

HU-ACE NEWS LETTER

Advanced Core for Energetics, Hiroshima University

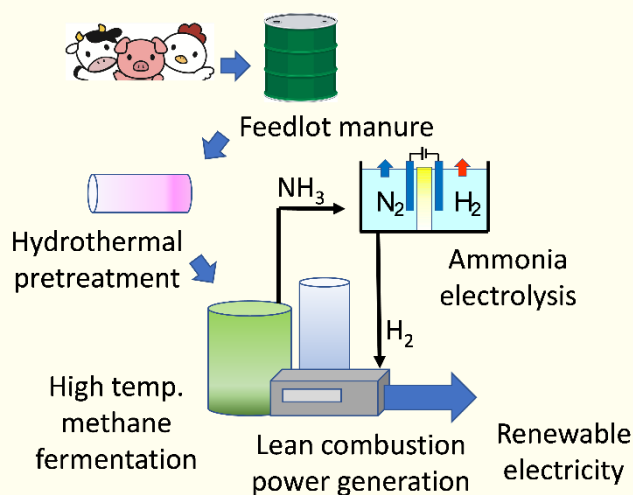
Vol. **43**
2020.7**Activities of the Core**

Jul. 1, 2020	Prof. Nakashimada's lecture was selected in Train your knowledge-Hiroshima University 100 Great Lectures.
Jul. 13, 2020	The 86th Hiroshima University Biomass Evening Seminar (co-organization)
Jul. 21, 2020	The 47th HU-ACE Steering Committee Meeting

Proposal to Ministry of Environment has been accepted.

Members of the HU-ACE cover various fields of energy research. Each of them can supply their expertise knowledge to proceed research and development more practically. This time, researchers from the fields of thermochemical conversion of biomass, biochemical conversion of biomass, electrochemistry, and combustion engineering collaborated to propose a system to utilize feedlot manure to the Environment Research and Technology Development Fund of ERCA of Japan, which was successfully accepted. Now, proper treatment of feedlot manure is wanted. One of the main technologies for this purpose is

methane fermentation. In our proposal, manure is treated hydrothermally before fermentation so that nitrogen is converted into ammonia, and the ammonia is electrolyzed into hydrogen so that hydrogen can be mixed with fermentation gas to improve the combustion efficiency. We are developing the novel technologies to reduce the ammonia inhibition of methane fermentation and to improve the energy efficiency of the process through interdisciplinary approach within the HU-ACE.

**Process proposed to the Ministry of Environment.**

Issued by Advanced Core for Energetics, Hiroshima University

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Member Introduction

No. 25

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Research Field : Academic research

Keyword : Support for research



Abstract

Greetings

I started to work as a research administrator (URA) at Hiroshima University from this June and am in charge of research promotion for HU-ACE. I would like to support the research of all HU-ACE members and contribute to the advancement of their research.

Current Activities

We have been engaged in pre-award phase like promoting research strategy and acquiring external funds. The followings are some of our activities.

Support for;

- Center of excellence (COE) exploration and supply of research seeds
- Acquiring external funds collecting and providing their information, refining applications and conducting seminars
- Promoting research strategy investigation and analysis of research capabilities, formulation of research strategy

Background

I am from Hiroshima and entered the Faculty of pharmaceutical science at Hiroshima University (HU). I majored in organic chemistry and researched on chiral carbanion and asymmetric synthetic reaction by using chiral organo-catalysts. After graduation, I was engaged in drug discovery research as a medicinal chemist (field; anticancer agents and antibacterial agents) at Wakunaga Pharm. In the research on anticancer agents, we identified drug candidates and applied for a patent. And I experienced making documents for out-license and writing the specification of patent applications. I am pleased to work as URA of my alma mater and would like to support HU-ACE by utilizing the experience thus far.

Career

- Career
 - 2020 URA division at HU
 - 2013 Wakunaga Pharmaceutical Co., Ltd. Drug Discovery Laboratory as a medicinal chemist
 - 2013 Graduated from the graduate school at HU Master degree of medicinal science
 - 2011 Graduated from the faculty of pharmaceutical science at HU
- Patent Applications
 - WO2018/174266
- Publications
 - Org. Biomol. Chem.* 2011, 9, 3033-3040
 - Eur. J. Org. Chem.* 2018, 30, 4128-4134
- Hobby
 - aikido, tennis, motorcycle, cooking