## **Maxim Darvin**

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

164 papers

4,155 citations

40 h-index 56 g-index

175 ext. papers

4,885 ext. citations

**3.1** avg, IF

5.58 L-index

#	Paper	IF	Citations
164	Infrared radiation-induced matrix metalloproteinase in human skin: implications for protection. Journal of Investigative Dermatology, 2008, 128, 2491-7	4.3	143
163	The Role of Carotenoids in Human Skin. <i>Molecules</i> , <b>2011</b> , 16, 10491-10506	4.8	96
162	Molecular action mechanisms of solar infrared radiation and heat on human skin. <i>Ageing Research Reviews</i> , <b>2014</b> , 16, 1-11	12	95
161	Non-invasivein vivodetermination of the carotenoids beta-carotene and lycopene concentrations in the human skin using the Raman spectroscopic method. <i>Journal Physics D: Applied Physics</i> , <b>2005</b> , 38, 269	9 <i>6</i> -270	o <sup>94</sup>
160	Bioavailability of natural carotenoids in human skin compared to blood. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , <b>2010</b> , 76, 269-74	5.7	93
159	One-year study on the variation of carotenoid antioxidant substances in living human skin: influence of dietary supplementation and stress factors. <i>Journal of Biomedical Optics</i> , <b>2008</b> , 13, 044028	3.5	92
158	Cutaneous concentration of lycopene correlates significantly with the roughness of the skin. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , <b>2008</b> , 69, 943-7	5.7	92
157	Radical production by infrared A irradiation in human tissue. <i>Skin Pharmacology and Physiology</i> , <b>2010</b> , 23, 40-6	3	83
156	In vivo investigations on the penetration of various oils and their influence on the skin barrier. <i>Skin Research and Technology</i> , <b>2012</b> , 18, 364-9	1.9	82
155	Depth profiles of hydrogen bound water molecule types and their relation to lipid and protein interaction in the human stratum corneum in vivo. <i>Analyst, The,</i> <b>2016</b> , 141, 6329-6337	5	81
154	Safety assessment by multiphoton fluorescence/second harmonic generation/hyper-Rayleigh scattering tomography of ZnO nanoparticles used in cosmetic products. <i>Skin Pharmacology and Physiology</i> , <b>2012</b> , 25, 219-26	3	79
153	Effect of supplemented and topically applied antioxidant substances on human tissue. <i>Skin Pharmacology and Physiology</i> , <b>2006</b> , 19, 238-47	3	78
152	In vivo skin treatment with tissue-tolerable plasma influences skin physiology and antioxidant profile in human stratum corneum. <i>Experimental Dermatology</i> , <b>2012</b> , 21, 130-4	4	77
151	Formation of free radicals in human skin during irradiation with infrared light. <i>Journal of Investigative Dermatology</i> , <b>2010</b> , 130, 629-31	4.3	77
150	Carotenoids in human skin. <i>Experimental Dermatology</i> , <b>2011</b> , 20, 377-82	4	71
149	Penetration of silver nanoparticles into porcine skin ex vivo using fluorescence lifetime imaging microscopy, Raman microscopy, and surface-enhanced Raman scattering microscopy. <i>Journal of Biomedical Optics</i> , <b>2015</b> , 20, 051006	3.5	68
148	Influence of dietary carotenoids on radical scavenging capacity of the skin and skin lipids. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , <b>2013</b> , 84, 365-73	5.7	68

147	Optical methods for noninvasive determination of carotenoids in human and animal skin. <i>Journal of Biomedical Optics</i> , <b>2013</b> , 18, 61230	3.5	66
146	Non-invasivein vivodetection of the carotenoid antioxidant substance lycopene in the human skin using the resonance Raman spectroscopy. <i>Laser Physics Letters</i> , <b>2006</b> , 3, 460-463	1.5	66
145	In vivo distribution of carotenoids in different anatomical locations of human skin: comparative assessment with two different Raman spectroscopy methods. <i>Experimental Dermatology</i> , <b>2009</b> , 18, 100	50 <sup>4</sup> 3	65
144	Determination of the antioxidative capacity of the skin in vivo using resonance Raman and electron paramagnetic resonance spectroscopy. <i>Experimental Dermatology</i> , <b>2011</b> , 20, 483-7	4	62
143	Recent progress in tissue optical clearing for spectroscopic application. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , <b>2018</b> , 197, 216-229	4.4	58
142	Interaction between carotenoids and free radicals in human skin. <i>Skin Pharmacology and Physiology</i> , <b>2011</b> , 24, 238-44	3	58
141	Topical beta-carotene protects against infra-red-light-induced free radicals. <i>Experimental Dermatology</i> , <b>2011</b> , 20, 125-9	4	57
140	Cutaneous lycopene and beta-carotene levels measured by resonance Raman spectroscopy: high reliability and sensitivity to oral lactolycopene deprivation and supplementation. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , <b>2009</b> , 73, 187-94	5.7	57
139	In vivo Raman spectroscopic analysis of the influence of IR radiation on the carotenoid antioxidant substances beta-carotene and lycopene in the human skin. Formation of free radicals. <i>Laser Physics Letters</i> , <b>2007</b> , 4, 318-321	1.5	57
138	Blue-violet light irradiation dose dependently decreases carotenoids in human skin, which indicates the generation of free radicals. <i>Oxidative Medicine and Cellular Longevity</i> , <b>2015</b> , 2015, 579675	6.7	54
137	A depth-dependent profile of the lipid conformation and lateral packing order of the stratum corneum in vivo measured using Raman microscopy. <i>Analyst, The</i> , <b>2016</b> , 141, 1981-7	5	53
136	Clinical coherent anti-Stokes Raman scattering and multiphoton tomography of human skin with a femtosecond laser and photonic crystal fiber. <i>Laser Physics Letters</i> , <b>2013</b> , 10, 025604	1.5	52
135	Two-photon autofluorescence lifetime imaging of human skin papillary dermis in vivo: assessment of blood capillaries and structural proteins localization. <i>Scientific Reports</i> , <b>2017</b> , 7, 1171	4.9	52
134	Analysis of Human and Porcine Skin in vivo/ex vivo for Penetration of Selected Oils by Confocal Raman Microscopy. <i>Skin Pharmacology and Physiology</i> , <b>2015</b> , 28, 318-30	3	51
133	Resonance Raman spectroscopy for the detection of carotenoids in foodstuffs. Influence of the nutrition on the antioxidative potential of the skin. <i>Laser Physics Letters</i> , <b>2007</b> , 4, 452-456	1.5	48
132	In vivo Raman spectroscopic analysis of the influence of UV radiation on carotenoid antioxidant substance degradation of the human skin. <i>Laser Physics</i> , <b>2006</b> , 16, 833-837	1.2	48
131	Confocal Raman microscopy and multivariate statistical analysis for determination of different penetration abilities of caffeine and propylene glycol applied simultaneously in a mixture on porcine skin ex vivo. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , <b>2016</b> , 104, 51-8	5.7	48
130	Keratin-water-NMF interaction as a three layer model in the human stratum corneum using in vivo confocal Raman microscopy. <i>Scientific Reports</i> , <b>2017</b> , 7, 15900	4.9	44

129	Comparative study of carotenoids, catalase and radical formation in human and animal skin. <i>Skin Pharmacology and Physiology</i> , <b>2010</b> , 23, 306-12	3	44	
128	In vivohistology: optical biopsies with chemical contrast using clinical multiphoton/coherent anti-Stokes Raman scattering tomography. <i>Laser Physics Letters</i> , <b>2014</b> , 11, 055601	1.5	43	
127	Interaction of dermatologically relevant nanoparticles with skin cells and skin. <i>Beilstein Journal of Nanotechnology</i> , <b>2014</b> , 5, 2363-73	3	42	
126	Dermal carotenoid level and kinetics after topical and systemic administration of antioxidants: enrichment strategies in a controlled in vivo study. <i>Journal of Dermatological Science</i> , <b>2011</b> , 64, 53-8	4.3	42	
125	Resonance Raman spectroscopy as an effective tool for the determination of antioxidative stability of cosmetic formulations. <i>Journal of Biophotonics</i> , <b>2010</b> , 3, 82-8	3.1	40	
124	Comparison of in vivo and ex vivo laser scanning microscopy and multiphoton tomography application for human and porcine skin imaging. <i>Quantum Electronics</i> , <b>2014</b> , 44, 646-651	1.8	38	
123	Human skin in vivo has a higher skin barrier function than porcine skin ex vivo-comprehensive Raman microscopic study of the stratum corneum. <i>Journal of Biophotonics</i> , <b>2018</b> , 11, e201700355	3.1	37	
122	In vivo methods for the analysis of the penetration of topically applied substances in and through the skin barrier. <i>International Journal of Cosmetic Science</i> , <b>2012</b> , 34, 551-9	2.7	36	
121	Alcohol consumption decreases the protection efficiency of the antioxidant network and increases the risk of sunburn in human skin. <i>Skin Pharmacology and Physiology</i> , <b>2013</b> , 26, 45-51	3	35	
120	Confocal Raman microscopy supported by optical clearing treatment of the skin <b>i</b> hfluence on collagen hydration. <i>Journal Physics D: Applied Physics</i> , <b>2017</b> , 50, 285401	3	34	
119	Comparison of two methods for noninvasive determination of carotenoids in human and animal skin: Raman spectroscopy versus reflection spectroscopy. <i>Journal of Biophotonics</i> , <b>2012</b> , 5, 550-8	3.1	34	
118	In vivo detection of basal cell carcinoma: comparison of a reflectance confocal microscope and a multiphoton tomograph. <i>Journal of Biomedical Optics</i> , <b>2013</b> , 18, 61229	3.5	33	
117	Uptake of antioxidants by natural nutrition and supplementation: pros and cons from the dermatological point of view. <i>Skin Pharmacology and Physiology</i> , <b>2011</b> , 24, 269-73	3	32	
116	Photocatalytic activity of TiO2 nanoparticles: effect of thermal annealing under various gaseous atmospheres. <i>Nanotechnology</i> , <b>2012</b> , 23, 475711	3.4	31	
115	Hydrogen bound water profiles in the skin influenced by optical clearing molecular agents-Quantitative analysis using confocal Raman microscopy. <i>Journal of Biophotonics</i> , <b>2019</b> , 12, e201	8ð <del>र</del> ्च28:	3 <sup>31</sup>	
114	In vivo confocal Raman microscopic determination of depth profiles of the stratum corneum lipid organization influenced by application of various oils. <i>Journal of Dermatological Science</i> , <b>2017</b> , 87, 183-	1 <del>9</del> 1 <sup>3</sup>	30	
113	Fibroblast origin shapes tissue homeostasis, epidermal differentiation, and drug uptake. <i>Scientific Reports</i> , <b>2019</b> , 9, 2913	4.9	29	
112	Gaussian-function-based deconvolution method to determine the penetration ability of petrolatum oil intoin vivohuman skin using confocal Raman microscopy. <i>Laser Physics</i> , <b>2014</b> , 24, 105601	1.2	29	

111	A comparative study of ex vivo skin optical clearing using two-photon microscopy. <i>Journal of Biophotonics</i> , <b>2017</b> , 10, 1115-1123	3.1	28
110	Influence of sun exposure on the cutaneous collagen/elastin fibers and carotenoids: negative effects can be reduced by application of sunscreen. <i>Journal of Biophotonics</i> , <b>2014</b> , 7, 735-43	3.1	27
109	Photobleaching as a method of increasing the accuracy in measuring carotenoid concentration in human skin by Raman spectroscopy. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , <b>2010</b> , 109, 205-210	0.7	26
108	Influence of Topical, Systemic and Combined Application of Antioxidants on the Barrier Properties of the Human Skin. <i>Skin Pharmacology and Physiology</i> , <b>2016</b> , 29, 41-6	3	25
107	A Randomized Controlled Trial of Green Tea Beverages on the in vivo Radical Scavenging Activity in Human Skin. <i>Skin Pharmacology and Physiology</i> , <b>2017</b> , 30, 225-233	3	24
106	Dose-dependent vitamin C uptake and radical scavenging activity in human skin measured with in vivo electron paramagnetic resonance spectroscopy. <i>Skin Pharmacology and Physiology</i> , <b>2013</b> , 26, 147-5	54 <sup>3</sup>	24
105	Depth-dependent autofluorescence photobleaching using 325, 473, 633, and 785 Imm of porcine ear skin ex vivo. <i>Journal of Biomedical Optics</i> , <b>2017</b> , 22, 91503	3.5	23
104	Confocal Raman microscopy for investigating the penetration of various oils into the human skin in vivo. <i>Journal of Dermatological Science</i> , <b>2015</b> , 79, 176-8	4.3	23
103	Age related depth profiles of human Stratum Corneum barrier-related molecular parameters by confocal Raman microscopy in vivo. <i>Mechanisms of Ageing and Development</i> , <b>2018</b> , 172, 6-12	5.6	23
102	Triggered release of model drug from AuNP-doped BSA nanocarriers in hair follicles using IRA radiation. <i>Acta Biomaterialia</i> , <b>2016</b> , 30, 388-396	10.8	23
101	Kinetics of carotenoid distribution in human skin in vivo after exogenous stress: disinfectant and wIRA-induced carotenoid depletion recovers from outside to inside. <i>Journal of Biomedical Optics</i> , <b>2011</b> , 16, 035002	3.5	23
101	wIRA-induced carotenoid depletion recovers from outside to inside. Journal of Biomedical Optics,	3.5	23
	wIRA-induced carotenoid depletion recovers from outside to inside. <i>Journal of Biomedical Optics</i> , <b>2011</b> , 16, 035002  Radical-Scavenging Activity of a Sunscreen Enriched by Antioxidants Providing Protection in the		
100	wIRA-induced carotenoid depletion recovers from outside to inside. <i>Journal of Biomedical Optics</i> , <b>2011</b> , 16, 035002  Radical-Scavenging Activity of a Sunscreen Enriched by Antioxidants Providing Protection in the Whole Solar Spectral Range. <i>Skin Pharmacology and Physiology</i> , <b>2017</b> , 30, 81-89  Evaluation of carotenoids and reactive oxygen species in human skin after UV irradiation: a critical	3	22
100	wIRA-induced carotenoid depletion recovers from outside to inside. <i>Journal of Biomedical Optics</i> , <b>2011</b> , 16, 035002  Radical-Scavenging Activity of a Sunscreen Enriched by Antioxidants Providing Protection in the Whole Solar Spectral Range. <i>Skin Pharmacology and Physiology</i> , <b>2017</b> , 30, 81-89  Evaluation of carotenoids and reactive oxygen species in human skin after UV irradiation: a critical comparison between in vivo and ex vivo investigations. <i>Experimental Dermatology</i> , <b>2015</b> , 24, 194-7  High-energy visible light at ambient doses and intensities induces oxidative stress of skin-Protective effects of the antioxidant and Nrf2 inducer Licochalcone A in vitro and in vivo.	3	22
100 99 98	wIRA-induced carotenoid depletion recovers from outside to inside. <i>Journal of Biomedical Optics</i> , <b>2011</b> , 16, 035002  Radical-Scavenging Activity of a Sunscreen Enriched by Antioxidants Providing Protection in the Whole Solar Spectral Range. <i>Skin Pharmacology and Physiology</i> , <b>2017</b> , 30, 81-89  Evaluation of carotenoids and reactive oxygen species in human skin after UV irradiation: a critical comparison between in vivo and ex vivo investigations. <i>Experimental Dermatology</i> , <b>2015</b> , 24, 194-7  High-energy visible light at ambient doses and intensities induces oxidative stress of skin-Protective effects of the antioxidant and Nrf2 inducer Licochalcone A in vitro and in vivo. <i>Photodermatology Photoimmunology and Photomedicine</i> , <b>2020</b> , 36, 135-144  Comparison of morphologic criteria for actinic keratosis and squamous cell carcinoma using in vivo	3 4 2.4	22 22 21
<ul><li>100</li><li>99</li><li>98</li><li>97</li></ul>	wIRA-induced carotenoid depletion recovers from outside to inside. <i>Journal of Biomedical Optics</i> , <b>2011</b> , 16, 035002  Radical-Scavenging Activity of a Sunscreen Enriched by Antioxidants Providing Protection in the Whole Solar Spectral Range. <i>Skin Pharmacology and Physiology</i> , <b>2017</b> , 30, 81-89  Evaluation of carotenoids and reactive oxygen species in human skin after UV irradiation: a critical comparison between in vivo and ex vivo investigations. <i>Experimental Dermatology</i> , <b>2015</b> , 24, 194-7  High-energy visible light at ambient doses and intensities induces oxidative stress of skin-Protective effects of the antioxidant and Nrf2 inducer Licochalcone A in vitro and in vivo. <i>Photodermatology Photoimmunology and Photomedicine</i> , <b>2020</b> , 36, 135-144  Comparison of morphologic criteria for actinic keratosis and squamous cell carcinoma using in vivo multiphoton tomography. <i>Experimental Dermatology</i> , <b>2016</b> , 25, 218-22  Investigation of the cutaneous penetration behavior of dexamethasone loaded to nano-sized lipid particles by EPR spectroscopy, and confocal Raman and laser scanning microscopy. <i>European</i>	3 4 2.4 4	22 22 21 21

93	Raman spectroscopic analysis of the increase of the carotenoid antioxidant concentration in human skin after a 1-week diet with ecological eggs. <i>Journal of Biomedical Optics</i> , <b>2009</b> , 14, 024039	3.5	19
92	Ethnic differences in skin physiology, hair follicle morphology and follicular penetration. <i>Skin Pharmacology and Physiology</i> , <b>2012</b> , 25, 182-91	3	19
91	Effects of glucocorticoids on stratum corneum lipids and function in human skin-A detailed lipidomic analysis. <i>Journal of Dermatological Science</i> , <b>2017</b> , 88, 330-338	4.3	18
90	Label-free characterization of white blood cells using fluorescence lifetime imaging and flow-cytometry: molecular heterogeneity and erythrophagocytosis [Invited]. <i>Biomedical Optics Express</i> , <b>2019</b> , 10, 4220-4236	3.5	18
89	Confocal Raman microscopy combined with optical clearing for identification of inks in multicolored tattooed skin in vivo. <i>Analyst, The</i> , <b>2018</b> , 143, 4990-4999	5	18
88	The influence of endurance exercise on the antioxidative status of human skin. <i>European Journal of Applied Physiology</i> , <b>2012</b> , 112, 3361-7	3.4	17
87	Determination of the influence of IR radiation on the antioxidative network of the human skin. <i>Journal of Biophotonics</i> , <b>2011</b> , 4, 21-9	3.1	16
86	Influences of Orally Taken Carotenoid-Rich Curly Kale Extract on Collagen I/Elastin Index of the Skin. <i>Nutrients</i> , <b>2017</b> , 9,	6.7	15
85	Determination of the Antioxidant Status of the Skin by In Vivo-Electron Paramagnetic Resonance (EPR) Spectroscopy. <i>Cosmetics</i> , <b>2015</b> , 2, 286-301	2.7	15
84	Antioxidants in Asian-Korean and caucasian skin: the influence of nutrition and stress. <i>Skin Pharmacology and Physiology</i> , <b>2014</b> , 27, 293-302	3	15
83	Microneedle-Facilitated Intradermal Proretinal Nanoparticle Delivery. Nanomaterials, 2020, 10,	5.4	14
82	Spectroscopic biofeedback on cutaneous carotenoids as part of a prevention program could be effective to raise health awareness in adolescents. <i>Journal of Biophotonics</i> , <b>2014</b> , 7, 926-37	3.1	14
81	Fluorescence detection of protein content in house dust: the possible role of keratin. <i>Indoor Air</i> , <b>2017</b> , 27, 377-385	5.4	14
80	Efficient prevention strategy against the development of a palmar-plantar erythrodysesthesia during chemotherapy. <i>Skin Pharmacology and Physiology</i> , <b>2014</b> , 27, 66-70	3	14
79	Lipid organization and stratum corneum thickness determined in vivo in human skin analyzing lipidleratin peak (2820B030 cml) using confocal Raman microscopy. <i>Journal of Raman Spectroscopy</i> , <b>2016</b> , 47, 1327-1331	2.3	14
78	Multiple spatially resolved reflection spectroscopy to monitor cutaneous carotenoids during supplementation of fruit and vegetable extracts in vivo. <i>Skin Research and Technology</i> , <b>2017</b> , 23, 459-46	52 <sup>1.9</sup>	13
77	Impact of Body Site, Age, and Gender on the Collagen/Elastin Index by Noninvasive in vivo Vertical Two-Photon Microscopy. <i>Skin Pharmacology and Physiology</i> , <b>2017</b> , 30, 260-267	3	13
76	Formation of hemoglobin photoproduct is responsible for two-photon and single photon-excited fluorescence of red blood cells. <i>Laser Physics Letters</i> , <b>2018</b> , 15, 075604	1.5	12

75	In vivo characterization of structural changes after topical application of glucocorticoids in healthy human skin. <i>Journal of Biomedical Optics</i> , <b>2017</b> , 22, 76018	3.5	12
74	Radical scavenging capacity in human skin before and after vitamin C uptake: an in vivo feasibility study using electron paramagnetic resonance spectroscopy. <i>Journal of Investigative Dermatology</i> , <b>2013</b> , 133, 1102-4	4.3	12
73	Modified normalization method in in vivo stratum corneum analysis using confocal Raman microscopy to compensate nonhomogeneous distribution of keratin. <i>Journal of Raman Spectroscopy</i> , <b>2019</b> , 50, 945	2.3	11
72	Technical parameters of verticalin vivomultiphoton microscopy: a critical evaluation of the flyscanning method. <i>Laser Physics Letters</i> , <b>2015</b> , 12, 085602	1.5	11
71	Comparison of different cutaneous carotenoid sensors and influence of age, skin type, and kinetic changes subsequent to intake of a vegetable extract. <i>Journal of Biomedical Optics</i> , <b>2016</b> , 21, 107002	3.5	11
70	Raman spectroscopic analysis of the carotenoid concentration in egg yolks depending on the feeding and housing conditions of the laying hens. <i>Journal of Biophotonics</i> , <b>2012</b> , 5, 33-9	3.1	11
69	Methods for the evaluation of the protective efficacy of sunscreen products. <i>Skin Pharmacology and Physiology</i> , <b>2013</b> , 26, 30-5	3	11
68	Ultrafast imaging Raman spectroscopy of large-area samples without stepwise scanning. <i>Journal of Sensors and Sensor Systems</i> , <b>2016</b> , 5, 261-271	1.6	11
67	Penetration of topically applied nanocarriers into the hair follicles of dog and rat dorsal skin and porcine ear skin. <i>Veterinary Dermatology</i> , <b>2016</b> , 27, 256-e60	1.8	11
66	Methods for Optical Skin Clearing in Molecular Optical Imaging in Dermatology. <i>Biochemistry</i> (Moscow), <b>2019</b> , 84, S144-S158	2.9	10
65	The Oxidation-Induced Autofluorescence Hypothesis: Red Edge Excitation and Implications for Metabolic Imaging. <i>Molecules</i> , <b>2020</b> , 25,	4.8	10
64	The non-homogenous distribution and aggregation of carotenoids in the stratum corneum correlates with the organization of intercellular lipids in vivo. <i>Experimental Dermatology</i> , <b>2019</b> , 28, 1237	-4243	10
63	Impact of refractive index mismatches on coherent anti-Stokes Raman scattering and multiphoton autofluorescence tomography of human skin in vivo. <i>Physics in Medicine and Biology</i> , <b>2015</b> , 60, 6881-99	3.8	10
62	Nonscanning large-area Raman imaging for ex vivo/in vivo skin cancer discrimination. <i>Journal of Biomedical Optics</i> , <b>2018</b> , 23, 1-11	3.5	10
61	Non-invasive depth profiling of the stratum corneum using confocal Raman microscopy considering the non-homogeneous distribution of keratin. <i>Biomedical Optics Express</i> , <b>2019</b> , 10, 3092-3103	3.5	10
60	Multiple spatially resolved reflection spectroscopy forin vivodetermination of carotenoids in human skin and blood. <i>Laser Physics Letters</i> , <b>2016</b> , 13, 095601	1.5	10
59	Significance of the follicular pathway for dermal substance penetration quantified by laser Doppler flowmetry. <i>Journal of Biophotonics</i> , <b>2016</b> , 9, 276-81	3.1	9
58	Determination of the effect of boiling on the bioavailability of carotenoids in vegetables using resonance Raman spectroscopy. <i>Laser Physics</i> , <b>2018</b> , 28, 105602	1.2	8

57	Non-invasive spectroscopic determination of the antioxidative status of gravidae and neonates. <i>Skin Pharmacology and Physiology</i> , <b>2015</b> , 28, 189-95	3	8	
56	Barrier-disrupted skin: Quantitative analysis of tape and cyanoacrylate stripping efficiency by multiphoton tomography. <i>International Journal of Pharmaceutics</i> , <b>2020</b> , 574, 118843	6.5	8	
55	In vivo Tracking of DNA for Precise Determination of the Stratum Corneum Thickness and Superficial Microbiome Using Confocal Raman Microscopy. <i>Skin Pharmacology and Physiology</i> , <b>2020</b> , 33, 30-37	3	8	
54	In vivo optical imaging of the viable epidermis around the nailfold capillaries for the assessment of heart failure severity in humans. <i>Journal of Biophotonics</i> , <b>2018</b> , 11, e201800066	3.1	7	
53	Label-Free Multiphoton Microscopy: The Origin of Fluorophores and Capabilities for Analyzing Biochemical Processes. <i>Biochemistry (Moscow)</i> , <b>2019</b> , 84, S69-S88	2.9	6	
52	Influence of the Systemic Application of Blue@reen Spirulina platensis Algae on the Cutaneous Carotenoids and Elastic Fibers in Vivo. <i>Cosmetics</i> , <b>2015</b> , 2, 302-312	2.7	6	
51	Cutaneous radical scavenging effects of orally administered antioxidants measured by electron paramagnetic resonance spectroscopy. <i>E-SPEN Journal</i> , <b>2012</b> , 7, e160-e166		6	
50	Application of an ointment with high radical protection factor as a prevention strategy against PPE <i>Journal of Clinical Oncology</i> , <b>2012</b> , 30, 5064-5064	2.2	6	
49	Melanin distribution from the dermal-epidermal junction to the stratum corneum: non-invasive in vivo assessment by fluorescence and Raman microspectroscopy. <i>Scientific Reports</i> , <b>2020</b> , 10, 14374	4.9	6	
48	A modification for the calculation of water depth profiles in oil-treated skin by in vivo confocal Raman microscopy. <i>Journal of Biophotonics</i> , <b>2020</b> , 13, e201960106	3.1	6	
47	Body regions have an impact on the collagen/elastin index of the skin measured by non-invasive in vivo vertical two-photon microscopy. <i>Experimental Dermatology</i> , <b>2017</b> , 26, 822-824	4	5	
46	Surface determination of 3D confocal Raman microscopy imaging of the skin. <i>Laser Physics Letters</i> , <b>2017</b> , 14, 125601	1.5	5	
45	Serial non-invasive measurements of dermal carotenoid concentrations in dairy cows following recovery from abomasal displacement. <i>PLoS ONE</i> , <b>2012</b> , 7, e47706	3.7	5	
44	In vivo non-invasive staining-free visualization of dermal mast cells in healthy, allergy and mastocytosis humans using two-photon fluorescence lifetime imaging. <i>Scientific Reports</i> , <b>2020</b> , 10, 1493	3 <b>₫</b> .9	5	
43	Influence of physical-mechanical properties on SPF in sunscreen formulations on ex vivo and in vivo skin. <i>International Journal of Pharmaceutics</i> , <b>2021</b> , 598, 120262	6.5	5	
42	Release of the model drug SR101 from polyurethane nanocapsules in porcine hair follicles triggered by LED-derived low dose UVA light. <i>International Journal of Pharmaceutics</i> , <b>2021</b> , 597, 120339	6.5	5	
41	Shifted excitation resonance Raman difference spectroscopy system suitable for the quantitative in vivo detection of carotenoids in human skin. <i>Laser Physics Letters</i> , <b>2018</b> , 15, 115601	1.5	5	
40	DFT study of Raman spectra of polyenes and Etarotene: Dependence on length of polyene chain and isomer type. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , <b>2021</b> , 255, 1196	668 <sup>4</sup>	5	

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protein binding and aggregation. <i>Laser Physics Letters</i> , <b>2019</b> , 16, 075601	1.5	4
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Case study:in vivostress diagnostics by spectroscopic determination of the cutaneous carotenoid antioxidant concentration in midwives depending on shift work. <i>Laser Physics Letters</i> , <b>2013</b> , 10, 105701	1.5	2
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21	Relations between the Raman spectra and molecular structure of selected carotenoids: DFT study of & arotene, & arotene and lycopene <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , <b>2021</b> , 270, 120755	4.4	1
20	Application of Laser Scanning Microscopy in Dermatology and Cutaneous Physiology <b>2014</b> , 101-113		1
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17	Blind source separation of molecular components of the human skin in vivo: non-negative matrix factorization of Raman microspectroscopy data. <i>Analyst, The,</i> <b>2021</b> , 146, 3185-3196	5	1
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3 Interaction Between Free Radicals and Antioxidants in Human Skin **2014**, 203-215

2	Hautkrebspr  Mention und Sonnenschutzcreme: ein Update. Aktuelle Dermatologie, 2018, 44, 49-52	0.1
1	In vivo Skin Penetration, Radical Protection, and Structural Changes after Topical Application of a Herbal Oil Cream Compared to Topical Calcipotriol in Mild to Moderate Psoriasis. <i>Skin Pharmacology and Physiology</i> , <b>2021</b> , 34, 337-350	3