Shigeki Nakauchi

List of Publications by Citations

102 papers	718 citations	14 h-index	22 g-index
119 ext. papers	892 ext. citations	2.4 avg, IF	4.41 L-index

#	Paper	IF	Citations
102	Image analysis operations applied to hyperspectral images for non-invasive sensing of food quality□A comprehensive review. *Biosystems Engineering*, **2016**, 142, 53-82	4.8	84
101	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	51
100	Freshness estimation of intact frozen fish using fluorescence spectroscopy and chemometrics of excitation-emission matrix. *Talanta*, **2015**, 143, 145-156	6.2	44
99	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	1.8	31
98	Non-invasive sensing of freshness indices of frozen fish and fillets using pretreated excitation□mission matrices. *Sensors and Actuators B: Chemical*, **2016**, 228, 237-250	8.5	27
97	Color gamut mapping based on a perceptual image difference measure. *Color Research and Application*, **1999**, 24, 280-291	1.3	25
96	Temporal properties of material categorization and material rating: visual vs non-visual material features. *Vision Research*, **2015**, 115, 259-70	2.1	19
95	Smart technique for accurate monitoring of ATP content in frozen fish fillets using fluorescence fingerprint. *LWT - Food Science and Technology*, **2018**, 92, 258-264	5.4	19
94	Interaction between facial expression and color. *Scientific Reports*, **2017**, 7, 41019	4.9	18
93	Selection of optimal combinations of band-pass filters for ice detection by hyperspectral imaging. *Optics Express*, **2012**, 20, 986-1000	3.3	17
92	Image regions contributing to perceptual translucency: A psychophysical reverse-correlation study. *I-Perception*, **2013**, 4, 407-28	1.2	16
91	Experts and novices use the same factors--but differently--to evaluate pearl quality. *PLoS ONE*, **2014**, 9, e86400	3.7	16
90	Noninvasive sensing of thermal treatments of Japanese seafood products using imaging spectroscopy. *International Journal of Food Science and Technology*, **2015**, 50, 1960-1971	3.8	15
89	The face-selective N170 component is modulated by facial color. *Neuropsychologia*, **2012**, 50, 2499-505	3.2	15
88	Optical measurement of interference color of pearls and its relation to subjective quality. *Optical Review*, **2013**, 20, 50-58	0.9	14
87	Optimization of excitation-emission band-pass filter for visualization of viable bacteria distribution on the surface of pork meat. *Optics Express*, **2013**, 21, 12579-91	3.3	14
86	Redefining A in RGBA. *ACM Transactions on Graphics*, **2019**, 38, 1-14	7.6	14

85	Dynamic Visual Cues for Differentiating Mirror and Glass. *Scientific Reports*, **2018**, 8, 8403	4.9	12
84	Detection and modification of confusing color combinations for red-green dichromats to achieve a color universal design. *Color Research and Application*, **2008**, 33, 203-211	1.3	12
83	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	1.8	12
82	Prediction of meat spectral patterns based on optical properties and concentrations of the major constituents. *Food Science and Nutrition*, **2016**, 4, 269-83	3.2	11
81	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, 6020-30	3.3	11
80	Decreased beta-band activity is correlated with disambiguation of hidden figures. *Neuropsychologia* , **2014**, 56, 9-16	3.2	10
79	Enhancement of glossiness perception by retinal-image motion: additional effect of head-yoked motion parallax. *PLoS ONE*, **2013**, 8, e54549	3.7	10
78	Colorful glares: Effects of colors on brightness illusions measured with pupillometry. *Acta Psychologica*, **2019**, 198, 102882	1.7	9
77	Electrophysiological differences in the processing of affect misattribution. *PLoS ONE*, **2012**, 7, e49132	3.7	9
76	Expeditious prediction of post-mortem changes in frozen fish meat using three-dimensional fluorescence fingerprints. *Bioscience, Biotechnology and Biochemistry*, **2019**, 83, 901-913	2.1	8
75	Effects of Face and Background Color on Facial Expression Perception. *Frontiers in Psychology*, **2018** , 9, 1012	3.4	8
74	Detection and visualization of intracutaneous allergic type-specific elements using long-wavelength near-infrared hyperspectral imaging. *Skin Research and Technology*, **2013**, 19, e157-66	1.9	8
73	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	8
72	A Computational Model for Color Constancy by Separating Reflectance and Illuminant Edges within a Scene. *Neural Networks*, **1996**, 9, 1405-1415	9.1	8
71	Acquisition of color opponent representation by a three-layered neural network model. *Biological Cybernetics*, **1994**, 72, 35-41	2.8	8
70	Association between pupil dilation and implicit processing prior to object recognition via insight. *Scientific Reports*, **2018**, 8, 6874	4.9	7
69	Semantic processing in subliminal face stimuli: an EEG and tDCS study. *Neuroscience Letters*, **2013**, 544, 141-6	3.3	7
68	Sparse regression for selecting fluorescence wavelengths for accurate prediction of food properties. *Chemometrics and Intelligent Laboratory Systems*, **2016**, 154, 29-37	3.8	7

67	Rapid noninvasive monitoring of freshness variation in frozen shrimp using multidimensional fluorescence imaging coupled with chemometrics. *Talanta*, **2021**, 224, 121871	6.2	7
66	Brain Activity Related to the Judgment of Face-Likeness: Correlation between EEG and Face-Like Evaluation. *Frontiers in Human Neuroscience*, **2018**, 12, 56	3.3	6
65	Facial color processing in the face-selective regions: an fMRI study. *Human Brain Mapping*, **2014**, 35, 4958-64	5.9	6
64	Robust brightness enhancement across a luminance range of the glare illusion. *Journal of Vision*, **2016**, 16, 10	0.4	6
63	Asymmetrical characteristics of emotional responses to pictures and sounds: Evidence from pupillometry. *PLoS ONE*, **2020**, 15, e0230775	3.7	6
62	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, 6031-41	3.3	5
61	Neural networks for device-independent digital color imaging. *Information Sciences*, **2000**, 123, 115-125	7.7	5
60	AR-SSVEP for brain-machine interface: Estimating user's gaze in head-mounted display with USB camera **2015**,		4
59	Asymmetry of P3 amplitude during oddball tasks reflects the unnaturalness of visual stimuli. *NeuroReport*, **2009**, 20, 1471-6	1.7	4
58	Visualization of the human face skin moisturizing ability by spectroscopic imaging using two near-infrared bands **2006**, 6062, 20		4
57	Hemifield Crossings during Multiple Object Tracking Affect Task Performance and Steady-State Visual Evoked Potentials. *Neuroscience*, **2019**, 409, 162-168	3.9	3
56	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	1.9	3
55	Pupil Constriction in the Glare Illusion Modulates the Steady-State Visual Evoked Potentials. *Neuroscience*, **2019**, 416, 221-228	3.9	3
54	Optical implementation of spectral filtering for the enhancement of skin color discrimination. *Color Research and Application*, **2012**, 37, 53-58	1.3	3
53	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, 1914-1923	1.8	3
52	Variation in Event-Related Potentials by State Transitions. *Frontiers in Human Neuroscience*, **2017**, 11, 75	3.3	3
51	In situ detection and identification of microorganisms at single-colony resolution by spectral imaging. *Optical Review*, **2008**, 15, 285-291	0.9	3
50	Cueing the Necker cube: Pupil dilation reflects the viewing-from-above constraint in bistable perception. *Journal of Vision*, **2020**, 20, 7	0.4	3

49	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	3.5	3
48	Gamma oscillations distinguish mere exposure from other likability effects. *Neuropsychologia*, **2014**, 54, 129-38	3.2	2
47	Near-infrared hyper-spectral image analysis of astaxanthin concentration in fish feed coating **2012**,		2
46	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	0.4	2
45	Team flow is a unique brain state associated with enhanced information integration and neural synchrony		2
44	Multiple cues for visual perception of mirror and glass materials. *Journal of Vision*, **2017**, 17, 765	0.4	2
43	Pupil dilation reflects English /l//r/ discrimination ability for Japanese learners of English: a pilot study. *Scientific Reports*, **2020**, 10, 8052	4.9	2
42	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, A150-63	1.8	2
41	Cooperative update of beliefs and state-transition functions in human reinforcement learning. *Scientific Reports*, **2019**, 9, 17704	4.9	2
40	The Rotating Glass Illusion: Material Appearance Is Bound to Perceived Shape and Motion. *I-Perception*, **2018**, 9, 2041669518816716	1.2	2
39	Objective assessment and quantification of pearl quality by spectral-spatial features **2015**,		1
38	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	0.2	1
37	Color gamut mapping by minimizing perceptual differences between images. *Systems and Computers in Japan*, **1998**, 29, 46-56		1
36	Digital color imaging with color constancy. *Systems and Computers in Japan*, **2003**, 34, 79-88		1
35	A decorrelating neural network for color constancy **1992**,		1
34	Pupil dilation reveals the implicit prior processing of the insight to the hidden image. *Journal of Vision*, **2017**, 17, 529	0.4	1
33	Flow of the eye: Gaze direction as an objective measure of flow experience. *Journal of Vision*, **2018**, 18, 1205	0.4	1
32	Sound symbolism expressing visual texture on different linguistic backgrounds. *Journal of Vision*, **2018**, 18, 858	0.4	1

31	Computational lighting for extracting optical features from RGB images. *Measurement: Journal of the International Measurement Confederation*, **2020**, 151, 107183	4.6	1
30	Effect of glare illusion-induced perceptual brightness on temporal perception. *Psychophysiology*, **2021**, 58, e13851	4.1	1
29	Backward and forward neck tilt affects perceptual bias when interpreting ambiguous figures.. *Scientific Reports*, **2022**, 12, 7276	4.9	1
28	Real-time optical monitoring of microbial growth using optimal combination of light-emitting diodes. *Optical Engineering*, **2012**, 51, 123201	1.1	0
27	Multiresolution Approach in Computing NTF **2007**, 334-343		0
26	Luminance-contrast reversal disambiguates illumination interpretation in #TheDress. *Journal of Vision*, **2017**, 17, 137	0.4	0
25	Pupillary response reflects attentional modulation to sound after emotional arousal. *Scientific Reports*, **2021**, 11, 17264	4.9	0
24	Universality and superiority in preference for chromatic composition of art paintings.. *Scientific Reports*, **2022**, 12, 4294	4.9	0
23	Steady-state visually evoked potential is modulated by the difference of recognition condition. *PLoS ONE*, **2020**, 15, e0235309	3.7	
22	Spatial smoothing of canonical correlation analysis for steady state visual evoked potential based brain computer interfaces. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 1516-1519	0.9	
21	Reverse correlation analysis of chromatic contrast perception based on chromatic mechanism models. *Optical Review*, **2014**, 21, 526-540	0.9	
20	Color signal integration for color discrimination along a long-range apparent motion trajectory. *Multisensory Research*, **2013**, 26, 241-65	1.9	
19	An analysis of viewpoint dependency in three-dimensional object recognition using support vector machines. *Systems and Computers in Japan*, **2006**, 37, 105-115		
18	Discrimination of illumination and reflectance changes on color constancy. *Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai Ronbunshi)*, **2000**, 83, 43-55		
17	Analysis on the Viewpoint Dependency in 3-D Object Recognition by Support Vector Machines. *Lecture Notes in Computer Science*, **2001**, 176-183	0.9	
16	#TheDress type of color ambiguity induced by T-shirt image based on physically-based rendering. *Journal of Vision*, **2018**, 18, 221	0.4	
15	Color statistics underlying preference judgement for art paintings. *Journal of Vision*, **2018**, 18, 867	0.4	
14	The differential effect of glowing appearance in the glare illusion: evidence from pupillometry. *Journal of Vision*, **2018**, 18, 876	0.4	

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13	Association between pupil constriction and aesthetic preference/naturalness in art-paintings. *Journal of Vision*, **2018**, 18, 874	0.4
12	Contribution of Facial Color to Expression Recognition of Blurred Faces. *Transactions of Japan Society of Kansei Engineering*, **2019**, 18, 79-85	0.2
11	P3 asymmetry elicited by original-pseudo art paintings using an oddball paradigm. *Journal of Vision*, **2019**, 19, 99	0.4
10	Preference judgement for art paintings: large-scale subjects (30K) experiment revealing age-dependency. *Journal of Vision*, **2019**, 19, 98c	0.4
9	Preference of facing/lighting direction for portraits paintings. *Journal of Vision*, **2019**, 19, 97	0.4
8	Vision in the extreme-periphery (3b): effects of eccentricity and foveal input on color perception. *Journal of Vision*, **2019**, 19, 72	0.4
7	Visual-auditory crossmodal priming affects visual texture recognition. *Journal of Vision*, **2019**, 19, 21	0.4
6	Association between temporal perception and pupillary response in Red/Blue stimuli. *Journal of Vision*, **2019**, 19, 164a	0.4
5	Dry Electrophysiology:An approach to the internal representation of brain functions through artificial neural networks **1994**, 118-122	
4	Neural network models for normal and dichromatic color vision. *Documenta Ophthalmologica Proceedings Series*, **1995**, 127-134	
3	Relationship between perceptual surface qualities and distinctive features in onomatopoetic expression. *Journal of Vision*, **2017**, 17, 768	0.4
2	Influence of nacre thickness and crystal structure characteristics on interference color and luster of cultured Akoya pearl. *Nippon Suisan Gakkaishi*, **2021**, 87, 483-493	0.2
1	Versatile band-pass filters for fluorescence imaging of the food products for quality assessment. *Food Science and Technology Research*, **2021**, 27, 203-210	0.8