

**The Proceedings of
The Seventh (2007) ISOPE
OCEAN MINING (& GAS HYDRATES) SYMPOSIUM**

Lisbon, Portugal, July 1–6, 2007

OPENING SESSION

51. OMS-2007 OCEAN MINING I (V. 1)

2007-OMS-60 0129

Status Report on Deep Sea Drilling Vessel "CHIKYU" -Design and SIT Operation-

Masanori Kyo, Yoshio Isozaki, Kazuyasu Wada, Motoki Kobashi, Eigo Miyazaki, Tomoya Inoue and Yasuhiro Namba, JAMSTEC, Japan

2007-OMS-22

The Dawning of Deep Sea Mining of Metallic Sulfides: The Geologic Perspective

Steven D. Scott, Univ of Toronto, Canada

2007-OMS-58 0126

Identification of Factors and Conditions Potentially Responsible for the Buried Nodules Occurrence in the Eastern Clarion-Clipperton Zone (NE Pacific)

Ryszard Kotlinski and Valcana Stoyanova, Interoceanmetal Joint Organization, Poland

DEEP OCEAN WATER

58. OMS-2007 OCEAN MINING II: DOW (V. 1)

2007-OMS-52

Three Years Operation of Ocean Nutrient Enhancer TAKUMI in Sagami Bay Area

Kazuyuki Ouchi, Ouchi Ocean Consultant, Japan

2007-OMS-53

Strain Measurement on Riser Pipe of "TAKUMI"

Katsuya MAEDA, Ichihiko TAKAHASHI, National Maritime Research Inst; Hiroaki MIYABE, IHI Marine United; Satoshi MASUDA, JFE Soldec, Japan

2007-OMS-55

Ecological Footprint Accounting of "TAKUMI"

Koji Otsuka, Osaka Prefecture Univ, Japan

2007-OMS-20

Investigation of Potential Sites for Deep Ocean Water Development in Taiwan

Ta-Kang Liu, Hwung-Hweng Hwung, Jin-Li Yu and Ruey-Chy Kao, National Cheng Kung Univ, Taiwan, China

GAS HYDRATES

68. OMS-2007 OCEAN MINING III: Gas Hydrates 1 (V. 1)

2007-YXW-06 (Added 2/14)

An Experimental Investigation on Rheology of Condensate Oil/tetrahydrofuran Hydrate Slurry

Hai-Yuan Yao, Qing-Ping Li, CNOOC Research Center; Guang-Jin Chen and Jing Gong, China Univ of Petroleum, China

2007-OMS-29

Compaction Behavior of Toyoura Sand during Methane Hydrate Dissociation

Kazuo Aoki, Akira Masui, Hironori Haneda and Yuji Ogata, National Inst of AIST, Japan

2007-OMS-28

Mechanical Properties of Sandy Sediment Containing Marine Gas Hydrates

Akira Masui, Hironori Haneda, Yuji Ogata and Kazuo Aoki, National Inst of AIST, Japan

2007-OMS-30

Mechanical Properties of Sandy Sediment Containing Marine Gas Hydrates

Akira Masui, Hironori Haneda, Yuji Ogata and Kazuo Aoki, National Inst of AIST, Japan

2007-OMS-45

Simulation of Triaxial Compression Tests on Soil Samples Obtained from Seabed Ground in Deep Sea by Elasto-viscoplastic Constitutive Equation

E. Ogisako, S. Nishio, A. Denda, F. Shimizu Corp; Oka and S. Kimoto, Kyoto Univ, Japan

2007-OMS-19 Not Withdrew 0126

Estimation of Surface Area of Methane Hydrate in Sediments

Takafumi Nakayama, Univ of Tokyo; Keiichi Ogasawara, Fumio Kiyono, Akihiro Yamasaki, AIST; Toru Sato, Univ of Tokyo, Japan

2007-OMS-42

Seafloor Displacement Monitoring by Double Integral Technique Using Servo-accelerometer System

Tatsuya Yokoyama, Hideki Saito, Hiroshi Kameya and Shigekazu Uchiyama, Engineering Advancement Assoc. of Japan (OYO Corp.), Japan

78. OMS-2007 OCEAN MINING IV: Gas Hydrates 2 (V. 1)

2007-OMS-46

Experimental Study on Steam Injection Method using Methane Hydrate Core Samples.

T. Kawamura, M. Ohtake, Y. Sakamoto, Y. Yamamoto, H. Haneda, T. Komai, National Inst of AIST; S. Higuchi, Nihon Axis Co., Ltd, Japan

88. OMS-2007 OCEAN MINING V: Gas Hydrates 3 (V. 1)

2007-OMS-24

Measurement of Methane Hydrate Sediment Permeability Using Several Chemical Solutions as Inhibitors

Hideki Minagawa, Yusunori Nishikawa, Ikuko Ikeda, Yasuhide Sakamoto, Takeshi Komai and Hideo Narita, National Inst of AIST, Japan

2007-OMS-23

Assessment of the Absolute Permeability of Natural Methane Hydrate Sediments by Microfocus X-ray Computed Tomography

Yusuke Jin, Jiro Nagao, Junko Hayashi, Kiyofumi Suzuki, Hideki Minagawa, Takao Ebinuma and Hideo Narita, National Inst of AIST, Japan

2007-YXW-07 (Added 2/14)

The Experimental Studies and Development Concept for the Offshore Natural Gas Hydrate

Qingping Li, Hengyi Zeng, Weiliang Dongyi Zhijun Wang, CNNOOC Resesarch Center; Zi-Ping FENG, Liang-Guang TANG and Xiao-Sen LI, Guangzhou Inst of Energy Conversion, CAS, China

2007-OMS-44

Field Scale Simulation for the Effect of Relative Permeability on Dissociation and Gas Production Behavior during Depressurization Process of Methane Hydrate in Marine Sediments

Y. Sakamoto, T. Komai, T. Kawamura, N. Tenma and T. Yamaguchi, AIST, Japan

2007-OMS-48

Permeability of Artificial Methane Hydrate Sediment in Radial Flow System

M. Shimokawara, K. Ohga, Hokkaido Univ; Y. Sakamoto, T. Komai and T. Yamaguchi, AIST, Japan

2007-JSC-218

Observation of the Self-preservation Effect of Methane and Ethane Hydrate

Noriyuki Shimomura, Jiro Nagao, Yusuke Jin, Takao Ebinuma and Hideo Narita, National Inst of AIST, Wataru Shimada, Toyama Univ; Japan

2007-OMS-38

Complex Structure Transition Induced by Swapping Process Occurring in Natural Gas Hydrate Layer

Jiwoong Seol, Sun-Hwa Yeon, Youngjune Park, Do-Youn Kim, Ji-Ho Yoon, Korea Maritime Univ., Huen Lee, , KAIST, Jong-Won Lee, Kongju Natl Univ., Korea

2007-JSC-410

Experimental Study on Formation of Propane Gas Hydrate by Fluidized Bed Type Reactor

T. Arai, Y. Kato, T. Iwasaki, N. Kanda and K. Uchida, Mitsui Engineering & Shipbuilding, Japan

2007-OMS-26

Preliminary Modeling of Chemosynthetic Ecosystem around Methane Seepage

Rika Takeuchi, Tetsuo Yamazaki, National Inst of AIST; Daisuke Monoe, Tomoaki Oomi, Chuden CTI; Kisaburo Nakata, Tokai Univ., and Tomohiko Fukushima, Ocean Policy Research Foundation, Japan

DEEP-OCEAN MINERALS EXPLORATION AND MICROPLANKTON SAMPLER

98. OMS-2007 OCEAN MINING VI (V. 1)

2007-OMS-11

Applicability Evaluation of the Surface-wave Exploration to the River Marine Geology Investigation

Hisashi Fujimura, Tottori Univ; Toshihiko Tanaka, Koichi Hayashi, Masanori Saitou and Tomohiro Kamoshita, OYO Co; Takaho Kita, TK Land and Sea Investigation Office, Japan

2007-OMS-14

Concentrated and Gastight Sampler of Deep-sea Microplankton

Zhonghua Huang, Central South Univ, China

2007-OMS-36

Metamodel-based Multidisciplinary Design Optimization of Ocean-Mining Vehicle System

Min Uk Lee, Jae Jun Jung, Jung Hun Yoo, Tae Hee Lee Hanyang Univ; Sup Hong, Hyung Woo Kim, and Jong Su Choi, Maritime and Ocean Engineering Research Inst, Korea

DEEP-OCEAN MINING SYSTEMS AND TECHNOLOGY

108. OMS-2007 OCEAN MINING VII (V. 1)

2007-OMS-62 Added 3/1

Economic Evaluation of CO₂ Ocean Sequestration in Korea

Se.Hun Park, Suk.Jae Kwon, and Wee.Yeong Oh, Park, S H, Kwon, S J, Oh, W Y, Korea Ocean Research & Development Inst, Korea

2007-OMS-18

Simulation of Motion Performance for a Cobalt Crust Miner on Seamounts

Li Li, Shaojun Liu, , Central South Univ; Changbin Wu, China Ocean Mineral Resources R&D Assoc; Yuqing Gao, Changsha Institute of Mining Research; Ning Yang, Changsha Research Institute of Mining & Metallurgy. China

2007-OMS-21

Separation of Manganese Nodules from Solid-liquid Mixture Using Hydrocyclone

Yong-Chan Park, Chi-Ho Yoon, Young-Ju Kim, Dong-Kil Lee, Jong-Myung Park and Seok-ki Kwon, Korea Inst of Geoscience and Mineral Resources, Korea

2007-OMS-13 (moved from Session 118)

A Study on the Solid-Liquid Helical Flow in a slim hole annulus

Young-Ju Kim, Chi-Ho Yoon, Yong-Chan Park, Jongmyung Park, Seok-Ki Kwon, Korea Inst of Geoscience and Mineral Resources; Young Kyu Hwang and Nam Sub Woo, Sungkyunkwan Univ, Korea

118. OMS-2007 OCEAN MINING VIII (V. 1)

2007-OMS-47

Development and Testing of Underwater Mining Systems for Long Term Operations using Flexible Riser Concept

Deepak C.R, S. Ramji, N.R. Ramesh, S.M. Babu, Raju Abraham, Shajahan M. A and Atmanand M.A, National Inst of Ocean Technology, India

2007-OMS-12

Three Dimensional Solid-liquid Flow Analysis for Design of Two-stage Lifting Pump

Jong-Myung Park, Chi-Ho Yoon, Yong-Chan Park, Young-Ju Kim, Dong-Kil Lee and Seok-ki Kwon, Korea Inst of Geoscience and Mineral Resources, Korea

2007-OMS-56 **May not present, At end of session**

COMRA's Research on Lifting Motor Pump

Weisheng Zou, , Central South Univ/Hunan Univ, China

2007-OMS-43

Effect of Particle Size and Concentration on Flow Behavior of Complex Slurries

Pavel Vlasak and Zdenek Chara, Inst of Hydrodynamics, Academy of Sciences, Czech Republic

2007-OMS-61

Two-phase Vertically Upward Transport of Silica Sands in Dilute Polymer Solution: Drag Reduction and Effects of Sand Size and Concentration

Jin S. Chung, ISOPE, K. Lee, Kiewit Southern; A. Tischler, , Aera Energy, USA

2007-OMS-49

Movement of Solid Particles in Vertical Pipe

Jerzy Sobota, Wroclaw Univ; Jan Palarski, Franciszek Plewa, and Grzegorz Stozik, Silesian Univ of Technology, Poland

2007-OMS-50

Analysis of Two-phase Mixture Flow in Vertical Pipeline

Jan Palarski, Franciszek Plewa, Silesian Univ of Technology; Jerzy Sobota, Wroclaw Univ, and Grzegorz Stozik, Silesian Univ of Technolog