Ahmed Abass

List of Publications by Year
in descending order

46 papers	661 citations	687363 13 h-index	677142 22 g-index
46 all docs	46 docs citations	46 times ranked	517 citing authors

#	Article	IF	Citations
1	Determination of Corneal Biomechanical Behavior in-vivo for Healthy Eyes Using CorVis ST Tonometry: Stress-Strain Index. Frontiers in Bioengineering and Biotechnology, 2019, 7, 105.	4.1	138
2	Transverse depth-dependent changes in corneal collagen lamellar orientation and distribution. Journal of the Royal Society Interface, 2015, 12, 20140717.	3.4	54
3	Changes in Scleral Collagen Organization in Murine Chronic Experimental Glaucoma. , 2014, 55, 6554.		40
4	A wide-angle X-ray fibre diffraction method for quantifying collagen orientation across large tissue areas: application to the human eyeball coat. Journal of Applied Crystallography, 2013, 46, 1481-1489.	4.5	31
5	Multi-meridian corneal imaging of air-puff induced deformation for improved detection of biomechanical abnormalities. Biomedical Optics Express, 2020, 11, 6337.	2.9	28
6	Microstructure-based numerical simulation of the mechanical behaviour of ocular tissue. Journal of the Royal Society Interface, 2019, 16, 20180685.	3.4	26
7	Development and validation of a new intraocular pressure estimate for patients with soft corneas. Journal of Cataract and Refractive Surgery, 2019, 45, 1316-1323.	1.5	24
8	Three-dimensional non-parametric method for limbus detection. PLoS ONE, 2018, 13, e0207710.	2.5	22
9	Review of in-vivo characterisation of corneal biomechanics. Medicine in Novel Technology and Devices, 2021, 11, 100073.	1.6	21
10	Assessment of the Ocular Response Analyzer as an Instrument for Measurement of Intraocular Pressure and Corneal Biomechanics. Current Eye Research, 2015, 40, 1111-1119.	1.5	19
11	Artefact-free topography based scleral-asymmetry. PLoS ONE, 2019, 14, e0219789.	2.5	18
12	Stress–Strain Index Map: A New Way to Represent Corneal Material Stiffness. Frontiers in Bioengineering and Biotechnology, 2021, 9, 640434.	4.1	18
13	Simulated optical performance of soft contact lenses on the eye. PLoS ONE, 2019, 14, e0216484.	2.5	14
14	Characterization of cone size and centre in keratoconic corneas. Journal of the Royal Society Interface, 2020, 17, 20200271.	3.4	14
15	Positions of Ocular Geometrical and Visual Axes in Brazilian, Chinese and Italian Populations. Current Eye Research, 2018, 43, 1404-1414.	1.5	13
16	Inflation experiments and inverse finite element modelling of posterior human sclera. Journal of Biomechanics, 2020, 98, 109438.	2.1	12
17	Evaluation of corneal biomechanical behavior in vivo for healthy and keratoconic eyes using the stress–strain index. Journal of Cataract and Refractive Surgery, 2022, 48, 1162-1167.	1.5	12
18	Non-Orthogonal Corneal Astigmatism among Normal and Keratoconic Brazilian and Chinese populations. Current Eye Research, 2018, 43, 717-724.	1.5	11

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19	Fluid-Structure Interaction Based Algorithms for IOP and Corneal Material Behavior. Frontiers in Bioengineering and Biotechnology, 2020, 8, 970.	4.1	11
20	Analysis of X-ray scattering microstructure data for implementation in numerical simulations of ocular biomechanical behaviour. PLoS ONE, 2019, 14, e0214770.	2.5	10
21	SAXS4COLL: an integrated software tool for analysing fibrous collagen-based tissues. Journal of Applied Crystallography, 2017, 50, 1235-1240.	4.5	9
22	Limbus misrepresentation in parametric eye models. PLoS ONE, 2020, 15, e0236096.	2.5	9
23	Simulation of the Effect of Material Properties on Soft Contact Lens On-Eye Power. Bioengineering, 2019, 6, 94.	3.5	8
24	Anterior Scleral Regional Variation between Asian and Caucasian Populations. Journal of Clinical Medicine, 2020, 9, 3419.	2.4	8
25	Fibril density reduction in keratoconic corneas. Journal of the Royal Society Interface, 2021, 18, 20200900.	3.4	8
26	Dynamic performance of a nonlinear non-dimensional two stage electrohydraulic servovalve model. International Journal of Mechanics and Materials in Design, 2011, 7, 99-110.	3.0	7
27	Effect of freezing and thawing on the biomechanical characteristics of porcine ocular tissues. Journal of Biomechanics, 2019, 87, 93-99.	2.1	7
28	Review of ex-vivo characterisation of corneal biomechanics. Medicine in Novel Technology and Devices, 2021, 11, 100074.	1.6	6
29	In Vivo Biomechanical Changes Associated With Keratoconus Progression. Current Eye Research, 2022, 47, 982-986.	1.5	6
30	A new approach for quantifying epithelial and stromal thickness changes after orthokeratology contact lens wear. Royal Society Open Science, 2021, 8, 211108.	2.4	6
31	Automotive Driveline Modelling, Inverse-Simulation and Compensation. , 2010, , .		5
32	Experimental evaluation of the viscoelasticity of porcine vitreous. Journal of the Royal Society Interface, 2021, 18, 20200849.	3.4	5
33	Which feature influences on-eye power change of soft toric contact lenses: Design or corneal shape?. PLoS ONE, 2020, 15, e0242243.	2.5	5
34	Can the Corvis ST Estimate Corneal Viscoelasticity?. Journal of Refractive Surgery, 2020, 36, 346-347.	2.3	5
35	The Efficiency of Using Mirror Imaged Topography in Fellow Eyes Analyses of Pentacam HR Data. Symmetry, 2021, 13, 2132.	2.2	5
36	Effect of Corneal Tilt on the Determination of Asphericity. Sensors, 2021, 21, 7636.	3.8	5

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37	Determination of Optic Axes by Corneal Topography among Italian, Brazilian, and Chinese Populations. Photonics, 2021, 8, 61.	2.0	4
38	Non-Orthogonal Refractive Lenses for Non-Orthogonal Astigmatic Eyes. Current Eye Research, 2019, 44, 781-789.	1.5	3
39	Clinical Validation of the Automated Characterization of Cone Size and Center in Keratoconic Corneas. Journal of Refractive Surgery, 2021, 37, 414-421.	2.3	3
40	Performance of Zernike polynomials in reconstructing raw-elevation data captured by Pentacam HR, Medmont E300 and Eye Surface Profiler. Heliyon, 2021, 7, e08623.	3.2	3
41	Nonâ€parametric linear timeâ€invariant extensions of nonâ€invertible and backlash plant. International Journal of Robust and Nonlinear Control, 2014, 24, 3092-3105.	3.7	2
42	Compressive behaviour of soft contact lenses and its effect on refractive power on the eye and handling off the eye. PLoS ONE, 2021, 16, e0247194.	2.5	2
43	Nonparametric Driveline Identification and Control. , 2010, , .		1
44	Automotive driveline control by a nonlinear nonparametric QFT method. , 2010, , .		1
45	Driveline Launch Control by a Test-Based Nonparametric QFT Method. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 85-91.	0.4	1
46	Numerical Simulation of Corneal Fibril Reorientation in Response to External Loading. International Journal of Environmental Research and Public Health, 2019, 16, 3278.	2.6	1