Birgit Glasmacher

List of Publications by Year
in descending order

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140	2,992	186265	206112
papers	citations	28 h-index	48 g-index

157	157	157	4081
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Laser Printing of Stem Cells for Biofabrication of Scaffold-Free Autologous Grafts. Tissue Engineering - Part C: Methods, 2011, 17, 79-87.	2.1	241
2	Electrospun cellular microenvironments: Understanding controlled release and scaffold structure. Advanced Drug Delivery Reviews, 2011, 63, 209-220.	13.7	238
3	Novel strategies for the formulation and processing of poorly water-soluble drugs. European Journal of Pharmaceutics and Biopharmaceutics, 2018, 126, 40-56.	4.3	110
4	A new approach for freezing of aqueous solutions under active control of the nucleation temperature. Cryobiology, 2006, 53, 248-257.	0.7	109
5	The significance of electrospinning as a method to create fibrous scaffolds for biomedical engineering and drug delivery applications. Journal of Drug Delivery Science and Technology, 2016, 31, 137-146.	3.0	82
6	Novel chitin scaffolds derived from marine sponge Ianthella basta for tissue engineering approaches based on human mesenchymal stromal cells: Biocompatibility and cryopreservation. International Journal of Biological Macromolecules, 2017, 104, 1955-1965.	7.5	75
7	Membrane permeability parameters for freezing of stallion sperm as determined by Fourier transform infrared spectroscopy. Cryobiology, 2010, 61, 115-122.	0.7	69
8	Human Amniotic Membrane: A review on tissue engineering, application, and storage. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2021, 109, 1198-1215.	3.4	67
9	Effects of cryopreservation on the epigenetic profile of cells. Cryobiology, 2017, 74, 1-7.	0.7	65
10	A Review of Developments in Electrospinning Technology: New Opportunities for the Design of Artificial Tissue Structures. International Journal of Artificial Organs, 2011, 34, 986-997.	1.4	64
11	PEOâ€“CMC blend nanofibers fabrication by electrospinning for soft tissue engineering applications. Materials Letters, 2017, 195, 10-13.	2.6	60
12	3D chitinous scaffolds derived from cultivated marine demosponge Aplysina aerophoba for tissue engineering approaches based on human mesenchymal stromal cells. International Journal of Biological Macromolecules, 2017, 104, 1966-1974.	7.5	59
13	Systematic parameter optimization of a Me2SO- and serum-free cryopreservation protocol for human mesenchymal stem cells. Cryobiology, 2011, 63, 67-75.	0.7	54
14	Porous biomorphic silicon carbide ceramics coated with hydroxyapatite as prospective materials for bone implants. Materials Science and Engineering C, 2016, 68, 143-152.	7.3	54
15	Ultrastructure of Proteoglycans in Tissue-Engineered Cardiovascular Structures. Tissue Engineering, 2002, 8, 1049-1056.	4.6	49
16	Reduction of primary freeze-drying time by electric field induced ice nucleus formation. Heat and Mass Transfer, 2006, 42, 929-938.	2.1	49
17	Dipyridamole embedded in Polycaprolactone fibers prepared by coaxial electrospinning as a novel drug delivery system. Journal of Drug Delivery Science and Technology, 2015, 29, 132-142.	3.0	48
18	Dynamic in vitro calcification of bioprosthetic porcine valves: Evidence of apatite crystallization. Journal of Thoracic and Cardiovascular Surgery, 2001, 121, 500-509.	0.8	47

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19	Tissue Engineering of Heart Valves: Formation of a Three-Dimensional Tissue Using Porcine Heart Valve Cells. ASAIO Journal, 2002, 48, 586-591.	1.6	44
20	The formation of an organic coat and the release of corrosion microparticles from metallic magnesium implants. Acta Biomaterialia, 2013, 9, 7580-7589.	8.3	42
21	In Vitro Modelling of Tissue using Isolated Vascular Cells on a Synthetic Collagen Matrix as a Substitute for Heart Valves. Thoracic and Cardiovascular Surgeon, 2001, 49, 204-209.	1.0	41
22	In Vitro Blood Damage by High Shear Flow: Human versus Porcine Blood. International Journal of Artificial Organs, 2002, 25, 306-312.	1.4	39
23	Process engineering of high voltage alginate encapsulation of mesenchymal stem cells. Materials Science and Engineering C, 2014, 36, 77-83.	7.3	37
24	PVDF and P(VDF-TrFE) Electrospun Scaffolds for Nerve Graft Engineering: A Comparative Study on Piezoelectric and Structural Properties, and In Vitro Biocompatibility. International Journal of Molecular Sciences, 2021, 22, 11373.	4.1	33
25	Opening and closing kinematics of fresh and calcified aortic valve prostheses: An in vitro study. Journal of Thoracic and Cardiovascular Surgery, 2007, 134, 657-662.	0.8	32
26	Dehydrating phospholipid vesicles measured in real-time using ATR Fourier transform infrared spectroscopy. Cryobiology, 2010, 61, 108-114.	0.7	32
27	Outer Electrospun Polycaprolactone Shell Induces Massive Foreign Body Reaction and Impairs Axonal Regeneration through 3D Multichannel Chitosan Nerve Guides. BioMed Research International, 2014, 2014, 1-16.	1.9	31
28	Liposomes alter thermal phase behavior and composition of red blood cell membranes. Biochimica Et Biophysica Acta - Biomembranes, 2011, 1808, 474-481.	2.6	30
29	Video analysis of osmotic cell response during cryopreservation. Cryobiology, 2012, 64, 250-260.	0.7	30
30	Impact of sterilization by electron beam, gamma radiation and X-rays on electrospun poly-(Îµ-caprolactone) fiber mats. Journal of Materials Science: Materials in Medicine, 2019, 30, 42.	3.6	30
31	Encapsulating Non-Human Primate Multipotent Stromal Cells in Alginate via High Voltage for Cell-Based Therapies and Cryopreservation. PLoS ONE, 2014, 9, e107911.	2.5	29
32	Attachment of nanoparticulate drug-release systems on poly(Îµ-caprolactone) nanofibers via a graftpolymer as interlayer. Colloids and Surfaces B: Biointerfaces, 2018, 163, 309-320.	5.0	29
33	In vivo analysis of vascularization and biocompatibility of electrospun polycaprolactone fibre mats in the rat femur chamber. Journal of Tissue Engineering and Regenerative Medicine, 2019, 13, 1190-1202.	2.7	29
34	In vitro testing of bioprostheses: influence of mechanical stresses and lipids on calcification. Annals of Thoracic Surgery, 1998, 66, S206-S211.	1.3	28
35	Primary Tissue Failure of Bioprostheses: New Evidence from In Vitro Tests*. Thoracic and Cardiovascular Surgeon, 2001, 49, 78-83.	1.0	28
36	Development and Characterization of a Porcine Mitral Valve Scaffold for Tissue Engineering. Journal of Cardiovascular Translational Research, 2017, 10, 374-390.	2.4	28

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37	The Osteogenic and Tenogenic Differentiation Potential of C3H10T1/2 (Mesenchymal Stem Cell Model) Cultured on PCL/PLA Electrospun Scaffolds in the Absence of Specific Differentiation Medium. Materials, 2017, 10, 1387.	2.9	27
38	Impact of Apparatus Orientation and Gravity in Electrospinningâ€"A Review of Empirical Evidence. Polymers, 2020, 12, 2448.	4.5	27
39	Endothelialization of electrospun polycaprolactone (PCL) small caliber vascular grafts spun from different polymer blends. Journal of Biomedical Materials Research - Part A, 2014, 102, n/a-n/a.	4.0	23
40	Active control of the nucleation temperature enhances freezing survival of multipotent mesenchymal stromal cells. Cryobiology, 2015, 71, 384-390.	0.7	22
41	Multipotent stromal cells derived from common marmoset Callithrix jacchus within alginate 3D environment: Effect of cryopreservation procedures. Cryobiology, 2015, 71, 103-111.	0.7	22
42	A New in vitro Test Method for Calcification of Bioprosthetic Heart Valves. International Journal of Artificial Organs, 1997, 20, 267-271.	1.4	21
43	Me2SO- and serum-free cryopreservation of human umbilical cord mesenchymal stem cells using electroporation-assisted delivery of sugars. Cryobiology, 2019, 91, 104-114.	0.7	21
44	Blending chitosanâ€gâ€poly(caprolactone) with poly(caprolactone) by electrospinning to produce functional fiber mats for tissue engineering applications. Journal of Applied Polymer Science, 2020, 137, 48650.	2.6	20
45	Impact of setup orientation on blend electrospinning of poly-Îµ-caprolactone-gelatin scaffolds for vascular tissue engineering. International Journal of Artificial Organs, 2018, 41, 801-810.	1.4	19
46	PREPARATION OF COLLAGEN SCAFFOLDS AND THEIR APPLICATIONS IN TISSUE ENGINEERING. Biomedizinische Technik, 2002, 47, 485-487.	0.8	18
47	Production of biohybrid protein/PEO scaffolds by electrospinning. Materialwissenschaft Und Werkstofftechnik, 2009, 40, 65-72.	0.9	18
48	Repeated Freezing Procedures Preserve Structural and Functional Properties of Amniotic Membrane for Application in Ophthalmology. International Journal of Molecular Sciences, 2020, 21, 4029.	4.1	18
49	Vascularization and biocompatibility of poly(Îµ-caprolactone) fiber mats for rotator cuff tear repair. PLoS ONE, 2020, 15, e0227563.	2.5	18
50	Electrospun PCL/PLA Scaffolds Are More Suitable Carriers of Placental Mesenchymal Stromal Cells Than Collagen/Elastin Scaffolds and Prevent Wound Contraction in a Mouse Model of Wound Healing. Frontiers in Bioengineering and Biotechnology, 2020, 8, 604123.	4.1	18
51	An acoustic method for systematic ventricular assist device thrombus evaluation with a novel artificial thrombus model. Journal of Thoracic Disease, 2018, 10, S1711-S1719.	1.4	17
52	Electrospinning and mechanical properties of polymeric fibers using a novel gap-spinning collector. Fibers and Polymers, 2016, 17, 1025-1032.	2.1	16
53	Improved in vitro models for preclinical drug and formulation screening focusing on 2D and 3D skin and cornea constructs. European Journal of Pharmaceutics and Biopharmaceutics, 2018, 126, 57-66.	4.3	16
54	Possibilities and limitations of electrospun chitosanâ€coated polycaprolactone grafts for rotator cuff tear repair. Journal of Tissue Engineering and Regenerative Medicine, 2020, 14, 186-197.	2.7	16

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55	Force induced piezoelectric effect of polyvinylidene fluoride and polyvinylidene fluoride-co-trifluoroethylene nanofibrous scaffolds. International Journal of Artificial Organs, 2018, 41, 811-822.	1.4	15
56	Mueller Matrix Measurement of Electrospun Fiber Scaffolds for Tissue Engineering. Polymers, 2019, 11, 2062.	4.5	15
57	Synthesis, Physical Properties and Preliminary Investigation of Hemocompatibility of Polyurethanes from Aliphatic Resources with Castor Oil Participation. Journal of Biomaterials Applications, 2003, 17, 221-236.	2.4	14
58	Phosphate conversion coating reduces the degradation rate and suppresses side effects of metallic magnesium implants in an animal model. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2017, 105, 1622-1635.	3.4	14
59	Compatible solutes improve cryopreservation of human endothelial cells. Cryo-Letters, 2012, 33, 485-93.	0.3	14
60	Effect of Me2SO on Membrane Phase Behavior and Protein Denaturation of Human Pulmonary Endothelial Cells Studied by In Situ FTIR Spectroscopy. Journal of Biomechanical Engineering, 2009, 131, 074517.	1.3	13
61	Colonization of collagen scaffolds by adipocytes derived from mesenchymal stem cells of the common marmoset monkey. Biochemical and Biophysical Research Communications, 2011, 411, 317-322.	2.1	13
62	Effect of â€˜in airâ€™ freezing on post-thaw recovery of Callithrix jacchus mesenchymal stromal cells and properties of 3D collagen-hydroxyapatite scaffolds. Cryobiology, 2020, 92, 215-230.	0.7	13
63	In vitro calcification of pericardial bioprostheses. Journal of Heart Valve Disease, 1998, 7, 415-8.	0.5	13
64	In vitro pH-controlled calcification of biological heart valve prostheses. Materialwissenschaft Und Werkstofftechnik, 2006, 37, 432-435.	0.9	12
65	Electrospun vascular grafts with anti-kinking properties. Current Directions in Biomedical Engineering, 2015, 1, 524-528.	0.4	12
66	Xeno-Free Cryopreservation of Bone Marrow-Derived Multipotent Stromal Cells fromCallithrix jacchus. Biopreservation and Biobanking, 2016, 14, 530-538.	1.0	12
67	Properties of gas detonation ceramic coatings and their effect on the osseointegration of titanium implants for bone defect replacement. Ceramics International, 2021, 47, 25425-25439.	4.8	12
68	In vitro hemocompatibility testing of new materials for mechanical heart valves. Materialwissenschaft Und Werkstofftechnik, 1999, 30, 806-808.	0.9	11
69	Investigation of flow and material induced hemolysis with a Couette type high shear system. Materialwissenschaft Und Werkstofftechnik, 2001, 32, 922-925.	0.9	11
70	Differential magnesium implant corrosion coat formation and contribution to bone bonding. Journal of Biomedical Materials Research - Part A, 2017, 105, 697-709.	4.0	11
71	Factors determining microbial colonization of liquid nitrogen storage tanks used for archiving biological samples. Applied Microbiology and Biotechnology, 2020, 104, 131-144.	3.6	11
72	Coaxial Alginate Hydrogels: From Self-Assembled 3D Cellular Constructs to Long-Term Storage. International Journal of Molecular Sciences, 2021, 22, 3096.	4.1	11

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73	Dimethyl sulfoxide and ethylene glycol promote membrane phase change during cryopreservation. Cryo-Letters, 2011, 32, 148-57.	0.3	11
74	Hydrodynamic comparison of biological prostheses during progressive valve calcification in a simulated exercise situation. An in vitro study. European Journal of Cardio-thoracic Surgery, 2008, 34, 960-963.	1.4	10
75	Chilling without regrets. EMBO Reports, 2016, 17, 292-295.	4.5	10
76	Histological processing of un-/cellularized thermosensitive electrospun scaffolds. Histochemistry and Cell Biology, 2019, 151, 343-356.	1.7	10
77	Exploring the Possibility of Cryopreservation of Feline and Canine Erythrocytes by Rapid Freezing with Penetrating and Non-Penetrating Cryoprotectants. PLoS ONE, 2017, 12, e0169689.	2.5	10
78	An advanced cone-and-plate reactor for the in vitro-application of shear stress on adherent cells. Clinical Hemorheology and Microcirculation, 2011, 49, 391-397.	1.7	9
79	Comparison between three in vitro methods to measure magnesium degradation and their suitability for predicting in vivo degradation. International Journal of Artificial Organs, 2018, 41, 772-778.	1.4	9
80	Development of a New Combined Test Setup for Accelerated Dynamic pH-Controlled in vitro Calcification of Porcine Heart Valves. International Journal of Artificial Organs, 2009, 32, 794-801.	1.4	8
81	A novel coaxial nozzle for in-process adjustment of electrospun scaffoldsâ€™ fiber diameter. Current Directions in Biomedical Engineering, 2015, 1, 104-107.	0.4	8
82	Contrastâ€enhanced nanoâ€CT reveals soft dental tissues and cellular layers. International Endodontic Journal, 2021, 54, 1275-1288.	5.0	8
83	Numerical Investigation of Heat Transfer and Pressure Force from Multiple Jets Impinging on a Moving Flat Surface. International Journal of Heat and Technology, 2020, 38, 601-610.	0.6	8
84	Quality control of bioprosthetic heart valves by means of holographic interferometry. Journal of Heart Valve Disease, 1996, 5, 441-7; discussion 439-40.	0.5	8
85	A system for engineering an osteochondral construct in the shape of an articular surface: Preliminary results. Annals of Anatomy, 2008, 190, 351-359.	1.9	7
86	Cryopreservation and quality control of mouse embryonic feeder cells. Cryobiology, 2011, 63, 104-110.	0.7	7
87	Aligned carbon nanotubeâ€liquid silicone rubber conductors and electrode surfaces for stimulating medical implants. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 1439-1447.	1.8	7
88	Selfâ€bending hydrogel actuation for electrode shafts in cochlear implants. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 1455-1461.	1.8	7
89	Laser Processing of Electrospun PCL Fiber Mats for Tissue Engineering. International Journal of Artificial Organs, 2015, 38, 607-614.	1.4	7
90	The effect of dipyridamole embedded in a drug delivery system made by electrospun nanofibers on aortic endothelial cells. Journal of Drug Delivery Science and Technology, 2016, 35, 343-352.	3.0	7

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91	Dielectric properties of PVDF based thin films and electrospun mats. Journal of Physics: Conference Series, 2019, 1236, 012009.	0.4	7
92	Advances in the application of electrohydrodynamic fabrication for tissue engineering. Journal of Physics: Conference Series, 2019, 1236, 012024.	0.4	7
93	Automation of a test bench for accessing the bendability of electrospun vascular grafts. Current Directions in Biomedical Engineering, 2016, 2, 307-310.	0.4	6
94	Automated method for structural segmentation of nasal airways based on cone beam computed tomography. , 2017, , .		6
95	Ice Crystals Microscopic Images Segmentation Based on Active Contours. , 2019, , .		6
96	Measurements of micro- and macromixing in liquid mixtures of reacting components using two-colour laser induced fluorescence. Chemical Engineering Science, 2008, 63, 4649-4655.	3.8	5
97	Thermal Pretreatment Improves Viability of Cryopreserved Human Endothelial Cells. Biopreservation and Biobanking, 2015, 13, 348-355.	1.0	5
98	Cryobiological parameters of multipotent stromal cells obtained from different sources. Cryobiology, 2017, 74, 93-102.	0.7	5
99	A silicone fiber coating as approach for the reduction of fibroblast growth on implant electrodes. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2017, 105, 2574-2580.	3.4	5
100	Mueller Matrix Analysis of Collagen and Gelatin Containing Samples Towards More Objective Skin Tissue Diagnostics. Polymers, 2020, 12, 1400.	4.5	5
101	Rheologische Charakterisierung von Fermentersuspensionen. Chemie-Ingenieur-Technik, 2015, 87, 543-548.	0.8	4
102	Novel blood protein based scaffolds for cardiovascular tissue engineering. Current Directions in Biomedical Engineering, 2016, 2, 5-9.	0.4	4
103	Diffusion of dimethyl sulfoxide in tissue engineered collagen scaffolds visualized by computer tomography. Cryo-Letters, 2010, 31, 493-503.	0.3	4
104	Dynamic in vitro hemocompatibility testing â€“ improving the signal to noise ratio. Biomedizinische Technik, 2012, 57, .	0.8	3
105	Effect of Solvents on Thermomechanical Properties and Piezoelectric Beta-phase of PVDF-TrFE Films. , 2020, , .		3
106	USING 3D PRINTING TECHNOLOGY TO FULL-SCALE SIMULATION OF THE UPPER RESPIRATORY TRACT. Informatyka Automatyka Pomiary W Gospodarce I Ochronie Åšrodowiska, 2019, 9, 60-63.	0.4	3
107	THERMOPHYSICAL PROPERTIES OF A MONOLAYER TISSUE WITH RESPECT TO FREEZE-DRYING. Biomedizinische Technik, 2002, 47, 390-392.	0.8	2
108	Solving Biocompatibility Layer by Layer: Designing Scaffolds for Tissues. Biomedizinische Technik, 2013, 58 Suppl 1, .	0.8	2

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109	Cryopreservation of cells using defined serum-free cryoprotective agents. Current Directions in Biomedical Engineering, 2016, 2, 315-318.	0.4	2
110	Chitinous Scaffolds from Marine Sponges for Tissue Engineering. Springer Series in Biomaterials Science and Engineering, 2019, , 285-307.	1.0	2
111	Directional Freezing of Cell-Seeded Electrospun Fiber Mats for Tissue Engineering Applications. IFMBE Proceedings, 2021, , 391-398.	0.3	2
112	Herstellung resorbierbarer Kollagenscaffolds fÃ¼r das Tissue. BIOmaterialien: Offizielles Organ Der Deutschen Gesellschaft Fuer Biomaterialien, 2004, 5, .	0.1	1
113	Automated control of the laser welding process of heart valve scaffolds. Current Directions in Biomedical Engineering, 2016, 2, 301-305.	0.4	1
114	In silico comparison of control strategies of insulin therapy for type 1 diabetes during physical activity using the extended sorensen glucoregulatory model. AIP Conference Proceedings, 2019, , .	0.4	1
115	Determination of nasal breathing disorders according to computer tomography. , 2020, , .		1
116	In Situ Characterization of Polycaprolactone Fiber Response to Quasi-Static Tensile Loading in Scanning Electron Microscopy. Polymers, 2021, 13, 2090.	4.5	1
117	CT, Î¼-CT und Î¼-Tomographie (Synchrotron) der in vitro Kalzifizierung. , 2006, , 444-448.		1
118	Application of Artificial Neural Networks for Analysis of Ice Recrystallization Process for Cryopreservation. IFMBE Proceedings, 2021, , 102-111.	0.3	1
119	UntersuchungsmÃ¶glichkeiten zur In-Vitro Beurteilung des Kalzifizierungsverhaltens von flexiblen Biowerkstoffen. Biomedizinische Technik, 1985, 30, 28-29.	0.8	0
120	IN VITRO UNTERSUCHUNGEN ZUR HÄ„MOKOMPATIBILITÄ„T VON HOCHLEISTUNGSPOLYMEREN IM FLOWMODELL. Biomedizinische Technik, 2009, , 222-223.	0.8	0
121	Optimization of a test setup for examining blood damage caused by high shear forces. Biomedizinische Technik, 2012, 57, .	0.8	0
122	Determination of the membrane hydraulic permeability of MSCs. Current Directions in Biomedical Engineering, 2016, 2, 323-327.	0.4	0
123	Influence of Fabrication Methods of Gold and Silver Layers on Surface Plasmon Polaritons Propagation Length. Plasmonics, 2018, 13, 1359-1366.	3.4	0
124	Identification of factors influencing insertion characteristics of cochlear implant electrode carriers. Current Directions in Biomedical Engineering, 2019, 5, 441-443.	0.4	0
125	Conductivity Switching Effect in Nanofiber Composites Modified with Conducting Polymer. , 2019, , .		0
126	Numerical Optimization of Heat Transfer from Multiple Jets Impinging on a Moving Curved Surface for Industrial Drying Machines. International Journal of Heat and Technology, 2021, 39, 32-40.	0.6	0

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127	Kalzifizierung biologischer Herzklappenprothesen. , 2009, , 1479-1494.		0
128	PCA Enhanced Training Data for Adaboost. Lecture Notes in Computer Science, 2011, , 410-419.	1.3	0
129	REATION FEATURES OF DEVICES FOR TESTING NASAL BREATHING. , 2020, , .		0
130	Non-contact fast Mueller matrix measurement system for investigation of bio-tissues. , 2020, , .		0
131	Materialkunde â€" BiokompatibilitÃt. , 2006, , 109-126.		0
132	Kalzifizierung biologischer Herzklappenprothesen. , 2008, , 1175-1190.		0
133	Electroporation of Cell-Seeded Electrospun Fiber Mats for Cryopreservation. IFMBE Proceedings, 2021, , 485-494.	0.3	0
134	Impedance Spectroscopy of Charge Conducting Composite Materials Based on Microfibers of Polyvinylidene Fluoride Copolymer with Trifluoroethylene Modified with Polypyrrole. Technical Physics Letters, 2021, 47, 561-564.	0.7	0
135	Title is missing!. , 2020, 15, e0227563.		0
136	Title is missing!. , 2020, 15, e0227563.		0
137	Title is missing!. , 2020, 15, e0227563.		0
138	Title is missing!. , 2020, 15, e0227563.		0
139	Title is missing!. , 2020, 15, e0227563.		0
140	Title is missing!. , 2020, 15, e0227563.		0