

An-Pang Tsai Memorial Joint Symposium of Taipei Tech and Tohoku University

Date : November 24-26, 2019
Venue : Sakura Hall, Tohoku University
Organizer : Tohoku University
Co-organizer : Institute of Multidisciplinary Research for Advanced Materials (IMRAM),
Tohoku University
Institute for Materials Research (IMR), Tohoku University
Tohoku Forum for Creativity (TFC), Tohoku University
The Japan Institute of Metals and Materials

Program

Sunday, 24 November

18:00- Pre-Conference Meeting and Reception (Closed, invited members only)

Monday, 25 November (Sakura Hall)

8:30- Registration

9:00-9:20 **Chair : Hiroyuki Fukuyama**

Opening address Atsushi Muramatsu (Director, IMRAM, Tohoku University)
Sea-Fue Wang (President, Taipei Tech)

9:20-10:35 **Chair: Jhewn-Kuang Chen**

“Development of quasicrystal science and the major contributions of the late Prof. Tsai to it”

Shin Takeuchi (Tokyo University of Science)

“Investigation of crystalline and amorphous metal alloys on anti-bacterial activity“

Hsu-Wei Fang (Taipei Tech)

“Prof. Tsai’s memories from a friend's perspective”

Kiyoshi Aoki (Kitami Institute of Technology)

10:35-10:50 Coffee Break (Sakura Hall, 2nd Floor, *Foyer*)

10:50-12:05 **Chair: Hsu-Wei Fang**

“Optimization of toughness and thermal stability of AZ71 magnesium alloys”

Jhewn-Kuang Chen (Taipei Tech)

“Works with Prof. An-Pang Tsai: Hydrogenation-induced catalysts and ...”

Chikashi Nishimura (NIMS)

“The hybrid of Heusler alloy catalysts for the hydrogen production from ammonia with the intermediate-temperature solid oxide fuel cells”

Chung-Kung Yang (Taipei Tech)

12:05-13:30 Lunch

- 13:30-14:20 **Chair: Hidemi Kato**
“Quasicrystals Research at NIMS : The dream team guided by Prof. An-Pang Tsai”
Eiji Abe (The University of Tokyo)
“Interactions among electrode materials of Li-ion batteries”
Chia-Chen Li (Taipei Tech)
- 14:30-15:30 **Chair: Atsushi Muramatsu**
Plenary lecture
“Quasi-periodic crystals – A paradigm shift in crystallography”
Dan Shechtman (Israel Institute of Technology, Nobel Prize in Chemistry 2011)
- 15:30-16:30 Coffee Break (Sakura Hall, 2nd Floor, *Foyer*)
16:30-18:00 Ceremony (Sakura Hall, 1st Floor)
18:00-19:30 Memorial Dinner (Sakura Hall, 1st Floor)

Tuesday 26, November (Sakura Hall)

- 9:00-10:10 **Chair: Nobuhisa Fujita**
“Collaborative research with Prof. An-Pang Tsai: Preparation of metallic catalysis materials based on metallurgy”
Satoshi Kameoka (IMRAM, Tohoku University)
“Preparation of CuCrO₂ hollow nanofibers from an electrospun Al₂O₃ template”
Te-Wei Chiu (Taipei Tech)
“Discovery of icosahedral quasicrystals of Prof. An-Pang Tsai and acknowledgments to him”
Akio Niikura (UACJ)
- 10:10-10:30 Coffee Break (Sakura Hall, 2nd Floor, *Foyer*)
10:30-11:45 **Chair: Chung-Kung Yang**
“Superconductivity and magnetism in quasicrystals”
Noriaki Sato (Nagoya University)
“Thin film fabrications on application of bioelectronics”
Po-Chun Chen (Taipei Tech)
“Exciting experiences of materials research with A.P.Tsai”
Masami Terauchi (IMRAM, Tohoku University)
- 11:45-13:15 Poster session and Lunch
13:15- Closing Remarks Masahiko Takahashi (IMRAM, Tohoku University)
13:30-16:30 Laboratory visit to IMRAM, IMR and TFC
17:00- Post-Conference Meeting (Closed, invited members only)

This symposium is organized collaboratively by Tohoku University (IMRAM, IMR, and TFC) and the Japan Institute of Metals and Materials. It is also held as a part of the activities within TFCs Thematic Program 2019: Creating a New Frontier through the Synergy of Quasicrystals and Strongly Correlated Electron Systems.

List of Poster Presentation

No.	Title and Presenter
TT-1	Developments of calcium sulfate coating on Ti6Al4V substrate by flame spray <p style="text-align: right;">Yung-Chin Yang</p>
TT-2	Low dielectric constant CaO-B₂O₃-SiO₂ glass ceramics for 5G substrate applications <p style="text-align: right;">Bo Cheng Lai</p>
TT-3	The sputtering of Heusler alloy catalyst onto the porous anode of the intermediate temperature solid oxide fuel cells for ammonia disassociation <p style="text-align: right;">Jyy-Ning Chen</p>
TT-4	Fatigue behaviour of additive manufactured Ti-6Al-4V cuboctahedron cellular structure <p style="text-align: right;">Dhinakar Annadurai</p>
TT-5	Facile approach to the synthesis of core-shelled sulfur composites for lithium-sulfur batteries <p style="text-align: right;">Chuan-Sheng Cho</p>
TT-6	CuFeO₂-CeO₂ composite prepared by self-combustion glycine nitrate process and used for hydrogen production for steam reforming of methanol <p style="text-align: right;">Chung-Lun Yu</p>
TT-7	Ir-cluster decorated Ni@Pd nanocatalyst for oxygen reduction reaction in alkaline electrolyte <p style="text-align: right;">Sheng-Po Wang</p>
TT-8	The effect of nanoporous gold on cell viability <p style="text-align: right;">Hong Wei</p>
TT-9	Design and synthesis of nano-interfaces for real-time profiling of endogenous oxidants release in live cells <p style="text-align: right;">Veerappan Mani</p>
TU-1	ADEM simulation for analysis of compaction behavior of deformable particles <p style="text-align: right;">Ryo Watanabe</p>
TU-2	Mechanisms of PDI family enzymes in catalysis of disulfide bond introduction into nascent polypeptide chains <p style="text-align: right;">Chihiro Hirayama</p>
TU-3	Structural basis of sarco/endoplasmic reticulum Ca²⁺-ATPase 2b regulation via transmembrane helix interplay <p style="text-align: right;">Yuxia Zhang</p>

TU-4	Minor compositional dependence of carrier-sign reversals in icosahedral Al-Cu-Fe Jhong-Ren Huang
TU-5	Development of in-situ observation system of concentration profile around solidification interface Yudai Shiozawa
TU-6	Structural changes in iron-silicate slag by a variation of iron redox state Takuo Koga
TU-7	The contribution of absorbed hydrogen in $\text{ErNi}_{5-x}\text{Al}_x$ to the hydrogenation of $\text{C}_n\text{H}_{2n-2}$ Ryota Tsukuda
TU-8	Development of mist-CVD equipment for $\beta\text{-NaGaO}_2$ thin-film deposition Tatsuya Watanabe
TU-9	Catalytic metallic nanoparticles on urchin-like TiO_2 platform prepared from leached L1_2 Al-Ti-TM intermetallics Yi-Xin Liu
TU-10	Tunneling magneto-dielectric response enhancement of Co-Sr-F nano-granular thin films with Pd doping by vertical magnetron sputtering device Cheng Wang
TU-11	Preparation conditions and magneto-dielectric properties of Co-Al_2O_3 nano-granular films by differential pressure sputtering Moe Kimura
TU-12	Observation of tumor suppressor p53 search dynamics using sub-millisecond resolved single molecule fluorescence microscopy Dwiky Rendra Graha Subekti
TU-13	Microsecond-resolved observation of F1-ATPase conformational changes by single molecular fluorescence spectroscopy Hiroki Senmaru
TU-14	Engineering of genome editing protein Cas9 that slide along DNA faster and might enable efficient target search Trishit Banerjee
TU-15	Hydrothermal synthesis of gadolinium borate nanoparticles for boron and gadolinium neutron capture therapy Keita Mikami