

I 原著論文(レフェリー付).

- 1) Interaction of cationic gold nanoparticles and carboxylate-terminated poly(amidoamine) dendrimers
Ayaka Okugaichi, Kanjiro Torigoe, Tomokazu Yoshimura, Kunio Esumi
Colloids and Surfaces A 273, 154-160 (2006).
- 2) Effect of sodium dodecylsulfate and dodecyltrimethyl ammonium bromide on the morphologies of gold nanoparticles in the presence of poly(amidoamine) dendrimers
M. S. Bakshi, A. Kaura, G. Kaur, K. Torigoe, K. Esumi
Journal of Nanoscience and Nanotechnology, 6 (3) 644-650 (2006).
- 3) Synthesis of colloidal gold nanoparticles of different morphologies in the presence of triblock polymer micelles
M. S. Bakshi, A. Kaura, P. Bhandari, G. Kaur, K. Torigoe, K. Esumi
Journal of Nanoscience and Nanotechnology, 6 (5) 1405-1410 (2006).
- 4) Topographical and photophysical properties of poly(amidoamine) dendrimers with ionic surfactants
M. S. Bakshi, A. Kaura, R. Sood, G. Kaur, T. Yoshimura, K. Torigoe, K. Esumi
Colloids and Surfaces A 266 (1-3), 181-190 (2005).
- 5) Antioxidant activity of noble metal –biopolymer nanocomposites (Part II)
Shintaro Akiyama, Tomokazu Yoshimura, Kanjiro Torigoe, Kunio Esumi
Journal of Japan Society of Colour Material, 78 (9) 409-416 (2005).
- 6) Platinum nanowires and layers obtained by self assembly of Chini clusters deposited on supports.
Hynd Remita, Bineta Keita, Kanjiro Torigoe, Jacqueline Belloni, Louis Nadjo
Surface Science, 572(2-3), 301-308 (2004).
- 7) Self-assembled one-dimensional arrays of gold-dendron nanocomposites.
Shigehiro Nakao, Kanjiro Torigoe, Kijiro Kon-No, Tetsu Yonezawa
Journal of Physical Chemistry, B 106(47), 12097-12100 (2002).

- 8) Synthesis and characterization of dendrimer-metal particle nanocomposites.
Kunio Esumi, Kanjiro Torigoe
Materials Integration, 15(3), 45-47 (2002).
- 9) Physicochemical properties of quaternized poly(amidoamine) dendrimers with alkyl groups and of their mixtures with sodium dodecyl sulfate.
Hirotugu Mizutani, Kanjiro Torigoe, Kunio Esumi
Journal of Colloid and Interface Science, 248(2), 493-498 (2002).
- 10) Radiation-induced reduction of mixed silver and rhodium ionic aqueous solution.
Kanjiro Torigoe, Hynd Remita, Patricia Beaunier, Jacqueline Belloni
Radiation Physics and Chemistry, 64(3), 215-222 (2002).
- 11) Interactions between a hydrophobically modified poly(amidoamine) dendrimer and surfactants in aqueous solutions.
Kunio Esumi, Keiko Kuwabara, Taeko Chiba, Fuminori Kobayashi, Hirotugu Mizutani, Kanjiro Torigoe
Colloids and Surfaces A, 197(1-3), 141-146 (2002).
- 12) Kinetics of formation of drug particles in the presence of surfactant/polymer.
Hideo Terayama, Masumi Funakoshi, Kanjiro Torigoe, Kunio Esumi
Colloids and Surfaces B, 23(1), 65-71 (2002).
- 13) Interactions between alkanethiols and gold-dendrimer nanocomposites.
Kunio Esumi, Koji Satoh, Kanjiro Torigoe
Langmuir, 17(22), 6860-6864 (2001).
- 14) Adsolubilization of 2-naphthol by binary mixtures of cationic and nonionic surfactants on silica.
Kunio Esumi, Noriko Maedomari, Kanjiro Torigoe
Langmuir, 17(23), 7350-7354 (2001).
- 15) Au(III)-PAMAM interaction and formation of Au-PAMAM nanocomposites in ethyl acetate.
Kanjiro Torigoe, Akihiro Suzuki, Kunio Esumi
Journal of Colloid and Interface Science, 241(2), 346-356 (2001).
- 16) Fiber-like gold particles prepared in cationic micelles by UV irradiation: Effect of alkyl chain length of cationic surfactant on particle size.

Azusa Kameo, Akihiro Suzuki, Kanjiro Torigoe, Kunio Esumi
Journal of Colloid and Interface Science, 241(1), 289-292 (2001).

- 17) Interaction between ionic surfactants and glass surfaces with covalently attached quaternary ammonium groups.

Kenichi Sakai, Kanjiro Torigoe, Kunio Esumi
Langmuir, 17(16), 4973-4979 (2001).

- 18) Simultaneous adsorption of sugar-persubstituted poly(amidoamine) dendrimers and anionic surfactant at the alumina / aqueous solution interface.

Kunio Esumi, Kentaro Sakagami, Satoshi Kuniyasu, Yukiko Nagata, Kenichi Sakai, Kanjiro Torigoe
Langmuir, 16(26), 10264-10268 (2000).

- 19) Kinetics of simultaneous adsorption of poly(vinylpyrrolidone) and sodium dodecyl sulfate on alumina particles.

Kunio Esumi, Mari Iitaka, Kanjiro Torigoe
Journal of Colloid and Interface Science, 232(1), 71-75 (2000).

- 20) Preparation and catalytic activity of platinum-dendrimer nanocomposites.

Kunio Esumi, Koji Sato, Akihiro Suzuki, Kanjiro Torigoe
Journal of Japan Society of Colour Material, 73(9), 434-437 (2000).

- 21) Mixed surfactant adsolubilization of 2-naphthol on alumina.

Kunio Esumi, Noriko Maedomari, Kanjiro Torigoe
Langmuir, 16(24), 9217-9220 (2000).

- 22) Preparation of platinum nanoparticles in ethyl acetate in the presence of poly(amidoamine) dendrimers with a methyl ester terminal group.

Kunio Esumi, Ryuhei Nakamura, Akihiro Suzuki, Kanjiro Torigoe
Langmuir, 16(20), 7842-7846 (2000).

- 23) Adsorption of poly(amidoamine) dendrimers with surface amino groups and cationic surfactants at the silica/water interface.

Kunio Esumi, Noriyuki Fujimoto, Kanjiro Torigoe, Yoshifumi Koide
Journal of Japan Society of Colour Material, 73(6), 290-295 (2000).

- 24) Preparation of hydrophobically modified poly(amidoamine) dendrimer-encapsulated gold nanoparticles in organic solvents.
Kunio Esumi, Tomoyuki Hosoya, Akihiro Suzuki, Kanjiro Torigoe
Journal of Colloid and Interface Science, 229(1), 303-306 (2000).
- 25) Structural characterization of supported platinum carbonyl clusters by X-ray absorption spectroscopy.
Kanjiro Torigoe, Hynd Remita, Georgette Picq, Jacqueline Belloni, Dominique Bazin
Journal of Physical Chemistry B, 104(30), 7050-7056 (2000).
- 26) Formation of gold and silver nanoparticles in aqueous solution of sugar-persubstituted poly(amidoamine) dendrimers.
Kunio Esumi, Tomoyuki Hosoya, Akihiro Suzuki, Kanjiro Torigoe
Journal of Colloid and Interface Science 226(2), 346-352 (2000).
- 27) Reexamination of 2-naphthol adsolubilization on alumina with sodium dodecyl sulfate adsorption.
Kunio Esumi, Kenichi Sakai, Kanjiro Torigoe
Journal of Colloid and Interface Science, 224(1), 198-201 (2000).
- 28) Role of poly(amidoamine) dendrimers for preparing nanoparticles of gold, platinum, and silver.
Kunio Esumi, Akihiro Suzuki, Atsushi Yamahira, Kanjiro Torigoe
Langmuir, 16(6), 2604-2608 (2000).
- 29) Sorption of 2-naphthol and copper ions by cationic surfactant-adsorbed laponite.
Kunio Esumi, Koji Yoshida, Kanjiro Torigoe, Yoshifumi Koide
Colloids and Surfaces, A 160(3), 247-250 (1999).
- 30) Spontaneous formation of gold nanoparticles in aqueous solution of sugar-persubstituted poly(amidoamine) dendrimers
Kunio Esumi, Tomoyuki Hosoya, Akihiro Suzuki, Kanjiro Torigoe
Langmuir, 16(6), 2978-2980 (2000).
- 31) Interactions of sugar-persubstituted poly(amidoamine) dendrimers with anionic surfactants.
Munetaka Miyazaki, Kanjiro Torigoe, Kunio Esumi
Langmuir, 16(4), 1522-1528 (2000).

- 32) Physicochemical properties of 2-vinylpyridine telomers possessing multihydrocarbon chains in aqueous solution and at the silica / aqueous solution interface.
Kunio Esumi, Hirotugu Mizutani, Kei Shoji, Munetaka Miyazaki, Kanjiro Torigoe, Tomokazu Yoshimura, Yoshifumi Koide, Hideto Shosenji
Journal of Colloid and Interface Science, 220(1), 170-173 (1999).
- 33) Simultaneous adsorption of sodium dodecyl sulfate and poly(vinyl pyrrolidone) on titanium dioxide with quaternary ammonium groups.
Kunio Esumi, Kenichi Sakai, Kanjiro Torigoe, Tsuneo Suhara, Hiroshi Fukui
Colloids and Surfaces A, 155(2-3), 413-417 (1999).
- 34) Mixed aqueous properties of resorcinol-type calix[4]arenes bearing four alkyl side chains and cationic surfactant.
Kunio Esumi, Kei Shoji, Munetaka Miyazaki, Kanjiro Torigoe, Yoshifumi Koide
Langmuir, 15(19), 6591-6593 (1999).
- 35) Simultaneous adsorption of poly(amidoamine) dendrimers with surface carboxyl groups and sodium dodecyl sulfate at the alumina / water interface.
Kunio Esumi, Noriyuki Fujimoto, Kanjiro Torigoe
Langmuir, 15(13), 4613-4616 (1999).
- 36) Preparation and catalytic effect of gold nanoparticles in water dissolving carbon disulfide.
Kanjiro Torigoe, Kunio Esumi
Journal of Physical Chemistry B 103(15), 2862-2866 (1999).
- 37) Aqueous properties of cationic biphenyl type surfactants.
Tetsuo Takemura, Noriaki Shiina, Masako Izumi, Kanae Nakamura, Munetaka Miyazaki, Kanjiro Torigoe, Kunio Esumi
Langmuir, 15(2), 646-648 (1999).
- 38) Preparation of anisotropic gold particles using a gemini surfactant template.
Kunio Esumi, Junko Hara, Nariaki Aihara, Kiyoshi Usui, Kanjiro Torigoe
Journal of Colloid and Interface Science, 208(2), 578-581 (1998).
- 39) Preparation and characterization of gold and silver nanoparticles in layered laponite suspensions.
Nariaki Aihara, Kanjiro Torigoe, Kunio Esumi
Langmuir, 14(17), 4945-4949 (1998).

- 40) Preparation of gold colloids with UV irradiation using dendrimers as stabilizer.
Kunio Esumi, Akihiro Suzuki, Nariaki Aihara, Kiyoshi Usui, Kanjiro Torigoe
Langmuir, 14(12), 3157-3159 (1998).
- 41) Preparation of colloidal silver-palladium alloys by UV-irradiation in mixtures of acetone and 2-propanol.
Kunio Esumi, Miyori Wakabayashi, Kanjiro Torigoe
Colloids and Surfaces A, 109, 55-62 (1996).
- 42) Preparation of rod-like gold particles in surfactant-water system by UV irradiation.
Kunio Esumi, Keiichi Matsuhisa, Kanjiro Torigoe
Journal of Japan Society of Colour Material, 68(9), 551-554 (1995).
- 43) Formation of nonspherical palladium nanocrystals in SDS / poly(acrylamide) gel.
Kanjiro Torigoe, Kunio Esumi
Langmuir, 11(11), 199-201 (1995).
- 44) Preparation and characterization of ultrafine metal particles in ethanol by UV irradiation using a photoinitiator.
Tetsuyuki Itakura, Kanjiro Torigoe, Kunio Esumi
Langmuir, 11(10), 4129-4134 (1995).
- 45) Preparation of rodlike gold particles by UV irradiation using cationic micelles as a template.
Kunio Esumi, Keiichi Matsuhisa, Kanjiro Torigoe
Langmuir, 11(9), 3285-3287 (1995).
- 46) Preparation of organo palladium sols from palladium complexes in various alcohols.
Kunio Esumi, Tetsuyuki Itakura, Kanjiro Torigoe
Colloids and Surfaces A, 82(1), 111-113 (1994).
- 47) Preparation of bimetallic silver-palladium colloids from silver(I) bis(oxalato) palladate(II).
Kanjiro Torigoe, Kunio Esumi
Langmuir, 9(7), 1664-1667 (1993).
- 48) Preparation of monodispersed concentrated gold hydrosols from gold tetrachloride(-)-cationic surfactant complexes.
Sanae Kaneko, Kanjiro Torigoe, Kunio Esumi
Journal of Japan Society of Colour Material, 66(1), 14-18 (1993).

- 49) Preparation and characterization of colloidal silver-platinum alloys.
Kanjiro Torigoe, Yoshifumi Nakajima, Kunio Esumi
Journal of Physical Chemistry, 97(31), 8304-9 (1993).
- 50) Preparation of monodispersed colloidal gold by reduction of tetrachloroaurate(-)-cationic surfactant complexes.
Hidenori Ishizuka, Tomoko Tano, Kanjiro Torigoe, Kunio Esumi, Kenjiro Meguro
Colloids and Surfaces, 63(3-4), 337-340 (1992).
- 51) Preparation of platinum particles by thermal decomposition of platinum complex in organic solvent.
Kunio Esumi, Osamu Sadakane, Kanjiro Torigoe, Kenjiro Meguro
Colloids and Surfaces, 62(3), 255-257 (1992).
- 52) Size control of gold particles using surfactants.
Kunio Esumi, Naohiro Sato, Kanjiro Torigoe, Kenjiro Meguro
Journal of Colloid and Interface Science, 149(1), 295-298 (1992).
- 53) Preparation of colloidal silver using various reductants in the presence of copolymers of vinyl alcohol-N-vinyl pyrrolidone.
Kunio Esumi, Norio Ishizuki, Kanjiro Torigoe, Hideuki Nakamura, Kenjiro Meguro
Journal of Applied Polymer Science, 44(6), 1003-7 (1992).
- 54) Preparation of colloidal gold by photoreduction of tetracyanoaurate(-)-cationic surfactant complexes.
Kanjiro Torigoe, Kunio Esumi
Langmuir, 8(1), 59-63 (1992).
- 55) Dispersion of uniformly sized palladium particles in organic solvents.
Kunio Esumi, Maki Suzuki, Takafumi Tano, Kanjiro Torigoe, Kenjiro Meguro
Colloids and Surfaces, 55, 9-14 (1991).
- 56) Characterization of precious metal particles prepared using chitosan as a protective agent.
Norio Ishizuki, Kanjiro Torigoe, Kunio Esumi, Kenjiro Meguro
Colloids and Surfaces, 55, 15-21 (1991).

- 57) Preparation of bimetallic palladium-platinum colloids in organic solvent by solvent extraction-reduction.
Kunio Esumi, Masayoshi Shiratori, Hidenori Ishizuka, Takafumi Tano, Kanjiro Torigoe, Kenjiro Meguro
Langmuir, 7(3), 457-459 (1991).
- 58) Preparation and characterization of bimetallic palladium-copper colloids by thermal decomposition of their acetate compounds in organic solvents.
Kunio Esumi, Takafumi Tano, Kanjiro Torigoe, Kenjiro Meguro
Chemistry of Materials, 2(5), 564-567 (1990).
- 59) Preparation of organogold particles by reduction of extracted chlorauric acid with some reductants.
Kenjiro Meguro, Takafumi Tano, Kanjiro Torigoe, Hideyuki Nakamura, Kunio Esumi
Colloids and Surfaces, 34(4), 381-388 (1989).

II 総説

- 1) 異方性貴金属ナノ粒子の調製とその光学特性
鳥越 幹二郎
色材協会誌, 26 (12), 480-487 (2003).
- 2) 金-デンドロンナノ粒子の自発的一次元配列形成
鳥越 幹二郎
高分子, 52 (9), 708 (2003).
- 3) 金属・半導体ナノ粒子の調製とその応用
鳥越 幹二郎, 今野 紀二郎
化学と教育, 49(9), 554-555 (2001).
- 4) 金属-デンドリマーナノコンポジットの調製と物性
鳥越 幹二郎, 江角 邦男
日本油化学会誌, 49(10), 1271-1278 (2000).
- 5) 貴金属ナノ粒子の液相調製法に関する最近の展開
鳥越 幹二郎, 江角 邦男
触媒, 41(7), 521-525 (1999).
- 6) 金コロイドの化学的作製法

鳥越 幹二郎, 江角 邦男
化学工業, 49(4), 269-277 (1998).

III 著書

1) 金属ナノ粒子の1次元配列法

鳥越 幹二郎、江角 邦男

『金属ナノ粒子の合成・調製、コントロール技術と応用展開』 第6章第1節
米澤 徹編, 技術情報協会, 2004年11月

2) 金属ナノ粒子の1次元配列法

鳥越 幹二郎、江角 邦男

『ナノ粒子・マイクロ粒子の最先端技術』 第3章第1節
川口 春馬編, シーエムシー出版, 2004年9月

IV 特許

なし