

***5th International Arsenic Symposium
in MIYAZAKI 2018***

~Environmental Impact and Health Hazards~

22 - 25 June, 2018

**Kibana Campus, University of Miyazaki
Miyazaki, Japan**

Organized by University of Miyazaki, IRISH

Sponsored by Miyazaki Prefecture

Cosponsored by Miyazaki Convention and Visitors Bureau

5th International Arsenic Symposium in MIYAZAKI 2018

～Environmental Impact and Health Hazards～

Greeting

The organizing committee cordially invites you to participate in 5th International Arsenic Symposium in MIYAZAKI 2018 ～Environmental Impact and Health Hazards～ to be held on June 22 - 25, 2018, in Miyazaki, Japan. The main objectives of this symposium are to share the latest research results, to exchange ideas, and to boost the cooperative relations on health hazards and environmental problems of arsenic and its countermeasures among scientists, engineers and medical doctors of worldwide. The scope of the symposium will cover all aspect of not only arsenic research but also environmental problems, environmental technology, and engineering.

Organizing committee

COMMITTEE

Organizer: University of Miyazaki, IRISH
Sponsor: Miyazaki Prefecture
Cosponsor: Miyazaki Convention and Visitors Bureau

President: Tsuyomu IKENOUE (President of UOM)
Vice president: Toshiaki ITAMI (Vice president of UOM, Director of Center for International Relations)
Symposium chair: Koichiro SHIOMORI (Prof., Faculty of Engineering)

Organizing committee: Members of IRISH

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Yoshiki KURODA (Prof., Faculty of Medicine)
Yoshitaka HISHIKAWA (Prof., Faculty of Medicine)
Hitoshi MOCHIZUKI (Lecturer, Faculty of Medicine)
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Yasunori YANO (Assist. Prof., Center for International Relations)
Hiroshi YOKOTA (Emeritus Prof., Center for International Relations)

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Ayako ESAKI (Center for International Relations)
Naparee Srisowanna (Faculty of Medicine)
Nguyen Nhat Huynh Mai (Faculty of Medicine)

All the staff members belong to “IRISH”, a cross – academic research group studying international environmental problems and health hazards at Center for International Relations, University of Miyazaki.

IRISH = International Research and Innovation for Sustainable Human - life

5th International Arsenic Symposium in MIYAZAKI 2018

～Environmental Impact and Health Hazards～

& JICA Project Final Report

Date and Place

22th – 25th June, 2018

San-San-Maru Hall, Kibana Campus, University of Miyazaki, Miyazaki, Japan

Schedule

Time table

22 th (Fri.)	18:30	～	19:00	Reception	
	19:00	～	21:00	Arsenic mitigation workshop and Welcome party	
23 th (Sat.)	9:00	～	10:00	Reception	San-San-Maru Hall, Kibana Campus, University of Miyazaki
	10:00	～	12:00	JICA project final report	
	12:00	～	13:00	Lunch time	
	13:00	～	13:15	Opening talk	
	13:15	～	14:00	Invited lecture: I-1	
	14:00	～	14:45	Invited lecture: I-2	
	14:45	～	15:00	Break	
	15:00	～	16:10	Short speech & Poster	
	16:10	～	16:50	Session I	
	17:30			Departure of the courtesy bus	
	19:00	～	21:00	Environment pollution workshop and Banquet	New Wel City MIYAZAKI
24 th (Sun.)	9:30	～	10:30	Session II	San-San-Maru Bldg., Kibana Campus, University of Miyazaki
	10:40	～	11:40	Session III	
	11:40	～	13:30	Lunch time	
	13:30	～	14:30	Session IV	
	14:50	～	16:10	Session V	
	16:10	～	16:25	Closing remarks	
25 th (Mon.)	8:00	～	18:00	Excursion	Toroku

Program

23th June (Saturday)

JICA Project Final Report

Opening Address

Ms. Fumiko IGUCHI (JICA Officer)

Explanation of the Project

Assist. Prof. Yasunori YANO (Project Manager, UOM)

Dr. Khin Phyu Phyu (Director, NPCC, Department of Medical Research)

The Final Report of the Project

Medical Examination part

Dr. Phyo Wai Zin (Research Officer, Department of Medical Research)

Awareness Activity for villagers

Dr. Myo Nanda Aung (Research Officer, Department of Medical Research)

Safe Water Supply part

Assist. Prof. Yasunori YANO (Project Manager, UOM)

My experience in Myanmar

Hisaki OTSUKA (4th grade student, Faculty of Education, University of Miyazaki)

Closing Remarks

Toshiaki ITAMI (Vice president of UOM, Director of Center for International Relations)

5th International Arsenic Symposium in MIYAZAKI

Invited lecture Chairperson: Yoshiki KURODA, Kaoru OHE

I-1 Comprehensive environmental study for arsenic-polluted well drinking water

Masashi KATO (Nagoya University), Ichiro YAJIMA, Kazunori HASHIMOTO, Xiang LI,
Nobutaka OHGAMI

I-2 Arsenic contamination in rice from Vietnam and Cambodia

Nguyen Thi Ha, Myoung-Soo KO, Kongkea PHAN, Kyoung-Woong KIM (Gwangju Institute of Science
and Technology)

Poster session (Short speech & Poster) Chairperson: Koichiro SHIOMORI

P-1 Adsorptive removal of arsenic from aquatic environment

Anh Viet Hoang (University of Kitakyushu), Kazuharu YOSHIZUKA, Syouhei NISHIHAMA

P-2 Removal of arsenic from water environment by electro dialysis

Tuan Minh PHAM (University of Kitakyushu), Syouhei NISHIHAMA, Kazuharu YOSHIZUKA

- P-3 Preparation of yttrium-iron binary composites and their arsenic adsorption properties
Amu WAKAMATSU (University of Miyazaki), Kaoru OHE, Tatsuya OSHIMA, Yoshinari BABA
- P-4 Removal of arsenic using nickel-zinc hydroxyl double salts
Ryosuke TABUCHI (University of Miyazaki), Kaoru OHE, Tatsuya OSHIMA, Yoshinari BABA,
Takayoshi HARA, Shogo SHIMAZU
- P-5 A study on the heavy metal adsorption of Mongolian livestock biomass
Enkhzaya SOLONGO (University of Miyazaki), Koichiro SHIOMORI, Bolormaa OYUNTSETSEG
- P-6 Determination of inorganic arsenic in fish oil by LC-ICP-MS: method validation ~ Does inorganic arsenic exist in fish oil? ~
Eri MATSUMOTO (Japan Food Research Laboratories), Toshiaki SUGIMOTO,
Toshiyuki KAWAGUCHI, Naoki SAKAKIBARA, Michiaki YAMASHITA
- P-7 Synthesis of Fe-type Layered Double Hydroxide from Biomass Combustion Ash for As Removal
Akitoshi SUHARA (Chiba University), Takaaki WAJIMA
- P-8 Analysis of continuous adsorption of arsenic(V) from water with polyacrylamide cryogel column containing iron hydroxide oxide nanoparticles
Daiki ICHIKAWA (University of Miyazaki), Koichiro SHIOMORI
- P-9 Liquid-liquid extraction behavior of arsenic using ethereal compounds in acidic media
Naoki MATSUO (University of Miyazaki), Tatsuya OSHIMA, Kaoru OHE, Yoshinari BABA,
Noriyasu OTSUKI
- P-10 Arsenic-methylation and arsenic-removal using *Bordetella petrii* strain KC42
Koshiro TAKASE (University of Miyazaki), Jun HIROSE, Haruhiko YOKOI,
Munetoshi MIYATAKE
- P-11 Arsenic Problems in Myanmar
Khin Phyu Phyu (Department of Medical Research), Phyo Wai Zin, Myo Nanda Aung, Mya Mar Lar,
Tin Tin Han, Yasunori YANO
- P-12 Extraction of Cu(II) with microcapsules of cross-linked gel of poly(vinyl alcohol)/alginate acid encapsulating dispersed droplets of phenolic oxime extractant
Akiho KUWAHATA (University of Miyazaki), Nov Irmawati Inda, Koichiro SHIOMORI

Session I

Chairperson: Yasunori YANO

- OP-1 Contamination status by arsenic and other metals in groundwater from Myanmar
Tetsuro AGUSA (Prefectural University of Kumamoto), Rikako MURAKAMI, Naoto KIMURA,
Ryo OMAGARI, Yukiko UCHIYAMA, Koji ARIZONO, Haruhiko NAKATA, Nyunt Phay
- OP-2 Structural and functional analysis of a novel arsenic compound produced by a bacterium isolated from the rice root
Masato KURAMATA (Institute for Agro-Environmental Sciences), Satoru ISHIKAWA

24th June (Sunday)

Session II Chairperson: Yoshitaka HISHIKAWA

- OM-1 Sensory disturbance and electrophysiological findings in patients with chronic arsenic intoxication in Toroku, Japan: A 40-year follow-up study
Nobuyuki ISHII (University of Miyazaki), Hitoshi MOCHIZUKI, Yuka EBIHARA,
Kazutaka SHIOMI, Masamitsu NAKAZATO
- OM-2 Arsenic metabolites in dermal cellular milieu: Molecular analysis
Madhyastha HARISHKUMAR (University of Miyazaki), Madhyastha RADHA,
Yuichi NAKAJIMA, Masugi MARUYAMA
- OM-3 Dermatological survey in Myanmar
Hideki KOKETSU (University of Miyazaki), Masahiro AMANO

Session III Chairperson: Tetsuro AGUSA

- OP-3 Arsenic health risk in foodstuffs in the Mekong River basin of Cambodia
Kongkea Phan (International University, Phnom Penh, Cambodia), Kyoung-Woong KIM
- OP-4 Effects of microorganisms on redox potential and mobility of antimony in natural settings
Jong-Un LEE (Chonnam National University), Van Khanh NGUYEN
- OP-5 Arsenic groundwater pollution in Pakistan: A growing health threat
Abida Farooqi (Quaid-i-Azam University), Ishteaque Hussain, Nisbah Mushtaq,
Junaid Ali Khattak, Alexander Van Geen

Session IV Chairperson: Takaaki WAJIMA

- OE-1 Arsenic removal performance of multi-GSF for arsenic-contaminated groundwater in Bangladesh
Yasunori YANO (University of Miyazaki), Hiroshi YOKOTA, Shigeki TOMOMATSU,
Koichiro SHIOMORI, Sachie TSUSHIMA, Shamim Uddin, Md.Joynul Abedin Zaman,
Miah M. Hussainuzzaman
- OE-2 Sorption mechanism of chromate by ferrihydrite and sulfate green rust: comparison by XAFS analysis
Abdullah Al Mamun (Waseda University), Aina ONOBUCHI, Giuseppe GRANATA,
Chiharu TOKORO
- OE-3 Fluoride removal in aluminum coexisting solution by hydrated dolomite
Myint Myint Khin (Waseda university), Makoto YAGISAWA, Giuseppe GRANATA, Toshitaka
TAMURA, Tomohiro HOSHI, Chiharu TOKORO

Session V

Chairperson: Koichiro SHIOMORI

- OE-4 Molecular mechanisms for reducing inorganic arsenic level in rice grains
Satoru ISHIKAWA (National Agriculture and Food Research Organization), Shimpei HAYASHI,
Masato KURAMATA, Tadashi ABE
- OE-5 Removal behavior of hydrocalumite for As(III) and As(V) from aqueous solution
Takaaki WAJIMA (Chiba University)
- OE-6 A study on removal and recovery of heavy metals from industrial wastewater by precipitation and foam separation
Maralmaa BYAMBAA, Erdenechimeg DOLGOR, Yoshihiro SUZUKI (University of Miyazaki)
- OE-7 River pollution caused by the ejecta including arsenic of Mt. Io and the characteristics
Kenichi ITO (University of Miyazaki) and the research team of the University of Miyazaki for the environmental and resource conservation of Mt. Io area