Shigeki Nakauchi

List of Publications by Year
in descending order

114 papers	1,080 citations	18 h-index 430874	27 g-index 526287
119 all docs	119 docs citations	119 times ranked	983 citing authors

#	Article	IF	Citations
1	Image analysis operations applied to hyperspectral images for non-invasive sensing of food qualityÂâ€“ÂA comprehensive review. Biosystems Engineering, 2016, 142, 53-82.	4.3	117
2	Freshness estimation of intact frozen fish using fluorescence spectroscopy and chemometrics of excitationâ€"emission matrix. Talanta, 2015, 143, 145-156.	5.5	59
3	Near Infrared Spectroscopy and Hyperspectral Imaging for Prediction and Visualisation of Fat and Fatty Acid Content in Intact Raw Beef Cuts. Journal of Near Infrared Spectroscopy, 2010, 18, 301-315.	1.5	58
4	Color gamut mapping based on a perceptual image difference measure. Color Research and Application, 1999, 24, 280-291.	1.6	35
5	Reconstruction of Munsell color space by a five-layer neural network. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1992, 9, 516.	1.5	34
6	Interaction between facial expression and color. Scientific Reports, 2017, 7, 41019.	3.3	33
7	Non-invasive sensing of freshness indices of frozen fish and fillets using pretreated excitationâ€"emission matrices. Sensors and Actuators B: Chemical, 2016, 228, 237-250.	7.8	31
8	Detection and modification of confusing color combinations for redâ€green dichromats to achieve a color universal design. Color Research and Application, 2008, 33, 203-211.	1.6	26
9	Temporal properties of material categorization and material rating: visual vs non-visual material features. Vision Research, 2015, 115, 259-270.	1.4	26
10	Colorful glares: Effects of colors on brightness illusions measured with pupillometry. Acta Psychologica, 2019, 198, 102882.	1.5	26
11	Image Regions Contributing to Perceptual Translucency: A Psychophysical Reverse-Correlation Study. I-Perception, 2013, 4, 407-428.	1.4	24
12	Smart technique for accurate monitoring of ATP content in frozen fish fillets using fluorescence fingerprint. LWT - Food Science and Technology, 2018, 92, 258-264.	5.2	24
13	Redefining A in RGBA. ACM Transactions on Graphics, 2019, 38, 1-14.	7.2	24
14	Selection of optimal combinations of band-pass filters for ice detection by hyperspectral imaging. Optics Express, 2012, 20, 986.	3.4	23
15	Rapid noninvasive monitoring of freshness variation in frozen shrimp using multidimensional fluorescence imaging coupled with chemometrics. Talanta, 2021, 224, 121871.	5.5	21
16	Computational theory of color transparency: recovery of spectral properties for overlapping surfaces. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1999, 16, 2612.	1.5	19
17	Effects of Face and Background Color on Facial Expression Perception. Frontiers in Psychology, 2018, 9, 1012.	2.1	19
18	The face-selective N170 component is modulated by facial color. Neuropsychologia, 2012, 50, 2499-2505.	1.6	18

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19	Optimization of excitation–emission band-pass filter for visualization of viable bacteria distribution on the surface of pork meat. Optics Express, 2013, 21, 12579.	3.4	18
20	Optical measurement of interference color of pearls and its relation to subjective quality. Optical Review, 2013, 20, 50-58.	2.0	17
21	Noninvasive sensing of thermal treatments of <scp>J</scp>apanese seafood products using imaging spectroscopy. International Journal of Food Science and Technology, 2015, 50, 1960-1971.	2.7	16
22	Prediction of meat spectral patterns based on optical properties and concentrations of the major constituents. Food Science and Nutrition, 2016, 4, 269-283.	3.4	16
23	Experts and Novices Use the Same Factors–But Differently–To Evaluate Pearl Quality. PLoS ONE, 2014, 9, e86400.	2.5	16
24	Decreased beta-band activity is correlated with disambiguation of hidden figures. Neuropsychologia, 2014, 56, 9-16.	1.6	15
25	Dynamic Visual Cues for Differentiating Mirror and Glass. Scientific Reports, 2018, 8, 8403.	3.3	15
26	Asymmetrical characteristics of emotional responses to pictures and sounds: Evidence from pupillometry. PLoS ONE, 2020, 15, e0230775.	2.5	15
27	Association between pupil dilation and implicit processing prior to object recognition via insight. Scientific Reports, 2018, 8, 6874.	3.3	14
28	Expeditious prediction of post-mortem changes in frozen fish meat using three-dimensional fluorescence fingerprints. Bioscience, Biotechnology and Biochemistry, 2019, 83, 901-913.	1.3	14
29	Acquisition of color opponent representation by a three-layered neural network model. Biological Cybernetics, 1994, 72, 35-41.	1.3	12
30	Optical filter for highlighting spectral features Part I: design and development of the filter for discrimination of human skin with and without an application of cosmetic foundation. Optics Express, 2011, 19, 6020.	3.4	12
31	Visualisation of Fat and Fatty Acid Distribution in Beef Using a Set of Filters Based on near Infrared Spectroscopy. Journal of Near Infrared Spectroscopy, 2012, 20, 509-519.	1.5	12
32	Electrophysiological Differences in the Processing of Affect Misattribution. PLoS ONE, 2012, 7, e49132.	2.5	12
33	Semantic processing in subliminal face stimuli: An EEG and tDCS study. Neuroscience Letters, 2013, 544, 141-146.	2.1	11
34	Brain Activity Related to the Judgment of Face-Likeness: Correlation between EEG and Face-Like Evaluation. Frontiers in Human Neuroscience, 2018, 12, 56.	2.0	11
35	Enhancement of Glossiness Perception by Retinal-Image Motion: Additional Effect of Head-Yoked Motion Parallax. PLoS ONE, 2013, 8, e54549.	2.5	11
36	A Computational Model for Color Constancy by Separating Reflectance and Illuminant Edges within a Scene. Neural Networks, 1996, 9, 1405-1415.	5.9	10

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37	Robust brightness enhancement across a luminance range of the glare illusion. Journal of Vision, 2016, 16, 10.	0.3	10
38	Neural networks for device-independent digital color imaging. Information Sciences, 2000, 123, 115-125.	6.9	9
39	Detection and visualization of intracutaneous allergic type‐specific elements using long‐wavelength near‐infrared hyperspectral imaging. Skin Research and Technology, 2013, 19, e157-66.	1.6	9
40	AR-SSVEP for brain-machine interface: Estimating user's gaze in head-mounted display with USB camera. , 2015, , .		9
41	Sparse regression for selecting fluorescence wavelengths for accurate prediction of food properties. Chemometrics and Intelligent Laboratory Systems, 2016, 154, 29-37.	3.5	9
42	Pupil Constriction in the Glare Illusion Modulates the Steady-State Visual Evoked Potentials. Neuroscience, 2019, 416, 221-228.	2.3	9
43	Facial color processing in the face‐selective regions: An fMRI study. Human Brain Mapping, 2014, 35, 4958-4964.	3.6	8
44	Development of the multispectral UV polarization reflectance imaging system (MUPRIS) for in situ monitoring of the UV protection efficacy of sunscreen on human skin. Skin Research and Technology, 2019, 25, 639-652.	1.6	8
45	Universality and superiority in preference for chromatic composition of art paintings. Scientific Reports, 2022, 12, 4294.	3.3	8
46	Illuminations that improve color discrimination ability of people with red-green color vision deficiency. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2017, 34, 1914.	1.5	7
47	Variation in Event-Related Potentials by State Transitions. Frontiers in Human Neuroscience, 2017, 11, 75.	2.0	7
48	Team Flow Is a Unique Brain State Associated with Enhanced Information Integration and Interbrain Synchrony. ENeuro, 2021, 8, ENEURO.0133-21.2021.	1.9	7
49	Asymmetry of P3 amplitude during oddball tasks reflects the unnaturalness of visual stimuli. NeuroReport, 2009, 20, 1471-1476.	1.2	6
50	Optical filter highlighting spectral features Part II: quantitative measurements of cosmetic foundation and assessment of their spatial distributions under realistic facial conditions. Optics Express, 2011, 19, 6031.	3.4	6
51	Cueing the Necker cube: Pupil dilation reflects the viewing-from-above constraint in bistable perception. Journal of Vision, 2020, 20, 7.	0.3	6
52	In situ detection and identification of microorganisms at single-colony resolution by spectral imaging. Optical Review, 2008, 15, 285-291.	2.0	5
53	Hemifield Crossings during Multiple Object Tracking Affect Task Performance and Steady-State Visual Evoked Potentials. Neuroscience, 2019, 409, 162-168.	2.3	5
54	Effect of glare illusion‐induced perceptual brightness on temporal perception. Psychophysiology, 2021, 58, e13851.	2.4	5

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55	Color gamut mapping by minimizing perceptual differences between images. Systems and Computers in Japan, 1998, 29, 46-56.	0.2	4
56	Visualization of the human face skin moisturizing ability by spectroscopic imaging using two near-infrared bands. , 2006, 6062, 20.		4
57	Optical implementation of spectral filtering for the enhancement of skin color discrimination. Color Research and Application, 2012, 37, 53-58.	1.6	4
58	Dissociation of equilibrium points for color-discrimination and color-appearance mechanisms in incomplete chromatic adaptation. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2016, 33, A150.	1.5	4
59	The Best CCT for Appreciation of Paintings under Daylight Illuminants is Different for Occidental and Oriental Viewers. LEUKOS - Journal of Illuminating Engineering Society of North America, 2021, 17, 310-318.	2.9	4
60	The effect of red/blue color stimuli on temporal perception under different pupillary responses induced by different equiluminant methods. PLoS ONE, 2022, 17, e0270110.	2.5	4
61	Near-infrared hyper-spectral image analysis of astaxanthin concentration in fish feed coating. , 2012, , .		3
62	Pupil dilation reflects English /l//r/ discrimination ability for Japanese learners of English: a pilot study. Scientific Reports, 2020, 10, 8052.	3.3	3
63	Visual perception of 3D printed translucent objects. Color and Imaging Conference, 2016, 24, 94-99.	0.2	3
64	Real-time optical monitoring of microbial growth using optimal combination of light-emitting diodes. Optical Engineering, 2012, 51, 123201.	1.0	2
65	A Novel Method for Designing Fluorescence Fingerprint Filters and Its Application to Discrimination and Quantification in Food Evaluation. Journal of the Japanese Society for Food Science and Technology, 2012, 59, 139-145.	0.1	2
66	Optimization of excitation-emission bands for estimating viable bacteria on meat surfaces with fluorescence spectroscopy. , 2014, , .		2
67	Gamma oscillations distinguish mere exposure from other likability effects. Neuropsychologia, 2014, 54, 129-138.	1.6	2
68	Objective assessment and quantification of pearl quality by spectral-spatial features. , 2015, , .		2
69	Spectral-difference enhancing illuminant for improving visual detection of blood vessels. , 2015, , .		2
70	The Rotating Glass Illusion: Material Appearance Is Bound to Perceived Shape and Motion. I-Perception, 2018, 9, 204166951881671.	1.4	2
71	Cooperative update of beliefs and state-transition functions in human reinforcement learning. Scientific Reports, 2019, 9, 17704.	3.3	2
72	Computational lighting for extracting optical features from RGB images. Measurement: Journal of the International Measurement Confederation, 2020, 151, 107183.	5.0	2

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73	How Good Are RGB Cameras Retrieving Colors of Natural Scenes and Paintings?â€"A Study Based on Hyperspectral Imaging. Sensors, 2020, 20, 6242.	3.8	2
74	Multiresolution Approach in Computing NTF. , 2007, , 334-343.		2
75	Perception of a thick transparent object is affected by object and background motions but not dependent on the motion speed. Journal of Vision, 2015, 15, 823.	0.3	2
76	Multiple cues for visual perception of mirror and glass materials. Journal of Vision, 2017, 17, 765.	0.3	2
77	Backward and forward neck tilt affects perceptual bias when interpreting ambiguous figures. Scientific Reports, 2022, 12, 7276.	3.3	2
78	Anisotropy in the peripheral visual field based on pupil response to the glare illusion. Heliyon, 2022, 8, e09772.	3.2	2
79	A decorrelating neural network for color constancy. , 1992, , .		1
80	Digital color imaging with color constancy. Systems and Computers in Japan, 2003, 34, 79-88.	0.2	1
81	Michromatic scope for enhancement of color difference. Color Research and Application, 2010, 35, 101-109.	1.6	1
82	Pupillary response reflects attentional modulation to sound after emotional arousal. Scientific Reports, 2021, 11, 17264.	3.3	1
83	Mismatch between perception and neural response in glare illusion. Journal of Vision, 2016, 16, 819.	0.3	1
84	Pupil dilation reveals the implicit prior processing of the insight to the hidden image. Journal of Vision, 2017, 17, 529.	0.3	1
85	Flow of the eye: Gaze direction as an objective measure of flow experience. Journal of Vision, 2018, 18, 1205.	0.3	1
86	Functional illumination supporting the visual detection of plaques. Color and Imaging Conference, 2016, 2016, 219-224.	0.2	1
87	Luminance-contrast reversal disambiguates illumination interpretation in #TheDress. Journal of Vision, 2017, 17, 137.	0.3	1
88	Sound symbolism expressing visual texture on different linguistic backgrounds. Journal of Vision, 2018, 18, 858.	0.3	1
89	Discrimination of illumination and reflectance changes on color constancy. Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi) Tj ETQq1 1 0.78433.14 rgBT (Overloc		
90	An analysis of viewpoint dependency in three-dimensional object recognition using support vector machines. Systems and Computers in Japan, 2006, 37, 105-115.	0.2	0

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91	Presenting scene illumination on real-object surfaces. , 2013, , .		0
92	Color Signal Integration for Color Discrimination along a Long-range Apparent Motion Trajectory. Multisensory Research, 2013, 26, 241-265.	1.1	0
93	Reverse correlation analysis of chromatic contrast perception based on chromatic mechanism models. Optical Review, 2014, 21, 526-540.	2.0	0
94	A visualization method for hand cleanness using fluorescent spectrum. , 2016, , .		0
95	Optimization of illuminant spectrum for visual detection of foreign substances in jams. , 2016, , .		0
96	Spatial smoothing of canonical correlation analysis for steady state visual evoked potential based brain computer interfaces. , 2016, 2016, 1516-1519.		0
97	Steady-state visually evoked potential is modulated by the difference of recognition condition. PLoS ONE, 2020, 15, e0235309.	2.5	0
98	Influence of nacre thickness and crystal structure characteristics on interference color and luster of cultured Akoya pearl. Nippon Suisan Gakkaishi, 2021, 87, 483-493.	0.1	0
99	Versatile band-pass filters for fluorescence imaging of the food products for quality assessment. Food Science and Technology Research, 2021, 27, 203-210.	0.6	0
100	Analysis on the Viewpoint Dependency in 3-D Object Recognition by Support Vector Machines. Lecture Notes in Computer Science, 2001, , 176-183.	1.3	0
101	Neural network models for normal and dichromatic color vision. Documenta Ophthalmologica Proceedings Series, 1995, , 127-134.	0.0	0
102	Relationship between perceptual surface qualities and distinctive features in onomatopoetic expression. Journal of Vision, 2017, 17, 768.	0.3	0
103	#TheDress type of color ambiguity induced by T-shirt image based on physically-based rendering. Journal of Vision, 2018, 18, 221.	0.3	0
104	Color statistics underlying preference judgement for art paintings. Journal of Vision, 2018, 18, 867.	0.3	0
105	The differential effect of glowing appearance in the glare illusion: evidence from pupillometry. Journal of Vision, 2018, 18, 876.	0.3	0
106	Association between pupil constriction and aesthetic preference/naturalness in art-paintings. Journal of Vision, 2018, 18, 874.	0.3	0
107	Contribution of Facial Color to Expression Recognition of Blurred Faces. Transactions of Japan Society of Kansei Engineering, 2019, 18, 79-85.	0.1	0
108	P3 asymmetry elicited by original-pseudo art paintings using an oddball paradigm. Journal of Vision, 2019, 19, 99.	0.3	0

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109	Preference judgement for art paintings: large-scale subjects (30K) experiment revealing age-dependency. Journal of Vision, 2019, 19, 98c.	0.3	0
110	Preference of facing/lighting direction for portraits paintings. Journal of Vision, 2019, 19, 97.	0.3	0
111	Vision in the extreme-periphery (3b): effects of eccentricity and foveal input on color perception. Journal of Vision, 2019, 19, 72.	0.3	0
112	Visual-auditory crossmodal priming affects visual texture recognition. Journal of Vision, 2019, 19, 21.	0.3	0
113	Association between temporal perception and pupillary response in Red/Blue stimuli. Journal of Vision, 2019, 19, 164a.	0.3	0
114	Influence of Objects Face-likeness on the Right-facing Preference. Transactions of Japan Society of Kansei Engineering, 2021, , .	0.1	0