

**2015 International Chemical Congress of Pacific Basin Societies (PACIFICHEM 2015)****#36 Recycling of Polymeric Materials: Challenges and Perspectives 報告**

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2015年12月15日～20日の期間、アメリカ合衆国ハワイ州ホノルル市において、“2015 International Chemical Congress of Pacific Basin Societies (PACIFICHEM2015)”が開催されました。本会議は、環太平洋地域に属する化学系研究者が一堂に会し、化学研究レベルの向上および国際的な研究者間ネットワーク構築の橋渡しを行うことを目的に五年に一度開催されています。本会議において、吉岡敏明教授（東北大学）、Dr. Thallada Bhaskar（CSIR-Indian Institute of Petroleum, India）、および Veena Sahajwalla 教授（University of New South Wales, Australia）をオーガナイザーとして、12月19日および20日の2日間に渡り、“#36 Recycling of Polymeric Materials: Challenges and Perspectives”が開催されました。口頭発表18件およびポスター発表11件の研究が報告され、プラスチック、木質バイオマス、下水処理汚泥、タイヤ等、幅広い高分子系廃棄物を対象としたリサイクル研究が報告され、活発な議論が繰り広げられました。当プラスチックリサイクル化学研究会からも多くの方が参加しました。

**Oral presentation****Saturday December 19<sup>th</sup>, 2015**

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| 9:00-9:20   | Production of a hydrogen-rich syngas with low tar and ammonia from steam/oxygen gasification of dried sewage sludge in a two-stage gasifier<br><i>Y. Choi, J. Kim</i>                             |
| 9:20-10:00  | Recycling waste polymers in ironmaking: Fundamental investigations on thermal degradation, structure evolution, and carbon dissolution<br><i>R. Khanna, V. Sahajwalla</i>                         |
| 10:00-10:40 | Recycling technology of fiber reinforced plastics using subcritical fluids<br><i>M. Goto, T. Nakagawa</i>   |
| 10:40-11:00 | Decrosslinking of crosslinked polyethylenes via ultrasonically aided extrusion technologies<br><i>A. I. Isayev</i>  |
| 11:00-11:20 | Transforming electronic waste into value-added materials<br><i>R. Rajagopal</i>   |
| 11:20-12:00 | Efficient conversions of plastics into economically valuable products<br><i>A. Kamimura, H. Matsumoto, K. Ikeda, K. Kaiso</i>   |
| 14:00-14:40 | Rapid and highly effective conversion of biomass into chemicals and fuels under hydrothermal conditions<br><i>F. Jin, G. Yao, Z. Huo</i>  |
| 14:40-15:00 | Biosynthesis of polyhydroxyalkanoates (PHAs) using volatile fatty acids (VFAs) generated from the wastewater sludge of Fe-enhanced primary treatment<br><i>J. Xu, X. Li, Y. Li, R. Li, L. Lin</i> |

- 15:00-15:20 Production of volatile fatty acids (VFAs) from the wastewater sludge of the Al-enhanced primary treatment  
*L. Lin, X. Li, H. Li, J. Xu, R. Li, Y. Li*
- 15:20-16:00 Status and strategies for effective utilization of lignocellulosic biomass in India: Case study  
*T. Bhaskar*
- 16:00-16:20 Pyrolysis: a promising process for the utilisation of lignocellulosic biomass in decentralised units  
*B. B. Krishna, B. Biswas, J. Kumar, R. Singh, T. Bhaskar*
- 16:20-17:00 Energy recovery from municipal solid waste incineration in Japan  
*M. Takaoka, T. Yokoyama*

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**Sunday December 20<sup>th</sup>, 2015**

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- 9:00-9:40 Interactions between beech wood and polyethylene during co-pyrolysis  
*S. Kumagai, K. Fujita, G. Grause, T. Kameda, T. Yoshioka*
- 9:40-10:00 Deicer preparation from dolomite and bio-oil from the fast pyrolysis of corncob  
*S. Oh, J. Kim, G. Choi*
- 10:00-10:20 Physical regeneration method of waste plastics based on physical degradation theory  
*S. Yao, A. Tominaga, N. Takenaka, R. Nakano, H. Sekiguchi*
- 10:20-10:40 Generation behavior of nitrogen compounds during steam pyrolysis of polyimide film using Ni-based catalysts  
*T. Hosaka, S. Kumagai, G. Grause, T. Kameda, T. Yoshioka*
- 10:40-11:20 Recovery of useful resources from waste photovoltaic module by liquefaction of cured EVA  
*T. Kamo*
- 11:20-12:00 Applicability of polyurethane foam generated from WEEE as energy sources by thermal methods  
*J. Lee, W. Yang, C. Oh, Y. Seo*

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**Poster presentation**

**Saturday December 19<sup>th</sup>, 2015**

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- Adhesion behavior of blue mussel (*Mytilus galloprovincialis*) and effects of poly(L-lactic acid)  
*T. Furukawa, H. Nishida*
- Preparation of activated carbon from phenol resin for adsorption of low concentration benzene from humid air  
*A. Hiwada, M. Uddin, Y. Kato*
- Effect of reaction environment on hydrothermal valorization of lignin  
*A. Prakash, R. Singh, B. B. Krishna, J. Kumar, T. Bhaskar*
- 19:00-21:00 Scrap tire pyrolysis using a two stage pyrolyzer and absorbents for the removal of sulfur in pyrolysis oil and char  
*G. Choi, S. Oh, J. Kim*
- Basic study of advanced material recycle of waste plastics based on the physical degradation theory  
*A. Tominaga, H. Sekiguchi, R. Nakano, S. Yao, E. Takatori*

Fluid catalytic cracking reaction of waste plastic: Effect of addition of woody biomass

*K. Ohtani, K. Momono, K. Takagi, N. Ozaki*

Fluid catalytic cracking reaction of waste plastic: Activities of the iron-based catalysts

*T. Hotta, K. Ohtani, K. Momono, K. Takagi, N. Ozaki*

Geopolimerization of pulp paper industrial wastes for thermal insulating application

*M. P. Seabra, R. M. Novais, L. H. Buruberry, J. A. Labrincha*

Preparation of quality control plastic disks containing flame retardants and application to the weathering tests

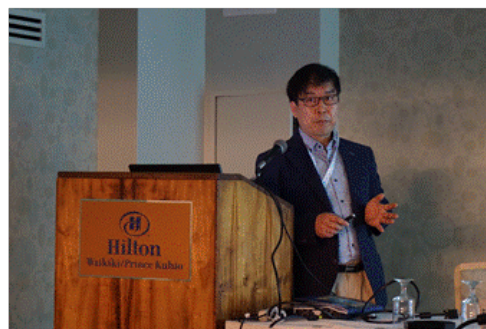
*N. Itoh, T. Otake, M. Ohta, A. Wada, N. Hanari*

Surface design by photo-vapor-phase-assisted surface polymerization

*S. Gomi, H. Nishida*

Availability of woody biomass degraded by mushrooms as ingredient of fermented total mixed ration for feeding dairy cattle

*N. Nagatani, T. Kojima, N. Nishino, K. Tokimoto, S. Nagao, T. Nitoda, H. Kanzaki*



会議風景（左上：加茂会長、右上：議論する加茂会長・吉岡教授・Isayev 教授・Rajagopal 氏、中左：後藤教授、中右：Kim 教授、下：上村教授）