

**HAYABUSA2023 Symposium**  
 15-17 Nov 2023 at 2F Conference Hall, ISAS/JAXA, Sagamiara, Japan

Ver: 2023/11/17

**Day1 (Nov 15, Wed)**

Online \*

Time (JST=UTC+9h)  
 9:00 -  
 - 10:00

Registration

Chair: T. Okada

10:00 - 10:15	S11-01	Opening: Logistics	Tatsuaki Okada	
10:15 - 10:30	S11-02	Overview of S-type asteroid Itokawa, based on the studies on samples returned by Hayabusa	Toru Yada [Invited]	
10:30 - 10:45	S11-03	Summary of Hayabusa2 and Status of JAXA curation	Tomohiro Usui [Invited]	
10:45 - 11:00	S11-04	Future perspective of sampling and curation for extraterrestrial materials in JAXA's small body exploration	Ryota Fukai [Invited]	
11:00 - 11:15	S11-05	Updates on OSIRIS-REX: Return journey to Earth and the sample from Bennu	Shogo Tachibana [Invited]	

Chair: T. Usui

11:15 - 11:30	S12-01	Developing European Curation for MMX Samples	Aurore Hutzler	
11:30 - 11:45	S12-02	The DLR Sample Analysis Laboratory - the final countdown	Jörn Helbert	
11:45 - 12:00	S12-03	Curation of Extraterrestrial samples in France and the future center for extraterrestrial materials in Paris	Jean Duprat	
12:00 - 12:15	S12-04	Mars Sample Return: curation activities and planning.	Aurore Hutzler	
12:15 - 12:30	S12-05	Mars Sample Return: Considerations for the Curation of Astromaterials from a Restricted Planet	Andrea Harrington [Invited]	*

12:30 -  
 - 14:15

Lunch Break

Chair: J. Duprat

14:15 - 14:30	S13-01	Fostering future missions and curation: fine-particle simulant characterization for a lunar highland testbed (ESA, European Astronaut Centre - EAC)	Aliz Zemeny	
14:30 - 14:45	S13-02	Nanoscale infrared characterization (AFM-IR) of Ryugu samples returned by the Hayabusa 2 space mission	Jeremie Mathurin [Invited]	
14:45 - 15:00	S13-03	Sampling and curation of volatile elements in the new era of sample return missions	Guillaume Avice [Invited]	
15:00 - 15:15	S13-04	Machine Learning Data Analyses for Asteroid and Micrometeorite Samples	Lewis James Pinault	
15:15 - 15:30	S13-05	Characterization of Mg-Fe carbonates in the Ryugu returned samples with MicrOmega	Damien Loizeau	
15:30 - 15:45	S13-06	Heterogeneity of Ryugu samples due to space weathering effects: near-infrared spectroscopy and fitting analysis	Soichiro Furukawa	

15:45 -  
 - 16:15

Coffee Break

Chair: S. Tachibana

16:15 - 16:30	S14-01	NH-rich grains detected by MicrOmega in the Ryugu returned samples	Te Jiang	*
16:30 - 16:45	S14-02	Nanoscale spectroscopic and microscopic investigation of Ryugu samples	Mehmet Yesiltas	*
16:45 - 17:00	S14-03	Spectroscopic Evidence of Parent Body Aqueous Alteration on Ryugu Sample A0112	Alessandro Maturilli	*
17:00 - 17:15	S14-04	Nitrogen, neon, and argon analysis of a single Ryugu grain by step-heating	Julie Gamblin	*
17:15 - 17:30	S14-05	Chemical composition and variability of Ryugu samples, CI chondrites and Kainsaz (C03) assessed by quadrupole ICP-MS analyses	Frank Wombacher	*
17:30 - 17:45	S14-06	The mineralogy of asteroid Ryugu and its relationship to highly altered extraterrestrial materials	Ashley King [Invited]	*

17:45 - 18:00

Adjourn

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Time (JST=UTC+9h)		Day2 (Nov 16, Thu)		
9:00 - 9:30		Registration		
		Online *		
		Chair: T. Yada		
9:30 - 9:45	S21-01	Phosphorus, Calcium, and Sulfur in Two Ryugu Samples	George Flynn	*
9:45 - 10:00	S21-02	Paleomagnetic Evidence for Formation of Ryugu in the Distal Solar System	Elias Mansbach	*
10:00 - 10:15	S21-03	Experimental Constraints on the Concentration of Dirac Magnetic Monopoles in Primordial Material returned from Asteroid Ryugu by JAXA's Hayabusa2 Mission	Joseph Kirschvink	
10:15 - 10:30	S21-04	Electron holography observation of pseudo-magnetites and metallic iron nanoparticles in space weathered Ryugu sample	Yuki Kimura	
10:30 - 10:45	S21-05	Characterization Of Early Solar System Aqueous Fluids In Ryugu Samples	Michael Zolensky	
10:45 - 11:15	Coffee Break			
		Chair: M. Zolensky		
11:15 - 11:30	S22-01	Three-dimensional description and characterization of lithologies in Ryugu sample	Léna Jossé	
11:30 - 11:45	S22-02	Size distribution and elemental compositions of anhydrous minerals in the Ryugu samples C0224 and C0260: Implications for radial transport mechanism and source regions of anhydrous minerals	Daisuke Nakashima	
11:45 - 12:00	S22-03	Microstructural and microchemical characteristics of dolomite in Ryugu regolith particles	Falko Langenhorst	
12:00 - 12:15	S22-04	Investigating the ammonium-bearing phase in Ryugu samples	Marco Ferrari	
12:15 - 12:30	S22-05	Speciation of various elements using scanning transmission/fluorescence X-ray microscopy (STXM/SFXM) and bulk XANES analysis related to aqueous environment in the Ryugu parent body	Yoshio Takahashi [Invited]	
12:30 - 13:45	Lunch Break			
13:45 - 14:15	JAXA Curation Lab Tour(1)			
14:15 - 15:45	Poster Session			
15:45 - 16:15	Coffee Break			
		Chair: Y. Kebukawa		
16:15 - 16:30	S23-01	Investigating the organic compounds in the asteroid Ryugu	Imene Kerraouch	
16:30 - 16:45	S23-02	Constraining Ryugu's earliest fluid composition by the analyses of phosphates	Nicolas Greber	*
16:45 - 17:00	S23-03	Interpreting the thermal alteration history from organic matter in Ryugu samples	Queenie Hoi Shan Chan	*
17:00 - 17:15	S23-04	First direct detection of large aromatic molecules on asteroid (162173) Ryugu sample C0083 and A00145: an interstellar heritage	Hassan Sabbah	*
17:15 - 17:30	S23-05	FIB Tomography-STXM-TEM on organic material from Hayabusa-2 grain A0083	Hitesh Changela	*
17:30 - 17:45	S23-06	New view on the paleomagnetic record of samples from asteroid Ryugu	Clara Maurel	*
17:45 - 18:00	Adjourn			

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Time (JST=UTC+9h)	Day3 (Nov 17, Fri)		
9:00 - 9:30	Registration		
	Chair: F. Moynier		
9:30 - 9:45	S31-01	Cosmogenic Radionuclide Records of Hayabusa Aggregate and Particle Samples	Kunihiko Nishiizumi
9:45 - 10:00	S31-02	Noble Gases of the 1st and 2nd AO Ryugu Samples Collected by the Hayabusa2 Spacecraft	Keisuke Nagao
10:00 - 10:15	S31-03	Insights into Early Solar System Isotopic Reservoirs Inferred from Ryugu	Quinn Shollenberger
10:15 - 10:30	S31-04	Nickel isotopic composition of Ryugu and the link between CI and other carbonaceous chondrites	Thorsten Kleine
10:30 - 10:45	S31-05	The magnesium isotope composition of samples returned from asteroid Ryugu	Martin Bizzarro [Invited]
10:45 - 11:15	Coffee Break		
	Chair: R. Fukai		
11:15 - 11:30	S32-01	Oxygen isotope systematics of crystalline silicates in comet Wild 2: Comparison to anhydrous minerals in Ryugu and CI chondrites	Noriko Kita
11:30 - 11:45	S32-02	Oxygen isotopic composition of dolomite in Ryugu: New insights into the thermal history of the Ryugu parent body	Wataru Fujiya
11:45 - 12:00	S32-03	Numerical Simulation of Ryugu's Thermophysical Properties using the Discrete Element Method	Bhuvan Agrawal
12:00 - 12:15	S32-04	Defect and exsolution microstructures in four pyroxene-rich grains from Itokawa	Falko Langenhorst
12:15 - 12:30	S32-05	Asteroid Itokawa ... but when did form exactly?	Fred Jourdan
12:30 - 13:45	Lunch Break		
13:45 - 14:15	JAXA Curation Lab Tour(2)		
	Chair: M. Abe		
14:15 - 14:30	S33-01	Characterization of a mass movement site in Benu's Bralgha Crater and implications for other asteroids	Yuhui Tang
14:30 - 14:45	S33-02	Photometry of Ryugu and SCI crater as inferred by ONC images	Andrea Longobardo *
14:45 - 15:00	S33-03	The shape distributions of sub-mm-sized impact experiment fragments from Allende meteorite	Tatsuhiro Michikami
15:00 - 15:15	S33-04	Spectral characterization of (98943) 2001 CC21, fly-by target of Hayabusa2#	Davide Perna
15:15 - 15:30	S33-05	Asteroid (142) Polana at 3 $\mu$ m and its Connection to Primitive Near-Earth Asteroids	Driss Takir
15:30 - 15:45	S33-06	Unveiling dark objects in Solar System: grain size effects on the infrared spectrum of mineral mixtures in presence of opaque components	Giovanni Poggiali
15:45 - 16:15	Coffee Break		
	Chair: T. Okada		
16:15 - 16:30	S34-01	Investigating the effects of space weathering in Ryugu samples using coordinated microanalyses	Lisette Elena Melendez *
16:30 - 16:45	S34-02	Impact-induced melting and fragmentation of C-type asteroid regolith inferred from impact craters on a large Ryugu sample	Christopher Hamann *
16:45 - 17:00	S34-03	Temporal variability of thermal-cycling induced fracturing in chondrites	Nicol Latsia
17:00 - 17:15	S34-04	CALICO - an ESA M7 proposal to Explore Dwarf Planet Ceres	Axel Hagermann
17:15 - 17:30	S34-05	Next Generation small body Sample Return mission: a concept study for a future Japanese mission to a comet	Hiroyuki Kurokawa [Invited]
17:30 - 17:45	S34-06	Intermediate bodies of Asteroids and the Moon from an Earth 3GMS model	Yasunori Miura *
17:45 - 18:00	S34-07	Wrap-up	Tomohiro Usui

<< Group Photo >>

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**Poster Session**

Online \*

#	Title	Presenter	
P-01	Chrome-spinel in Hayabusa particles: Recorders of Asteroid Itokawa's thermal history	Jemma Davidson	
P-02	Coordinated Analyses of Hayabusa particles RB-CV-0234, RB-QD04-0039, and RA-QD02-0310: Constraints on asteroid Itokawa formation from sulfides and silicates	Devin Lee Schrader	
P-03	Are there 100s of ppm water in nominally anhydrous minerals of non-carbonaceous asteroids?	Dennis Harries	
P-04	Development of Nondestructive X-ray CT Imaging Techniques to Identify and Locate Presolar Grains in Meteorite Sample Jbilet with Application to Ryugu Samples	Danielle Ziva Shulaker	
P-05	X-ray nano-CT and TEM-EDS Analyses of Impact Melt Splashes on Ryugu Samples	Megumi Matsumoto	
P-06	Comparison of Thermal Diffusivity between Ryugu grains and Carbonaceous Chondrites	Takuya Ishizaki	
P-07	Spatial relationship between macromolecular organic matter and organic-bearing phyllosilicates in Ryugu grain	Toru Matsumoto	
P-08	Analysis of a thermal correction method for the MIRS infrared spectrometer: preparation for the future observations of the Martian moons Phobos and Deimos	Gael David	
P-09	A Comparative Carbon-XANES and -EELS study of Organic Material from Asteroid 162173 Ryugu and Ivuna	Hitesh Changela	*
P-10	Non Destructive Analyses of (Extra-) Terrestrial Materials by Combining Digital Optical Microscopy with LIBS (Element Analyses) and Micro Raman Spectroscopy - A New Approach	Viktor Hoffmann	*
P-11	Study on Similar Continued Organic Life Systems on the Rocks of Water Planet Earth	Yasunori Miura	*