



InterRad XV in Niigata 2017 Program

Niigata University (JAPAN)

Oct/22-Oct/27, 2017

InterRad XV in Niigata 2017 Organizing Committee

Message from the Organizing Committee

Chairperson: Atsushi Matsuoka

I would like to extend a warm welcome to all of you to the 15th meeting of InterRad held in Niigata 2017. InterRad is the international association of radiolarists. It is a non-profit organization that promotes research on all aspects of radiolarian biology, ecology, taxonomy, evolution, biogeography, biostratigraphy and so on. The 7th meeting of InterRad was held in October, 1994 in Osaka. So, this meeting is returning to Japan after 23 years. Since the last InterRad in Japan, numerous radiolarian studies have been carried out and research results have been accumulated steadily. We do hope this meeting will be successful and enjoyable, with stimulating discussions and interdisciplinary dialogues among scientific communities and the outreach of our beautiful radiolarians to the broader public.

—開催に際して—

実行委員長 松岡 篤

第15回国際放散虫研究集会 (InterRad XV) にご参加いただきありがとうございます。

国際放散虫研究集会は、放散虫の国際学術組織であるInterRad (国際放散虫研究者協会) が、3年ごとに開催している国際会議です。現世を含めた全ての地質時代の放散虫および関連する分野の学術研究成果の発表や討論を通じて、国際的な放散虫研究の発展および成果の社会への発信を行うことを目的としています。

放散虫はわずか0.5ミリメートル程度の小さな原生生物ですが、海洋に広く分布しています。珪酸からなるその殻は、地層中に良好な状態で保存され、カンフリア紀以降の各地質時代の地層から化石が産出します。また、最近の分子生物学の進展により、放散虫は進化のモデル生物としても重要視されています。さらに、放散虫の殻がもつ造形美はアーティストにも注目され、芸術作品の題材としても利用されています。

InterRad XVでは、放散虫を仲介として広く関連分野と連携し、研究・教育・普及活動を一体として推進することを目標としてきました。多彩な分野の方にお集まりいただき、盛大な国際放散虫研究集会を開催できますことを心よりお礼申し上げます。

Host* (主催)

The Organizing Committee for InterRad XV in Niigata 2017 [第15回放散虫研究集会実行委員会]

Co-hosts* (共催)

The International Association of Radiolarists; The Geological Society of Japan [日本地質学会]; Geological Survey of Japan, AIST [産業技術総合研究所地質調査総合センター]; The Palaeontological Society of Japan [日本古生物学会]; Society of Science on Form, Japan [形の科学会]

Corporate Backers* (後援)

Niigata University [新潟大学]; Faculty of Science, Niigata University [新潟大学理学部]; Graduate School of Science and Technology, Niigata University [新潟大学大学院自然科学研究科]; Research Center of Science on Form, Niigata University [新潟大学コア・ステーション 形の科学研究センター]; Sesoko Station, the Tropical Biosphere Research Center of the University of the Ryukyus [琉球大学熱帯生物圏研究センター 瀬底実験施設]; Japanese Geoparks Network [日本ジオパークネットワーク]; Itoigawa UNESCO Global Geopark [糸魚川ユネスコ世界ジオパーク]; Bandaisan Geopark [磐梯山ジオパーク]; RC GEAR; Image Mission Inc. [イメージ・ミッション木鏡社]; JUNKUDO Bookstore Niigata [ジュンク堂書店新潟店]; 新潟日报社; 朝日新聞新潟総局; 読売新聞新潟支局; 毎日新聞新潟支局; NHK新潟放送局; BSN新潟放送; N S T; TeNYテレビ新潟; UX新潟テレビ21; エフエムラジオ新潟

Support on Conference Materials and Organisation* (物品・サービス提供)

Geological Survey of Japan, AIST [産業技術総合研究所地質調査総合センター]; [西日本技術開発株式会社]; RC GEAR; Image Mission Inc. [イメージ・ミッション木鏡社]; Fossa Magna Museum [フォッサマグナミュージアム]; Kyoritsu Printing Group [共立印刷株式会社]; Shiokawa Sake Brewery [塩川酒造]; Research Center of Science on Form, Niigata University [新潟大学コア・ステーション形の科学研究センター]



* at the present time of October 14, 2017.

Outreach Program: Let's make friends with plankton
(Multi-purpose Space of TOKIMATE)
14:00-15:00

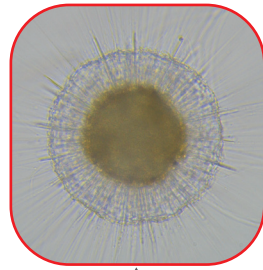
Outreach Program: What's rad?? (Café Space in JUNKUDO Bookstore Niigata)
15:30-17:00

Icebreaker Party (Art Hotel Niigata Station)
18:00-20:00

放散虫 って 何だ??

Q1 どんな生き物？

A1 海洋性プランクトンの単細胞原生生物です。
大きさは数十～数百マイクロメートル程度で、顕微鏡などでその姿が見られます。
赤道周辺の低緯度地域から南極周辺や北極海などの高緯度地域まで広く生息しています。



生きた放散虫
(沖縄県瀬底島の周辺で採取)

Q2 殻は何でできている？

A2 多くの放散虫は、シリカ(ガラス質)の殻をもちます。
この殻は内骨格で、それを軟体部が覆っています。

Q3 いつから生きている？

A3 確実な最古の化石記録は、約5億年前のカンブリア紀です。
世界中の研究者が、さらに古い放散虫化石を探しています。

5億年前		4億年前		3億年前		2億年前		1億年前		第四紀
4.4億		4.2億		古生代		中生代		新生代		
カンブリア紀	オルドビス紀	シルル紀	デボン紀	石炭紀	ペルム紀	三畳紀	ジュラ紀	白亜紀	古第三紀	

↑ 確実な最古の放散虫化石記録

23 / Oct
(Mon)

PROGRAM プログラム

Opening Ceremony (Library Hall in Ikarashi Campus)

9:00–10:40

Special Symposium I (Library Hall in Ikarashi Campus)

11:00–16:20

Session 1 Paleooceanography of Tethys and Panthalassa [Chairs: Takahashi, S. & Baumgartner, P.O.]

001-01	11:00–11:20	Ikeda, M. et al. (Keynote)	Astronomical pacing of the global silica cycle recorded in Mesozoic radiolarian cherts
001-02	11:20–11:40	Baumgartner, (Keynote) P.O. et al.	Panthalassa and Neotethys - two siliceous giants facing the break-up of Pangea
001-03	11:40–11:55	Muto, S. et al.	Three episodes of black claystone deposition in the pelagic Panthalassa during the Early Triassic
001-04	11:55–12:10	Onoue, T. et al.	Impact event and radiolarian faunal turnover recorded in the Late Triassic Panthalassa Ocean
001-05	12:10–12:25	Soda, K. et al.	Spatiotemporal variations of the Middle Triassic (Anisian) Oceanic Anoxic Events in low latitudinal Panthalassa
001-06	12:25–12:40	Nishi, H. et al.	Age calibrations of the integrated stratigraphy of planktic foraminifera, radiolaria, carbon isotope in the mid-Cretaceous sequences in northern Japan

Lunch & Poster Core Time

Session 2 Cenozoic Paleooceanography of Marginal Seas [Chairs: Itaki, T., Okazaki, Y. & Jordan, R.W.]

002-01	14:40–14:55	Itaki, T.	Does global warming deteriorate deep sea environments in the Japan Sea? Insight from deep dwelling radiolarians during the past warm period
002-02	14:55–15:10	Takata, H. et al.	Correlation between faunal change in deep-sea benthic foraminiferal assemblages and ballasting of particulate organic matter by siliceous plankton
002-03	15:10–15:25	Abe, M. et al. (Presenter: Jordan, R.W.)	Palaeoenvironmental reconstruction of the Japan Sea during the Mid-Brunhes Event using fossil diatoms
002-04	15:25–15:45	Yamada, K. & (Keynote) Irizuki, T.	Paleoceanographic shifts during the late Pliocene in the Sea of Japan based on assemblage and shell chemistry of ostracodes
002-05	15:45–16:00	Matsuzaki, K.M. et al.	Paleoceanography of the northern East China Sea over the past 400 kyr based on radiolarians (IODP Exp. 346, Site U1429)
002-06	16:00–16:20	Lo, L. et al. (Keynote)	CO ₂ threshold for precessional variability of sea ice in the Okhotsk Sea during the past 180,000 years

Welcome Party (ANA Crowne Plaza Niigata)

18:30–21:00

Central Library in Ikarashi Campus, Niigata University

—新潟大学五十嵐キャンパス中央図書館—



PROGRAM プログラム

24
/ Oct
(Tue)

Special Symposium II (Library Hall in Ikarashi Campus)

9:00–16:55

Session 3 Biology and Paleobiology of Shelled Protista [Chairs: Kimoto, K. & Not, F.]

003-01	9:00–9:20 (Keynote)	Not, F.	Morpho-molecular approaches to investigate the diversity and ecology of skeleton bearing protist
003-02	9:20–9:35	Sandin, M.M. et al.	Time calibrated morpho-molecular classification of Polycystine Nassellaria (Radiolaria)
003-03	9:35–9:55 (Keynote)	Nakamura, Y. et al.	Ultrafine structure and molecular phylogeny of living radiolarians—with a view to clarifying the fossil phylogeny—
003-04	9:55–10:10	Ishitani, Y. et al.	Speciation and dispersal pattern of marine protists in the vertical dimension

Coffee break

003-05	10:30–10:45	Ito, T.	Dimorphism of Permian Alibaillellaria: Reproductive strategy and its development of fossil radiolaria
003-06	10:45–11:00	Ichinohe, R. et al.	Homeostatic spatial behaviour of nassellarian radiolarians: a likely feeding strategy
003-07	11:00–11:15	Ikenoue, T. et al.	A new approach to partition the biogenic silica production using Microfocus X-ray CT: radiolarian silica flux in the Chukchi Borderland

Lunch & Poster Core Time

Session 4 Forms: An Interface between Function and Evolution [Chairs: Tokuda, Y. & Shiino, Y.]

004-01	13:15–13:35 (Keynote)	Saito-Kato, M. et al.	Morphological evolution of lacustrine diatoms in Lake Biwa, Japan from a 300 kyr fossil record
004-02	13:35–13:50	Tokuda, Y.	Adaptive evolution of micro skeletal structures in deep-sea solitary scleractinian corals
004-03	13:50–14:10 (Keynote)	Kishimoto, N.	Mechanical analysis of Radiolarian skeleton based on three dimensional information using micro X-ray CT
004-04	14:10–14:25	Asatryan, G.M. et al.	A new methodology of studying radiolarians using 3D X-ray micro-CT imaging and Avizo software

Coffee break

004-05	14:45–15:00	Shiino, Y.	Hydrodynamic functionalisation of brachiopod shells: insights into evolutionary morphology
004-06	15:00–15:15	Yoshino, T. & Matsuoka, A.	Retraction Force of Axial Projection of Multi-segmented Nassellarian <i>Eucyrtidium hexastichum</i> (Haeckel)
004-07	15:15–15:30	Marquez, E.J. et al.	Automated Identification of Radiolarians using RaDSS

Coffee break

Session 5 Jurassic–Cretaceous Boundary [Chairs: Matsuoka, A. & Li, G.]

005-01	15:50–16:10 (Keynote)	Sano, S.	The Tetori Group in northern Central Japan provides the clues for recognizing the biotic and environmental changes at the Jurassic/Cretaceous transition in East Asia
005-02	16:10–16:25	Li, G. & Matsuoka, A.	Late Jurassic radiolarians from Nadanhada Range of eastern Heilongjiang Province, NE China
005-03	16:25–16:40	Kashiwagi, K.	Radiolarians from the continental shelf sediments of the Tetori Group (Middle Jurassic–Lower Cretaceous) in Central Japan
005-04	16:40–16:55	Matsuoka, A.	Phylytic analysis of radiolarians for defining the Jurassic/Cretaceous boundary in the western Pacific and eastern Tethys

Special Symposium I (Library Gallery in Ikarashi Campus)

Session 15 Paleooceanography of Tethys and Panthalassa

- P15-01** Baumgartner, P.O. et al. Evolution of Late Cretaceous Radiolaria - in relation with the Caribbean Large Igneous Province and carbon isotope shifts
- P15-02** Bole, M. et al. Secular variations of oxygen and silicon isotopes in Mesozoic radiolarites from Panthalassa and Tethys - proxies for paleotemperature and paleoproductivity
- P15-03** Ibaraki, Y. et al. Late Silurian radiolarians from a conglomerate of a float block in Kotaki, Itoigawa, central Japan: Oldest fossil record in Niigata Prefecture
- P15-04** Ito, T. et al. Radiolarian research in geological maps of the Quadrangle Series (1:50,000) published by the Geological Survey of Japan, AIST
- P15-05** Kamata, Y. Paleozoic and Mesozoic Back-Arc basin chert of the Paleo-Tethys in Thailand (preliminary report)
- P15-06** Muto, S. et al. Conodont biostratigraphy of Lower Triassic pelagic deep-sea sedimentary rocks in Japan
- P15-07** Nakagawa, T. Permian Pseudoalbaillella from manganese carbonate rocks of Akiyoshi accretionary complex, Southwest Japan
- P15-08** Paleozoic Genera Working Group (Presenter: Suzuki, N.) Paleozoic genera and the history of their study
- P15-09** Tomimatsu, Y. & Onoue, T. Radiolarian age constraints of Triassic-Jurassic stratiform manganese deposits in the Chichibu Belt, Southwest Japan
- P15-10** Uchino, T. & Suzuki, N. Deposition ages of clastic rocks in the Northern Chichibu Belt, eastern Kii Peninsula, Southwest Japan
- P15-11** Takahashi, S. et al. Possibility of bio-essential element depleted ocean at the end-Permian mass extinction
- P15-12** Takahashi, S. et al. Natural assemblage of earliest Triassic conodont from deep sea black claystone

Session 16 Cenozoic Paleooceanography of Marginal Seas

- P16-01** Matsuzaki, K.M. et al. Paleooceanography of Japan Sea over the past 9.5 Myr based on radiolarians (IODP Exp. 346, Site U1425)
- P16-02** Zhang, K.X. et al. Late Paleocene radiolarian fauna from the Yarlung Zangbo Suture Zone of Tibet, and its geological implications

Special Symposium II (Library Gallery in Ikarashi Campus)

Session 17 Biology and Paleobiology of Shelled Protista

- P17-01** Fujii, M. et al. A study on chemical composition of living acantharian (Radiolaria) shell
- P17-02** Ichinohe, R. et al. Planktonic capability of discoid spumellarian radiolarians
- P17-03** Nakamura, Y. et al. Cell division of phaeodarians—the first step to clarify the life cycle—
- P17-04** Toyofuku, T. & Nagai, Y. Various imaging approaches revealing the secrets of foraminiferal calcification process
- P17-05** Yuasa, T. & Takahashi, O. (Presenter: Takahashi, O.) Observations of the reproductive swarmer cells of polycystine and acantharian radiolarians in the east China Sea

Session 18 Forms: An Interface between Function and Evolution

- P18-01** Aita, Y. et al. Diversity and newly revealed internal morphology of Middle Triassic Radiolaria *Glomeropyle* species
- P18-02** Niimura, K. et al. Detailed internal structures of Middle Triassic *Glomeropyle galagala?* and unnamed *Glomeropyle* sp. with the use of X-ray micro-CT
- P18-03** Teshima, Y. et al. Development of Enlarged Skeleton Models of Radiolaria (with Hands-on Exhibition)
- P18-04** Teshima, Y. et al. Development of Enlarged Skeleton Models of Foraminifera (with Hands-on Exhibition)
- P18-05** Yoshino, T. et al. Origami Representation of the Cortical Shell Structures of radiolarian *Pantanelium* (with Hands-on Exhibition)
- P18-06** Ishida, N. & Kishimoto, N. Submicron order three-dimensional imaging for polycystine radiolarians using X-ray micro-computed tomography (with Hands-on Exhibition)
- P18-07** Shiino, Y. et al. Head or tail? Morphological analysis of the discoid spumellarian radiolarian *Dictyocoryne*
- P18-08** Uetake, Y. et al. Analysis of internal structure of Eocene *Lithochytris vespertilio* by Cross section Polisher method using a broad Ar⁺ ion beam

POSTER TITLES

ポスタータイトル

23-24
/Oct

General Symposium (Library Gallery in Ikarashi Campus)

Session 19 Jurassic and Cretaceous Stratigraphy

P19-01	Bortolotti, V. et al.	The Jurassic-Early Cretaceous basalt-chert association in the ophiolites of the Ankara Mélange east of Ankara, Turkey: age and geochemistry
P19-02	Kamimura, M. & Hoyanagi, K.	Possibility for Jurassic/Cretaceous boundary identified from carbon -isotope stratigraphy of the Tetori Group in Shokawa, Gifu Prefecture, central Japan
P19-03	Li, X. et al.	Phylogeny and spatial distribution of the early Cretaceous radiolarian <i>Turbocapsula</i>
P19-04	Matsumoto, K. & Matsuoka, A.	Newly discovered marine beds in the Lower Jurassic Kuruma Group in the Otari Village, Nagano Prefecture, Central Japan
P19-05	Nishizono, Y. & Yonemitsu, I.	Jurassic radiolarians from Toyora Group, Southwest Japan
P19-06	O'Dogherty, L. et al.	Radiolarian stratigraphy from the proposed GSSP for the base of the Aptian Stage (Gorgo Cerbara, Umbria-Marche Apennines, Italy)
P19-07	Sakai, Y. et al.	The Early Cretaceous fossil plants from the Itsuki and Nochino formations of the Tetori Group in the Kuzuryu area, central Japan and their paleoclimatic implications
P19-08	Sakata, R. & Matsuoka, A.	Lithostratigraphy and bivalve associations of the Lower Jurassic Nirano Formation in the Hashiura area, South Kitakami Belt, Miyagi Prefecture, Northeast Japan
P19-09	Taketani, Y.	Lowermost Cretaceous radiolarian assemblage from the South Kitakami Terrane, Northeast Japan
P19-10	Tamura, T. et al.	Lithostratigraphy and biostratigraphy of the Tomizawa and Koyamada Formations in the Somanakamura Group, Northeast Japan — Jurassic–Cretaceous transition beds in the eastern margin of Asia
P19-11	Yoshino, K. et al.	Integrated mega- and micro- biostratigraphy of the Campanian–Maastrichtian Izumi Group, Southwest Japan –Application to the Songliao Basin–

放散虫 って 何だ??

Q4 何種類いる？

A4 化石種を含めこれまで科学的に記載された数は約 2700 属 1 万 5000 種です。このうち有効なものは 1400 属 1.1 万種ほどとされています。さらに、未記載種はその何倍もいると推定されています。

Q5 放散虫化石を含む岩石は？

A5 放散虫化石は、陸上の地層の中では、チャートに多く含まれています。



層状チャートの露頭
(群馬県桐生市)

PROGRAM プログラム

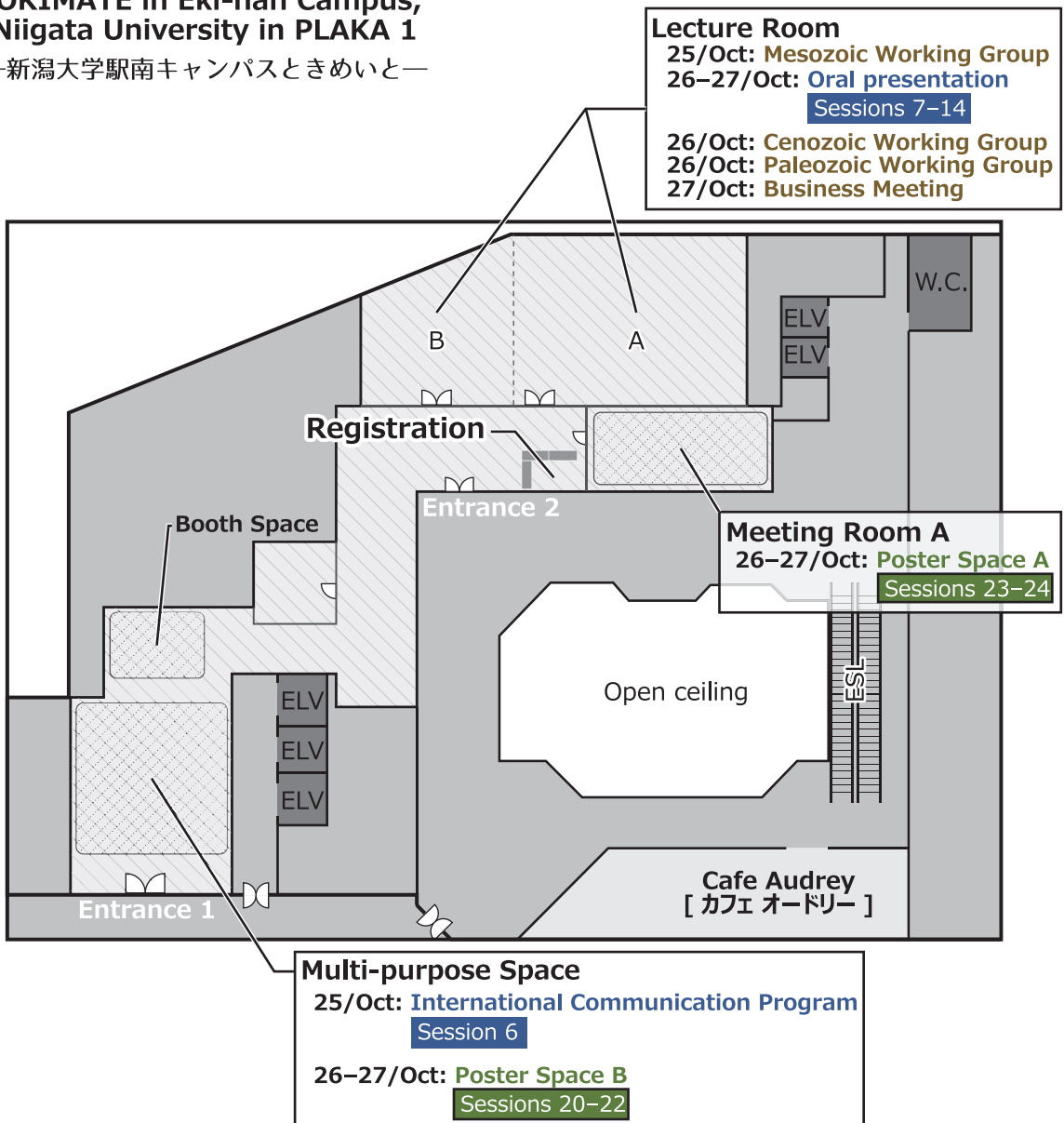
Mid-day Excursion	
C (Itoigawa)	D (Taʼnai)
8:00–18:00	8:30–17:00

International Communication Program [Session 6] (Multi-purpose Space of TOKIMATE)

006-01	19:00–20:00	Baumgartner, P.O. et al.	Radiolarite versus pelagic carbonate sedimentation during the Jurassic-Cretaceous transition, Panthalassa-Tethys-Atlantic-Protocaribbean – paleofertility and ocean circulation
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Mesozoic Working Group (Lecture Room A of TOKIMATE) 20:00–21:00

**TOKIMATE in Eki-nan Campus,
Niigata University in PLAKA 1**
—新潟大学駅南キャンパスときめいと—



PROGRAM プログラム

26 / Oct
(Thu)

General Symposium I (Lecture Room of TOKIMATE)

9:00–16:45

Session 7 Insightful Studies for Radiolarians [Chairs: Aita, Y. & Rogers, J.]

007-01	9:00–9:15	Ogane, K.	JREC-IN Portal: the career support portal site for all researchers and research staff who are pioneering innovation
007-02	9:15–9:30	Hori, R.S. et al.	A growth model and strategy of forming siliceous skeletons of living Spumellaria (Radiolaria)
007-03	9:30–9:45	Kachovich, S. & Aitchison, J.C.	Capturing initial skeletal growth in Paleozoic radiolarians
007-04	9:45–10:05 (Highlight)	Okazaki Y. et al.	Online oxygen isotope analysis of biogenic opal using the inductive high-temperature carbon reduction method with continuous flow isotope ratio mass spectrometry
007-05	10:05–10:20	Takahashi, K.	Four decades of research on radiolarians and other siliceous microplankton/fossils

Coffee break

Session 8 Biosiliceous Records [Chairs: Rogers, J. & Aita, Y.]

008-01	10:40–10:55	Khan, M.Z. & Feng, Q.L.	Biogenic Silica: Relationship to Paleo-productivity and TOC from Late Ordovician-Early Silurian Organic Rich Shales of Chongqing Area, South China
008-02	10:55–11:10	Kakuwa, Y.	Significance of trace fossils in radiolarian chert during the Phanerozoic: with special reference to red chert problem
008-03	11:10–11:25	Aita, Y. et al.	Biosiliceous facies and flux change of the Early Triassic bedded chert from Arrow Rocks, New Zealand, Panthalassa ocean
008-04	11:25–11:45 (Highlight)	Renaudie, J. et al.	Testing the vital effect on silicon isotope measurements in Late Eocene Pacific radiolarians
008-05	11:45–12:00	Suzuki, H. & Maung Maung	Mesozoic radiolarian localities and their ages in Myanmar

Lunch & Poster Core Time

Session 9 Modern Oceanography [Chairs: Hori, R.S. & Kuwahara, K.]

009-01	14:00–14:15	Munir, S. et al.	Paleoenvironmental proxies and their impacts on the distribution of siliceous planktonic radiolarian community in the Eastern Indian Ocean
009-02	14:15–14:30	Rogers, J.	Is SST the most ecologically important determinant of radiolarian species diversity?
009-03	14:30–14:45	Suzuki, N. & Zhang, L.L.	How to identify <i>Tetrapyle</i> and its related taxa for oceanographic studies
009-04	14:45–15:05 (Highlight)	Zhang, L.L. et al.	Modern shallow water radiolarians with photosynthetic microbiota in the western North Pacific

Coffee break

Session 10 Paleobiogeography [Chairs: Kuwahara, K. & Hori, R.S.]

010-01	15:25–15:40	Obut, O. & Danelian, T.	New discoveries of Early Cambrian radiolarians from the Gorny Altai (South of western Siberia)
010-02	15:40–15:55	He, W.H. et al.	Upper Changhsingian Radiolarian fauna of northern Yangtze basin, South China
010-03	15:55–16:15 (Highlight)	Xiao, Y.F. et al.	New study on vertical water depths of the latest Permian radiolarians by using correspondence analysis
010-04	16:15–16:30	Yamakita, S. et al.	Early Triassic conodont provincialism and its implication for the paleoceanography of Tethys and Panthalassa
010-05	16:30–16:45	Munasri & Putra, A.M.	First evidence of Middle to Late Triassic radiolarians in the Garba mountains, South Sumatra, Indonesia

Coffee break

**Paleozoic Working Group
(Lecture Room A of TOKIMATE)**

**Cenozoic Working Group
(Lecture Room B of TOKIMATE)**

17:05–18:05

27 / Oct
(Fri)

PROGRAM プログラム

General Symposium II (Lecture Room of TOKIMATE)

8:45–16:00

Session 11 Evolution and Diversity [Chairs: He, W.H. & Chiari, M.]

O11-01	8:45–9:00	Zhang, Y. & Feng, Q.L.	Presence of Radiolarians from Early Terreneuvian in Liuchapo Formation, South China
O11-02	9:00–9:15	Zhang, K. & Feng, Q.L.	Cambrian radiolarians from the Niujiaohe Formation in South China
O11-03	9:15–9:30	Ma, Q.F. et al.	Discovery and significance of radiolarian from lower Qiongzhusinian Stage (Series 2, Stage 3) Shuijingtuo Formation of the Three Gorges area, South China
O11-04	9:30–9:50 (Highlight)	Danelian, T. et al.	Biodiversity patterns of Ordovician and Silurian radiolarians

Coffee break

Session 12 Biostratigraphy [Chairs: Chiari, M. & He, W.H.]

O12-01	10:10–10:30 (Highlight)	Yamashita, D. et al.	Intercalibrated radiolarian–conodont biostratigraphy and magnetostratigraphy of the Upper Triassic succession, Inuyama area, Japan
O12-02	10:30–10:45	Kuwahara, K. & Sano, H.	Upper Capitanian to lower Wuchiapingian (Permian) latentifistularian interval zones and the phylogeny of their nominal species
O12-03	10:45–11:00	Adachi, M.	<i>Guexella nudata</i> coexisted with <i>Choffatia (Subgrossouvria)</i> sp. of upper Bathonian to lowest Oxfordian age; fossil evidence from Inuyama, Mino terrane of central Japan
O12-04	11:00–11:15	Kukoc, D. et al.	Discovery of the oldest fossils of Panama: Early Cretaceous radiolarians from Miocene conglomerate in the Canal Zone
O12-05	11:15–11:30	Motoyama, I. & Eguchi, N.	Radiolarian biostratigraphy of IODP Exp. 343 drill site C0019, Tohoku–Oki earthquake rupture area

Lunch & Poster Core Time

Session 13 Tibetan Tectonics [Chairs: Danelian, T. & Luo, H.]

O13-01	13:00–13:20 (Highlight)	Luo, H. & Liu, S.J.	New discovery of Paleogene Radiolarians from the Yamdrok mélange near Yongla Pass of Gyantse, Southern Tibet and its geological significance
O13-02	13:20–13:35	Liu, S.J. et al.	Lower Cretaceous radiolarian fauna from Zouxue, Zedong, southern Tibet, China and its geological significance
O13-03	13:35–13:50	Li, X. et al.	Radiolarian-based oceanic plate stratigraphy of the melanges and subduction-accretion processes in the western sector of the Yarlung–Tsangpo suture zone, southern Tibet
O13-04	13:50–14:05	Xu, B. et al.	New discovery of Early Jurassic radiolarians from Luoqu, Xigaze, southern Tibet and its geological significance
O13-05	14:05–14:20	Chen, D.S. et al.	Discovery of the oldest (late Anisian) radiolarian assemblage from the Yarlung–Tsangpo Suture Zone in the Jinlu area, Zetang, southern Tibet: indication of the origin of the Neotethys Ocean

Coffee break

Session 14 European Tectonics [Chairs: Luo, H. & Danelian, T.]

O14-01	14:40–15:00 (Highlight)	Chiari, M. et al.	Radiolarian biostratigraphy and geochemistry of the ophiolites from the Coloured Mélange Complex (North Makran, SE Iran)
O14-02	15:00–15:15	Tekin, U.K. et al.	New evidence of Middle Triassic (late Anisian to late Ladinian) radiolarians from blocks of pelagic volcano-sedimentary successions in the Mersin Mélange, southern Turkey: Implications for the evolution of Neotethyan Izmir–Ankara–Ocean
O14-03	15:15–15:30	Cifer, T. et al.	Pliensbachian (Early Jurassic) radiolarians from Mt. Rettenstein, Northern Calcareous Alps, Austria
O14-04	15:30–15:45	Bertinelli, A. et al.	Middle Triassic radiolarian assemblages from the Monte Facito Formation (Lagonegro succession, Southern Apennines, Italy)
O14-05	15:45–16:00	Goričan, Š. et al.	Jurassic and Cretaceous radiolarian biostratigraphy of the Al Aridh Group (Hawasina Nappes, Oman Mountains)

Coffee break

Business Meeting & Closing Ceremony (Lecture Room of TOKIMATE)

16:20–17:20

Farewell Party (Art Hotel Niigata Station)

18:00–20:00



POSTER TITLES

ポスタータイトル

26-27
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General Symposium (Multi-purpose Space of TOKIMATE)

Session 20 Application and Outreach

- P20-01** Nagai, H. & Shiraki, K. Japanese radiolarian study and education in the 19th century
- P20-02** Matsuoka, A. How to present diversity of geologic entities?
– Proposal of Radiolarian age Diversity Index (RADIX)
- P20-03** Trubovitz, S. et al. How good are we at inventorying the biodiversity of radiolarian species?

Session 21 Oceanography

- P21-01** Bole, M. et al. Oxygen isotopes and trace element stratigraphy of the Middle Jurassic radiolarite section at Colle di Sogno, Lombardy Basin, N-Italy
- P21-02** Kamikuri, S. & Moore, T.C. Reconstruction of oceanic circulation patterns in the tropical Pacific across the early/middle Miocene boundary as inferred from radiolarian assemblages
- P21-03** Rogers, J. A new species of *Spongodiscus* (Radiolaria: Spongodiscidae): its description and occurrence
- P21-04** Umeda, M. Devonian and Carboniferous Radiolarians from the Deep-Sea Pelagic cherts of the New England Fold Belt, Eastern Australia

Session 22 Biogeography

- P22-01** Ito, Y. et al. Transitions in the Cretaceous radiolarian assemblages of the Yezo Group in the Niikappu area, Hokkaido, Japan: age constraints from U–Pb zircon dating of tuffaceous rocks
- P22-02** Manchuk, N. et al. Late Devonian radiolarians from the Hebuokehe Formation, Northwestern Xinjiang, China
- P22-03** Sashida, K. et al. Upper Permian to Middle Triassic radiolarians from bedded cherts distributed in the Nong Prue area, western Thailand

General Symposium (Meeting Room A of TOKIMATE)

Session 23 Evolution and Stratigraphy

- P23-01** Ariunchimeg, Y. & Uugantsetseg, B. Devonian fossils of Mongolia and their stratigraphical significance
- P23-02** Caulet, J.P. et al. An up-to-date catalogue of Cenozoic radiolarian genera and families: a review with illustrations of type species
(Presenter: O'Dogherty, L.)
- P23-03** Hollis, C.J. et al. Towards an integrated cross-latitude event stratigraphy for Paleogene radiolarians
(Presenter: Kamikuri, S.)
- P23-04** Hori, R.S. et al. Triassic-Jurassic boundary of a bedded chert sequence from the Chichibu Belt, Shikoku, Japan
- P23-05** Matsuda, M. et al. Early Jurassic radiolarian fauna from a carbonate nodule in Northern Chichibu Belt, Shikoku, Southwest Japan
- P23-06** Nakae, S. Boundary age of the *Dictyomitra koslovae* and the *Amphipyndax tylotus* zones (Campanian radiolarian zones) constrained by detrital zircon U–Pb dating: an example of the Matoya Group (Shimanto belt) in Kii Peninsula, Southwest Japan
- P23-07** Suzuki, H. & Gawlick, H.J. Radiolarians from the lower–middle Oxfordian section in the Northern Calcareous Alps (Fludergraben, Austria)
- P23-08** Takemura, A. & Takemura, S. Radiolarian faunas from the Tanba Belt in Kita-Harima District, Hyogo Prefecture, Southwest Japan
- P23-09** Toshiro, G. et al. The ages of Early–Middle Jurassic radiolarians from the Tamba Terrane, central Japan
- P23-10** Zhang, Z. et al. Radiolarian faunas in Wufeng Formation from Yi Chang, Hubei Province and Lun Shan, Jiangsu Province, China

Session 24 Tectonics

- P24-01** Hara, K. & Kurihara, T. Radiolarian biostratigraphy of Late Cretaceous pelagic sediments within the Suhaylah and Zabyat formations of the Oman Ophiolite in the Wadi Jizzi area, northern Oman Mountains
(Presenter: Kurihara, T.)
- P24-02** Sharav, D. et al. Radiolarians from the Khooltiin davaa area, eastern Mongolia
- P24-03** Sugamori, Y. Radiolarian biostratigraphy studies of the Permian strata in the Tanto area, southeastern part of Hyogo Prefecture, Southwest Japan
- P24-04** Yamagata, T. Gravity-flow deposits on the slope to the foot of the Permian seamount in the Deadman Bay terrane, the San Juan Island, Washington State, USA

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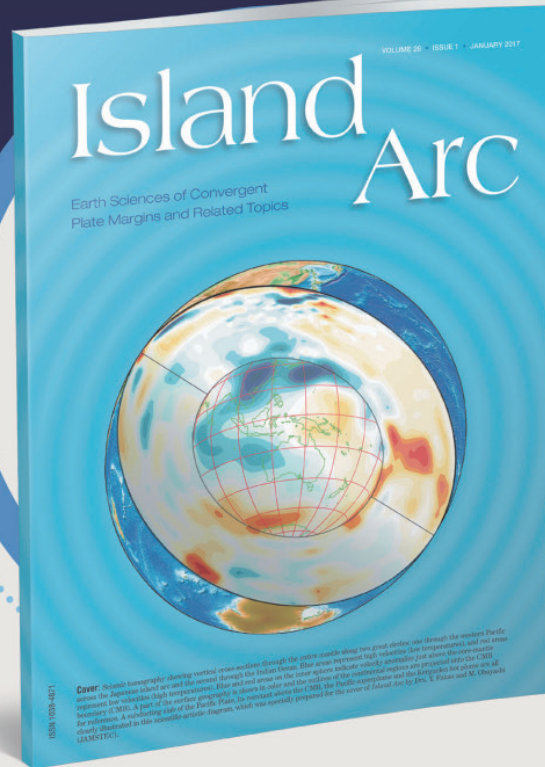
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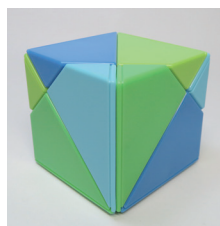
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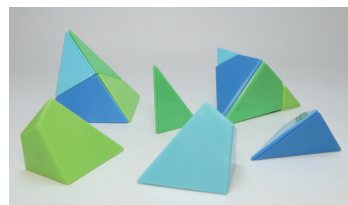
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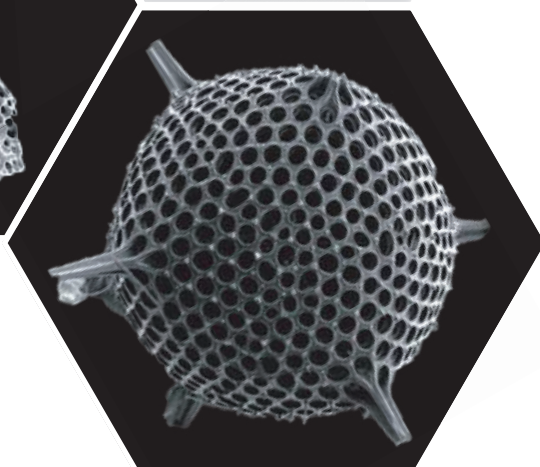
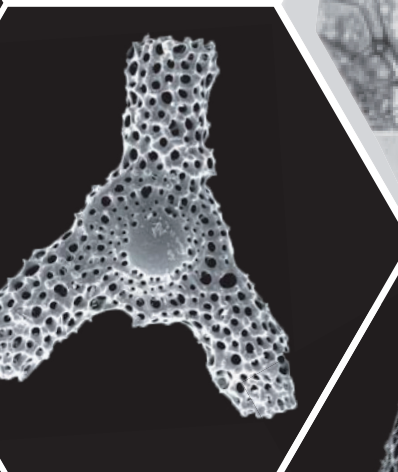
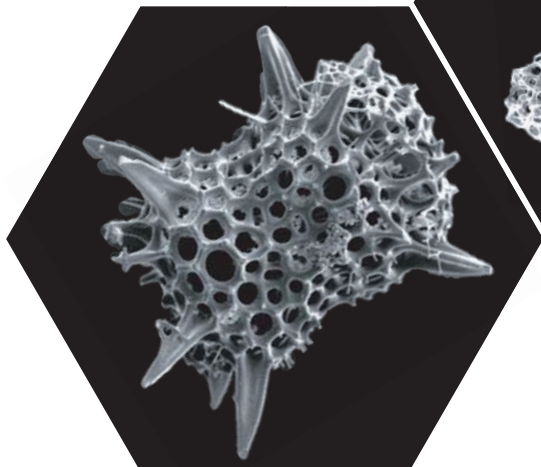
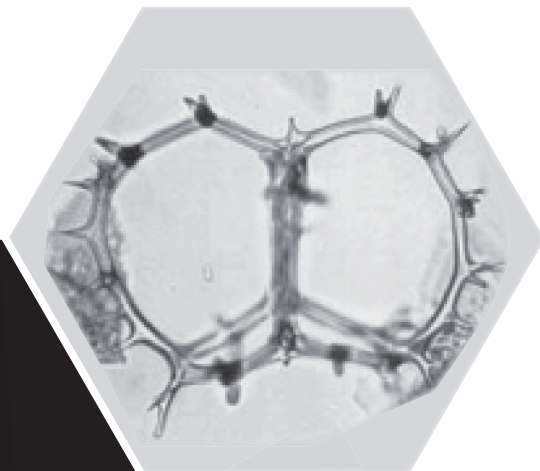
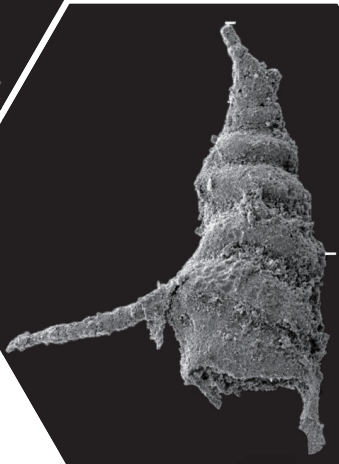
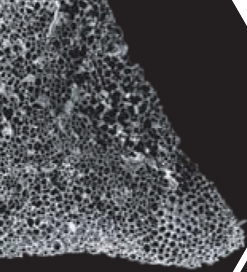
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