

**18th Annual Meeting of the Japan Society of Sonochemistry**

Oct.23-24, 2009, Nagaoka University of Technology,Nagaoka

:Speaker

:Speaker eligible for Young Researcher Award(born later than or on 4/1/1974)

**Oct.23,2009(Fri)**

**Oral session 11:00-12:20** K.Yasuda,Chair person

A01 “Ultrasound Effect on Hydrogen Bonding in Water-soluble and Thermo-sensitive Polymers”

Ngo Le Ngoc, Kobayashi Takaomi ( Nagaoka University of Technology)

A02 “Ultrasound-induced apoptosis in the presence of Sonazoid”

Yukihiro Furusawa, Qing-Li Zhao, Mariame Ali Hassan, Yoshiaki Tabuchi, Ichiro Takasaki, Shigehito Wada and Takashi Kondo(University of Toyama, Life Science Research Center, University of Toyama )

A03 “In vitro and in vivo evaluation of sonocatalytic cancer therapy coupled with TiO<sub>2</sub> nanoparticles”

Shuhei OSHIMA, Kazuaki NINOMIYA, Chiaki OGINO, Shunichi KURODA and Nobuaki SHIMIZU(Kanazawa University, Institute of Nature and Environmental Technology, Kanazawa University,Kobe University, Nagoya University)

A04 “Analysis of sonocatalytic and cytotoxic mechanisms during disinfection by TiO<sub>2</sub>/US method”

Mohammad MIZANUR RAHMAN<sup>1</sup>, Kazuaki NINOMIYA, and Nobuaki SHIMIZU(Kanazawa University, Institute of Nature and Environmental Technology, Kanazawa University)

**Lunch(12:20-13:20)**

**Oral session 13:20-14:40** M.Atobe,Chair person

A05 “Kinetic analysis of ultrasonic degradation process of phenol”

Daisuke Kobayashi, Yusuke Takeuchi, Kazuki Sano, Koichi Terasaka(Keio University)

A06 “Ultrasonic effects on enhanced agglomeration of calcium phosphate particles”

Hidenori FUNAKOSHI, Susumu NII(Nagoya University)

A07 “Synthesis of LiFePO<sub>4</sub> / C Cathode Material for Lithium Ion Battery Treated by Sonochemical Method “

Hirokazu Okawa, Mineo Sato(Akita University, Niigata University)

**A08 “Synthesis of copper formate hydroxide particles using ultrasound irradiation”**

Shin Uegaki, Yasuhiro Yamada, Masayuki Suda, Yasuaki Einaga (Tokyo University of Science, Keio University)

**Oral session 14:40-16:00** N.Enomoto,Chair person

**A09 “Enhancement of enzymatic saccharification for wood biomass by using ultrasonic irradiation”**

Katsutoshi Tsuruta, Keiji Yasuda, Makiko Sakka, and Kazuo Sakka (Nagoya University, Mie University)

**A10 “Visualization of flow field in a rectangular sonochemical reactor and its sonochemical efficiency”**

Genki Sugiyama, Yoshihiro Kojima, Yoshiyuki Asakura, Shinobu Koda(Nagoya University, Nagoya University,EcoTopia Science Institute, Honda Electronics Co., Ltd.)

**A11 “ Promotion of the micro-flow electrosynthetic system using an ultrasonic agitation”**

Mahito Atobe, Fumihito Amemiya, Keiko Kitano, Daisuke Horii, Toshio Fuchigami(Tokyo Institute of Technology)

**MS “The design of sonochemical reactor – the drive method of transducer”**

Yoshiyuki Asakura, Shinobu Koda(Honda Electronics Co., Ltd., Nagoya University)

**Coffee Break 16:00-16:10**

**Special session 16:10-17:10** T.Kobayashi,Chair person

**S01 “A New Ultrasonic Thermometry and the Potential for Estimating Internal and Surface Temperature Profiles of Heated Materials**

Ikuo Ihara(Nagaoka University of Technology)

**Special session 17:10-18:10** T.Kimura,Chair person

**S02 “Microbubble Cavitation for Therapy: Present Status and Future Directions”**

Paul A. Campbell (University of Dundee,UK)

**Babquet 18:20-**

**Oct.24,2009(Sat)**

**Poster session 9:00-11:00**

**Part** :Odd numbered posters(P01,P03,etc),9:00-10:00

**Part** :Even numbered posters(P02,P04,etc),10:00-11:00

**Note:** Posters should be put on the board on the 1<sup>st</sup> day until the end of the Meeting.

**P01 “Ultrasound induced oxidation of unsaturated phospholipid bilayer membrane”**

- Reina Fukuzaki, Tsuyoshi Yamaguchi, Shinobu Koda(Nagoya University)
- P02 “ Precision cleanings of metal plates by employing sonications combined with ozone microbubbles in water”
- Yasuo Onari, Haruki Shimada, Nobuyuki Asari(Mie Prefecture, Nitta Corporation)
- P03 “Quantification of Droplet Amount Produced by Ultrasonic Irradiation”
- Hiroyuki Honma, Keiji Yasuda, Shinobu Koda, Yoshiyuki Asakura (Nagoya University, Honda Electronics Co., Ltd)
- P04 “Characterization of ultrasonic degradation products of synthetic polymers using high resolution mass spectrometry”
- Takehiro Watanabe, Daisuke Kurokawa, Tomoyuki Ozawa, Hideya Kawasaki, Ryuichi Arakawa(Kansai University, Nissan Chemical Industries, LTD.)
- P05 “Correlation between sonoluminescence and ultrasonic degradation efficiency of synthetic polymers”
- Kiyoshi Doda, Daisuke Kurokawa, Takehiro Watanabe, Ken Yamamoto, Hideya Kawasaki, Ryuichi Arakawa(Kansai University)
- P06 “Sonolysis using ultrasonic atomizer at 2.4MHz.”
- Seiji Aoki, Takahiro Futatugi, Kousuke Terao, Yosiyuki Isiwata, Hisashi Harada(Meisei University)
- P07 “Signal transduction induced by megahertz ultrasound in human myeloid leukemia U937 cells”
- Yusuke Odate, Pak-Kon Choi, Wakako Hiraoka(Meiji University)
- P08 “Sonoactivation of caged Ca<sup>2+</sup> chelater using 1 MHz ultrasound”
- Wakako Hiraoka and Akane Kanamori(Meiji University)
- P09 “The role of water in acetic acid-water solution under sonication”
- Mika Goto, Hisashi Tanaka, Hisashi Harada(Meisei University)
- P10 “Isomerization of the maleic acid and fumaric acid each other by ultrasonic irradiation”
- Yukio Naruke, Hisashi Harada(Meisei University)
- P11 “Effect of ultrasonic irradiation condition on agglomeration behavior of microbubbles”
- Daisuke Kobayashi, Yoshiyuki Hayashida, Koichi Terasaka(Keio University)
- P12 “Sonochemical preparation of magnetically retrievable and reusable noble metal/magnetic composite nanocatalysts”
- H. Debata, Y. Mizukoshi, K. Okitsu, R. Nishimura and N. Masahashi(Osaka Prefecture University, IMR, Tohoku University)
- P13 “Application of ultrasound to synthesis of biodiesel fuel using CaO catalyst”

Shinya Takai, Yoshihiro Kojima(Nagoya University,EcoTopia Science Institute,  
NagoyaUniversity)

P14 “Sonochemical degradation of metal complex in waste water”

Takashi Hayase, Yoshihiro Kojima(Nagoya University,EcoTopia Science Institute,  
NagoyaUniversity)

P15 “Ultrasonic wave induced mechanoluminescence”

Nao Terasaki, Hiroshi Yamada, Chao-Nan Xu(National Institute of Advanced  
Industrial Science and Technology (AIST), CREST, Japan Science and Technology  
Corporation (JST))

P16 “Sonochemical degradation of hazardous aromatic compounds in aqueous solution  
and kinetics analysis”

Kenji Okitsu, Kazuya Date, Kenta Ishikawa, Ben Nanzai, Norimichi Takenaka,  
Hiroshi Bandow, Rokuro Nishimura(Osaka Prefecture University, Kanagawa  
University)

P17 “The use of ultrasound irradiation for extracting bitumen from oil sand”

Saito Tomonao, Ryota Hosokawa, Hirokazu Okawa (Akita University)

P18 “The application of sonication for purifying soil contaminated with microorganism”

Ryota Hosokawa, Takashi Nakamura, Hirokazu Okawa(Akita University)

P19 “Measurement of sonoluminescence pulse width from various liquids”

Yosuke Sawada, Pak-Kon Choi(Meiji University)

P20 “Expression of HSP by ultrasound irradiation”

Kana Sato, Hirokazu Okawa,Katsuyasu Sugawara,Makoto Kume (Akita University)

P21 “Ultrasonic irradiation for purifying suspension contaminated with chlorinated  
organic compound”

Takashi Nakamura, Hirokazu Okawa, Youhei Kawamura, Katsuyasu  
Sugawara(Akita University, University of Tsukuba)

P22 “Basic examination on generation of reactive mist for VOC degradation”

Kazuhiko Sekiguchi, Misako Handa, Kazuhiko Sakamoto(Saitama University)

P23 “Study on Sonochemical reactions under pressure/temperature-controlled  
conditions using a flow-type reactor”

Tsuyoshi Morita, Yoshihiro Kojima, Shinobu Koda and Yoshiyuki Asakura(Nagoya  
Univ.,EcoTopia Science Institute, Nagoya Univ., Honda Electronics Co., Ltd.)

P24 “Ultrasound Effect on Carrageenan Hydrogels“

Shinjiro Okuyama, Kobayashi Takaomi(Nagaoka University of Technology)

P25 “The Influence of Ultrasound Exposure on Swelling Behavior of Thermo-responsive  
Polymer Microgels”

Takayuki KUSUNOKI, Minoru YAMAMOTO, Ngo Le Ngoc and Takaomi  
KOBAYASHI(Nagaoka University of Technology)

P26 “Feasibility Study on Temperature Profile Monitoring of Molding Process by  
Ultrasonic Method”

Manabu Takahashi, Ikuo Ihara(Nagaoka University of Technology)

P27 “Sonochemical pretreatment for enzymatic saccharification of kenaf fiber”

Kazuaki NINOMIYA, Junki TANAKA, and Nobuaki SHIMIZU(Institute of Nature  
and Environmental Technology, Kanazawa University, Kanazawa University)

P28 “Development of drug delivery system using ultrasound and thermosensitive  
liposome.”

Shinya Kawabata, Kazuaki Ninomiya, Nobuaki Shimizu(Kanazawa  
University, Institute of Nature and Environmental Technology, Kanazawa University)

P29 “In situ observation of ultrasonic cleaning process of molecules absorbed on metal  
surface by surface enhanced Raman scattering”

Yuichi Sakakibara, Tsuyoshi Yamaguchi, Shinobu Koda(Nagoya University)

**Oral session 11:00-12:00** H.Harada, Chair person

A12 “Mono-bromination of phenol by  $\text{KBr}/\text{H}_2\text{O}_2/(\text{NH}_4)_6\text{Mo}_7\text{O}_{24}$  under sonication”

Mitsue Fujita, Alexis Bosson, Jean-Marc Leveque, Hajime Sohmiya, Takahide  
Kimura(Shiga University of Medical Science)

A13 “Nanostructural Tailoring of Porous Titania via Sonoelectrochemical Process”

Naoya Enomoto, Ryota Namba, Junichi Hojo(Kyushu University)

A14 “Influence of Cavitation on Ethanol Enrichment in Ultrasonic Atomization System”

Kenji Suzuki, Deepak M. Kirpalani, Susumu Nii(Nagoya University, National  
Research Council Canada)

**Lunch(12:00-13:00)**

**JSS General Assembly 2009(13:00-13:50)**

**Oral session 13:50-14:50** S.Nii, Chair person

A15 “Behavior of bubble-clouds affecting on physical-chemical effects in acoustic  
cavitation”

Fumikazu Kumano, Mika Watanabe, Susumu Takahashi and Yukio Ito(Hachinohe  
Institute of Technology)

A16 “Acoustic cavitation effects on the peculiar properties in sake”

Mika Watanabe, Humikazu Kumano, Susumu Takahashi, Yukio Ito(Hachinohe)

Institute of technology)

A17 “Influence of surfactant on acoustic cavitation noise”

Kyuichi Yasui, Toru Tuziuti, Judy Lee, Teruyuki Kozuka, Atsuya Towata  
(National Institute of Advanced Industrial Science and Technology (AIST))

**Oral session 14:50-15:30** K.Yasui, Chair person

A18 “Sonoluminescence and dynamics of chemically active bubbles”

Shin-ichi Hatanaka, Shigeo Hayashi, Pak-Kon Choi(The University of  
Electro-Communications, Meiji University)

A19 “Frequency, temperature and dissolved –gas dependences of sonoluminescence  
from K atom”

Yuuichi Hayashi, Pak-Kon Choi(YOKOGAWA Elec. Co.,Meiji University)