticles. <i>Dental Materials</i> , 2013, 29, 495-505.	1.6	210
4	A new kinetic model for the photopolymerization shrinkage-strain of dental composites and resin-monomers. <i>Dental Materials</i> , 2006, 22, 785-791.	1.6	161
5	Shrinkage strain-rates of dental resin-monomer and composite systems. <i>Biomaterials</i> , 2005, 26, 5015-5020.	5.7	142
6	Graphene nanoplatelets as poly(lactic acid) modifier: linear rheological behavior and electrical conductivity. <i>Journal of Materials Chemistry A</i> , 2013, 1, 8253.	5.2	125
7	The effect of ceramic and porous fillers on the mechanical properties of experimental dental composites. <i>Dental Materials</i> , 2006, 22, 382-387.	1.6	119
8	Nano-porous thermally sintered nano silica as novel fillers for dental composites. <i>Dental Materials</i> , 2012, 28, 133-145.	1.6	103
9	PMMA-grafted nanoclay as novel filler for dental adhesives. <i>Dental Materials</i> , 2009, 25, 339-347.	1.6	99
10	Physical and mechanical properties of an experimental dental composite based on a new monomer. <i>Dental Materials</i> , 2004, 20, 663-668.	1.6	96
11	Weathering performance of the polyurethane nanocomposite coatings containing silane treated TiO ₂ nanoparticles. <i>Applied Surface Science</i> , 2011, 257, 4196-4203.	3.1	83
12	Synthesis, characterization, shrinkage and curing kinetics of a new low-shrinkage urethane dimethacrylate monomer for dental applications. <i>Dental Materials</i> , 2007, 23, 1030-1041.	1.6	77
13	Poly(acrylic acid) grafted montmorillonite as novel fillers for dental adhesives: Synthesis, characterization and properties of the adhesive. <i>Dental Materials</i> , 2012, 28, 369-377.	1.6	71
14	Ternary hybrid system of halloysite nanotubes, polyacrylamides and cyclodextrin: an efficient support for immobilization of Pd nanoparticles for catalyzing coupling reaction. <i>Applied Clay Science</i> , 2018, 153, 78-89.	2.6	66
15	Evaluation of fracture toughness and mechanical properties of ternary thiol-ene methacrylate systems as resin matrix for dental restorative composites. <i>Dental Materials</i> , 2013, 29, 777-787.	1.6	56
16	A novel dentin bonding system containing poly(methacrylic acid) grafted nanoclay: Synthesis, characterization and properties. <i>Dental Materials</i> , 2012, 28, 1041-1050.	1.6	55
17	Design of experiments (DOE) for the optimization of hydrothermal synthesis of hydroxyapatite nanoparticles. <i>Journal of the Brazilian Chemical Society</i> , 2011, 22, 571-582.	0.6	51
18	Temperature rise and degree of photopolymerization conversion of nanocomposites and conventional dental composites. <i>Clinical Oral Investigations</i> , 2009, 13, 309-316.	1.4	47

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19	Injectable in situ forming drug delivery system based on poly(μ -caprolactone fumarate) for tamoxifen citrate delivery: Gelation characteristics, in vitro drug release and anti-cancer evaluation. <i>Acta Biomaterialia</i> , 2009, 5, 1966-1978.	4.1	47
20	Ultra-high-molecular-weight polyethylene fiber reinforced dental composites: Effect of fiber surface treatment on mechanical properties of the composites. <i>Dental Materials</i> , 2015, 31, 1022-1029.	1.6	46
21	Physical and mechanical properties of graphene oxide/polyethersulfone nanocomposites. <i>Polymers for Advanced Technologies</i> , 2014, 25, 322-328.	1.6	44
22	Cyanoacrylate-POSS nanocomposites: Novel adhesives with improved properties for dental applications. <i>Dental Materials</i> , 2013, 29, e61-e69.	1.6	39
23	Synthesis, Characterization and Properties of Novel Poly(urethane-imide) Networks as Electrical Insulators with Improved Thermal Stability. <i>Macromolecular Materials and Engineering</i> , 2006, 291, 883-894.	1.7	38
24	Energy Absorption in a Shear-Thickening Fluid. <i>Journal of Materials Engineering and Performance</i> , 2014, 23, 4289-4297.	1.2	38
25	Kinetics of dextran crosslinking by epichlorohydrin: A rheometry and equilibrium swelling study. <i>Carbohydrate Polymers</i> , 2013, 92, 1792-1798.	5.1	37
26	Photopolymerization and shrinkage kinetics of in situ crosslinkable N-vinylpyrrolidone/poly(μ -caprolactone fumarate) networks. <i>Journal of Biomedical Materials Research - Part A</i> , 2008, 84A, 545-556.	2.1	35
27	PLA/sepiolite and PLA/calcium carbonate nanocomposites: A comparison study. <i>Journal of Applied Polymer Science</i> , 2013, 129, 1734-1744.	1.3	34
28	In vivo study of antifungal effects of low-molecular-weight chitosan against <i>Candida albicans</i> . <i>Journal of Oral Science</i> , 2017, 59, 425-430.	0.7	31
29	Structure-properties relationships in dental adhesives: Effect of initiator, matrix monomer structure, and nano-filler incorporation. <i>Dental Materials</i> , 2018, 34, 1263-1270.	1.6	31
30	PMMA/double-modified organoclay nanocomposites as fillers for denture base materials with improved mechanical properties. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 90, 11-19.	1.5	31
31	Synthesis, photocrosslinking characteristics, and biocompatibility evaluation of N-vinyl pyrrolidone/polycaprolactone fumarate biomaterials using a new proton scavenger. <i>Polymers for Advanced Technologies</i> , 2008, 19, 1828-1838.	1.6	30
32	The Effect of Calcium Hydroxide and Nano-calcium Hydroxide on Microhardness and Superficial Chemical Structure of Root Canal Dentin: An Ex Vivo Study. <i>Journal of Endodontics</i> , 2019, 45, 1148-1154.	1.4	30
33	Gelation behavior of in situ forming gels based on HPMC and biphasic calcium phosphate nanoparticles. <i>Carbohydrate Polymers</i> , 2014, 99, 257-263.	5.1	29
34	Synthesis and preparation of biodegradable and visible light crosslinkable unsaturated fumarate-based networks for biomedical applications. <i>Polymers for Advanced Technologies</i> , 2008, 19, 1199-1208.	1.6	28
35	Nanocomposite particles with core-shell morphology IV: an efficient approach to the encapsulation of Cloisite 30B by poly(styrene-co-butyl acrylate) and preparation of its nanocomposite latex via miniemulsion polymerization. <i>Colloid and Polymer Science</i> , 2009, 287, 725-732.	1.0	28
36	Hydroxyapatite scaffolds infiltrated with thermally crosslinked polycaprolactone fumarate and polycaprolactone itaconate. <i>Journal of Biomedical Materials Research - Part A</i> , 2011, 98A, 257-267.	2.1	28

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37	Physical characterization of unfilled and nanofilled dental resins: Static versus dynamic mechanical properties. <i>Dental Materials</i> , 2016, 32, e185-e197.	1.6	28
38	Fabrication of denture base materials with antimicrobial properties. <i>Journal of Prosthetic Dentistry</i> , 2018, 119, 292-298.	1.1	28
39	Assessments of antibacterial and physico-mechanical properties for dental materials with chemically anchored quaternary ammonium moieties: Thiol-ene methacrylate vs. conventional methacrylate system. <i>Dental Materials</i> , 2015, 31, 244-261.	1.6	27
40	In-situ photocrosslinkable nanohybrid elastomer based on polybutadiene/polyhedral oligomeric silsesquioxane. <i>Materials Science and Engineering C</i> , 2016, 68, 530-539.	3.8	26
41	Effect of silane-based treatment on the adhesion strength of acrylic lacquers on the PP surfaces. <i>International Journal of Adhesion and Adhesives</i> , 2007, 27, 519-526.	1.4	24
42	The effect of a leucite-containing ceramic filler on the abrasive wear of dental composites. <i>Dental Materials</i> , 2007, 23, 1181-1187.	1.6	24
43	Palladated halloysite hybridized with photo-polymerized hydrogel in the presence of cyclodextrin: An efficient catalytic system benefiting from nanoreactor concept. <i>Applied Organometallic Chemistry</i> , 2019, 33, e4776.	1.7	23
44	Synthesis, characterization, and biocompatibility of novel injectable, biodegradable, and <i>in situ</i> crosslinkable polycarbonate-based macromers. <i>Journal of Biomedical Materials Research - Part A</i> , 2009, 90A, 830-843.	2.1	22
45	Physical and mechanical properties of nanocomposite barrier film containing encapsulated nanoclay. <i>Journal of Applied Polymer Science</i> , 2010, 118, 3284-3291.	1.3	22
46	In situ photocrosslinkable nanohybrids based on poly(μ -caprolactone fumarate)/polyhedral oligomeric silsesquioxane: synthesis and characterization. <i>Journal of Polymer Research</i> , 2013, 20, 1.	1.2	21
47	Hybrid Organic-Inorganic Nanocomposites Based on Poly(μ -Caprolactone)/Polyhedral Oligomeric Silsesquioxane: Synthesis and <i>In Vitro</i> Evaluations. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2014, 63, 624-631.	1.8	20
48	To Compare the Microleakage Among Experimental Adhesives Containing Nanoclay Fillers after the Storages of 24 Hours and 6 Months. <i>Open Dentistry Journal</i> , 2011, 5, 52-57.	0.2	20
49	Photo-crosslinkable cyanoacrylate bioadhesive: Shrinkage kinetics, dynamic mechanical properties, and biocompatibility of adhesives containing TMPTMA and POSS nanostructures as crosslinking agents. <i>Journal of Biomedical Materials Research - Part A</i> , 2011, 99A, 240-248.	2.1	19
50	Cure kinetic study of organoclay-unsaturated polyester resin nanocomposites by using advanced isoconversional approach. <i>Polymer Composites</i> , 2013, 34, 1824-1831.	2.3	19
51	The effects of solvent and initiator on anionic ring opening polymerization of μ -caprolactone: synthesis and characterization. <i>Polymer International</i> , 2014, 63, 479-485.	1.6	19
52	The effect of silica nanoparticles on the mechanical properties of fiber-reinforced composite resins. <i>Journal of Dental Research, Dental Clinics, Dental Prospects</i> , 2016, 10, 112-117.	0.4	18
53	Exploring the effect of formulation parameters on the particle size of carboxymethyl chitosan nanoparticles prepared via reverse micellar crosslinking. <i>Journal of Microencapsulation</i> , 2017, 34, 270-279.	1.2	18
54	Bactericidal dental nanocomposites containing 1,2,3-triazolium-functionalized POSS additive prepared through thiol-ene click polymerization. <i>Dental Materials</i> , 2017, 33, 119-131.	1.6	18

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55	Photopolymerization of dental resin as restorative material using an argon laser. <i>Lasers in Medical Science</i> , 2008, 23, 399-406.	1.0	17
56	Effect of interface on mechanical properties and biodegradation of PCL HAp supramolecular nano-composites. <i>Journal of Materials Science: Materials in Medicine</i> , 2014, 25, 23-35.	1.7	17
57	The Influence of Surface Nanocrystallization Induced by Shot Peening on Corrosion Behavior of NiTi Alloy. <i>Journal of Materials Engineering and Performance</i> , 2015, 24, 3093-3099.	1.2	17
58	Effect of reaction conditions on silanisation of sepiolite nanoparticles. <i>Journal of Experimental Nanoscience</i> , 2016, 11, 1171-1183.	1.3	17
59	Synthesis and characterization of BTDA-based dimethacrylate dental adhesive monomer and its interaction with Ca ²⁺ ions. <i>Journal of Applied Polymer Science</i> , 2002, 86, 3246-3249.	1.3	16
60	Supramolecular polycaprolactone nanocomposite based on functionalized hydroxyapatite. <i>Journal of Bioactive and Compatible Polymers</i> , 2012, 27, 467-480.	0.8	16
61	Photopolymerization of a dental nanocomposite as restorative material using the argon laser. <i>Lasers in Medical Science</i> , 2011, 26, 553-561.	1.0	15
62	Preparation, mechanical properties, and <i>in vitro</i> biocompatibility of novel nanocomposites based on polyhexamethylene carbonate fumarate and nanohydroxyapatite. <i>Polymers for Advanced Technologies</i> , 2011, 22, 605-611.	1.6	15
63	Dentin bond strength and degree of conversion evaluation of experimental self-etch adhesive systems. <i>Journal of Clinical and Experimental Dentistry</i> , 2015, 7, e243-e249.	0.5	15
64	Simple mass production of zinc oxide nanostructures via low-temperature hydrothermal synthesis. <i>Materials Research Express</i> , 2017, 4, 035010.	0.8	14
65	Effect of addition of Nano hydroxyapatite particles on wear of resin modified glass ionomer by tooth brushing simulation. <i>Journal of Clinical and Experimental Dentistry</i> , 2017, 9, 0-0.	0.5	13
66	Effects of nanoparticle size and content on mechanical properties of dental nanocomposites: experimental versus modeling. <i>Iranian Polymer Journal (English Edition)</i> , 2015, 24, 837-848.	1.3	12
67	The effect of nanoclay filler loading on the flexural strength of fiber-reinforced composites. <i>Dental Research Journal</i> , 2012, 9, 273-80.	0.2	12
68	Cooperative rearrangement region in nanoclay reinforced unsaturated polyester resin. <i>Polymer Engineering and Science</i> , 2014, 54, 2859-2865.	1.5	11
69	A comparative assessment of enamel mineral content and <i>Streptococcus mutans</i> population between conventional composites and composites containing nano amorphous calcium phosphate in fixed orthodontic patients: a split-mouth randomized clinical trial. <i>European Journal of Orthodontics</i> , 2017, 39, 43-51.	1.1	11
70	Kinetic studies of the preparation of nanocomposites based on encapsulated Cloisite 30B in poly[styrene-co-(butyl acrylate)] via mini-emulsion polymerization. <i>Polymer International</i> , 2011, 60, 613-619.	1.6	10
71	Correlating the adhesion of an acrylic coating to the physico-mechanical behavior of a polypropylene substrate. <i>International Journal of Adhesion and Adhesives</i> , 2011, 31, 220-225.	1.4	10
72	Pd on magnetic hybrid of halloysite and POSS containing copolymer: An efficient catalyst for dye reduction. <i>Applied Organometallic Chemistry</i> , 2020, 34, e6006.	1.7	10

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73	Dual modified nanosilica particles as reinforcing fillers for dental adhesives: Synthesis, characterization, and properties. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 110, 103904.	1.5	9
74	Potential Application of a Visible Light-Induced Photocured Hydrogel Film as a Wound Dressing Material. <i>Journal of Polymers</i> , 2015, 2015, 1-10.	0.9	8
75	Investigating curing kinetics and structural relaxation phenomena of unsaturated polyester resin containing silanized silica. <i>Journal of Composite Materials</i> , 2016, 50, 2459-2467.	1.2	8
76	Dentin bonding agent with improved bond strength to dentin through incorporation of sepiolite nanoparticles. <i>Journal of Clinical and Experimental Dentistry</i> , 2017, 9, 0-0.	0.5	8
77	Synthesis and characterization of core-shell nanoparticles and their application in dental resins. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 110, 103926.	1.5	8
78	Synthesis of poly(acrylic-co-itaconic acid) through precipitation photopolymerization for glass-ionomer cements: Characterization and properties of the cements. <i>Dental Materials</i> , 2020, 36, e169-e183.	1.6	8
79	A biocompatible composite based on poly(ϵ -caprolactone fumarate) and hydroxyapatite. <i>Polymers for Advanced Technologies</i> , 2011, 22, 2182-2190.	1.6	7
80	Effect of plate-like glass fillers on the mechanical properties of dental nanocomposites. <i>Iranian Polymer Journal (English Edition)</i> , 2016, 25, 129-134.	1.3	7
81	An Insight into the Silanization of Montmorillonite Nanoparticles. <i>Chemical Engineering Communications</i> , 2017, 204, 176-181.	1.5	7
82	Casein phosphopeptide- amorphous calcium phosphate effects on brackets shear bond strength and enamel damage. <i>Journal of Clinical and Experimental Dentistry</i> , 2017, 9, 0-0.	0.5	7
83	Synthesis of plate-like β -tricalcium phosphate nanoparticles and their efficiency in remineralization of incipient enamel caries. <i>Progress in Biomaterials</i> , 2019, 8, 261-276.	1.8	7
84	Modified POSS nano-structures as novel co-initiator-crosslinker: Synthesis and characterization. <i>Dental Materials</i> , 2021, 37, 1283-1294.	1.6	7
85	Synthesis and Characterization of Novel Injectable, Biodegradable and In situ Crosslinkable Poly(hexamethylene-carbonate-fumarate), Poly(hexamethylene carbonate) Diacrylate and Poly(ethylene Terephthalate) / Poly(hexamethylene carbonate) Copolymer. <i>Journal of Polymer Science: Part A: Polymer Chemistry</i> , 2006, 44, 791-4.	1.0	6
86	Studies of the Mechanical Properties and Practical Coating Adhesion on PP Modified by Oxidized Wax. <i>Journal of Adhesion Science and Technology</i> , 2010, 24, 1113-1129.	1.4	6
87	A novel thymol-doped enamel bonding system: Physico-mechanical properties, bonding strength, and biological activity. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 100, 103378.	1.5	6
88	Poly(hydroxybutyrate-co-hydroxyvalerate) Porous Matrices from Thermally Induced Phase Separation. <i>Polymers</i> , 2020, 12, 2787.	2.0	6
89	<i>Echinops bannaticus</i> plant and <i>Zinnia grandiflora</i> extract as char biosource and reducing agent for the biosynthesis of Ag on magnetic char-polymer: An efficient catalyst for water treatment. <i>Applied Organometallic Chemistry</i> , 2020, 34, e5799.	1.7	6
90	Poly (methacrylic acid) modified spherical and platelet hybrid nanoparticles as reinforcing fillers for dentin bonding systems: Synthesis and properties. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 109, 103840.	1.5	6

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91	Side Effects and Complications of Dental Materials on Oral Cavity. American Journal of Applied Sciences, 2007, 4, 946-949.	0.1	6
92	Effect of fiber diameter on flexural properties of fiber-reinforced composites. Indian Journal of Dental Research, 2013, 24, 237.	0.1	6
93	Enhancement of mechanical properties of experimental composite by Fuller's earth nanofibers for cervical restoration. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2013, 101B, 911-918.	1.6	5
94	Preparation and characterization of eugenol-loaded oligochitosan nanoparticles through sol-gel and emulsion/sol-gel methods. Polymer Bulletin, 2018, 75, 3035-3051.	1.7	5
95	Effects of ethanol concentrations of acrylate-based dental adhesives on microtensile composite-dentin bond strength and hybrid layer structure of a 10 wt% polyhedral oligomeric silsesquioxane (POSS)-incorporated bonding agent. Dental Research Journal, 2018, 15, 25.	0.2	5
96	Comparison of various concentrations of tricalcium phosphate nanoparticles on mechanical properties and remineralization of fissure sealants. Journal of Dentistry of Tehran University of Medical Sciences, 2014, 11, 379-88.	0.4	5
97	Thermooxidative reactions of polypropylene wax in the molten state. Journal of Applied Polymer Science, 2009, 111, 2703-2710.	1.3	4
98	Temperature changes under demineralized dentin during polymerization of three resin-based restorative materials using QTH and LED units. Restorative Dentistry & Endodontics, 2014, 39, 155.	0.6	4
99	Compositional design and Taguchi optimization of hardness properties in silicone-based ocular lenses. Progress in Biomaterials, 2017, 6, 67-74.	1.8	4
100	Effect of Nano-Tricalcium Phosphate and Nanohydroxyapatite on the Staining Susceptibility of Bleached Enamel. International Scholarly Research Notices, 2015, 2015, 1-7.	0.9	3
101	Purification assay to prepared ultrapure carboxymethyl-chitosan. Journal of Macromolecular Science - Pure and Applied Chemistry, 2017, 54, 605-611.	1.2	3
102	The effect of acrylate-based dental adhesive solvent content on microleakage in composite restorations. Dental Research Journal, 2016, 13, 515.	0.2	3
103	Solution photo-copolymerization of acrylic acid and itaconic acid: The effect of polymerization parameters on mechanical properties of glass ionomer cements. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 126, 105020.	1.5	3
104	Concentration-dependent switch between chain association and dissociation of oppositely charged weak polyelectrolytes in solution. Polymer, 2019, 172, 178-186.	1.8	1
105	On the properties of nanosilicate-based filled dental adhesives: Synthesis, characterization, and optimized formulation. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 119, 104498.	1.5	1
106	Facile Template-less Fabrication of ZnO Nanostructures; On the Consideration of Several Parameters. Scientia Iranica, 2016, 23, 3163-3174.	0.3	1