Effect of Printing Direction on the Accuracy of 3D-Print Stereolithography Technology

Materials

13, 3405

DOI: 10.3390/ma13153405

Citation Report

#	Article	IF	CITATIONS
1	3D Printing of Oil Paintings Based on Material Jetting and Its Reduction of Staircase Effect. Polymers, 2020, 12, 2536.	4.5	17
2	Many-objective optimization of build part orientation in additive manufacturing. International Journal of Advanced Manufacturing Technology, 2021, 112, 747-762.	3.0	19
3	Color stability of 3D-printed denture resins: effect of aging, mechanical brushing and immersion in staining medium. Journal of Advanced Prosthodontics, 2021, 13, 160.	2.6	33
4	Stereolithography vs. Direct Light Processing for Rapid Manufacturing of Complete Denture Bases: An In Vitro Accuracy Analysis. Journal of Clinical Medicine, 2021, 10, 1070.	2.4	56
5	3D and 4D printing in dentistry and maxillofacial surgery: Printing techniques, materials, and applications. Acta Biomaterialia, 2021, 122, 26-49.	8.3	175
6	A systematic evaluation of medical 3D printing accuracy of multiâ€pathological anatomical models for surgical planning manufactured in elastic and rigid material using desktop inverted vat photopolymerization. Medical Physics, 2021, 48, 3223-3233.	3.0	19
7	Fabrication of Microfluidic Devices for Emulsion Formation by Microstereolithography. Molecules, 2021, 26, 2817.	3.8	9
8	Accurate Bracket Placement with an Indirect Bonding Method Using Digitally Designed Transfer Models Printed in Different Orientations—An In Vitro Study. Journal of Clinical Medicine, 2021, 10, 2002.	2.4	14
9	The Trueness of Obturator Prosthesis Base Manufactured by Conventional and 3D Printing Techniques. Journal of Prosthodontics, 2022, 31, 221-227.	3.7	8
10	Effect of aging and mechanical brushing on surface roughness of 3D printed denture resins: A profilometer and scanning electron microscopy analysis. Technology and Health Care, 2021, 30, 161-173.	1.2	18
11	CAD-CAM complete denture resins: an evaluation of biocompatibility, mechanical properties, and surface characteristics. Journal of Dentistry, 2021, 114, 103785.	4.1	53
12	3D printers in dentistry: a review of additive manufacturing techniques and materials. Clinical and Laboratorial Research in Dentistry, 0, , .	0.1	1
13	A focused simulation-based optimization of print time and material usage with respect to orientation, layer height and support settings for multi-pathological anatomical models in inverted vat photopolymerization 3D printing. 3D Printing in Medicine, 2021, 7, 23.	3.1	8
14	An In-Vitro Study to Evaluate the Effect of Denture Cleansing Agents on Color Stability of Denture Bases Fabricated Using CAD/CAM Milling, 3D-Printing and Conventional Techniques. Coatings, 2021, 11, 962.	2.6	15
15	CAD-CAM removable complete dentures: A systematic review and meta-analysis of trueness of fit, biocompatibility, mechanical properties, surface characteristics, color stability, time-cost analysis, clinical and patient-reported outcomes. Journal of Dentistry, 2021, 113, 103777.	4.1	55
16	Indications, materials and properties of 3D printing in dentistry: a literature overview. Research, Society and Development, 2020, 9, e80791110632.	0.1	4
17	Dynamic fatigue of 3D-printed splint materials. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 124, 104885.	3.1	7
18	Surface Characteristics and Microbiological Analysis of a Vat-Photopolymerization Additive-Manufacturing Dental Resin. Materials, 2022, 15, 425.	2.9	11

			2
#	ARTICLE	IF	CITATIONS
19	A Comparison of the Surface and Mechanical Properties of 3D Printable Dentureâ€Base Resin Material and Conventional Polymethylmethacrylate (PMMA). Journal of Prosthodontics, 2023, 32, 40-48.	3.7	36
20	Effect of post-rinsing time and method on accuracy of denture base manufactured with stereolithography. Journal of Advanced Prosthodontics, 2022, 14, 45.	2.6	2
21	Additive Manufacturing of a Miniature Functional Trocar for Eye Surgery. Frontiers in Medical Technology, 2022, 4, 842958.	2.5	2
22	Three-Dimensional (3D) Stereolithographic Tooth Replicas Accuracy Evaluation: In Vitro Pilot Study for Dental Auto-Transplant Surgical Procedures. Materials, 2022, 15, 2378.	2.9	4
23	Trueness assessment of additively manufactured maxillary complete denture bases produced at different orientations. Journal of Prosthetic Dentistry, 2024, 131, 129-135.	2.8	7
24	Fabricating High-Resolution and High-Dimensional Microneedle Mold through the Resolution Improvement of Stereolithography 3D Printing. Pharmaceutics, 2022, 14, 766.	4.5	18
25	Additive Manufacturing for Complete Denture Fabrication: A Narrative Review. Journal of Prosthodontics, 2022, 31, 47-51.	3.7	37
26	Optimization of Digital Light Processing Three-Dimensional Printing of the Removable Partial Denture Frameworks; The Role of Build Angle and Support Structure Diameter. Materials, 2022, 15, 2316.	2.9	5
27	Performance Evaluation of Sandwich Structures Printed by Vat Photopolymerization. Polymers, 2022, 14, 1513.	4.5	7
28	Cytotoxicity of printed resin-based splint materials. Journal of Dentistry, 2022, 120, 104097.	4.1	8
29	Effect of 3D print orientation and layer thickness on the accuracy of printed models by DLP and SLA printers. Korean Journal of Dental Materials, 2021, 49, 1-13.	0.1	2
30	An Additive Manufacturing Direct Slicing Algorithm Based on a STEP Model. Electronics (Switzerland), 2022, 11, 1582.	3.1	4
31	In Vitro Analysis of Shear Stress: CAD Milled vs Printed Denture Base Resins with Bonded Denture Tooth. Journal of Prosthodontics, 2023, 32, 29-37.	3.7	4
32	Trueness of 3D printed partial denture frameworks: build orientations and support structure density parameters. Journal of Advanced Prosthodontics, 2022, 14, 150.	2.6	4
33	From Three-Dimensional (3D)- to 6D-Printing Technology in Orthopedics: Science Fiction or Scientific Reality?. Journal of Functional Biomaterials, 2022, 13, 101.	4.4	12
34	Effect of holding time on SiC whiskers growth of SiCw/SiC composites based on SLS technology and their mechanical properties. Ceramics International, 2022, , .	4.8	2
35	Colour Stability of 3D-Printed and Prefabricated Denture Teeth after Immersion in Different Colouring Agents—An In Vitro Study. Polymers, 2022, 14, 3125.	4.5	11
36	Additive Manufactured Polymers in Dentistry, Current State-of-the-Art and Future Perspectives-A Review. Polymers, 2022, 14, 3658.	4.5	18

#	Article	IF	CITATIONS
37	Study of SLA Printing Parameters Affecting the Dimensional Accuracy of the Pattern and Casting in Rapid Investment Casting. Journal of Manufacturing and Materials Processing, 2022, 6, 109.	2.2	16
38	Accuracy of the Surface Contour of Three-Dimensional-Printed Canine Pelvic Replicas. Veterinary and Comparative Orthopaedics and Traumatology, 0, , .	0.5	0
39	A review on Vat Photopolymerization 3D-printing processes for dental application. Dental Materials, 2022, 38, e284-e296.	3.5	26
40	Tensile bond strength of soft and hard relining materials to conventional and additively manufactured dentureâ€base materials. Journal of Prosthodontics, 2023, 32, 74-80.	3.7	4
41	4D Printing of Shape Memory Polymers, Blends, and Composites and Their Advanced Applications: A Comprehensive Literature Review. Advanced Engineering Materials, 2023, 25, .	3.5	13
42	Color Stability of CAD/CAM versus Conventionally Processed Denture Base Resins: A Systematic Review. Journal of Biomaterials and Tissue Engineering, 2022, 12, 2119-2125.	0.1	0
43	Trueness of stereolithography ZrO ₂ crowns with different build directions. Dental Materials Journal, 2023, 42, 42-48.	1.8	5
44	Effect of repair methods and materials on the flexural strength of 3D-printed denture base resin. Journal of Advanced Prosthodontics, 2022, 14, 305.	2.6	4
45	An In Vitro Study of Intaglio Surface, Periphery/Palatal Seal Area, and Primary Bearing Area Adaptation of 3D-Printed Denture Base Manufactured in Various Build Angles. International Journal of Dentistry, 2022, 2022, 1-6.	1.5	0
46	Color stability of heat polymerized complete dentures and 3D printed CAD/CAM dentures: a cross-over clinical study. Journal of the Arab Society for Medical Research, 2022, 17, 139.	0.0	0
47	Wear behavior of materials for additive manufacturing after simulated occlusion of deciduous dentition. Journal of the Mechanical Behavior of Biomedical Materials, 2023, 138, 105627.	3.1	3
48	The microbiological effect of virgin coconut oil on the morphological and volumetric dimensional changes of 3D printed surgical guides (in vitro study). BMC Oral Health, 2022, 22, .	2.3	3
49	Spectrophotometric Analysis of 3D Printed and Conventional Denture Base Resin after Immersion in Different Colouring Agents—An In Vitro Study. Applied Sciences (Switzerland), 2022, 12, 12560.	2.5	4
50	Comparison of 3D positional accuracy of implant analogs in printed resin models versus conventional stone casts: Effect of implant angulation. Journal of Prosthodontics, 2024, 33, 46-53.	3.7	0
51	Trueness and surface characteristics of 3-dimensional printed casts made with different technologies. Journal of Prosthetic Dentistry, 2023, , .	2.8	0
52	Fabrication of sports mouthguards using a semi-digital workflow with 4D-printing technology. Journal of Prosthodontic Research, 2024, 68, 181-185.	2.8	4
53	Effect of build orientation and layer thickness on manufacturing accuracy, printing time, and material consumption of 3D printed complete denture bases. Journal of Dentistry, 2023, 130, 104435.	4.1	6
54	Effects of Smokeless Tobacco on Color Stability and Surface Roughness of 3D-Printed, CAD/CAM-Milled, and Conventional Denture Base Materials: An In Vitro Study. Biomedicines, 2023, 11, 491.	3.2	4

#	Article	IF	CITATIONS
55	Effect of Denture Disinfectants on the Mechanical Performance of 3D-Printed Denture Base Materials. Polymers, 2023, 15, 1175.	4.5	7
56	Influence of the Printing Orientation on Parallelism, Distance, and Wall Thickness of Adjacent Cylinders of 3D-Printed Surgical Guides. Prosthesis, 2023, 5, 310-326.	2.9	2
57	Effect of support structures on the trueness and precision of 3D printing dentures: An <i>in vitro</i> study. Journal of Prosthodontic Research, 2024, 68, 114-121.	2.8	1
58	Accuracy of 3-dimensional–printed customized transfer tray using a flash-free adhesive system in digital indirect bonding: An inAvivo study. American Journal of Orthodontics and Dentofacial Orthopedics, 2023, 164, 505-515.	1.7	3
59	Effects of Surface Preparation Methods on the Color Stability of 3D-Printed Dental Restorations. Journal of Functional Biomaterials, 2023, 14, 257.	4.4	5
60	Disinfection of 3D-printed surgical guides using virgin coconut oil (in vitro study). BMC Oral Health, 2023, 23, .	2.3	1
61	Investigating the implant position reproducibility of optical impressions obtained using an intraoral scanner and 3D-printed models fabricated using an intraoral scanner. International Journal of Implant Dentistry, 2023, 9, .	2.7	1
62	Coffee Staining and Simulated Brushing Induced Color Changes and Surface Roughness of 3D-Printed Orthodontic Retainer Material. Polymers, 2023, 15, 2164.	4.5	2
63	Effect of build orientation on the trueness of occlusal splints fabricated by three-dimensional printing. Journal of Oral Science, 2023, 65, 261-264.	1.7	3
64	Transfer Accuracy of 3D-Printed Customized Devices in Digital Indirect Bonding: A Systematic Review and Meta-Analysis. International Journal of Dentistry, 2023, 2023, 1-19.	1.5	0
65	Comparison of dimensional accuracy of 3D printing model for clear aligner among various orientation types and hollow types. , 0, , 1-17.		0
66	An overall performance index to quantify dimensional accuracy and mechanical strength of parts manufactured through VAT photopolymerization in biodegradable and non-biodegradable resin. International Journal of Advanced Manufacturing Technology, 2023, 128, 5491-5502.	3.0	0
67	Effect of smokeless tobacco on color stability and surface roughness of CAD/CAM milled, 3D printed, and conventional provisional crown and fixed dental prosthesis materials: An in vitro study. Technology and Health Care, 2023, , 1-15.	1.2	0
68	Impact of Different Chemical Denture Cleansers on the Properties of Digitally Fabricated Denture Base Resin Materials. Journal of Prosthodontics, 0, , .	3.7	0
69	Optimization of Dimensional Accuracy and Surface Roughness of SLA Patterns and SLA-Based IC Components. Polymers, 2023, 15, 4038.	4.5	0
70	A Comparative Analysis of AEH (Asymptotic Expansion Homogenization) Results and Experimental Findings of Various Additive Manufactured Lattice Structures. Journal of the Korean Society for Precision Engineering, 2023, 40, 805-812.	0.2	0
71	3D Printing: Advancements in the Development of Personalised Pharmaceuticals for Older Adults. AAPS Advances in the Pharmaceutical Sciences Series, 2023, , 157-189.	0.6	0
72	Recent Advances in 3D Printing of Polymers for Application in Prosthodontics. Polymers, 2023, 15, 4525.	4.5	3

#	Article	IF	CITATIONS
73	OPTIMIZATION OF ACCURACY AND SURFACE ROUGHNESS OF 3D SLA PRINTED MATERIALS WITH RESPONSE SURFACE METHOD. International Journal of 3d Printing Technologies and Digital Industry, 0, , .	0.6	0
74	Properties of 3D-Printed Complete Dentures – Clarified And Unclarified Aspects. Annals of Dental Specialty, 2023, 11, 77-86.	1.0	0
75	Fabrication of Piezoelectric Structures with High Porosity by Digital Light Processing. 3D Printing and Additive Manufacturing, 0, , .	2.9	0
76	Evaluation of the influence of different build angles on the surface characteristics, accuracy, and dimensional stability of the complete denture base printed by digital light processing. Heliyon, 2024, 10, e24095.	3.2	0
77	Biaxial Flexural Strength of Printed Splint Materials. Materials, 2024, 17, 1112.	2.9	0
78	Assessing the effect of Artemisia sieberi extracts on surface roughness and candida growth of digitally processed denture acrylic materials. Technology and Health Care, 2024, , 1-13.	1.2	0
79	Software compensation to improve the Stereolithography fabrication of porous features and porous surface texturing at micro-scale. Procedia Computer Science, 2024, 232, 2072-2081.	2.0	0