

研 究 業 績

1. 論文（レフェリーつき）

(1) Electrochemical Behavior of Ferrocene Solubilized in Surfactant Micelles: Electrostatic Interaction between Ferricinium Ion and Anionic Micelles.

Hideki Sakai, Tatsuya Matsumi, Yasushi Kakizawa, Hitoshi Imamura, Takuto Takei, Koji Tsuchiya, Kyungok Kwon, Aritomo Yamaguchi and Masahiko Abe,
Journal of Oleo Science, Vol. 50, No. 12, pp. 937-943 (2001)

(2) Electrochemical Behavior of a Ferrocene-Modified Cationic Surfactant Mixed with an Anionic Surfactant in Aqueous Solutions.

Koji Tsuchiya, Hideki Sakai, Kyungok Kwon, Takuto Takei and Masahiko Abe,
Journal of Oleo Science, Vol. 51, No. 2, pp. 133-140 (2002)

(3) Electrochemical Reaction in Aqueous Solution of a Ferrocene-Modified Cationic Surfactant Mixed with an Anionic Surfactant.

Koji Tsuchiya, Hideki Sakai, Tetsuo Saji and Masahiko Abe,
Langmuir, Vol. 19, No. 22, pp. 9343-9350 (2003)

(4) Temperature-Dependent Vesicle Formation of Aqueous Solutions of Mixed Cationic and Anionic Surfactants.

Koji Tsuchiya, Hisanori Nakanishi, Hideki Sakai and Masahiko Abe,
Langmuir, Vol. 20, No. 6, pp. 2117-2122 (2004)

(5) Control of Viscoelasticity Using Redox Reaction.

Koji Tsuchiya, Yoichi Orihara, Yukishige Kondo, Norio Yoshino, Takahiro Ohkubo, Hideki Sakai and Masahiko Abe,
Journal of the American Chemical Society, Vol. 126, No. 39, pp. 12282-12283 (2004)

(6) Phase Behavior of Mixed Solutions of a Cationic Surfactant with a Ferrocenyl Group and an Anionic Surfactant: Surface Chemical and Electrochemical Approaches.

Hitoshi Imamura, Koji Tsuchiya, Yukishige Kondo, Norio Yoshino, Takahiro Ohkubo, Hideki Sakai and Masahiko Abe,
Journal of Oleo Science, Vol. 54, No. 3, pp. 125-134 (2005)

(7) Stearylamine Changes the Liposomal Shape from MLVs to LUVs.

Shoko Yokoyama, Akiko Inagaki, Koji Tsuchiya, Hideki Sakai, Tomohiro Imura, Takahiro Ohkubo, Nobuyuki Tsubaki and Masahiko Abe,

Journal of Oleo Science, Vol. 54, No. 4, pp. 251-254 (2005)

(8) Effects of Dialkyldimethylammonium Bromides on the Membrane Properties of Cationic Liposomes.

Akiko Inagaki, Koji Tsuchiya, Hideki Sakai, Tomohiro Imura, Takahiro Ohkubo, Nobuyuki Tsubaki, Shoko Yokoyama and Masahiko Abe,

Journal of Oleo Science, Vol. 54, No. 7, pp.383-388 (2005)

(9) ミセル電解法による無機薄膜の作製

今村仁, 吉岡浩也, 土屋好司, 中野智, 大久保貴広, 岡部慎也, 酒井秀樹, 二瓶好正、阿部正彦

Material Technology Vol. 23, No. 1, pp. 27-35 (2005)

(10) Effects of Alkyl Chain Length of Phosphatidylcholine on the Membrane Properties of Cationic Liposomes.

Akiko Inagaki, Koji Tsuchiya, Hideki Sakai, Tomohiro Imura, Takahiro Ohkubo, Nobuyuki Tsubaki, Shoko Yokoyama and Masahiko Abe,

Material Technology, Vol. 23, No. 2, pp. 107-110 (2005)

(11) Mechanism of Concentration-Dependent Vesicle-Micelle Transition in Aqueous Mixture of Cationic and Anionic Surfactants.

Hisanori Nakanishi, Koji Tsuchiya, Takahiro Ohkubo, Hideki Sakai and Masahiko Abe,

Journal of Oleo Science, Vol. 54, No. 8, pp.443-451 (2005)

(12) Photo-induced Reversible Change of Fluid Viscosity

Hideki Sakai, Yoichi Orihara, Hideki Kodashima, Takahiro Ohkubo, Koji Tsuchiya and Masahiko Abe,

Journal of the American Chemical Society, Vol. 127, No. 39, pp.13454-13455 (2005)

(13) Effective Form of Sulfoquinovosyldiacylglycerol (SQDG) Vesicles for DNA Polymerase Inhibition.

Kenjiro Matsumoto, Hideki Sakai, Ryo Takeuchi, Koji Tsuchiya, Keisuke Ohta, Fumio Sugawara, Masahiko Abe and Kengo Sakaguchi,

Colloids and Surfaces, B, Vol. 46, No. 3, pp. 175-181 (2005)

(14) Calorimetry and Cryo-Transmission Electron Microscopic Studies of PEG2000-Grafted Liposomes.

Kaname Hashizaki, Hiroyuki Taguchi, Koji Tsuchiya, Hideki Sakai, Masahiko Abe, Yoshihiro Saito and Naotake Ogawa,

Chemical and Pharmaceutical Bulletin, Vol. 54, No. 4, pp. 561-563 (2006)

(15) FT-IR and NMR Study on Concentration-Dependent Vesicle-Micelle Transition in CTAB/SOS/D₂O Ternary System.

Hisanori Nakanishi, Koji Tsuchiya, Takahiro Ohkubo, Hideki Sakai and Masahiko Abe, *Material Technology*, Vol. 24, No. 1, pp. 20-26 (2006)

(16) Polymerizable Cationic Gemini Surfactant.

Masahiko Abe, Kazuyuki Tsubone, Takaaki Koike, Koji Tsuchiya, Takahiro Ohkubo and Hideki Sakai,

Langmuir, Vol. 22, No. 20, pp. 8293-8297 (2006)

(17) Adsorption and Aggregation Properties of Heterogemini Surfactants Containing a Quaternary Ammonium Salt and a Sugar Moiety.

Kanae Nyuta, Tomokazu Yoshimura, Koji Tsuchiya, Takahiro Ohkubo, Hideki Sakai, Masahiko Abe and Kunio Esumi,

Langmuir, Vol. 22, No. 22, pp. 9187-9191 (2006)

(18) Preparation of Nanocapsules with Alginate/Polylysine Complex Wall.

Masahiko Abe, Kensuke Tanaka, Ai Nakayama, Tamotsu Kondo, Koji Tsuchiya, Veerapat Tantayakom, Takahiro Ohkubo and Hideki Sakai,

Journal of Oleo Science, Vol. 55, No. 12, pp. 615-621 (2006)

(19) Cationic Surfactant Changes the Morphology of DNA Molecules.

Hisanori Nakanishi, Koji Tsuchiya, Takahiro Ohkubo, Hideki Sakai and Masahiko Abe, *Langmuir*, Vol. 23, No. 2, pp. 345-347 (2007)

(20) Effect of the Ligand on Oxidation-Reduction Potential of Ferrous Fumarate.

Takuto Takei, Katsuyoshi Aikawa, Koji Tsuchiya, Hideki Sakai and Masahiko Abe, *Material Technology*, Vol. 24, No. 6, pp. 325-332 (2006)

(21) Adsorption and Aggregation Properties of Amino Acid-Based N-Alkyl Cysteine Monomeric and N,N'-Dialkyl Cystine Gemini Surfactants.

Tomokazu Yoshimura, Ayako Sakato, Koji Tsuchiya, Takahiro Ohkubo, Hideki Sakai, Masahiko Abe and Kunio Esumi,

Journal of Colloid and Interface Science, Vol. 308, No. 2, pp. 466-473 (2007)

(22) Phase Behavior of Mixed Solution of a Glycerin-Modified Cationic Surfactant and an Anionic Surfactant.

Koji Tsuchiya, Jun Ishikake, Tae Seong Kim, Takahiro Ohkubo, Hideki Sakai and Masahiko Abe,

Journal of Colloid and Interface Science, Vol. 312, No. 1, pp. 139-145 (2007)

(23) Preparation of Tiny Biodegradable Capsules Using Electrocapillary Emulsification.

Masahiko Abe, Ai Nakayama, Tamotsu Kondo, Hiroshi Morishita, Koji Tsuchiya, Shigenori Utsumi, Takahiro Ohkubo and Hideki Sakai,

Journal of Microencapsulation, Vol. 24, No. 8, pp. 777-786 (2007)

(24) Photo-Isomerization of Spiropyran-Modified Cationic Surfactants.

Hideki Sakai, Hiroatsu Ebana, Kenichi Sakai, Koji Tsuchiya, Takahiro Ohkubo and Masahiko Abe,

Journal of Colloid and Interface Science, Vol. 316, No. 2, pp. 1027-1030 (2007)

(25) Adsorption and Aggregation Behavior of Novel Gluconamide-Type Gemini Surfactants.

Kenichi Sakai, Shin Umezawa, Mamoru Tamura, Yuichiro Takamatsu, Koji Tsuchiya, Kanjiro Torigoe, Takahiro Ohkubo, Tomokazu Yoshimura, Kunio Esumi, Hideki Sakai and Masahiko Abe,

Journal of Colloid and Interface Science, Vol. 318, No. 2, pp. 440-448 (2008)

2. 論文

なし

3. 研究報告等

なし

4. 論説、展望、解説等

(1) 外部刺激による界面物性のスイッチング

土屋好司

Hyomen, Vol. 43, No.1, pp.1 (2005)

5. 著書、訳書

(1) 日本油化学会編、“油化学辞典 脂質・界面活性剤”丸善(2004) 分担執筆

(2) 辻井薫 監訳、“Handbook of Applied Surface and Colloid Chemistry”エヌ・ティ ー・エス(2005) 分担執筆

(原書：Krister Holmberg Ed. *Handbook of Applied Surface and Colloid Chemistry*:
John Wiley, 2002)

6. その他の研究業績

(1) 特許出願 特開 2005-290203 “粘弾性可変素材および粘弾性可変素材の粘弾 性制御方法”

(2) 特許出願 特開 2006-161149 “薄膜の形成法”

(3) 特許出願 特開 2007-332309 “光応答性組成物、光粘弾性制御方法、光粘弾 性制御システム、光応答性組成物の使用”