

**TI-FRIS/FRIS Symposium 2024: Poster Presentations (Materials and Energy)**

**Day 2: Wednesday, February 21, 2024**

No.	Presenter	Affiliation	Title	(Title in Japanese)
1	Taichi Goto	RIEC, Tohoku Univ./TI-FRIS Fellow	Fabrication of Heteroepitaxial Magneto-Optical Multilayer Films and Their Application to High-Power Photonic Device Chips	ヘテロエピタキシャル磁気光学多層膜の作製とハイパワー光デバイスチップへの応用
2	Linda Zhang	FRIS, Tohoku Univ.	Engineering porous materials for hydrogen storage	
3	Tom Welling	FRIS, Tohoku Univ.	Rational design for structural color materials	
4	Hiroshi Ueno	FRIS, Tohoku Univ.	Chemistry of Ionic Molecular Nanocarbons	イオン性ナノカーボンの科学
5	Katsuyuki Takahashi	Iwate Univ./TI-FRIS Fellow	Plasma discharge contacted into water surface and its applications	
6	Kazutoshi Haga	Akita Univ./TI-FRIS Fellow	Investigation of separation method of carbon and silica from wasted rice husk	もみ殻からの炭素とシリカの分離方法の検討
7*	Kazuyuki Iwase	IMRAM, Tohoku Univ.	Development of CO2 reduction electrocatalysts by controlling substrate and proton transport	基質及びプロトン輸送が制御された二酸化炭素還元分子触媒の創成
8	Naoki Kawano	Akita Univ./TI-FRIS Fellow	Radiation response properties of CaF2:Ce transparent ceramics	CaF2:Ce透明セラミックスの放射線応答性
9	Takuya Mabuchi	FRIS, Tohoku Univ./TI-FRIS Fellow	Molecular simulations of artificial biomolecular systems	人工生体分子システムの分子シミュレーション
10*	Shiori Sugiura	IMR, Tohoku Univ.	Preliminary Research for the Virtual Material Science	
11	Takao Oto	Yamagata Univ./TI-FRIS Fellow	Novel visible optical devices based on hybrid micro/nano-structures	ハイブリッドマイクロ/ナノ構造を基盤とした新奇可視光デバイス
12	Yuji Saito	FRIS, Tohoku Univ.	Rocket Combustion Research for Sustainable Space Development	持続可能な宇宙開発に向けたロケット燃焼研究
12b*	Yuji Saito	FRIS, Tohoku Univ.	Development of Biomass Combustion Propulsion System for Sustainable Space Development	持続的な宇宙開発に向けたバイオマス燃焼推進装置の開発
13*	Hanae Aoki	Graduate School of Engineering, Tohoku Univ.	Cultivating engineering-mind in female high-school students through series laboratory training on nano-material sciences	ナノマテリアルサイエンスを通じた女子高生に対する工学マインドの醸成
14*	Go Yamamoto	Graduate School of Engineering, Tohoku Univ.	Development of crack detection method by using topology optimization	

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**TI-FRIS/FRIS Symposium 2024: Poster Presentations (Life and Environments)**

**Day 2: Wednesday, February 21, 2024**

No.	Presenter	Affiliation	Title	(Title in Japanese)
15*	Kanako Bessho-Uehara	Graduate School of Life Sciences, Tohoku Univ.	Identification of plant-derived constraints for determining insect gall morphology driven by citizen science	
16	Yuta Kudo	FRIS, Tohoku Univ./TI-FRIS Fellow	Discovery of New Natural Compounds from Neurotoxin-bearing Newts and Antibiotic-producing Bacteria	新たな天然化合物の発見~有毒イモリと抗生物質生産バクテリアから~
17	Hiroyuki Uechi	FRIS, Tohoku Univ.	Control of cytoplasmic condensation by the small molecule	
18*	Mako Kobayashi	Graduate School of Engineering, Tohoku Univ.	Elucidation of Vascular Function Focusing on Basement Membrane Surface Topography	基底膜表面形状に着目した血管機能の解明
19	Sho Kobayashi	Yamagata Univ./TI-FRIS Fellow	Development of methods to search for food-derived components that effect cysteine supply to cultured cells.	培養細胞のシステイン供給に影響を与える食品由来成分の探索法の開発
20*	Takako Kikkawa	Graduate School of Medicine, Tohoku Univ.	Elucidation of brain developmental mechanism causing gender differences in neurodevelopmental disorder	神経発達障害の性差を生み出す脳発生プログラムの解明
21	Pui Ying Lam	Akita Univ./TI-FRIS Fellow	Characterization of lignin biosynthesis in plants	
22*	Yukiko Tando	IDAC, Tohoku Univ.	Identification of factors transmitting the effects of maternal environmental changes to grandchild generations	母体環境変化の影響を次世代に伝える因子の同定
23	Fumi Murakoshi	FRIS, Tohoku Univ.	Changes in virulence of parasites with and without symbiotic viruses and their mechanisms	共生ウイルスの有無による寄生虫の病原性の変化とそのメカニズム
24	Madoka Ichikawa-Seki	Iwate Univ./TI-FRIS Fellow	Challenge to establish an in vitro culture system for liver flukes—Is it possible to mature juveniles in in vitro culture conditions?—	肝蛭のin vitro培養系確立への挑戦—幼虫はin vitroでどこまで成長するか?—
25	Hirofumi Tazoe	Hirosaki Univ./TI-FRIS Fellow	Application of heavy metal isotopic analysis in the field of Archaeology	
26	Kyoko Chiba	FRIS, Tohoku Univ.	Study of molecular motor proteins by single molecule assay	
27	Shinichi Sato	FRIS, Tohoku Univ.	Fluorescent chemical probe for visualization of protein denaturing	タンパク質の変性を可視化する蛍光性化学プローブ
27b*	Shinichi Sato	FRIS, Tohoku Univ.	Development of high-efficient method to detect protein denaturing regions	
28	Toshiharu Ichinose	FRIS, Tohoku Univ.	Translation dynamics in the nervous system	神経系におけるタンパク質翻訳ダイナミクス
29	Hideaki Matsubayashi	FRIS, Tohoku Univ.	Synthetic biology approach to learn and build cell motility	

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**TI-FRIS/FRIS Symposium 2024: Poster Presentations (Information and Systems)****Day 2: Wednesday, February 21, 2024**

No.	Presenter	Affiliation	Title	(Title in Japanese)
30	Le Bin Ho	FRIS, Tohoku Univ.	On the measurement problems: quantum resource, non-causal, and no-go	
31	Kentaro Murata	Iwate Univ./TI-FRIS Fellow	Wireless Technology Connected to Biomedical Engineering	生体医工学に繋がるワイヤレス技術
32	Sai Sun	FRIS, Tohoku Univ./TI-FRIS Fellow	Circuit-Specific Mechanisms and Regulation Underlying Emotion Recognition	感情認識の基盤となる回路特異的メカニズムと規制
33	Naoya Onizawa	RIEC, Tohoku Univ./TI-FRIS Fellow	Stochastic Quantum-like Annealing for Large-Scale Combinatorial Optimization Problems	
34	Yuka Fujiki	FRIS, Tohoku Univ.	Networks with long-range degree correlations	

**TI-FRIS/FRIS Symposium 2024: Poster Presentations (Device and Technology)****Day 2: Wednesday, February 21, 2024**

No.	Presenter	Affiliation	Title	(Title in Japanese)
35	Chao Tang	FRIS, Tohoku Univ.	Ultrafast THz detection based on the plasmon rectification in a graphene field-effect transistor	グラフェン電界効果トランジスタにおけるプラズモン整流効果による超高速テラヘルツ検出
35b*	Chao Tang	FRIS, Tohoku Univ.	Explortion to the ultrafast response of terahertz wave in van der Waals crystals	ファンデルワールス結晶における超高速テラヘルツ波応答への探索
36	Tomohito Sekine	Yamagata Univ./TI-FRIS Fellow	Characteristics of Multi-Functional Organic Materials and Their Applications	機能性有機材料の特性評価とそのデバイス応用
37	Takahiro Chiba	FRIS, Tohoku Univ.	Quantum hybrid technologies based on spintronics	スピントロニクスに基づいた量子ハイブリッド技術
38	Hiroya Abe	FRIS, Tohoku Univ./TI-FRIS Fellow	Mussel-inspired underwater adhesive hydrogel	
39	Yuta Yamane	FRIS, Tohoku Univ./TI-FRIS Fellow	Theoretical and experimental study on quantum inductors	
40	Takuro Ishii	FRIS, Tohoku Univ.	Ultrasound Imaging of Biological Complex Flow Dynamics	
41*	Kenichi Funamoto	IFS, Tohoku Univ.	Development of measurement-integrated analysis for reproduction of tissue morphogenesis	組織の形態形成を再現する計測融合解析技術の創成
42	Kaoru Hiramoto	FRIS, Tohoku Univ.	Exploration of the field of lipid membranes by electrochemistry	電気化学で脂質膜の野原を探索する
43	Yuanyuan Guo	FRIS, Tohoku Univ./TI-FRIS Fellow	Microelectronic fibers as multimodal biointerface	
43b*	Yuanyuan Guo	FRIS, Tohoku Univ./TI-FRIS Fellow	Navigating Complex Biological Systems with Smart Fibers	

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**TI-FRIS/FRIS Symposium 2024: Poster Presentations (Human and Society)**

**Day 2: Wednesday, February 21, 2024**

No.	Presenter	Affiliation	Title	(Title in Japanese)
44	Yuka Hatano	FRIS, Tohoku Univ.	Introduction of research by Homologous Models ~Automatic Facial Reconstruction system/ Identification by Dental casts~	相同モデルを利用した研究紹介～自動復顔法・歯牙模型による身元特定法～
44b*	Yuka Hatano	FRIS, Tohoku Univ.	Study of Diversified Prehistoric Culture in the Southern Ryukyu Islands Using Replica Investigation.	レプリカ法による日本列島南西端の島嶼文化起源の解明
45*	Kohei Tamura	CNEAS, Tohoku Univ.	The Value and Maintenance of "Broken" Cultural Heritage: The Transmission of Memory of Disasters with Digital Technologies	
46	Yuta Nakayasu	FRIS, Tohoku Univ./TI-FRIS Fellow	Biomass-derived electrodes using hydrothermal conversion	水熱変換を利用したバイオマス由来電極
47*	Ryuichi Kumagai	Graduate School of Education, Tohoku Univ.	Development of mentoring tools that facilitate academic management of scientific laboratories.	大学の理系研究室運営に活用可能なメンタリングツールの開発
48	Yuki Takahashi	Fukushima Univ./TI-FRIS Fellow	Social Implementation of Criminology : The Sixth Order Project for Offenders' Re-entry in Fukushima	刑事政策学の社会実装に向けた取り組みー福島発「立ち直りの六次化プロジェクト」について
49	Osamu Nomura	Hirosaki Univ./TI-FRIS Fellow	Assessing Japanese Medical Students' Emotions and Emotion Regulation during Team based Simulation: Cross-cultural Adaptation of Simulation Emotion Regulation Questionnaire in Japanese	
50	Izumi Matsudaira	FRIS, Tohoku Univ.	Transmit Radiant Individuality to Offspring (TRIO) study: investigating intergenerational transmission effects on brain development	世代間伝達を探究するトリオ脳科学
50b*	Izumi Matsudaira	FRIS, Tohoku Univ.	Creating the novel research field of Family-Level Individuality	子どもが創る家族のかたち - 「〇〇家らしさ」の生物学的基盤の探究 -
51	Kexin Xiong	FRIS, Tohoku Univ.	A neuro-psycholinguistic perspective on language processing	
52	Sakura Kiuchi	FRIS, Tohoku Univ.	Number of Teeth and Dementia-Free Life Expectancy among Japanese Older Adults: A 10-Year Follow-Up Study from JAGES	口腔状態と認知症を伴わない寿命期間との関連: JAGES10年コホート調査

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**TI-FRIS/FRIS Symposium 2024: Poster Presentations (Advanced Basic Science)**

**Day 2: Wednesday, February 21, 2024**

No.	Presenter	Affiliation	Title	(Title in Japanese)
53	Yasunori Okamoto	FRIS, Tohoku Univ./TI-FRIS Fellow	Development of Artificial Metalloenzymes	
54	Hakuto Suzuki	FRIS, Tohoku Univ.	Collective charge excitations in a trilayer cuprate superconductor	
55	Shogo Nishiyama	Miyagi Univ. of Education/TI-FRIS Fellow	Recognition of competence of men and women with respect to the subjects in school	学校の教科に関する男女の能力の認識
56	Shigeo Kimura	FRIS, Tohoku Univ./TI-FRIS Fellow	Toward understanding the origin of cosmic neutrinos	宇宙ニュートリノの起源解明に向けて
57	Tomoya Takano	Hirosaki Univ./TI-FRIS Fellow	Seismic velocity changes in response to ocean loading beneath seafloor	
58	Satoshi Iihama	FRIS, Tohoku Univ./TI-FRIS Fellow	Spintronics and Magnonics	スピントロニクスとマグノニクス
59	Aseel Marahleh	FRIS, Tohoku Univ.	Broadening the outlook of metabolic and skeletal diagnostics	
59b*	Aseel Marahleh	FRIS, Tohoku Univ.	A multi-omics analysis of hyperglycemic osteocytes: a look into RNA splicing and RNA modifications.	
60	Atsushi Tahara	FRIS, Tohoku Univ.	Application of anhydrosugars from waste papers/woods as carbon resources for biomass polymers and drugs	廃紙・廃材由来の無水糖の次世代炭素資源としての可能性：バイオマスポリマー開発および創薬開発への展望と課題
60b*	Atsushi Tahara	FRIS, Tohoku Univ.	Efficient Synthesis of ASP2397, a unique transporter of "inorganic" metals to "organic" microbes	有機物と無機物の狭間で活躍する“金属運搬有機分子”の効率的合成
61	Yohei Kawazura	FRIS, Tohoku Univ.	Inertial Range of Magnetorotational Turbulence	
62	Naoya Kitajima	FRIS, Tohoku Univ.	Simulation of the early universe	初期宇宙のシミュレーション
63	Masaki Okumura	FRIS, Tohoku Univ.	New reaction field in the endoplasmic reticulum to maintain protein homeostasis	
64	Masaki Yamada	FRIS, Tohoku Univ.	Gravitational waves from cosmic strings	

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