

GLASS MEETING 2020

The 61st Conference on Glass and Photonics Materials, International

The 12th International Conference on Advances in Fusion and Processing of Glass (AFPG2020)

The 16th Symposium of Glass Industry Conference of Japan (GIC)

The 2nd Workshop on Nuclear Waste Glasses and Related Materials

Student and Young Researcher Forum on Glass Research

December 7-10, and 16-18, 2020

On Web



Program for Time Zone, EST



The Ceramic
Society of Japan

GIC GLASS
INDUSTRY
CONFERENCE OF JAPAN

Frame and time table of GLASS MEETING 2020 on Web (Final version)

LIVE Keynote speeches and live **CLOSING** (only **JST**) are held at **ROOM Live**.

RECORDED Keynote speeches are given in every active rooms.

Region Asia (Time zone: JST)					Region Euro. (Time zone: CET)					Region USA (Time zone: EST)					Region USA (Time zone: PST)				
Date	Time	Room 1	Room 2	Room 3	Date	Time	Room 1	Room 2	Room 3	Date	Time	Room 1	Room 2	Room 3	Date	Time	Room 1	Room 2	Room 3
2020.12.07	0:00				2020.12.06	16:00				2020.12.06	10:00				2020.12.06	7:00			
	1:00					17:00					11:00					8:00			
	2:00					18:00					12:00					9:00			
	3:00					19:00					13:00					10:00			
	4:00					20:00					14:00					11:00			
	5:00					21:00					15:00					12:00			
	6:00					22:00					16:00					13:00			
	7:00					23:00					17:00					14:00			
	8:00	OPENING (8:40~)				2020.12.07	0:00				18:00					15:00			
	9:00					1:00					19:00					16:00			
	10:00	AFPG-D1-01-06	GS-D1-01-09			2:00					20:00					17:00			
	11:00					3:00					21:00					18:00			
	12:00					4:00					22:00					19:00			
	13:00	Lunch & break				5:00					23:00					20:00			
	14:00					6:00				2020.12.07	0:00					21:00			
	15:00	AFPG-D1-07-11	GS-D1-10-16			7:00					1:00					22:00			
	16:00					8:00	OPENING (8:40~)				2:00					23:00			
	17:00	LIVE KEYNOTE (Japan & Euro) Dr. Anne Faber				9:00	LIVE KEYNOTE (Japan & Euro) Dr. Anne Faber				3:00				2020.12.07	0:00			
	18:00					10:00					4:00					1:00			
	19:00					11:00	AFPG-D1-01-06	GS-D1-01-09			5:00					2:00			
	20:00					12:00					6:00					3:00			
	21:00					13:00					7:00					4:00			
	22:00					14:00	Lunch & break				8:00	OPENING (8:40~)				5:00			
	23:00					15:00					9:00	RECORDED KEYNOTE (Japan & Euro) Dr. Anne Faber				6:00			
2020.12.08	0:00					16:00	AFPG-D1-07-11	GS-D1-10-16			10:00					7:00			
	1:00					17:00					11:00	AFPG-D1-01-06	GS-D1-01-09			8:00	OPENING (8:40~)		
	2:00					18:00					12:00					9:00	RECORDED KEYNOTE (Japan & Euro) Dr. Anne Faber		
	3:00					19:00					13:00					10:00			
	4:00					20:00					14:00	Lunch & break				11:00			
	5:00					21:00					15:00					12:00	AFPG-D1-01-06	GS-D1-01-09	
	6:00					22:00					16:00					13:00			
	7:00					23:00					17:00	AFPG-D1-07-11	GS-D1-10-16			14:00	Lunch & break		
	8:00	LIVE KEYNOTE (Japan & USA) Prof. Ian Pegg				2020.12.08	0:00				18:00	LIVE KEYNOTE (Japan & USA) Prof. Ian Pegg				15:00	LIVE KEYNOTE (Japan & USA) Prof. Ian Pegg		
	9:00					1:00					19:00					16:00			
	10:00	AFPG-D2-01-05	GS-D2-01-08	NWG-D2-01-06		2:00					20:00					17:00	AFPG-D1-07-11	GS-D1-10-16	
	11:00					3:00					21:00					18:00			
	12:00	Lunch & break				4:00					22:00					19:00			
	13:00	Student and Young Researcher Forum Part 1				5:00					23:00					20:00			
	14:00					6:00				2020.12.08	0:00					21:00			
	15:00	Student and Young Researcher Forum Part 2				7:00					1:00					22:00			
	16:00					8:00					2:00					23:00			
	17:00	LIVE KEYNOTE (Japan & Euro) Dr. Eric Muijsenberg				9:00	LIVE KEYNOTE (Japan & Euro) Dr. Eric Muijsenberg				3:00				2020.12.08	0:00			
	18:00					10:00					4:00					1:00			
	19:00					11:00	AFPG-D2-01-05	GS-D2-01-08	NWG-D2-01-06		5:00					2:00			
	20:00					12:00					6:00					3:00			
	21:00					13:00	Lunch & break				7:00					4:00			
	22:00					14:00	RECORDED KEYNOTE (Japan & USA) Prof. Ian Pegg				8:00					5:00			
	23:00					15:00					9:00	RECORDED KEYNOTE (Japan & Euro) Dr. Eric Muijsenberg				6:00			
2020.12.09	0:00					16:00	Student and Young Researcher Forum Part 1				10:00					7:00			
	1:00					17:00	Student and Young Researcher Forum Part 2				11:00	AFPG-D2-01-05	GS-D2-01-08	NWG-D2-01-06		8:00	RECORDED KEYNOTE (Japan & Euro) Dr. Eric Muijsenberg		
	2:00					18:00					12:00					9:00	AFPG-D2-01-05	GS-D2-01-08	NWG-D2-01-06
	3:00					19:00					13:00	Lunch & break				10:00			
	4:00					20:00					14:00	Student and Young Researcher Forum Part 1				11:00			
	5:00					21:00					15:00	Student and Young Researcher Forum Part 2				12:00	Lunch & break		
	6:00					22:00					16:00					13:00	Student and Young Researcher Forum Part 1		
	7:00					23:00					17:00					14:00	LIVE KEYNOTE (Japan & USA) Prof. Shifeng Zhou		
	8:00	LIVE KEYNOTE (Japan & USA) Prof. Shifeng Zhou				2020.12.09	0:00				18:00	LIVE KEYNOTE (Japan & USA) Prof. Shifeng Zhou				15:00	LIVE KEYNOTE (Japan & USA) Prof. Shifeng Zhou		
	9:00	LIVE KEYNOTE (Japan & USA) Dr. Joseph Ryan				1:00					19:00	LIVE KEYNOTE (Japan & USA) Dr. Joseph Ryan				16:00	LIVE KEYNOTE (Japan & USA) Dr. Joseph Ryan		
	10:00					2:00					20:00					17:00	Student and Young Researcher Forum Part 2		
	11:00		GS-D3-01-05	NWG-D3-01-05		3:00					21:00					18:00			
	12:00					4:00					22:00					19:00			
	13:00	Lunch & break				5:00					23:00					20:00			
	14:00					6:00					2020.12.09	0:00				21:00			
	15:00		GS-D3-06-09	NWG-D3-06-09		7:00					1:00					22:00			
	16:00					8:00					2:00					23:00			
	17:00	LIVE KEYNOTE (Japan & Euro) Prof. Tangyu Rouxel				9:00	LIVE KEYNOTE (Japan & Euro) Prof. Tangyu Rouxel				3:00				2020.12.09	0:00			
	18:00	CLOSING (LIVE)				10:00					4:00					1:00			
	19:00					11:00		GS-D3-01-06	NWG-D3-06-09		5:00					2:00			
	20:00					12:00					6:00					3:00			
	21:00					13:00	Lunch & break				7:00					4:00			
	22:00					14:00	RECORDED KEYNOTE (Japan & USA) Prof. Shifeng Zhou				8:00					5:00			
	23:00					15:00	RECORDED KEYNOTE (Japan & USA) Dr. Joseph Ryan				9:00	RECORDED KEYNOTE (Japan & Euro) Prof. Tangyu Rouxel				6:00			
2020.12.10	0:00					16:00					10:00					7:00			
	1:00					17:00		GS-D3-07-13	NWG-D3-01-05		11:00		GS-D3-01-06	NWG-D3-01-05		8:00	RECORDED KEYNOTE (Japan & Euro) Prof. Tangyu Rouxel		
	2:00					18:00					12:00					9:00			
	3:00					19:00	CLOSING (RECORDED)				13:00	Lunch & break				10:00			
	4:00					20:00					14:00					11:00		GS-D3-01-05	NWG-D3-01-05
	5:00					21:00					15:00		GS-D3-07-13	NWG-D3-06-09		12:00			
	6:00					22:00					16:00					13:00	Lunch & break		
	7:00					23:00					17:00					14:00	CLOSING (RECORDED)		
	8:00					0:00					18:00					15:00		GS-D3-07-13	NWG-D3-06-09
	9:00					1:00					19:00					16:00	CLOSING (RECORDED)		
	10:00					2:00					20:00					17:00			
	11:00					3:00					21:00					18:00			
	12:00					4:00					22:00					19:00			
	13:00					5:00					23:00					20:00			
	14:00					6:00					2020.12.10	0:00				21:00			
	15:00					7:00					1:00					22:00			
	16:00					8:00					2:00					23:00			
	17:00					9:00					3:00					2020.12.10	0:00		

2020.12.16	0:00	Random access to all presentations available with answer to the given Qs	2020.12.16	0:00	Random access to all presentations available with answer to the given Qs	2020.12.16	0:00	Random access to all presentations available with answer to the given Qs	2020.12.16	0:00	Random access to all presentations available with answer to the given Qs
	12:00			12:00			12:00			12:00	
2020.12.17	0:00			2020.12.17		0:00			2020.12.17	0:00	
	12:00			12:00			12:00			12:00	
2020.12.18	0:00		2020.12.18	0:00		2020.12.18	0:00		2020.12.18	0:00	
	12:00			12:00			12:00			12:00	
2020.12.19	0:00		2020.12.19	0:00		2020.12.19	0:00		2020.12.19	0:00	

LIST OF KEYNOTE SPEECHES

TIME ZONE	TIME ZONE	TIME ZONE	TIME ZONE	SPEAKER	INSTITUTE	TITLE	Chairman
JST	CET	EST	PST				
17:00 2020/12/7 LIVE	9:00 2020/12/7 LIVE	9:00 2020/12/7 RECORDED	9:00 2020/12/7 RECORDED	Anne Jans Faber	CelSian Glass & Solar	Towards CO2-free glass manufacturing: technological challenges	Noriyuki Yoshida (NEG)
8:00 2020/12/8 LIVE	14:00 2020/12/8 RECORDED	18:00 2020/12/8 LIVE	15:00 2020/12/8 LIVE	Ian L. Pegg	The Catholic University of America	Vitrification of Nuclear Wastes	Takahiro Ishio (JNFL)
16:50 2020/12/8 LIVE	8:50 2020/12/8 LIVE	8:50 2020/12/8 RECORDED	7:50 2020/12/8 RECORDED	Erik Muijsenberg	GLASS SERVICE	Recent Trends in European Glass Industry	Noriyuki Yoshida (NEG)
8:00 2020/12/9 LIVE	14:00 2020/12/9 RECORDED	18:00 2020/12/8 LIVE	15:00 2020/12/8 LIVE	Shifeng Zhou	South China University of Technology	Multicomponent Photonic Glasses and Fibers	Yoshihiro Takahashi (Tohoku University)
9:00 2020/12/8 LIVE	15:00 2020/12/9 RECORDED	19:00 2020/12/8 LIVE	16:00 2020/12/8 LIVE	Joseph Ryan	Pacific Northwest National Laboratory	Evaluating an Uncertain Future: International efforts to develop the scientific basis for the long-term behavior of high-level nuclear waste glass	Seiichiro Mitsui (JAEA)
16:50 2020/12/9 LIVE	8:50 2020/12/9 LIVE	8:50 2020/12/9 RECORDED	8:50 2020/12/9 RECORDED	Tanguy Rouxel	University of Rennes 1	What we can learn from the mechanical behavior of glasses about their atomic and molecular structure	Satoshi Yoshida (AGC)

PROGRAM @ ROOM Live in Time Zone, EST

DATE	TIME ZONE EST	PAPER No.	TITLE	SPEAKER	INSTITUTE
2020/12/7	18:00	KEYNOTE SPEECH (Chair : Takahiro Ishio)	Vitrification of Nuclear Wastes	Ian L. Pegg	The Catholic University of America

DATE	TIME ZONE EST	PAPER No.	TITLE	SPEAKER	INSTITUTE
2020/12/8	18:00	KEYNOTE SPEECH (Chair : Yoshihiro Takahashi)	Multicomponent Photonic Glasses and Fibers	Shifeng Zhou	South China University of Technology
2020/12/8	19:00	KEYNOTE SPEECH (Chair : Seiichiro Mitsui)	Evaluating an Uncertain Future: International efforts to develop the scientific basis for the long-term behavior of high-level nuclear waste glass	Joseph Ryan	Pacific Northwest National Laboratory

DATE	TIME ZONE EST	PAPER No.	TITLE	SPEAKER	INSTITUTE
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PROGRAM @ ROOM 1 in Time Zone, EST

DATE	TIME ZONE EST	PAPER No.	TITLE	SPEAKER	INSTITUTE
2020/12/7	8:40	OPENING ceremony		T. Yano, H. Yamazaki, H. Wakatsuki	
2020/12/7	9:00	KEYNOTE SPEECH (Chair : Noriyuki Yoshida) RECORDED		Anne Jans Faber	CelSian Glass & Solar
2020/12/7	10:00	AFPG-D1-01	(INVITED) Characterizations of the Batch-to-Melt Conversion Process of Alkaline Earth Aluminoborosilicate Glass	Hong Li	Nippon Electric Glass Co., Ltd.
	10:30	AFPG-D1-02	Advances in the assessment of energy demand and turnover kinetics of glass melting	Reinhard Conradt	uniGlassAC
	11:00	AFPG-D1-03	Tracking batch in glass furnaces using Machine Learning and Deep Neural Networks	Matthew Gillott	AMETEK Land
	11:30	AFPG-D1-04	nanoplat-DT, new ODS material for melter	Takanobu Miyashita	TANAKA Kikinzoku Kogyo K.K.
	12:00	Break (15 min)			
	12:15	AFPG-D1-05	(INVITED) Thermodynamic database of molten oxide and its application to Glass Science	Toru Sugawara	Akita University
	12:45	AFPG-D1-06	(INVITED) Measurement and interpretation of physical properties for multicomponent silicate melts	Sohei SUKENAGA	Tohoku University
	13:15	Lunch & break			
	15:00	AFPG-D1-07	(INVITED) How RHI Magnesita ensures the quality of its refractory products for the Glass Industry	Stefan Postrach	RHI Magnesita
	15:30	AFPG-D1-08	Effects of heat treatment on properties of iron-containing float glass	Koichi Sakaguchi	Nippon Sheet Glass, Co., Ltd.
	16:00	AFPG-D1-09	Effect of chemical strengthening on dimensional changes of Falcon Glass	Celine Ragoen	AGC Glass Europe
	16:30	Break (15 min)			

	16:45	AFPG-D1-10	Analysis of bubble gas composition by Raman spectroscopy	Kimiyasu Okumura	Nippon Electric Glass Co.,Ltd.
	17:15	AFPG-D1-11	Bayesian Statistical Modeling for Glass Density Prediction	Koichi Shiraki	Nippon Sheet Glass, Co., Ltd.
2020/12/7	18:00	KEYNOTE SPEECH (Chair : Takahiro Ishio) move to ROOM 0	Vitrification of Nuclear Wastes	Ian L. Pegg	The Catholic University of America
2020/12/8	8:50	KEYNOTE SPEECH (Chair : Noriyuki Yoshida) RECORDED	Recent Trends in European Glass Industry	Erik Muijsenberg	GLASS SERVICE
2020/12/8	10:15	AFPG-D2-01	(INVITED) Low CO2 Melting: All-electric or Hybrid Technology?	Andrew Reynolds	Fives Stein Ltd
	10:45	AFPG-D2-02	(INVITED) Designing glass batches for the future	Hans van Limpt	Sibelco
	11:15	Break (15 min)			
	11:30	AFPG-D2-03	(INVITED) Heat Oxy-combustion and Hydrogen for glass melting: the route toward CO2 neutrality	Chikashi KIMURA	Air Liquide Japan G.K.
	12:00	AFPG-D2-04	Semi-dry exhaust gas treatment for glass bottle furnace using a plasma-chemical hybrid process	Hashira YAMAMOTO	Nihon Yamamura Glass Co., Ltd.
	12:30	Lunch & break			
2020/12/8	14:00	Student and Young Researcher Forum on Glass Research Part 1 (See SYRF program)			
2020/12/8	16:00	Student and Young Researcher Forum on Glass Research Part 2 (See SYRF program)			
2020/12/8	18:00	KEYNOTE SPEECH (Chair : Yoshihiro Takahashi) move to ROOM Live	Multicomponent Photonic Glasses and Fibers	Shifeng Zhou	South China University of Technology

2020/12/8	19:00	KEYNOTE SPEECH (Chair : Seiichiro Mitsui) move to ROOM Live	Evaluating an Uncertain Future: International efforts to develop the scientific basis for the long-term behavior of high-level nuclear waste glass	Joseph Ryan	Pacific Northwest National Laboratory
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PROGRAM @ ROOM 2 in Time Zone, EST

DATE	TIME ZONE EST	PAPER No.	TITLE	SPEAKER	INSTITUTE
2020/12/7	8:40	OPENING ceremony		T. Yano, H. Yamazaki, H. Wakatsuki	
2020/12/7	9:00	KEYNOTE SPEECH (Chair : Noriyuki Yoshida) RECORDED	Towards CO2-free glass manufacturing: technological challenges	Anne Jans Faber	CelSian Glass & Solar
2020/12/7	10:00	GS-D1-01	(INVITED) Improving Bioactive Glass Functionality by Ionic Substitutions	Delia Brauer	Friedrich Schiller University Jena
	10:40	GS-D1-02	Structural study and biological activity of borate glasses	Sara Aqdim	University Hassan II of Casablanca
	11:00	GS-D1-03	Characterization of porous glass microspheres for doxorubicin administration	Bryan Alexander Escalante Castro	Medical and Industrial Application Division Nuclear Materials Department Bariloche Atomic Centre
	11:20	GS-D1-04	Crystallization mechanism of Na ₂ MgxFe _{1-x} P ₂ O ₇ glass for sodium ion battery	Tsuyoshi Honma	Nagaoka University of Technology
	11:40	GS-D1-05	Preparation of oxide-based sodium all-solid-state batteries by laser irradiation	Masafumi Hiratsuka	Nagaoka University of Technology
	12:00	GS-D1-06	Preparation of all-solid-state Na battery using 5 V class cathode glass-ceramics	YONGZHENG JI	Nagaoka University of Technology
	12:20	GS-D1-07	A transferable force field for lithium phosphosulfide solid electrolytes	Shunsuke Ariga	Chiba University
	12:40	GS-D1-08	(INVITED) Taiwan Circular Economy of Glass Industry	TING-AN WU	Spring Pool Glass Ind. CO
	13:20	GS-D1-09	Glass Recycling Case Studies by Local Public Technology Centers in Japan	Hiroyuki Inano	Hokkaido Research Organization
	13:40	Lunch & break			
	15:00	GS-D1-10	(INVITED) Impact of Structural Ordering on Vitrification and Crystallization	Hajime Tanaka	University of Tokyo
	15:40	GS-D1-11	An efficient computational procedure to obtain a more stable glass structure	Shingo Urata	AGC Inc.
	16:00	GS-D1-12	MD calculations for density at high temperature in R ₂ O-SiO ₂ glass melts	Chia-Lung Lee	Nippon Electric Glass
	16:20	GS-D1-13	(INVITED) Discovering New Glasses by Machine Learning and Network Topology	Mathieu Bauchy	University of California

	17:00	GS-D1-14	A machine learning approach to propose optimized glass compositions	Takuya Hori	Chiba University
	17:20	GS-D1-15	Neural network analysis of the viscosity of melt in the system SiO ₂ -Al ₂ O ₃ -CaO-MgO-Na ₂ O	Kazutaka Matsuyama	Akita University
	17:40	GS-D1-16	Neural network for predicting the fragility index and the temperature-dependency of viscosity	Daniel Cassar	Federal University of Sao Carlos
2020/12/7	18:00	KEYNOTE SPEECH (Chair : Takahiro Ishio) move to ROOM Live	Vitrification of Nuclear Wastes	Ian L. Pegg	The Catholic University of America
2020/12/8	8:50	KEYNOTE SPEECH (Chair : Noriyuki Yoshida) RECORDED	Recent Trends in European Glass Industry	Erik Muijsenberg	GLASS SERVICE
2020/12/8	10:00	GS-D2-01	(INVITED) Pressure Control of Fluctuation in Glass	Madoka Ono	Hokkaido University/ AGC
	10:40	GS-D2-02	Relationship between the First Sharp Diffraction Peak and Physical Properties of SiO ₂ Glasses Possessing Different Fictive Temperatures	Hirokazu Masai	National Institute of Advanced Industrial Science and Technology
	11:00	GS-D2-03	Structural Modeling and Vibrational Analysis of the La ₂ O ₃ -Ga ₂ O ₃ Binary Glass Synthesized by an Aerodynamic Levitation	Kohei Yoshimoto	Nikon Corporation
	11:20	GS-D2-04	Poly(phenyl-co-n-alkylsilsesquioxane) and poly(phenyl-co-vinylsilsesquioxane) glasses with low melting temperatures prepared by cosolvent-free hydrolytic polycondensation of organotrimethoxysilanes	Koichi Kajihara	Tokyo Metropolitan University
	11:40	GS-D2-05	Viscoelastic behavior of sodium borosilicate glasses from room temperature to deformation temperature	Naoyuki Kitamura	National Institute of Advanced Industrial Science and Technology
	12:00	GS-D2-06	XAFS Investigation of Third-order Nonlinear Optical TeO ₂ -Ag ₂ O Glasses Controlled in Optical Bandgap	Tomokatsu Hayakawa	Nagoya Institute of Technology, Japan
	12:20	GS-D2-07	Structural, mechanical and optical properties of the TeO ₂ -ZnO-Na ₂ O ternary glass system	Jonathan de CLERMONT-GALLERAN	Nagoya Institute of Technology
	12:40	GS-D2-08	Photoluminescence properties and quantum efficiency of Nd ³⁺ -doped TeO ₂ -K ₂ O-Ga ₂ O ₃ glasses prepared with various crucibles	Natsumi Hosokawa	Nagoya Institute of Technology
	13:00	Lunch & break			
2020/12/8	14:00	Student and Young Researcher Forum on Glass Research Part 1 (See SRYRF program)			

2020/12/8	16:00	Student and Young Researcher Forum on Glass Research Part 2 (See SRYRF program)			
		KEYNOTE SPEECH			
2020/12/8	18:00	(Chair : Yoshihiro Takahashi)	Multicomponent Photonic Glasses and Fibers	Shifeng Zhou	South China University of Technology
		move to ROOM Live			
		KEYNOTE SPEECH			
2020/12/8	19:00	(Chair : Seiichiro Mitsui)	Evaluating an Uncertain Future: International efforts to develop the scientific basis for the long-term behavior of high-level nuclear waste glass	Joseph Ryan	Pacific Northwest National Laboratory
		move to ROOM Live			

		KEYNOTE SPEECH			
2020/12/9	8:50	(Chair : Satoshi Yoshida)	What we can learn from the mechanical behavior of glasses about their atomic and molecular structure	Tanguy Rouxel	University of Rennes 1
		RECORDED			
2020/12/9	10:00	GS-D3-01	Improvement in fracture toughness of soda-lime silicate glass via incorporation of silver nanoparticles	Lei Liu	National Institute of Advanced Industrial Science and Technology
	10:20	GS-D3-02	Dynamic indentation hardness of silicate glasses	Satoshi Yoshida	AGC Inc.
	10:40	GS-D3-03	(INVITED) Potential of Functional Silica Glass by Zeolite Method and Development of Specialty Fiber Elements	Yasushi Fujimoto	Chiba Institute of Technology
	11:20	GS-D3-04	Effect of high-repetition rate femtosecond laser pulses exposure on ternary tellurite glass	Gozden Torun	Ecole Polytechnique Fdrale de Lausanne
	11:40	GS-D3-05	Composition dependence of the Soret effect in binary B ₂ O ₃ -SiO ₂ glass melts	Kenzo Sato	Kyoto University
	12:00	GS-D3-06	Modification of thermochromic phosphate glass by CW-laser-induced metal microsphere migration	Tetsuo Kishi	Tokyo Institute of Technology
	12:20	Lunch & break			
	14:00	GS-D3-07	Enhancement of Pockels Effect in Nonlinear Optical Glass-Ceramics toward Optical Device	Yoshihiro Takahashi	Tohoku University
	14:20	GS-D3-08	Glass structure of fluoroborate glasses precipitate NaYF ₄ nanocrystals and nanocrystallization in melt-quenching process	Kenji Shinozaki	National Institute of Advanced Science and Technology (AIST)
	14:40	GS-D3-09	Effect of Li ₂ O on crystallization behavior in BaO-SiO ₂ glass	Takato Kajihara	AGC Inc.
	15:00	GS-D3-10	Transparent glass-ceramics with a high thermal conductivity of 3.3 W/(m K)	Nobuaki Terakado	Tohoku University

15:20	GS-D3-11	Oriented surface crystallization in 18BaO·22CaO·60SiO ₂ and MgO·CaO·2SiO ₂ glasses	Christopher Tielemann	Federal Institute for Materials Research and Testing - BAM
15:40	GS-D3-12	Silver - alkali borate glass pastes	Lina Heuser	Federal Institute for Materials Research and Testing (BAM)
16:00	GS-D3-13	(INVITED) Crystallization from Glass: Application to Transparent (Glass-)Ceramics	Mathieu Allix	Centre National de la Recherche Scientifique

2020/12/9

17:00

CLOSING

PROGRAM @ ROOM 3 in Time Zone, EST

DATE	TIME ZONE EST	PAPER No.	TITLE	PRESENTER	INSTITUTE
2020/12/7	18:00	KEYNOTE SPEECH (Chair : Takahiro Ishio) move to ROOM Live	Vitrification of Nuclear Wastes	Ian L. Pegg	The Catholic University of America
2020/12/8	8:50	KEYNOTE SPEECH (Chair : Noriyuki Yoshida) RECORDED	Recent Trends in European Glass Industry	Erik Muijsenberg	GLASS SERVICE
2020/12/8	10:00	NWG-D2-01	(INVITED) Current status and future plans of the development of vitrification technology in JNFL	Norie Hirao	Japan Nuclear Fuel Limited
	10:30	NWG-D2-02	Evaluation of the suppressing crystallization of simulated radioactive waste glass by the addition of components under slow cooling condition	Ayaka Sekine	Akita University
	10:50	NWG-D2-03	Investigation of alkaline liquid waste treatment for high burnup spent fuel reprocessing	Kohei Owaku	Japan Nuclear Fuel Limited
	11:10	Break (20 min)			
	11:30	NWG-D2-04	(INVITED) Structural analyses of nuclear waste glasses in Japan	Atsunobu Masuno	Hirosaki University
	12:00	NWG-D2-05	Pair distribution function analysis of simulated nuclear waste glass	Yasuhiro Yoneda	Japan Atomic Energy Agency
	12:20	NWG-D2-06	Development of stress-strain analysis with synchrotron radiation x-ray for simulated waste glass samples	Aki Tominaga	Japan Atomic Energy Agency
	12:40	Lunch & break			
2020/12/8	14:00	Student and Young Researcher Forum on Glass Research Part 1 (See SYRF program)			
2020/12/8	16:00	Student and Young Researcher Forum on Glass Research Part 2 (See SYRF program)			

2020/12/8	18:00	KEYNOTE SPEECH (Chair : Yoshihiro Takahashi) move to ROOM Live	Multicomponent Photonic Glasses and Fibers	Shifeng Zhou	South China University of Technology
2020/12/8	19:00	KEYNOTE SPEECH (Chair : Seiichiro Mitsui) move to ROOM Live	Evaluating an Uncertain Future: International efforts to develop the scientific basis for the long-term behavior of high-level nuclear waste glass	Joseph Ryan	Pacific Northwest National Laboratory

2020/12/9	8:50	KEYNOTE SPEECH (Chair : Satoshi Yoshida) RECORDED	What we can learn from the mechanical behavior of glasses about their atomic and molecular structure	Tanguy Rouxel	University of Rennes 1
2020/12/9	10:00	NWG-D3-01	(INVITED) Insights into the mechanisms controlling the residual corrosion rate of borosilicate glasses	STEPHANE GIN	CEA
	10:30	NWG-D3-02	(INVITED) Mechanistic understanding of borosilicate nuclear waste glass dissolution from atomistic computer simulations	Jincheng Du	University of North Texas
	11:00	Break (20 min)			
	11:20	NWG-D3-03	(INVITED) Effects of steel overpack on aqueous alteration of vitrified high-level radioactive waste	Hajime Iwata	Japan Atomic Energy Agency
	11:50	NWG-D3-04	Formation of surface alteration layers under flow through conditions observed in operando by fluid-cell Raman spectroscopy	Moritz Bernd Karl Fritzsche	University of Bonn
	12:10	NWG-D3-05	(INVITED) Vitrification and geological disposal of high-level radioactive waste: Integrated approach for their technical options and optimization of nuclear fuel cycle system	Tomofumi Sakuragi	Radioactive Waste Management Funding and Research Center
	12:40	Lunch & Break			
	14:00	NWG-D3-06	Formation, structure, and properties of cold cap from nuclear-waste-slurry melter-feed	Richard Pokorny	University of Chemistry and Technology Prague
	14:20	NWG-D3-07	(INVITED) Mechanism and countermeasure for molybdate phase separation in vitrification process of high-level liquid wastes	Kazuyoshi Uruga	Central Research Institute of Electric Power Industry
	14:50	Break (20 min)			

15:10	NWG-D3-08	Using CFD to Understand the Effect of Gas Bubbles Beneath the Cold Cap on Melt Rate during Nuclear Waste Vitrification	Donna Post Guillen	Idaho National Laboratory
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15:30	NWG-D3-09	Simultaneous Evaluation of Viscous and Crystallization Behaviors of Silicate Melts by Capacitance and Viscosity Measurements	Noritaka Saito	Kyushu University
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15:50	Break			
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2020/12/9	17:00	CLOSING		
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PROGRAM of STUDENT AND YOUNG RESEARCHER FORUM ON GLASS RESEARCH AT all ROOMs in all Time Zone

DATE	TIME ZONE				PAPER No.	TITLE	SPEAKER	INSTITUTE
	JST	CET	EST	PST				
2020/12/8	13:00	15:00	14:00	13:00	SYRF-P1-01	Thermal diffusivity of borosilicate glasses near the glass transition temperature	Ryo Momikura	The University of Shiga Prefecture
Part 1	13:20	15:20	14:20	13:20	SYRF-P1-02	The structural investigation of 2-step ion-exchanged strengthened glass with polarized micro-Raman spectroscopy	Shingo Ebukuro	Tohoku University
	13:40	15:40	14:40	13:40	SYRF-P1-03	Characterization and neutron activation simulations of Y-90 containing glass microspheres	Maria Laura Cruz	Centro Atmico Bariloche (CNEA)
	14:00	16:00	15:00	14:00	SYRF-P1-04	Effect of solution condition for Hierarchical Nanoporous Layer formation on aluminoborosilicate glass	Shin Ito	The University of Tokyo
	14:20	16:20	15:20	14:20	SYRF-P1-05	Combinatorial approach on the development of borosilicate glasses and vitrification with high-concentration HLW using fine glass powder as starting material	Shintaro Matsumoto	Tokyo Institute of Technology
	14:40	16:40	15:40	14:40	SYRF-P1-06	Effect of glass powder pellets on vitrification of simulated radioactive waste	Nanako Ueda	Tokyo Institute of Technology
2020/12/8	15:00	17:00	16:00	17:00	SYRF-P2-01	Optical properties and electronic structures of GeS ₂ -Sb ₂ S ₃ glasses - MD simulation and DFT calculation study -	Kohei Iwasaki	Kyoto Institute of Technology
Part 2	15:20	17:20	16:20	17:20	SYRF-P2-02	Glass formation and properties of the glasses in the systems, Ga-Ge-Te incorporated with the fourth elements Sn, Sb, Bi and Ag	Daichi Shirai	Kyoto Institute of Technology
	15:40	17:40	16:40	17:40	SYRF-P2-03	Evaluation of Morphology and Pockels Effect in Titanogermanate Glass-Ceramics toward Fiber-type Modulator	Haruki Okamoto	Tohoku University
	16:00	18:00	17:00	18:00	SYRF-P2-04	Mechanism and model for radiophotoluminescence phenomenon in Cu-doped silica glass	Yuya Takada	Kyoto Institute of Technology
	16:20	18:20	17:20	18:20	SYRF-P2-05	Fabrication of multi-phased photocatalytic glass-ceramics and its photocatalytic performance	OhHyeok Kwon	Tohoku university

List of the presentations given by Students and Young researchers

DATE	TIME ZONE				PAPER No.	TITLE	SPEAKER	INSTITUTE
	JST	CET	EST	PST				
2020/12/7	9:40	10:40	10:40	10:40	GS-D1-02	Structural study and biological activity of borate glasses	Sara Aqdim	University Hassan II of Casablanca
	10:00	11:00	11:00	11:00	GS-D1-03	Characterization of porous glass microspheres for doxorubicin administration	Bryan Alexander Escalante Castro	Medical and Industrial Application Division Nuclear Materials Department Bariloche Atomic Centre
	10:40	11:40	11:40	11:40	GS-D1-05	Preparation of oxide-based sodium all-solid-state batteries by laser irradiation	Masafumi Hiratsuka	Nagaoka University of Technology
	11:00	12:00	12:00	12:00	GS-D1-06	Preparation of all-solid-state Na battery using 5 V class cathode glass-ceramics	YONGZHENG JI	Nagaoka University of Technology
	11:20	12:20	12:20	12:20	GS-D1-07	A transferable force field for lithium phosphosulfide solid electrolytes	Shunsuke Ariga	Chiba University
	16:00	17:00	17:00	18:00	GS-D1-14	A machine learning approach to propose optimized glass compositions	Takuya Hori	Chiba University
	16:20	17:20	17:20	18:20	GS-D1-15	Neural network analysis of the viscosity of melt in the system SiO ₂ -Al ₂ O ₃ -CaO-MgO-Na ₂ O	Kazutaka Matsuyama	Akita University
	16:40	17:40	17:40	18:40	GS-D1-16	Neural network for predicting the fragility index and the temperature-dependency of viscosity	Daniel Cassar	Federal University of Sao Carlos
2020/12/8	9:30	10:30	10:30	9:30	NWG-D2-02	Evaluation of the suppressing crystallization of simulated radioactive waste glass by the addition of components under slow cooling condition	Ayaka Sekine	Akita University
	11:40	12:40	12:40	11:40	GS-D2-08	Photoluminescence properties and quantum efficiency of Nd ³⁺ -doped TeO ₂ -K ₂ O-Ga ₂ O ₃ glasses prepared with various crucibles	Natsumi Hosokawa	Nagoya Institute of Technology
	13:00	15:00	14:00	13:00	SYRF-P1-01	Thermal diffusivity of borosilicate glasses near the glass transition temperature	Ryo Momikura	The University of Shiga Prefecture
	13:20	15:20	14:20	13:20	SYRF-P1-02	The structural investigation of 2-step ion-exchanged strengthened glass with polarized micro-Raman spectroscopy	Shingo Ebukuro	Tohoku University
	13:40	15:40	14:40	13:40	SYRF-P1-03	Characterization and neutron activation simulations of Y-90 containing glass microspheres	Maria Laura Cruz	Centro Atmico Bariloche (CNEA)
	14:00	16:00	15:00	14:00	SYRF-P1-04	Effect of solution condition for Hierarchical Nanoporous Layer formation on aluminoborosilicate glass	Shin Ito	The University of Tokyo
	14:20	16:20	15:20	14:20	SYRF-P1-05	Combinatorial approach on the development of borosilicate glasses and vitrification with high-concentration HLW using fine glass powder as starting material	Shintaro Matsumoto	Tokyo Institute of Technology
	14:40	16:40	15:40	14:40	SYRF-P1-06	Effect of glass powder pellets on vitrification of simulated radioactive waste	Nanako Ueda	Tokyo Institute of Technology
	15:00	17:00	16:00	17:00	SYRF-P2-01	Optical properties and electronic structures of GeS ₂ -Sb ₂ S ₃ glasses - MD simulation and DFT calculation study -	Kohei Iwasaki	Kyoto Institute of Technology
	15:20	17:20	16:20	17:20	SYRF-P2-02	Glass formation and properties of the glasses in the systems, Ga-Ge-Te incorporated with the fourth elements Sn, Sb, Bi and Ag	Daichi Shirai	Kyoto Institute of Technology
15:40	17:40	16:40	17:40	SYRF-P2-03	Evaluation of Morphology and Pockels Effect in Titanogermanate Glass-Ceramics toward Fiber-type Modulator	Haruki Okamoto	Tohoku University	

	16:00	18:00	17:00	18:00	SYRF-P2-04	Mechanism and model for radiophotoluminescence phenomenon in Cu-doped silica glass	Yuya Takada	Kyoto Institute of Technology
	16:20	18:20	17:20	18:20	SYRF-P2-05	Fabrication of multi-phased photocatalytic glass-ceramics and its photocatalytic performance	OhHyeok Kwon	Tohoku university
2020/12/9	10:20	10:00	10:00	10:20	GS-D3-01	Improvement in fracture toughness of soda-lime silicate glass via incorporation of silver nanoparticles	Lei Liu	National Institute of Advanced Industrial Science and Technology
	11:40	11:20	11:20	11:40	GS-D3-04	Effect of high-repetition rate femtosecond laser pulses exposure on ternary tellurite glass	Gozden Torun	Ecole Polytechnique Fdrale de Lausanne
	12:00	11:40	11:40	12:00	GS-D3-05	Composition dependence of the Soret effect in binary B ₂ O ₃ -SiO ₂ glass melts	Kenzo Sato	Kyoto University
	15:40	17:40	15:40	15:40	GS-D3-12	Silver - alkali borate glass pastes	Lina Heuser	Federal Institute for Materials Research and Testing (BAM)
	11:50	17:50	11:50	11:50	NWG-D3-04	Formation of surface alteration layers under flow through conditions observed in operando by fluid-cell Raman spectroscopy	Moritz Bernd Karl Fritzsche	University of Bonn