

# SEPPYO

Journal of the Japanese Society of Snow and Ice

## Photo Studio of Snow and Ice

Topics on ice physics

*Tomoko IKEDA-FUKAZAWA and Satoshi TAKEYA*

i

## Foreword

*Tsutomu UCHIDA* 317

## Collected Papers on Snow and Ice Properties

### Original Articles

Transmission electron microscopic observations of ice and clathrate hydrate crystals  
*Toshiki SHIGA, Koji ISHIZUKA, Masafumi NAGAYAMA, Kazutoshi GOHARA and Tsutomu UCHIDA* 319

Relationship between cage occupations of guest molecules in gas hydrates encaging methane mixtures and gas compositions  
*Masato KIDA, Hirotoshi SAKAGAMI, Nobuo TAKAHASHI, Yasushi KAMATA, Hiroyuki OYAMA, Satoshi TAKEYA, Takao EBINUMA and Hideo NARITA* 329

Dissociation heat of mixed-gas hydrate composed of methane and ethane  
*Akihiro HACHIKUBO, Masato KIDA, Mitsuru OKUDA, Hirotoshi SAKAGAMI and Hitoshi SHOJI* 341

Growth morphology and mechanism of Xe clathrate hydrate crystal on ice surface  
*Masato ITO, Wataru SHIMADA, Jiro NAGAO, Takao EBINUMA and Hideo NARITA* 353

### Reviews

Asymmetry between growth and melt shapes in ice crystals  
*Minoru MARUYAMA and Shinya TSUMURA* 361

Structure and dynamics of ice surface  
*Tomoko IKEDA-FUKAZAWA* 369

Experimental study on the mechanical strength of ice-silica particle mixtures  
*Minami YASUI and Masahiko ARAKAWA* 377

Mapping and analysis of density within clathrate hydrate  
—Nondestructive imaging using phase-contrast x-ray computed tomography method—  
*Satoshi TAKEYA, Akio YONEYAMA, Kazuyuki HYODO and Tohoru TAKEDA* 387

**Record of Research** 395

**Report of Abroad** 403

**Report from the Branches** 410

**Announcement** 414

**JSSI Announcements** 416

**Conference Schedule** 438

*Published by the Japanese Society of Snow and Ice*

*Kagaku-kaikan (Chemistry Hall) 3F, Kanda Surugadai 1-5, Chiyoda-ku, Tokyo 101-0062, Japan*

### Notice about photocopying

In order to photocopy any work from this publication, you or your organization must obtain permission from the following organization which has been delegated for copyright clearance by the copyright owner of this publication.

Except in the USA

Japan Academic Association for Copyright Clearance,  
(JAACC) 6-41 Akasaka 9-chome, Minato-ku, Tokyo  
107-0052 Japan  
TEL: 81-3-3475-5618 FAX: 81-3-3475-5619  
E-mail: info@jaacc.jp

In the USA

Copyright Clearance Center, Inc.  
222 Rosewood Drive, Danvers, MA 01923 USA  
Phone : 1-978-750-8400 FAX : 1-978-646-8600