Douglas Borchman

List of Publications by Year
in descending order

101 papers	3,985 citations	134610 34 h-index	206121 51 g-index
102 all docs	102 docs citations	102 times ranked	2393 citing authors

#	Article	IF	Citations
1	Correlations between bulk and surface properties of meibomian lipids with alteration of wax-to-sterol esters content. Chemistry and Physics of Lipids, 2022, 242, 105163.	1.5	1
2	Lipid conformational order and the etiology of cataract and dry eye. Journal of Lipid Research, 2021, 62, 100039.	2.0	32
3	Hyaluronic acidâ€“lipid binding. BMC Chemistry, 2021, 15, 36.	1.6	4
4	A spectroscopic study of the composition and conformation of cholesteryl and wax esters purified from meibum. Chemistry and Physics of Lipids, 2021, 238, 105088.	1.5	8
5	A spectroscopic approach to measuring meibum lipid composition and conformation in donors with SjÖ§gren's syndrome. Experimental Eye Research, 2021, 210, 108713.	1.2	2
6	Meibum Lipid Composition and Conformation in Parkinsonism. , 2021, 12, 20-29.		0
7	Differences in Meibum and Tear Lipid Composition and Conformation. Cornea, 2020, 39, 122-128.	0.9	18
8	Structural Differences in Meibum From Teenagers Without and With Dry Eye and Allogeneic Hematologic Stem Cell Transplantations. Journal of Pediatric Hematology/Oncology, 2020, 42, 149-151.	0.3	7
9	Heterozygous Loss of <i>Yap1</i> in Mice Causes Progressive Cataracts. , 2020, 61, 21.		6
10	Meibum lipid hydrocarbon chain branching and rheology after hematopoietic stem cell transplantation. Biochemistry and Biophysics Reports, 2020, 23, 100786.	0.7	2
11	In-vitro and ex-situ regional mass spectral analysis of phospholipids and glucose in the vitreous humor from diabetic and non-diabetic human donors. Experimental Eye Research, 2020, 200, 108221.	1.2	4
12	Concentration dependent cholesteryl-ester and wax-ester structural relationships and meibomian gland dysfunction. Biochemistry and Biophysics Reports, 2020, 21, 100732.	0.7	13
13	Changes in meibum composition following plaque bachytherapy for choroidal melanoma. BMJ Open Ophthalmology, 2020, 5, e000614.	0.8	1
14	Lipid Saturation and the Rheology of Human Tear Lipids. International Journal of Molecular Sciences, 2019, 20, 3431.	1.8	14
15	Human Meibum Cholesteryl and Wax Ester Variability With Age, Sex, and Meibomian Gland Dysfunction. , 2019, 60, 2286.		40
16	The optimum temperature for the heat therapy for meibomian gland dysfunction. Ocular Surface, 2019, 17, 360-364.	2.2	46
17	Structural Differences in Meibum From Donors After Hematopoietic Stem Cell Transplantations. Cornea, 2019, 38, 1169-1174.	0.9	11
18	Human meibum chain branching variability with age, gender and meibomian gland dysfunction. Ocular Surface, 2019, 17, 327-335.	2.2	21

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19	The optical properties of rat, porcine and human lenses in organ culture treated with dexamethasone. Experimental Eye Research, 2018, 170, 67-75.	1.2	7
20	Insights into Tear Film Stability from Babies and Young Adults: A Study of Human Meibum Lipid Conformation and Rheology. International Journal of Molecular Sciences, 2018, 19, 3502.	1.8	14
21	Effects of Lipid Saturation on the Surface Properties of Human Meibum Films. International Journal of Molecular Sciences, 2018, 19, 2209.	1.8	27
22	Absorbance and Light Scattering of Lenses Organ Cultured with Glucose. Current Eye Research, 2018, 43, 1233-1238.	0.7	2
23	Lens Lipidomes Among Phocidae and Odobenidae. Aquatic Mammals, 2018, 43, 506-518.	0.4	9
24	Conformational and Thermodynamic Features of Meibum in Adolescents and Adults with Graftâ€versusâ€host Disease. FASEB Journal, 2018, 32, 817.15.	0.2	0
25	Regional distribution of phospholipids in porcine vitreous humor. Experimental Eye Research, 2017, 160, 116-125.	1.2	3
26	Whales, lifespan, phospholipids, and cataracts. Journal of Lipid Research, 2017, 58, 2289-2298.	2.0	29
27	Human Meibum Age, Lipidâ€"Lipid Interactions and Lipid Saturation in Meibum from Infants. International Journal of Molecular Sciences, 2017, 18, 1862.	1.8	33
28	Sebum/Meibum Surface Film Interactions and Phase Transitional Differences. , 2016, 57, 2401.		36
29	Evaporation and Hydrocarbon Chain Conformation of Surface Lipid Films. Ocular Surface, 2016, 14, 447-459.	2.2	23
30	Surface Properties of Squalene/Meibum Films and NMR Confirmation of Squalene in Tears. International Journal of Molecular Sciences, 2015, 16, 21813-21831.	1.8	37
31	Pilot Study of the Influence of Eyeliner Cosmetics on the Molecular Structure of Human Meibum. Ophthalmic Research, 2015, 53, 131-135.	1.0	18
32	Confirmation of the Presence of Squalene in Human Eyelid Lipid by Heteronuclear Single Quantum Correlation Spectroscopy. Lipids, 2013, 48, 1269-1277.	0.7	26
33	Lipid order, saturation and surface property relationships: A study of human meibum saturation. Experimental Eye Research, 2013, 116, 79-85.	1.2	30
34	13C and 1H NMR ester region resonance assignments and the composition of human infant and child meibum. Experimental Eye Research, 2013, 112, 151-159.	1.2	35
35	Topical Azithromycin and Oral Doxycycline Therapy of Meibomian Gland Dysfunction. Cornea, 2013, 32, 44-53.	0.9	125
36	Changes in Human Meibum Lipid Composition with Age Using Nuclear Magnetic Resonance Spectroscopy. , 2012, 53, 475.		52

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37	Wax-tear and meibum protein, waxâ€“Î²-carotene interactions inÂvitro using infrared spectroscopy. Experimental Eye Research, 2012, 100, 32-39.	1.2	20
38	Contact lenses and the rate of evaporation measured in vitro; the influence of wear, squalene and wax. Contact Lens and Anterior Eye, 2012, 35, 277-281.	0.8	7
39	Differences in Human Meibum Lipid Composition with Meibomian Gland Dysfunction Using NMR and Principal Component Analysis. , 2012, 53, 337.		64
40	The International Workshop on Meibomian Gland Dysfunction: Report of the Subcommittee on Tear Film Lipids and Lipidâ€“Protein Interactions in Health and Disease. , 2011, 52, 1979.		275
41	Quantification of Human Sebum on Skin and Human Meibum on the Eye Lid Margin Using Sebutape^{Â®}, Spectroscopy and Chemical Analysis. Current Eye Research, 2011, 36, 553-562.	0.7	35
42	Human Meibum Lipid Conformation and Thermodynamic Changes with Meibomian-Gland Dysfunction. , 2011, 52, 3805.		126
43	Analysis of the Composition of Lipid in Human Meibum from Normal Infants, Children, Adolescents, Adults, and Adults with Meibomian Gland Dysfunction Using¹H-NMR Spectroscopy. , 2011, 52, 7350.		64
44	Meibomian Gland Dysfunction: The Past, Present, and Future. Eye and Contact Lens, 2010, 36, 249-253.	0.8	25
45	Topical Azithromycin Therapy for Meibomian Gland Dysfunction: Clinical Response and Lipid Alterations. Cornea, 2010, 29, 781-788.	0.9	127
46	Abnormalities of eyelid and tear film lipid. , 2010, , 131-137.		0
47	Lipids and the ocular lens. Journal of Lipid Research, 2010, 51, 2473-2488.	2.0	128
48	Physical Changes in Human Meibum with Age as Measured by Infrared Spectroscopy. Ophthalmic Research, 2010, 44, 34-42.	1.0	53
49	Reevaluation of the phospholipid composition in membranes of adult human lenses by 31P NMR and MALDI MS. Biochimica Et Biophysica Acta - Biomembranes, 2010, 1798, 303-311.	1.4	30
50	Changes in human meibum lipid with meibomian gland dysfunction using principal component analysis. Experimental Eye Research, 2010, 91, 246-256.	1.2	68
51	Confirmation of Changes in Human Meibum Lipid Infrared Spectra with Age Using Principal Component Analysis. Current Eye Research, 2010, 35, 778-786.	0.7	28
52	Characterization of Human Meibum Lipid using Raman Spectroscopy. Current Eye Research, 2009, 34, 824-835.	0.7	47
53	Factors Affecting Evaporation Rates of Tear Film Components Measured In Vitro. Eye and Contact Lens, 2009, 35, 32-37.	0.8	76
54	Hyperoxia and Thyroxine Treatment and the Relationships between Reactive Oxygen Species Generation, Mitochondrial Membrane Potential, and Cardiolipin in Human Lens Epithelial Cell Cultures. Current Eye Research, 2008, 33, 575-586.	0.7	37

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55	Thyroxine Ameliorates Oxidative Stress by Inducing Lipid Compositional Changes in Human Lens Epithelial Cells. , 2007, 48, 3698.		10
56	Temperature-induced conformational changes in human tearlipids hydrocarbon chains. Biopolymers, 2007, 87, 124-133.	1.2	65
57	Spectroscopic evaluation of human tear lipids. Chemistry and Physics of Lipids, 2007, 147, 87-102.	1.5	85
58	In Vitro and In Situ Tracking of Choline-Phospholipid Biogenesis by MALDI TOF-MS. Analytical Chemistry, 2006, 78, 1174-1180.	3.2	16
59	Oxidation-induced changes in human lens epithelial cells 2. Mitochondria and the generation of reactive oxygen species. Free Radical Biology and Medicine, 2006, 41, 926-936.	1.3	43
60	Oxidation-induced changes in human lens epithelial cells. Free Radical Biology and Medicine, 2006, 41, 1425-1432.	1.3	57
61	The influence of membrane lipid structure on plasma membrane Ca2+-ATPase activity. Cell Calcium, 2006, 39, 209-216.	1.1	56
62	Human Lens Phospholipid Changes with Age and Cataract. , 2005, 46, 1682.		99
63	Î±-Crystallin binding in vitro to lipids from clear human lenses. Experimental Eye Research, 2005, 81, 138-146.	1.2	33
64	Direct perturbation of lens membrane structure may contribute to cataracts caused by U18666A, an oxidosqualene cyclase inhibitor. Journal of Lipid Research, 2004, 45, 1232-1241.	2.0	48
65	Sphingolipids in human lens membranes: an update on their composition and possible biological implications. Chemistry and Physics of Lipids, 2004, 129, 1-20.	1.5	68
66	Lens lipids and maximum lifespan. Experimental Eye Research, 2004, 79, 761-768.	1.2	71
67	Light scattering of human lens vesicles in vitro. Experimental Eye Research, 2003, 76, 605-612.	1.2	21
68	Glycero- versus sphingo-phospholipids: correlations with human and non-human mammalian lens growth. Experimental Eye Research, 2003, 76, 725-734.	1.2	80
69	Influence of Age, Diabetes, and Cataract on Calcium, Lipid-Calcium, and Protein-Calcium Relationships in Human Lenses. , 2003, 44, 2059.		78
70	Isolation and Lipid Characterization of Cholesterol-Enriched Fractions in Cortical and Nuclear Human Lens Fibers. , 2003, 44, 1634.		95
71	Determination of Products of Lipid Oxidation by Infrared Spectroscopy. , 2002, 186, 21-28.		8
72	UVA Light In vivo Reaches the Nucleus of the Guinea Pig Lens and Produces Deleterious, Oxidative Effects. Experimental Eye Research, 2002, 75, 445-458.	1.2	66

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73	Interactions of Ca2+ with Sphingomyelin and Dihydrosphingomyelin. Biophysical Journal, 2002, 82, 3096-3104.	0.2	24
74	31P NMR quantification and monophasic solvent purification of human and bovine lens phospholipids. Lipids, 2002, 37, 1087-1092.	0.7	33
75	Conformational studies of sphingolipids by NMR spectroscopy. I. Dihydrosphingomyelin. Biochimica Et Biophysica Acta - Biomembranes, 2000, 1467, 307-325.	1.4	44
76	Conformational studies of sphingolipids by NMR spectroscopy. II. Sphingomyelin. Biochimica Et Biophysica Acta - Biomembranes, 2000, 1467, 326-337.	1.4	86
77	Alpha-Crystallin/Lens Lipid Interactions Using Resonance Energy Transfer. Ophthalmic Research, 1999, 31, 452-462.	1.0	30
78	Lipid composition, membrane structure relationships in lens and muscle sarcoplasmic reticulum membranes. , 1999, 5, 151-167.		76
79	Age and regional structural characterization of lipid hydrocarbon chains from human lenses by infrared, and near-infrared raman, spectroscopies. Biospectroscopy, 1998, 2, 113-123.	0.4	9
80	Lipid interactions with human antiphospholipid antibody, Î²2-glycoprotein 1, and normal human IgG using the fluorescent probes NBD-PE and DPH. Biochimica Et Biophysica Acta - Biomembranes, 1998, 1372, 45-54.	1.4	17
81	Influence of Cholesterol on the Interaction of Î±-Crystallin with Phospholipids. Experimental Eye Research, 1998, 66, 559-567.	1.2	52
82	Temperature Induced Structural Changes ofÎ²-Crystallin and Sphingomyelin Binding. Experimental Eye Research, 1998, 67, 113-118.	1.2	21
83	Calcium ATPase activity and membrane structure in clear and cataractous human lenses. Current Eye Research, 1997, 16, 333-338.	0.7	80
84	Calcium Permeability in Large Unilamellar Vesicles Prepared from Bovine Lens Cortical Lipids. Experimental Eye Research, 1997, 64, 115-120.	1.2	9
85	Lipid â€“Protein Interactions in Human and Bovine Lens Membranes by Fourier Transform Raman and Infrared Spectroscopies. Experimental Eye Research, 1996, 62, 47-54.	1.2	46
86	Role of Cholesterol in the Structural Order of Lens Membrane Lipids. Experimental Eye Research, 1996, 62, 191-198.	1.2	81
87	Binding Capacity of Î±-Crystallin to Bovine Lens Lipids. Experimental Eye Research, 1996, 63, 407-410.	1.2	42
88	Studies on lipids and the activity of Na,K-ATPase in lens fibre cells. Biochemical Journal, 1996, 314, 961-967.	1.7	14
89	Thermodynamic Phase Transition Parameters of Human Lens Dihydrosphingomyelin. Ophthalmic Research, 1996, 28, 81-85.	1.0	13
90	Age and regional structural characterization of lipid hydrocarbon chains from human lenses by infrared, and nearâ€infrared raman, spectroscopies. Biospectroscopy, 1996, 2, 113-123.	0.4	17

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91	ATPase activities of rabbit and bovine lens epithelial microsomes: a continuous fluorimetric assay study. Current Eye Research, 1995, 14, 87-93.	0.7	16
92	Structural characterization of clear human lens lipid membranes by near-infrared Fourier transform Raman spectroscopy. Current Eye Research, 1995, 14, 511-515.	0.7	16
93	Spectral characterization of lipid peroxidation in rabbit lens membranes induced by hydrogen peroxide in the presence of Fe2+Fe3+ cations: A site-specific catalyzed oxidation. Free Radical Biology and Medicine, 1994, 16, 591-601.	1.3	34
94	Estimation of the secondary structure and conformation of bovine lens crystallins by infrared spectroscopy: quantitative analysis and resolution by Fourier self-deconvolution and curve fit. BBA - Proteins and Proteomics, 1993, 1163, 113-123.	2.1	34
95	Infrared Study of the Structure and Composition of Rabbit Lens Membranes: a Comparative Analysis of the Lipids of the Nucleus, Cortex and Epithelium. Experimental Eye Research, 1993, 57, 1-12.	1.2	13
96	Structural Characterization of Lipid Membranes from Clear and Cataractous Human Lenses. Experimental Eye Research, 1993, 57, 199-208.	1.2	48
97	Raman structural characterization of clear human lens lipid membranes. Current Eye Research, 1993, 12, 279-284.	0.7	15
98	The dual effect of oxidation on lipid bilayer structure. Lipids, 1992, 27, 261-265.	0.7	49
99	Spectroscopic detection of lipid peroxidation products and structural changes in a sphingomyelin model system. Lipids and Lipid Metabolism, 1991, 1081, 181-187.	2.6	35
100	Structure and molecular conformation of anhydrous and of aqueous sphingomyelin bilayers determined by infrared and Raman spectroscopy. Journal of Molecular Structure, 1991, 248, 1-24.	1.8	38
101	Ca2+-ATPase activity in the human lens. Current Eye Research, 1989, 8, 1049-1054.	0.7	48