Takuya Ohzono

List of Publications by Year
in descending order

79 papers	1,639 citations	236912 25 h-index	315719 38 g-index
81 all docs	81 docs citations	81 times ranked	1626 citing authors

#	Article	IF	Citations
1	Ordering of microwrinkle patterns by compressive strain. Physical Review B, 2004, 69, .	3.2	114
2	Shaping liquid on a micrometre scale using microwrinkles as deformable open channel capillaries. Soft Matter, 2009, 5, 4658.	2.7	95
3	Tunable Optical Diffuser Based on Deformable Wrinkles. Advanced Optical Materials, 2013, 1, 374-380.	7.3	92
4	Zigzag line defects and manipulation of colloids in a nematic liquid crystal in microwrinkle grooves. Nature Communications, 2012, 3, 701.	12.8	87
5	Coupling of wrinkle patterns to microsphere-array lithographic patterns. Soft Matter, 2005, 1, 227.	2.7	60
6	Microwrinkles: Shape-tunability and applications. Journal of Colloid and Interface Science, 2012, 368, 1-8.	9.4	58
7	Geometry-Dependent Stripe Rearrangement Processes Induced by Strain on Preordered Microwrinkle Patterns. Langmuir, 2005, 21, 7230-7237.	3.5	55
8	Effect of various cations on the acidity of p-sulfonatocalixarenes. Supramolecular Science, 1998, 5, 9-14.	0.7	48
9	Enhanced Dynamic Adhesion in Nematic Liquid Crystal Elastomers. Advanced Materials, 2019, 31, e1902642.	21.0	48
10	Morphological Transformation of a Liquid Micropattern on Dynamically Tunable Microwrinkles. Langmuir, 2010, 26, 6127-6132.	3.5	42
11	Spatial Forcing of Selfâ€Organized Microwrinkles by Periodic Nanopatterns. Advanced Materials, 2007, 19, 3229-3232.	21.0	40
12	A liquid crystalline chirality balance for vapours. Nature Communications, 2014, 5, 3735.	12.8	36
13	Dynamics of surface memory effect in liquid crystal alignment on reconfigurable microwrinkles. Applied Physics Letters, 2009, 95, .	3.3	35
14	Wrinkles on a textile-embedded elastomer surface with highly variable friction. Soft Matter, 2016, 12, 6176-6183.	2.7	35
15	Giant nanomembrane of covalently-hybridized epoxy resin and silica. Journal of Materials Chemistry, 2009, 19, 2425.	6.7	34
16	Bases of Chemical Force Microscopy by Friction: Energetics and Dynamics of Wearless Friction between Organic Monolayers in Terms of Chemical and Physical Properties of Molecules. Japanese Journal of Applied Physics, 1999, 38, 3918-3931.	1.5	31
17	Molecular dynamics simulations of friction between an ordered organic monolayer and a rigid slider with an atomic-scale protuberance. Physical Review B, 2000, 62, 17055-17071.	3.2	30
18	Internal constraints and arrested relaxation in main-chain nematic elastomers. Nature Communications, 2021, 12, 787.	12.8	30

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19	Fabrication of Large, Robust Nanomembranes from Diverse, Cross-Linked Polymeric Materials. Macromolecules, 2007, 40, 1369-1371.	4.8	28
20	Light-Driven Dynamic Adhesion on Photosensitized Nematic Liquid Crystalline Elastomers. ACS Applied Materials & Interfaces, 2020, 12, 31992-31997.	8.0	28
21	Oscillating Friction on Shape-Tunable Wrinkles. ACS Applied Materials & Interfaces, 2014, 6, 10121-10131.	8.0	27
22	Synthesis and Micromechanical Properties of Flexible, Self-Supporting Polymerâ^'SiO2Nanofilms. Langmuir, 2007, 23, 2792-2799.	3.5	26
23	One-step fabrication of polymer thin films with lithographic bas-relief micro-pattern and self-organized micro-porous structure. Journal of Materials Science, 2004, 39, 2243-2247.	3.7	25
24	Orientational ordering of buckling-induced microwrinkles on soft substrates. Soft Matter, 2010, 6, 5729.	2.7	25
25	Manipulation of Liquid Filaments on Photoresponsive Microwrinkles. ACS Applied Materials & Interfaces, 2012, 4, 2212-2217.	8.0	25
26	Simulations of Wearless Friction at a Sliding Interface between Ordered Organic Monolayers. Japanese Journal of Applied Physics, 1998, 37, 6535-6543.	1.5	24
27	Dynamic Contact Guidance of Myoblasts by Feature Size and Reversible Switching of Substrate Topography: Orchestration of Cell Shape, Orientation, and Nematic Ordering of Actin Cytoskeletons. Langmuir, 2019, 35, 7538-7551.	3.5	24
28	Effect of thermal annealing and compression on the stability of microwrinkle patterns. Physical Review E, 2005, 72, 025203.	2.1	22
29	Uncovering different states of topological defects in schlieren textures of a nematic liquid crystal. Scientific Reports, 2017, 7, 16814.	3.3	22
30	Dynamic Manipulation of Friction in Smart Textile Composites of Liquidâ€Crystal Elastomers. Advanced Materials Interfaces, 2020, 7, 1901996.	3.7	22
31	Molecular dynamics simulation of non-contact atomic force microscopy of self-assembled monolayers on Au(111). Nanotechnology, 2004, 15, 710-715.	2.6	21
32	Focal conics in a smectic-A liquid crystal in microwrinkle grooves. Soft Matter, 2012, 8, 6438.	2.7	21
33	Formation of Hydroxyapatite Skeletal Materials from Hydrogel Matrices via Artificial Biomineralization. Journal of Physical Chemistry B, 2015, 119, 8793-8799.	2.6	21
34	Fluorescence microscopy reveals molecular localisation at line defects in nematic liquid crystals. Scientific Reports, 2016, 6, 36477.	3.3	21
35	Interpretation of Difference in Wearless Friction Observed between Ordered Organic Monolayers with CH3 and CF3 Terminal Groups. Japanese Journal of Applied Physics, 1999, 38, L675-L678.	1.5	20
36	Photo-enhanced Aqueous Solubilization of an Azo-compound. Scientific Reports, 2017, 7, 6909.	3.3	19

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37	Defect-mediated stripe reordering in wrinkles upon gradual changes in compression direction. Physical Review E, 2006, 73, 040601.	2.1	14
38	Formation of Peelable Rough Gold Patterns on an Ionic Liquid Template. Small, 2011, 7, 506-513.	10.0	14
39	Effects of surfactant concentration on formation of high-aspect-ratio gold nanorods. Journal of Colloid and Interface Science, 2013, 407, 265-272.	9.4	13
40	Unlocking Entropic Elasticity of Nematic Elastomers Through Light and Dynamic Adhesion. Advanced Materials Interfaces, 2021, 8, 2100672.	3.7	13
41	Simulations of friction anisotropy on ordered organic monolayer. Tribology Letters, 2000, 9, 63-67.	2.6	12
42	Molecular dynamics simulation of non-contact atomic force microscopy of an ordered monolayer consisting of single united atoms chemisorbed strongly on a continuum substrate. Applied Surface Science, 2003, 210, 117-122.	6.1	12
43	Â±1/2 wedge disclinations stabilized by a sinusoidal boundary in a thin hybrid nematic liquid-crystal film. Physical Review E, 2012, 86, 030701.	2.1	12
44	Transition of frustrated nematic order and fluctuation of topological defects in microwrinkle grooves. Soft Matter, 2012, 8, 11552.	2.7	12
45	Impact of Crystallites in Nematic Elastomers on Dynamic Mechanical Properties and Adhesion. Macromolecules, 2021, 54, 8987-8995.	4.8	12
46	Simulation of Strain-Induced Microwrinkle Pattern Dynamics with Memory Effect. Japanese Journal of Applied Physics, 2005, 44, 1055-1061.	1.5	11
47	Simple fabrication of ring-like microwrinkle patterns. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2006, 284-285, 505-508.	4.7	9
48	Fabrication of Large Nanomembranes by Radical Polymerization of Multifunctional Acrylate Monomers. Polymer Journal, 2008, 40, 379-382.	2.7	9
49	Liquid Crystal Alignment on Self-Organized Microwrinkles. Applied Physics Express, 0, 1, 065001.	2.4	9
50	Dewetting of a droplet induced by the adsorption of surfactants on a glass substrate. Soft Matter, 2014, 10, 5597.	2.7	9
51	Switchable bumps of a bead-embedded elastomer surface with variable adhesion. Soft Matter, 2017, 13, 9082-9086.	2.7	9
52	Control of cooperative switching of microwrinkle orientations by nanopatterns. Chaos, 2009, 19, 033104.	2.5	8
53	Effect of an Atomic Scale Protrusion on a Tip Surface on Molecular Stick-Slip Motion and Friction Anisotropy in Friction Force Microscopy. Japanese Journal of Applied Physics, 2000, 39, 6029-6034.	1.5	7
54	Tunable Friction Through Microwrinkle Formation on a Reinforced Rubber Surface. Tribology Letters, 2015, 60, 1.	2.6	7

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55	Negative fluorescence anisotropy of phosphole oxide-based dyes in nematic liquid crystals. Communications Chemistry, 2018, 1, .	4.5	7
56	Microscopy of Diffuse Nematicâ€“Isotropic Transition in Main-Chain Nematic Liquid-Crystal Elastomers. Macromolecules, 2021, 54, 3678-3688.	4.8	7
57	Phase-separated binary polymers spin coated onto microwrinkles. RSC Advances, 2012, 2, 2395.	3.6	6
58	Reinforced shape-tunable microwrinkles formed on a porous-film-embedded elastomer surface. Soft Matter, 2014, 10, 7165-7169.	2.7	5
59	Dynamics and Aggregate Structuring of Water Molecules in Edible Oil Analyzed by Dielectric Spectroscopy. Transactions of the Materials Research Society of Japan, 2018, 43, 201-204.	0.2	5
60	Control of the Long-axis Length of Gold Nanorods through Temperature Variation. Chemistry Letters, 2012, 41, 1173-1175.	1.3	4
61	Stabilized director buckling patterns in nematic elastomers and their dynamic optical effects. Communications Materials, 2022, 3, .	6.9	4
62	Hysteresis in Coupled Arrays of Bistable Microwrinkles. Applied Physics Express, 2008, 1, 065002.	2.4	3
63	Effects of photo-isomerizable side groups on the phase and mechanical properties of main-chain nematic elastomers. Polymer Chemistry, 2022, 13, 2694-2704.	3.9	3
64	IMPRINT OF HONEYCOMB PATTERN ON PDMS ELASTOMER. International Journal of Nanoscience, 2002, 01, 569-573.	0.7	2
65	Unique load dependency of static friction of wrinkles formed on textile-embedded elastomer surfaces. AIP Advances, 2017, 7, 055309.	1.3	2
66	Electrocapillary Phenomena at Edible Oil/Saline Interfaces. Journal of Oleo Science, 2017, 66, 235-249.	1.4	2
67	WRINKLE-INDUCED MICRORIDGE PATTERNS BY GLOBAL MECHANICAL STIMULI. International Journal of Nanoscience, 2006, 05, 913-917.	0.7	1
68	Anchoring of Liquid Crystals on Self-Organized Microwrinkles. IEICE Transactions on Electronics, 2009, E92-C, 1362-1365.	0.6	1
69	å‹•ã•ã›ã‚‹å¾®ç´°ã‚·ãƒ¯ãƒ»ãƒžã‚¯ãƒãƒªãƒ³ã‚¯ãƒ«ã¨ãã®å¿œç”¨. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 201	0.2	1
70	Capillary Phenomena on Dynamically Tunable Microwrinkles. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2013, 64, 34-37.	0.2	1
71	A two-step method for fabricating large-area textile-embedded elastomers for tunable friction. Royal Society Open Science, 2018, 5, 181169.	2.4	1
72	Directed Assembly of Gold Nanorods by Microwrinkles. Chemistry Letters, 2019, 48, 1292-1295.	1.3	1

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73	Defect structures in liquid crystals bounded by microwrinkles. Proceedings of SPIE, 2013, , .	0.8	0
74	Shape-Tunable Wrinkles for a Switchable Optical Diffuser. Kobunshi Ronbunshu, 2013, 70, 179-184.	0.2	0
75	Friction on Non-Uniform Wrinkled Surface. Kobunshi Ronbunshu, 2016, 73, 514-519.	0.2	0
76	Liquids on Shape-Tunable Wrinkles. Biologically-inspired Systems, 2018, , 133-168.	0.2	0
77	Site-specific attraction dynamics of surface colloids driven by gradients of liquid crystalline distortions. Soft Matter, 2019, 15, 983-988.	2.7	0
78	IMPRINT OF HONEYCOMB PATTERN ON PDMS ELASTOMER. , 2003, , .		0
79	Hysteretic Behavior in Responses of Microwrinkle Patterns to Mechanical Strain. Hyomen Kagaku, 2006, 27, 374-379.	0.0	0