

List of Publications

Independent Work

- 1) "Reversibly Tunable Lower Critical Solution Temperature Utilizing Host–Guest Complexation of Pillar[5]arene with Triethylene Oxide Substituents"
Ogoshi, T.*; Shiga, R.; Yamagishi, T.
J. Am. Chem. Soc. **2012**, *134*, 4577-4580.
- 2) "Photoreversible Switching of the Lower Critical Solution Temperature in a Photoresponsive Host-Guest System of Pillar[6]arene with Triethylene Oxide Substituents and an Azobenzene Derivative"
Ogoshi, T.*; Kida, K.; Yamagishi, T.
J. Am. Chem. Soc. **2012**, *134*, 20146-20150..
- 3) "Cyclic Host Liquids for Facile and High-Yield Synthesis of [2]Rotaxanes"
Ogoshi, T.*; Aoki, T.; Shiga, R.; Iizuka, R.; Ueda, S.; Demachi, K.; Yamafuji, D.; Kayama, H. Yamagishi, T.
J. Am. Chem. Soc. **2012**, *134*, 20322-20325..
- 4) "Ionic Liquid Pillar[5]arene: Its Ionic Conductivity and Solvent-Free Complexation with a Guest"
Ogoshi, T.*; Ueshima, N.; Yamagishi, T.; Toyota, Y.; Matsumi, N.
Chem. Commun. **2012**, *48*, 3536-3538.
- 5) "High-yield Diastereoselective Synthesis of Planar-chiral [2]- and [3]Rotaxanes Constructed from per-Ethylated Pillar[5]arene and Pyridinium Derivatives"
Ogoshi, T.*; Yamafuji, D.; Aoki, T.; Kitajima, K.; Yamagishi, T.; Hayashi, Y.; Kawauchi, S.
Chem. Eur. J. **2012**, *18*, 7493-7500.
- 6) "Thermally responsive shuttling behavior of a pillar[6]arene-based [2]rotaxane"
Ogoshi, T.*; Yamafuji, D.; Aoki, T.; Yamagishi, T.
Chem. Commun. **2012**, *48*, 6842-6844.
- 7) "High-yield Diastereoselective Synthesis of Planar-chiral [2]- and [3]Rotaxanes Constructed from per-Ethylated Pillar[5]arene and Pyridinium Derivatives"
Ogoshi, T.*; Kayama, H.; Yamafuji, D.; Aoki, T.; Kitajima, K.; Yamagishi, T.
Chem. Sci. **2012**, *3*, 3221–3226.
- 8) "Synthesis of Novel Pillar-Shaped Cavitands "Pillar[5]arenes" and Their Application for Supramolecular Materials"
Ogoshi, T.*
J. Incl. Phenom. Macrocyc. Chem. **2012**, *72*, 247–262 (Award Review)

- 9) "New Synthetic Hosts Pillararenes: Their Synthesis and Application for Supramolecular Materials"
Ogoshi, T.*; Yamagishi, T.
Bull. Chem. Soc. Jan. **2012**, in press (Award Account), DOI: 10.1246/bcsj.20120245.
- 10) "Clickable Di- and Tetra-Functionalized Pillar[n]arenes (n = 5, 6) by Oxidation-Reduction of Pillar[n]arene Units"
Ogoshi, T.*; Yamafuji, D.; Kotera, D.; Aoki, T.; Fujinami, S.; Yamagishi, T.
J. Org. Chem. **2012**, *77*, 11146-11152.
- 11) "Photoreversible Transformation between Seconds and Hours Time-Scales: Threading of Pillar[5]arene onto the Azobenzene-End of a Viologen Derivative"
Ogoshi, T.*; Yamafuji, D.; Aoki, T.; Yamagishi, T.
J. Org. Chem. **2011**, *76*, 9497-9503.
- 12) "Reduction of Emeraldine Base Form of Polyaniline by Pillar[5]arene Based on Formation of Polypseudorotaxane Structure"
Ogoshi, T.*; Hasegawa, Y.; Aoki, T.; Ishimori, Y.; Inagi, S.; Yamagishi, T.
Macromolecules **2011**, *44*, 7639-7644.
- 13) "Selective Complexation of *n*-Alkanes with Pillar[5]arene Dimer in Organic Media"
Ogoshi, T.*; Demachi, K.; Kitajima, K.; Yamagishi, T.
Chem. Commun. **2011**, *47*, 10290-10292.
- 14) "Synthesis and X-ray Crystal Structure of Difunctionalized Pillar[5]arene at A1/B2 Positions by *in-situ* Cyclization and Deprotection"
Ogoshi, T.*; Kitajima, K.; Fujinami, S.; Yamagishi, T.
Chem. Commun. **2011**, *47*, 10106-10108.
- 15) "Chemically-Responsive Supramolecular Structural Change of Pillar[5]arene Nanotubes"
Aoki T.; Ogoshi, T.*; Yamagishi, T.
Chem. Lett. **2011**, *40*, 795-797.
- 16) "Monofunctionalized Pillar[5]arenes: Synthesis and Supramolecular Structure"
Ogoshi, T.*; Demachi, K.; Kitajima, K.; Yamagishi, T. *Chem. Commun.* **2011**, *47*, 7164-7166.
- 17) ""Clickable" Pillar[5]arenes"
Ogoshi, T.*; Shiga, R.; Hashizume, M.; Yamagishi, T.
Chem. Commun. **2011**, *47*, 6927-6929.
- 18) "Planar-Chiral Macrocyclic Host Pillar[5]arene: No Rotation of Units and Isolation of Enantiomers by Introducing Bulky Substituents"
Ogoshi, T.*; Masaki, K.; Shiga, R.; Kitajima, K.; Yamagishi, T.
Org. Lett. **2011**, *13*, 1264-1266.

- 19) "Ionic Liquid Molecules (ILs) as Novel Guests for Pillar[5]arene: 1:2 Host-Guest Complexes between Pillar[5]arene and ILs in Organic Media"
Ogoshi, T.*; Tanaka, S.; Yamagishi, T.; Nakamoto, Y.
Chem. Lett. **2011**, *40*, 96-98.
- 20) "Transparent Ionic Liquid-Phenol Resin Hybrids with High Ionic Conductivity"
Ogoshi, T.*; Onodera, T.; Yamagishi, T.; Nakamoto, Y.; Kagata, A.; Matsumi, N.; Aoi, K.
Polym. J. **2011**, *43*, 421-424.
- 21) "Planar-Chiral Pillar[5]arene: Chiral Switches Induced by Multi-External Stimulus of Temperature, Solvents and Addition of Achiral Guest Molecule"
Ogoshi, T.*; Shiga, R.; Yamagishi, T.; Nakamoto, Y.
J. Org. Chem. **2011**, *76*, 618-622.
- 22) "Facile, Rapid, and High-Yield Synthesis of Pillar[5]arene from Commercially Available Reagents and Its X-ray Crystal Structure"
Ogoshi, T.*; Aoki, T.; Kitajima, K.; Fujinami, S.; Yamagishi, T.; Nakamoto, Y.
J. Org. Chem. **2011**, *76*, 328-331.
- 23) "High Yield Synthesis of Polyrotaxane Constructed from Pillar[5]arene and Viologen Polymer and Stabilization of Its Radical Cation"
Ogoshi, T.*; Nishida, Y.; Yamagishi, T.; Nakamoto, Y.*
Macromolecules **2010**, *43*, 7068-7072.
- 24) "Supramolecular Polymer Networks from Hybrid between Graphene Oxide and Per-6-Amino- β -Cyclodextrin"
Ogoshi, T.*; Ichihara, Y.; Yamagishi, T.; Nakamoto, Y.*
Chem. Commun. **2010**, 6087-6089.
- 25) "Synthesis and Conformational Characteristics of Alkyl-Substituted Pillar[5]arenes"
Ogoshi, T.*; Kitajima, K.; Aoki, T.; Fujinami, S.; Yamagishi, T.; Nakamoto, Y.*
J. Org. Chem. **2010**, *75*, 3268-3273.
- 26) "Preparation of High-molecular-weight Phenolic Resins by means of a Phaseseparation Reaction System"
Wang, P.; **Ogoshi, T.**; Yamagishi, T.*; Nakamoto, Y.
Chem. Lett. **2010**, *39*, 422-423.
- 27) "Synthesis, Conformational and Host-Guest Properties of Water-Soluble Pillar[5]arene"
Ogoshi, T.*; Hashizume, M.; Yamagishi, T.; Nakamoto, Y.*
Chem. Commun. **2010**, 3708-3710.
- 28) "Polypseudorotaxane Constructed from Pillar[5]arene and Viologen Polymer"
Ogoshi, T.*; Nishida, Y.; Yamagishi, T.; Nakamoto, Y.*
Macromolecules **2010**, *43*, 3145-3147.

- 29) "Effect of *Intra*-Molecular Hydrogen Bond Belt and Complexation with Guest on Rotation Behavior of Phenolic Units in Pillar[5]arenes"
Ogoshi, T.*; Kitajima, K.; Aoki, Y.; Yamagishi, T.; Nakamoto, Y.*
J. Phys. Chem. Lett. **2010**, *1*, 817-821.
- 30) "Synthesis and Conformational Characteristics of Nonsymmetric Pillar[5]arene"
Ogoshi, T.*; Kitajima, K.; Yamagishi, T.; Nakamoto, Y.*
Org. Lett. **2010**, *12*, 636-638
- 31) "Chemically-Responsive Supramolecular Assemblies of Pyrene- β -Cyclodextrin Dimer"
Ogoshi, T.*; Hashizume, M.; Yamagishi, T.; Nakamoto, Y.*
Langmuir **2010**, *26*, 3169-3173.
- 32) "Synthesis and Host-Guest Property of Alternating Copolymer Constituted of Calix[4]arene and Calix[6]arene in Main-Chain"
Ogoshi, T.*; Nishida, Y.; Yamagishi, T.; Nakamoto, Y.*
Polym. Chem. **2010**, *1*, 203-206.
- 33) "Lewis Acid Catalyzed Synthesis of Dodecamethoxycalix[4]arene from 1,3,5-Trimethoxybenzene and Its Conformational Behavior and Host-Guest Property"
Ogoshi, T.*; Kitajima, K.; Umeda, K.; Hiramitsu, S.; Kanai, S.; Fujinami, S.; Yamagishi, T.; Nakamoto, Y.*
Tetrahedron **2009**, *65*, 10644-10649.
- 34) "Side-Chain Polypseudorotaxanes with Hetero-Macrocyclic Receptors of Cyclodextrins (CDs) and Cucurbit[7]uril (CB7): Their Contrast Lower Critical Solution Temperature Behavior with α -, γ -CDs and CB7"
Ogoshi, T.*; Masuda, K.; Yamagishi, T.; Nakamoto, Y.*
Macromolecules **2009**, *42*, 8003-8005.
- 35) "Through-Space π -Delocalized Pillar[5]arene"
Ogoshi, T.*; Umeda, K.; Yamagishi, T.; Nakamoto, Y.*
Chem. Commun. **2009**, 4874-4876.
- 36) "Columnar Stacks of Star- and Tadpole-Shaped Polyoxazolines Having Triphenylene Moiety and Their Applications for Synthesis of Wire-Assembled Gold Nanoparticles"
Ogoshi, T.*; Hiramitsu, S.; Yamagishi, T.; Nakamoto, Y.*
Macromolecules **2009**, *42*, 3042-3047.
- 37) "Solubilization of Single-Walled Carbon Nanotubes by Entanglements between Them and Hyperbranched Phenolic Polymer"
Ogoshi, T.*; Saito, T.; Yamagishi, T.; Nakamoto, Y.*
Carbon **2009**, *47*, 117-123.

- 38) "Green Polymerization of Phenol in Ionic Liquids"
Ogoshi, T.*; Onodera, T.; Yamagishi, T.; Nakamoto, Y.*
Macromolecules **2008**, *41*, 8533-8536.
- 39) "Enhancement of Water-Solubility of Single-Walled Carbon Nanotubes by Formation of Host-Guest Complexes of Cyclodextrins with Various Guest Molecules"
Ogoshi, T.*; Ikeya, M.; Yamagishi, T.; Nakamoto, Y.; Harada, A.*
J. Phys. Chem. C **2008**, *112*, 13079-13083.
- 40) "Synthesis of Phenolic Polymer-Coated Gold Nanoparticles"
Ogoshi, T.*; Umeda, K.; Yamagishi, T.; Nakamoto, Y.*
Polym. J. **2008**, *40*, 942-943.
- 41) "Defection-Selective Solubilization and Chemically-Responsive Solubility Switching of Single-Walled Carbon Nanotubes with Cucurbit[7]uril"
Ogoshi, T.*; Inagaki, A.; Yamagishi, T.; Nakamoto, Y.*
Chem. Commun. **2008**, 2245-2247.
- 42) "*para*-Bridged Symmetrical Pillar[5]arenes: Their Lewis Acid-Catalyzed Synthesis and Host-Guest Property"
Ogoshi, T.*; Kanai, S.; Fujinami, S.; Yamagishi, T.; Nakamoto, Y.*
J. Am. Chem. Soc. **2008**, *130*, 5022-5023.
- 43) "Star-Shaped Poly(2-methyl-2-oxazoline) Using by Reactive Bromoethyl Group Modified Calix[4]resorcinarene as a Macrocyclic Initiator"
Jeerupan, J.; **Ogoshi, T.**; Hiramitsu, S.; Umeda, K.; Nemoto, T.; Konoshi, G.; Yamagishi, T.; Nakamoto, Y.*
Polym. Bull. **2008**, *59*, 731-737.
- 44) "Chemical Sensors Based on Cyclodextrin"
Ogoshi, T.; Harada, A.*
Sensors **2008**, *8*, 4961-4982 (Review).
- 45) "Supramolecular Single-Walled Carbon Nanotubes (SWCNTs) Network Polymer Made by Hybrids of SWCNTs and Water Soluble Calix[8]arenes"
Ogoshi, T.*; Yamagishi, T.; Nakamoto, Y.*
Chem. Commun. **2007**, 4776-4778.
- 46) "Water Soluble Single-Walled Carbon Nanotubes Using Inclusion Complex of Cyclodextrin with an Adamantane Derivative"
Ogoshi, T.*; Yamagishi, T.; Nakamoto, Y.; Harada, A.*
Chem. Lett. **2007**, *36*, 1026-1027.

Pos-doc work

- 47) "Sensor Development Using Existing Scaffolds"
Yamaguchi, H.; **Ogoshi, T.**; Harada, A.*
In "Chemosensors: Principles, Strategies, and Applications" Ed. by Wang, B. and Anslyn, E. V.
Wiley, **2011**, 211-226.
- 48) "Chemically-Responsive Sol-Gel Transition of Supramolecular Single-Walled Carbon Nanotubes (SWNTs) Hydrogel Made by Hybrids of SWNTs and Cyclodextrins (CDs)"
Ogoshi, T.; Takashima, Y.; Yamaguchi, H.; Harada, A.*
J. Am. Chem. Soc. **2007**, *129*, 4878-4879.
- 49) "Cyclodextrin-Grafted Poly(phenylene ethynylene) with Chemical-Responsive Properties"
Ogoshi, T.; Takashima, Y.; Yamaguchi, H.; Harada, A.*
Chem. Commun. **2006**, 3702-3704.

PhD work

- 50) "Appearing, Disappearing and Reappearing of Fumed Silica Nanoparticles: Tapping Mode Evidence in a Condensation Cured Polydimethylsiloxane Hybrid Elastomer"
Inagi, S.; **Ogoshi, T.**; Miyake, J.; Bertolucci, M.; Fujiwara, T.; Galli, G.; Chiellini, E.; Chujo, Y.; Wynne, K. J.*
Chem. Mater. **2007**, *19*, 2141-2143.
- 51) "Synthesis of a Stimuli-Responsive P-Chiral Polymer Having Chiral Phosphorus Atoms and Azobenzene Moieties in the Main Chain"
Ouchi, Y.; Morisaki, Y.; **Ogoshi, T.**; Chujo, Y.*
Chem. Asian J. **2007**, *2*, 397-432.
- 52) "Synthesis of Colloidal Polyoxazoline / Silica Hybrids Prepared in an Aqueous Solution"
Ogoshi, T.; Chujo, Y.*
Polymer **2006**, *47*, 4036-4041.
- 53) "Synthesis of Amorphous and Nano-Structured Cationic Polyacetylene / Silica Hybrids by Using Ionic Interaction"
Ogoshi, T.; Chujo, Y.*
Macromolecules **2005**, *38*, 9110-9116.
- 54) "Synthesis and Characterizations of UV-Induced Interpenetrating Polymer Network (IPN) Structure of Poly(urethane acrylate) (UA Polymer) / Silica Hybrids"
Ogoshi, T.; Chujo, Y.*; Esaki, A.
Polym. J. **2005**, *37*, 686-693.

- 55) "Synthesis of Poly(vinylidene fluoride) (PVdF) / Silica Hybrids Having Interpenetrating Polymer Network Structure by Using Crystallization between PVdF Chains"
Ogoshi, T.; Chujo, Y.*
J. Polym. Sci. Part A: Polym. Chem. **2005**, *43*, 3543-3550.
- 56) "Multiresponsive Photopatterning Organic-Inorganic Polymer Hybrids Using a Caged Photoluminescence Compound"
Ogoshi, T.; Miyake, J.; Chujo, Y.*
Macromolecules **2005**, *38*, 4655-4660.
- 57) "Controlled Polymer Hybrids with Ladderlike Polyphenylsilsesquioxane as a Template by Utilizing the Sol-Gel Reaction of Phenyltrimethoxysilane"
Kim, K. M.; **Ogoshi, T.;** Chujo, Y.*
J. Polym. Sci. Part A: Polym. Chem. **2005**, *43*, 473-478.
- 58) "Synthesis of Anionic Polymer / Silica Hybrids by Controlling pH in an Aqueous Solution"
Ogoshi, T.; Chujo, Y.*
J. Mater. Chem. **2005**, *15*, 315-322.
- 59) "Tapping Mode AFM Evidence for an Amorphous Reticular Phase in Condensation Cured Hybrid Elastomer: α,ω -Dihydroxypoly(dimethylsiloxane) / Poly(diethoxysiloxane) / Fumed Silica Nanoparticles"
Ogoshi, T.; Fujiwara, T.; Bertolucci, M.; Galli, G.; Chiellini, E.; Chujo, Y.; Wynne, K. J.*
J. Am. Chem. Soc. **2005**, *126*, 12284-12285.
- 60) "Synthesis of Photosensitive Organic-Inorganic Polymer Hybrids by Utilizing Caged Photo-Activatable Alkoxysilane"
Ogoshi, T.; Chujo, Y.*
Macromolecules **2004**, *37*, 5916-5922.
- 61) "Organic-Inorganic Polymer Hybrids Prepared by Sol-Gel Method"
Ogoshi, T.; Chujo, Y.*
Comp. Interf. **2006**, *11*, 539-566 (Review).
- 62) "Synthesis of Organic-Inorganic Polymer Hybrids Utilizing Amphiphilic Solvent as a Compatibilizer"
Ogoshi, T.; Chujo, Y.*
Bull. Chem. Soc. Jpn. **2003**, *76*, 1865-1871.
- 63) "Synthesis and Characterization of Transparent Poly(2-methyl-2-oxazoline) (POZO)-Vanadium Oxide (V_2O_5) Hybrids with Reversible Formation"
Ogoshi, T.; Kim, K. M.; Chujo, Y.*
J. Mater. Chem. **2003**, *13*, 2202-2207.

- 64) "Synthesis of Organic-Inorganic Polymer Hybrids by Means of Host-Guest Interaction Utilizing Cyclodextrin"
Ogoshi, T.; Chujo, Y.*
Macromolecules **2003**, *36*, 654-660.
- 65) "Thermal and Solvent-Resistant Properties of Organic-Inorganic Polymer Hybrids Having Interpenetrating Polymer Network Structure by Formation of Metal-Bipyridyl Complex"
Ogoshi, T.; Itoh, H.; Kim, K. M.; Chujo, Y.*
Polym. J. **2003**, *35*, 178-184.
- 66) "Synthesis of Organic-Inorganic Polymer Hybrids Having Interpenetrating Polymer Network Structure by Formation of Ruthenium-Bipyridyl Complex"
Ogoshi, T.; Itoh, H.; Kim, K. M.; Chujo, Y.*
Macromolecules **2002**, *35*, 334-338.
- 67) "Formation of IPN Organic-Inorganic Polymer Hybrids Utilizing the Photodimerization of Thymine"
Imai, Y.; **Ogoshi, T.;** Naka, K.; Chujo, Y.*
Polym. Bull. **2000**, *45*, 9-16.