List of All Publications（2025.07-2026.03）

Article Title	Author	Journal title	Publication information					DOI
			Year	month	Vol	Iss	Page	
Special Issue on Advanced Image Processing Techniques for Robotics and Automation (Part 2)	Yamashita, Atsushi Nakamura, Akio **Kurumisawa, Makoto**	INTERNATIONAL JOURNAL OF AUTOMATION TECHNOLOGY	2025	JUL	19	4(SI)	553-553	10.20965/ijat.2025.p0553
Theoretical Study of Selective Etching Phenomena of SiO2 under High Temperature HF Gas-phase Condition by Catalytic Activity of Novolac-type Photoresist	**飛永諒介（AGC Inc.）** **小野良貴（AGC Inc.）** **佐野耕平（AGC Inc.）**	セラミックス	2025	JUL 1	60	7	463-466	
フォークリフトの安全確保　歩車分離活動～フォークリフト災害撲滅への挑戦～	**木村晃平（AGC AGC横浜テクニカルセ）**	安全と健康	2025	JUL 1	76	7	652-655	
In-situ Observation of Inclusion Formation Behaviors during Solidification Process Using Model Alloy	Kawanishi, Sakiko **Tsukahara, Yuki** Terashima, Shingo Nakao, Haruto Sukenaga, Sohei Shibata, Hiroyuki	ISIJ INTERNATIONAL	2025	JUL 15	65	8	1153-1161	10.2355/isijinternational.ISIJINT-2025-042
Quantifying Aesthetic Preferences for Diamond Videos Using Image Features	Hayakawa, Ren Shimizu, Yuki Kato, Takeo **Fukasawa, Yasuji** **Inoue, Aichi**	INTERNATIONAL JOURNAL OF AFFECTIVE ENGINEERING	2025	JUL 17	24	3	299-314	10.5057/ijae.IJAE-D-24-00055
Fluoroalkyl Chain End Groups Regulating Crystal/Amorphous Interfaces of Semicrystalline Polyethylene Films	Tashiro, Kaoru Oda, Tatsuro Mayumi, Koichi Ikeda, Osamu Koganezawa, Tomoyuki **Hommura, Satoru** **Okazoe, Takashi** Kawaguchi, Daisuke	MACROMOLECULES	2025	JUL 22	58	14	7367-7378	10.1021/acs.macromol.5c01276
Development of Water Reactive Potentials for Molecular Dynamics Simulations of Sodium Phosphate Glasses	Mahadevan, Thiruvilla S. Marchin, Navid **Urata, Shingo** Du, Jincheng	JOURNAL OF PHYSICAL CHEMISTRY C	2025	JUL 24	129	29	13420-13432	10.1021/acs.jpcc.5c02119
ラズベリー型粒子を用いた低ヘーズ超撥水ガラスの開発	**細野伶奈（AGC 材料融合研）**	液晶	2025	JUL 25	29	3	193-199	
Certification of boroxol ring population in vitreous B2O3 glass using theoretical simulations	**Urata, Shingo** **Lodesani, Federica**	MATERIALIA	2025	AUG	42		Article Number：102474	10.1016/j.mtla.2025.102474
Early and advanced crystallization stages in lithia-alumina-silica glasses nucleated by ZrO2	Revelo, Raul Julian Souza, Mauricio Lima Pena, Rafaella Bartz **Yoshida, Satoshi** Zanotto, Edgar Dutra	CERAMICS INTERNATIONAL	2025	AUG	51	20 Part A	30416-30428	10.1016/j.ceramint.2025.04.235
Leveraging LLMs to identify patent-free glass materials	**Urata, Shingo** **Miya, Naoyuki** **Hashimoto, Ryusei** **Konishi, Teppei** **Fujii, Kensuke** **Murakami, Yumiko** **Kanehara, Kazuki**	COMPUTATIONAL MATERIALS SCIENCE	2025	AUG	258		Article Number：114022	10.1016/j.commatsci.2025.114022
Machine-Learning Molecular Dynamics Study on the Structure and Glass Transition of Calcium Aluminosilicate Glasses	**Kato, Takeyuki** Kayano, Ryuki Ohkubo, Takahiro	JOURNAL OF PHYSICAL CHEMISTRY B	2025	AUG 8	129	33	8561-8572	10.1021/acs.jpcb.5c03404
FDTD Analysis of On-Glass Dipole Antenna Mounted in Full-Scale Vehicle on Flat Earth	Uno, Toru Abe, Yuya Arima, Takuji **Arai, Keisuke** **Kagaya, Osamu**	IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION	2025	AUG 11	73	11	9297-9305	10.1109/TAP.2025.3595915
CO2 transport behavior in poly (fluoroalkyl acrylate) and poly(fluoroalkyl methacrylate): a comparative study of fluoropolymer structure-property relationships	Feng, Sinan Zhang, Yucheng **Otozawa, Nobuyuki** Murata, Shinichi Takahara, Atsushi	SOFT MATTER	2025	AUG 13	21	32	6383-6390	10.1039/d5sm00413f

Article Title	Author	Journal title	Publication information					DOI
			Year	month	Vol	Iss	Page	
A topology optimization method for managing transient thermal and vibration effects with eigenvalues and steady-state constraints	Onodera Shuya (Department of Mechanical Engineering, Graduate School of Engineering, The University of Tokyo, Yayoi 2-11-16, Bunkyo-ku, 113-8656, Tokyo, Japan) **Onodera Shuya (AGC Inc.)** Yamada Takayuki (Department of Mechanical Engineering, Graduate School of Engineering, The University of Tokyo) Yamada Takayuki (Department of Strategic Studies, Institute of Engineering Innovation, Graduate School of Engineering, The University of Tokyo)	International Journal of Heat and Mass Transfer	2025	AUG 15	246		Article Number：127083	10.1016/j.ijheatmasstransfer.2025.127083
Damage-Free Vertical Microfabrication of α-Quartz via HF Gas-Phase Catalyst Etching	**Sano, Ko-hei Ono, Yoshitaka Tsukiyama, Keishi Nagai, Sho Saito, Atsushi Hayashi, Yasuo** Yanagitani, Takahiko	ACS APPLIED MATERIALS & INTERFACES	2025	AUG 27	17	34	48932-48940	10.1021/acsami.5c10265
Effect of Zn doping on p-type conduction of y-CuI studied by X-ray fluorescence holography and positron annihilation spectroscopy	Kitaura, Mamoru Kimura, Koji Sekhar, Halubai Hayashi, Koichi Michishio, Koji Ishizaki, Manabu Hayasaka, Takahiro Kinomura, Atsushi **Watanabe, Shinta**	JOURNAL OF THE CERAMIC SOCIETY OF JAPAN	2025	SEP	133	9	515-520	10.2109/jcersj2.25054
傾斜密度ラティス構造を用いたプレス金型の圧力分布変動の抑制	**柳原一貴 (AGC 先端基盤研)** 竹澤晃弘 (早稲田大 理工学術院 基幹理工学部)	機械の研究	2025	SEP 1	77	9	625-632	
洗浄剤・洗浄技術の動向 環境と安全性に対応した洗浄剤の動向	**花田毅 (AGC 化学品カンパニー)**	潤滑経済	2025	SEP 5		726	18-23	
Environmental performance required for glass as an acoustic material	山出昌紀 (セントラル硝子ブロダクツ) **上沢聡史 (AGC)** 山下厳己 (日本板硝子)	音響技術	2025	SEP 15	54	3	28-33	
Hydrophobicity-Governed Protein Adsorption on Poly(ω-methoxyalkyl acrylate) Surfaces: A Coarse-Grained Molecular Dynamics Study	Yadav, Hari O. S. **Kuo, An-Tsung Urata, Shingo Funahashi, Kosuke Imamura, Yutaka** Shinoda, Wataru	JOURNAL OF CHEMICAL THEORY AND COMPUTATION	2025	SEP 23	21	20	10561-10573	10.1021/acs.jctc.5c01218
太陽光発電のさらなる可能性 発電するガラス 未来を変える建材一体型発電ガラス:サンジュールの最前線	**川野辺毅 (AGC)**	省エネルギー	2025	SEP 30	77	10	38-41	
Construction of a heterologous protein secretion system using the protein disulfide isomerase Pdi1p in Schizosaccharomycespombe	Tominaga, Akihiro **Kotani, Tetsuya** Watanabe, Masahiro Takegawa, Kaoru	Journal of Bioscience and Bioengineering	2025	OCT	140	4	237-243	10.1016/j.jbiosc.2025.07.003
Extracting effective solutions hidden in large language models via generated comprehensive specialists: case studies in developing electronic devices	Tomita, Hikari **Nakamura, Nobuhiro** Ishida, Shoichi Kamiya, Toshio Terayama, Kei	COMMUNICATIONS MATERIALS	2025	OCT 6	6	1	Article Number：207	10.1038/s43246-025-00946-5

Article Title	Author	Journal title	Publication information					DOI
			Year	month	Vol	Iss	Page	
1D Silver Organochalcogenide Semiconductors: Color Tunable Luminescence, Polarized Emission, and Long-Range Exciton Diffusion	**Sakurada, Tomoaki** Pathoor, Nithin Matsumoto, Takuma Khamlue, Rattapon Chatsiri, Petcharaphorn Valenta, Jan Kawamoto, Tadashi Omagari, Shun Tisdale, William A. Paritmongkol, Watcharaphol Cho, Yeongsu Vacha, Martin	Journal of the American Chemical Society	2025	OCT 14	147	43	39516-39526	10.1021/jacs.5c12551
Chelation-Driven Dissolution and Single-Crystal Growth of Hybrid Metal Organochalcogenide Semiconductors by Polydentate Amines	Khamlue, Rattapon Chatsiri, Petcharaphorn **Sakurada, Tomoaki** Chotimook, Jesadaporn Leangtanom, Pimpan Prayongkul, Pongkamon Atithep, Thassanant Padchasri, Jintara Kidkhunthod, Pinit Vacha, Martin Pattanasattayavong, Pichaya Paritmongkol, Watcharaphol	JOURNAL OF THE AMERICAN CHEMICAL SOCIETY	2025	OCT 15	147	41	37242-37254	10.1021/jacs.5c10260
Controlling the valence change of sulfur in glass during S K-edge XAFS measurements by conductive coating	**Saijo, Yoshitaka** **Ozawa, Saki** **Miyajima, Tatsuya** **Watanabe, Shinta** **Hijiya, Hiroyuki** Ninomiya, Kakeru Nishibori, Maiko	JOURNAL OF NON-CRYSTALLINE SOLIDS	2025	OCT 15	666		Article Number：123694	10.1016/j.jnoncrysol.2025.123694
2025年度ロジスティクス大賞—受賞企業に学ぶロジスティクス高度化の事例—共同輸送データベースの普及によるフィジカルインターネットの実現に向けて	小島薫（運輸デジタルビジネス協議会）**田中真史（AGC）**	ロジスティクスシステム	2025	OCT 28	34	4	10-19	
Atomistic simulation of nanoscale phase separation in borosilicate glass melts	Kim, Hongyeun **Yoshida, Satoshi** **Hayashi, Kazutaka** Mauro, John C.	JOURNAL OF THE AMERICAN CERAMIC SOCIETY	2025	NOV	108	11	Article Number：e70105	10.1111/jace.70105
Rectifying fracture toughness of oxide glasses by eliminating chronological artifacts	Zhou, Hemin **Nagano, Mikio** **Watanabe, Masari** **Hayashi, Kazutaka** **Yoshida, Satoshi** Tao, Haizheng	JOURNAL OF NON-CRYSTALLINE SOLIDS	2025	NOV 1	667		Article Number：123730	10.1016/j.jnoncrysol.2025.123730
Structures of sodium aluminophosphate glasses from molecular dynamics simulations and experimental validation	Marchin, Navid **Watanabe, Masari** **Kobayashi, Taro** **Lodesani, Federica** **Urata, Shingo** Du, Jincheng	JOURNAL OF THE AMERICAN CERAMIC SOCIETY	2025	NOV 24	109	1	Article Number：e70324	10.1111/jace.70324
Perfluoroalkyl Chain-Modified Artificial Viral Capsid for Enhanced Intracellular Delivery of mRNA	Ghosh, Avijit Yamamoto, Yuka Wada, Mizuki Inaba, Hiroshi Aikawa, Kohsuke **Ota, Yu** **Okazoe, Takashi** Matsuura, Kazunori	BIOCONJUGATE CHEMISTRY	2025	NOV 28	36	12	2627-2636	10.1021/acs.bioconjchem.5c00477
Sulphur valence depth profile on the surface of float glass using EPMA with a step-wise etching technique	**Saijo, Yoshitaka** **Harako, Susumu**	PHYSICS AND CHEMISTRY OF GLASSES-EUROPEAN JOURNAL OF GLASS SCIENCE AND TECHNOLOGY PART B	2025	DEC	66	6	272-272(1)	10.13036/17533562.66.6.A18
Development and Implementation of a Practical Spectral Analysis System for BL07U at NanoTerasu, a Next-Generation Synchrotron Radiation Facility	**冨依勇佑（AGC株式会社）**	計測と制御	2025	DEC 10	64	12	863-867	10.11499/sicejl.64.863

Article Title	Author	Journal title	Publication information					DOI
			Year	month	Vol	Iss	Page	
Fluid Jet Polishing of Glass Surfaces to Achieve Nanoroughness for Dust Mitigation of Optical Systems	Nitano, Ryudai Yamato, Shuntaro **Mineyuki, Nobuya** **Yasuda, Kohei** Adachi, Masato	ACS OMEGA	2025	DEC 14	10	51	63369-63379	10.1021/acsomega.5c09947
Impact of phase separation on the mechanical response of borosilicate glass: A hybrid Monte Carlo/molecular dynamics study	Kim, Hongyeun **Yoshida, Satoshi** **Hayashi, Kazutaka** Mauro, John C.	JOURNAL OF THE AMERICAN CERAMIC SOCIETY	2025	DEC 14	109	1	Article Number：e70449	10.1111/jace.70449
Electroless Cu plating on glass substrates via repeated Sn-sensitization and Pd-activation cycles without adhesion promoter layers	**Nakao, Keisuke** **Nagai, Sho** **Hayashi, Yasuo** Matsumoto, Futoshi	THIN SOLID FILMS	2025	DEC 15	832		Article Number：140825	10.1016/j.tsf.2025.140825
Simulations of mechanical responses in v-B2O3 glass under indentation and shear deformation	**Urata, Shingo**	JOURNAL OF THE AMERICAN CERAMIC SOCIETY	2025	DEC 16	109	1	Article Number：e70438	10.1111/jace.70438
Comparative evaluation of quantifiable PFAS generated as byproducts from polytetrafluoroethylene (PTFE) incineration	Fujimori, Takashi Saido, Ayame Murakami, Taichi Mine, Takaki **Okamoto, Hidekazu**	JOURNAL OF FLUORINE CHEMISTRY	2026	JAN	289		Article Number：110523	10.1016/j.jfluchem.2025.110523
Thermal fracture phenomenon in laser-assisted direct glass imprinting (LADGI)	**Mitsuda, Takehiro** Nagato, Keisuke Nakao, Masayuki	JOURNAL OF MATERIALS PROCESSING TECHNOLOGY	2026	JAN	347		Article Number：119131	10.1016/j.jmatprotec.2025.119131
Prospects and Key Technologies of Glass Core as a Next Generation Substrate Material	**Ito, Masabumi** **Nakano, Masanori** **Maehara, Terutaka** **Hayashi, Kazutaka** **Sato, Yoichiro** **Takahashi, Yoshiki** **Takada, Hideaki** **Yu, Joanne** **Nakao, Keisuke** **Uemura, Naoki** **Horiuchi, Kohei** **Hirabayashi, Yusuke**	自動車技術	2026	JAN	80	1	114-120	
Overview and Initiatives of the New Yokohama Site	**菅野亮 (AGC)**	Pharm Tech Japan	2026	JAN 1	42	1	103-109	
Massive Metasurface-Assisted Multidirectional Beam Shaping: Prototyping and Outdoor Experimental Results in Millimeter-Wave Band	Yoneda, Takumi Murakami, Tomoki **Yoshida, Sho** **Sayama, Toshiki** **Kagaya, Osamu** Mohri, Dan Suyama, Satoshi Chang, Yuyuan Jiang, Huiling Takatori, Yasushi	IEEE ACCESS	2026	JAN 12	14		11942-11952	10.1109/ACCESS.2026.3653453
Autonomous parameter exploration in thermoplastic material-extrusion additive manufacturing using Bayesian optimization with intermediate features	Sakai, Yoshiki Aono, Kota Osa, Takayuki Zhao, Moju **Tagata, Hirotoshi** **Nakano, Masanori** **Suguro, Akio** Nakao, Masayuki Nagato, Keisuke	JOURNAL OF MANUFACTURING PROCESSES	2026	JAN 17	157		798-807	10.1016/j.jmapro.2025.12.021
Brillouin Optical Correlation-Domain Reflectometry With Polymer Fibers Under Scrambled Polarization Enabled by Angled Connections	Shirai, Shimbu **Kobayashi, Yoshikazu** **Kimoto, Osakazu** Ioannou, Andreas Kalli, Kyriacos Mizuno, Yosuke	ADVANCED SENSOR RESEARCH	2026	FEB	5	2	Article Number：e00165	10.1002/adsr.202500165
Transfer decoration technique on glass curved in three-axis direction: Selective placement of decoration layers by reverse prediction	**Maki, Yoshihiro** **Kakuta, Junichi** **Arata, Kenji** **Mitsuda, Takehiro** Sekiguchi, Yu Sato, Chiaki	INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY	2026	FEB	142	11-12	5863-5877	10.1007/s00170-025-17348-z

Article Title	Author	Journal title	Publication information					DOI
			Year	month	Vol	Iss	Page	
Direct Fluorination of Ethylene-Tetrafluoroethylene Copolymer Films in Liquid Media	Yasuo, Eisuke Sugiyama, Masafumi **Ishibashi, Yuichiro** **Hommura, Satoru** **Okazoe, Takashi** Kuwamoto, Shigeo Ohta, Noboru Kawaguchi, Daisuke	MACROMOLECULES	2026	FEB 10	59	3	1405-1415	10.1021/acs.macromol.5c03120
Rapid, accurate, and reagent-free determination of chlorine concentration in glass by femtosecond LA-ICP-MS/MS with a scanning galvo mirror system using hydrogen as reaction gas	**Saijo, Yoshitaka** **Murata, Makiko** **Hirata, Junichi**	JOURNAL OF ANALYTICAL ATOMIC SPECTROMETRY	2026	FEB 11	41	2	568-575	10.1039/d5ja00296f
Composition-dependent low-temperature bonding reactivity in multicomponent silicate glasses	**Nagai, Sho** **Tsukiyama, Keishi** **Nakao, Keisuke** **Hayashi, Yasuo** Oguchi, Kenichi Yui, Hiroharu	APPLIED SURFACE SCIENCE	2026	FEB 28	720	Part B	Article Number：165221	10.1016/j.apsusc.2025.165221
Oxidation and Chlorination Reaction Characteristics: A Density Functional Theory Perspective toward the Fundamental Understanding of Etching of Ruthenium and Tantalum Surfaces	Varadwaj, Pradeep R. **Imamura, Yutaka** Asahi, Ryoji	ACS OMEGA	2026	MAR 1	11	9	14212-14223	10.1021/acsomega.4c11482
Redox Dynamics of Cerium Ions in Soda-Lime Glass During Cooling Analyzed by in situ X-Ray Absorption Fine Structure	**Ozawa, Saki** **Shiozawa, Yudai** **Saijo, Yoshitaka** **Miyajima, Tatsuya** Matsumura, Daiju Tsuji, Takuya Nakase, Masahiko Maehara, Terutaka	JOURNAL OF THE AMERICAN CERAMIC SOCIETY	2026	MAR 3	109	3	Article Number：e70621	10.1111/jace.70621
Deformability of Mg-aluminosilicate glass under high pressure and shear stress: dynamic coordination change of Al3+	Osada, Kosei Yamada, Akihiro Ohara, Koji **Yoshida, Satoshi** Matsuoka, Jun	PHYSICAL CHEMISTRY CHEMICAL PHYSICS	2026	MAR4	28	17	10474-10485	10.1039/d5cp03427b
外皮に関わる話題(3) 様々なガラスLow-E複層ガラスからウェルビーイングへの展望	**斉藤栄亮（AGC）**	空気調和・衛生工学	2026	MAR 5	100	3	205-212	
Synthesis of Poly(Methylsilsesquioxane-co-Dimethylsiloxane) Liquids With a Long Pot Life by Cosolvent-Free Water-Rich Dilute Acid-Catalyzed Hydrolytic Polycondensation With Aging	Inoue, Haruto Yoshida, Takuma Ishijima, Masanao **Yoshida, Satoshi** Kajihara, Koichi	PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE	2026	MAR 20	223	6	Article Number：e202500657	10.1002/pssa.202500657
In situ measurements of the elastic properties of an alkali-free alumino-borosilicate glass under high pressure	Yamada, Akihiro Mitsunaga, Kaori Nishikawa, Takaharu Higo, Yuji Sakai, Takeshi **Yoshida, Satoshi** Matsuoka, Jun	JOURNAL OF THE CERAMIC SOCIETY OF JAPAN	2026	APR	134	4	272-278	10.2109/jcersj2.25175
Anion Mask Strategy Enabling Organolithium Species Bearing Formyl Groups: Protecting-Group-Free Synthesis for Unsymmetric Dicarbonyl Arenes	Ashikari, Yosuke Kikuchi, Ryuhei Adachi, Moe **Soutome, Hiroki** Nagaki, Aiichiro	Journal of Organic Chemistry	2026	APR	91	18	6310-6316	10.1021/acs.joc.6c00108
Cooling Rate Effects on Thermal Expansion of Sodium Alkaline-Earth Aluminosilicate Glasses: Experiments and Simulations	**Kado, Rikiya** **Urata, Shingo**	Journal of the American Ceramic Society	2026	APR 3	109	4	e70706	10.1111/jace.70706
Correction: Rapid, accurate, and reagent-free determination of chlorine concentration in glass by femtosecond LA-ICP-MS/MS with a scanning galvo mirror system using hydrogen as reaction gas	**Saijo, Yoshitaka** **Murata, Makiko** **Hirata, Junichi**	Journal of Analytical Atomic Spectrometry	2026	APR 27	41	5	1964	10.1039/d6ja90019d