

教育研究業績等一覧

① 学術論文(査読付、インパクトファクタを IF で示す)

- [1] Fluorescence Behavior of Porphinato Zinc Derivative in the Molecular Assembly of Polymerized Lipid
L. Wang, E. Shouji, H. Ohno, E. Tsuchida
Polymer Bulletin, **1989**, 21, 195-202. (IF: 3.1)
- [2] Diene-Containing 1,3-diacylglycero-2-phosphoric Acid. A pH-sensitive Ultraviolet Probe and Polymerization
E. Hasegawa, E. Shouji, E. Tsuchida
Polymer Bulletin, **1989**, 22, 227-232. (IF: 3.1)
- [3] Effect of Substituent Groups of Diphenyl Disulfide on Novel Cationic Oxidative Polymerization : Examination of the Electrophilic Reaction of the Cation by Computational Calculation
E. Shouji, J. Katho, K. Yamamoto, E. Tsuchida
Polymers for Advanced Technologies, **1991**, 2, 149-154. (IF: 3.3)
- [4] Synthesis of Polyphenylene Thioethers through Cationic Oxidative Polymerization
E. Tsuchida, K. Yamamoto, M. Jikei, E. Shouji
Journal of Macromolecular Science, **1991**, A28, 1285-1298.
- [5] Arylsulfide Bond Formation Using the Sulfoxide-Acid System for Synthesis of PPS via Poly(sulfonium cation) as a Precursor
K. Yamamoto, E. Shouji, H. Nishide, E. Tsuchida
Journal of the American Chemical Society, **1993**, 115, 5819-5820. (IF: 14.8)
- [6] Computational Examination of the Electrophilic Reaction on Oxidative Polymerization of Phenyltrimethylsilane with Sulfur Chloride.
E. Shouji, J. Katho, K. Yamamoto, H. Nishide, E. Tsuchida
Polymers for Advanced Technologies, **1993**, 4, 12-16. (IF: 3.3)
- [7] Synthesis of Poly(arylene sulfide) via poly(sulfonium cation) through Electrophilic Substitution Reaction of Methyl Phenyl Sulfide with Antimony Pentachloride.
E. Shouji, K. Yamamoto, H. Nishide, E. Tsuchida
Chemistry Letters, **1993**, 1927-1930. (IF: 1.4)
- [8] Synthesis of High Molecular Weight Poly(phenylene sulfide) by Oxidative Polymerization via Poly(sulfonium cation) from Methyl Phenyl Sulfoxide.
E. Tsuchida, E. Shouji, E. K. Yamamoto.
Macromolecules, **1993**, 26, 7144-7148. (IF: 5.1)
- [9] Synthetic Route to Poly(sulfonyl-1,4-phenylenethio-1,4-phenylene) via Poly (sulfonium cation)
E. Tsuchida, K. Yamamoto, E. Shouji
Macromolecules, **1993**, 26, 7389-7390. (IF: 5.1)
- [10] Synthesis of Poly(phenylene sulfide) by O₂ Oxidative Polymerization of Methyl Phenyl Sulfide
E. Tsuchida, F. Suzuki, E. Shouji, K. Yamamoto.
Macromolecules, **1994**, 27, 1057-1060. (IF: 5.1)
- [11] Poly(sulfonium cation) for Synthesis of High Molecular Weight Poly(phenylene sulfide)
E. Shouji, E.; S. Nishimura, K. Yamamoto, E. Tsuchida.
Chemistry Letters, **1994**, 403-406. (IF: 1.4)

- [12] Electrophilic Reaction of Phenylbis(phenylthio) Sulfonium Cation as an Active Species for the Oxidative Polymerization of Diphenyl Disulfide.
E. Tsuchida, K. Yamamoto, E. Shouji
Journal of Macromolecular Science, Pure and Applied Chemistry, **1994**, A31(11), 1579-1589. (IF: 2.2)
- [13] Synthesis of Poly(sulfonium cation) as an Alkylating Reagent
E. Shouji, S. Nishimura, K. Yamamoto, E. Tsuchida
Polymers for Advanced Technologies, **1994**, 5, 507-512. (IF: 3.3)
- [14] Synthesis of Block Copolymers Containing Perfluoroalkane and Tetrafluoro-ethylene Perfluoro(propyl vinyl ether) Block Copolymer with Sulfide Bonds
E. Tsuchida, K. Yamamoto, E. Shouji, J. Katoh, M. Matsuo, H. Kamiya
Macromolecules, **1994**, 27, 7504-7510. (IF: 5.1)
- [15] Synthesis of Poly(sulfonium cation) by Oxidative Polymerization of Aryl Alkyl Sulfides,
K. Yamamoto, E. Shouji, F. Suzuki, S. Kobayashi, E. Tsuchida
Journal of Organic Chemistry, **1995**, 60, 452-453. (IF: 3.4)
- [16] Electrochemical Formation of Cation-Exchanging Polypyrrole Films within Various Hydrophilic-Hydrophobic Domain,
E. Shouji, Y. Okamoto, F. Ozaki, K. Naoi
Polymers for Advanced Technologies, **1996**, 7, 177-181. (IF: 3.3)
- [17] Oxidative Coupling of Methyl Phenyl Sulfide via Sulfonium Formation Using an Oxovanadium Complex
K. Yamamoto, S. Kobayashi, E. Shouji, E. Tsuchida
Journal of Organic Chemistry, **1996**, 61, 1912-1913. (IF: 3.4)
- [18] Photochemical Recycling of Polyarylene Sulfide
E. Tsuchida, K. Yamamoto, E. Shouji, A. Haryono
Chemical Communications, **1996**, 2091-2092. (IF: 4.4)
- [19] Examination of Reactivity of Protonated and Deprotonated 2,5-Dimercapto-1,3,4-thiadiazole and its derivatives by electrochemical Experiment and Semiempirical MO Calculation,
E. Shouji, H. Matsui, N. Oyama
Journal of Electroanalytical Chemistry, **1996**, 417, 17-24. (IF: 2.7)
- [20] Examination of the Cleavage and Formation of the Disulfide bond in Poly[dithio-2,5-(1,3,4-thiadiazole)] by Redox Reaction
E. Shouji, N. Oyama
Journal of Electroanalytical Chemistry, **1996**, 410, 229-234. (IF: 2.7)
- [21] Reversible Electron Transfer Reaction between Polyaniline and Thiol/Disulfide Couples
T. Tatsuma, H. Matsui, E. Shouji, N. Oyama
Journal of Physical Chemistry, **1996**, 100, 14016-14021. (IF: 4.2)
- [22] Electrochemical and Spectroscopic Investigation of the Influence of Acid-Base Chemistry on the Redox Properties of 2,5-Dimercapto-1,3,4-thiadiazole,
E. Shouji, Y. Yokoyama, J. M. Pope, N. Oyama, D. A. Buttry
Journal of Physical Chemistry B, **1997**, 101, 2861-2866. (IF: 3.4)
- [23] Spectroscopic Identification of 2,5-Dimercapto-1,3,4-thiadiazole and its Lithium Salt and Dimer Forms
J. M. Pope, T. Sato, E. Shouji, D. A. Buttry, T. Sotomura, N. Oyama
Journal of Power Sources, **1997**, 68, 739-742. (IF: 8.3)

- [24] Synthesis and Proton Conductivity of Highly Sulfonated Poly(thiophenylene)
K. Miyatake, E. Shouji, K. Yamamoto, E. Tsuchida
Macromolecules, **1997**, 30, 2941-2946. (IF: 5.1)
- [25] An Investigation of the Effect of Pyridine Derivatives on the Oxidative Polymerization Process of
2,5-Dimercapto-1,3,4-thiadiazole and Its Disulfide Dimer
E. Shouji, D. A. Buttry
Journal of Physical Chemistry B, **1998**, 102, 1444-1449. (IF: 3.4)
- [26] Synthesis and Nucleophilic Dealkylation of Poly[alkyl-(4-(phenylthio)phenyl) sulfonium
trifluoromethanesulfonate]s
A. Haryono, K. Yamamoto, E. Shouji, E. Tsuchida
Macromolecules, **1998**, 31, 1202-1207. (IF: 5.1)
- [27] New Organic-Inorganic Nanocomposite Materials for Energy Storage Applications
E. Shouji, D. A. Buttry
Langmuir, **1999**, 15, 669-673. (IF: 3.7)
- [28] A Mechanistic Study of the Influence of Proton Transfer Processes on the Behavior of Thiol/Disulfide Redox
Couples
E. Shouji, D. A. Buttry
Journal of Physical Chemistry B, **1999**, 103, 2239-2247. (IF: 3.4)
- [29] EQCM Measurements of Solvent Transport during Li^+ Intercalation in V_2O_5 Xerogel Films.
E. Shouji, D. A. Buttry
Electrochimica Acta, **2000**, 45, 3757-3764. (IF: 5.5)
- [30] Potentiometric Sensors Based on the Inductive Effect on the pKa of Poly(aniline): A Nonenzymatic Glucose Sensor.
E. Shoji, M. S. Freund
Journal of the American Chemical Society, **2001**, 123, 3383-3384. (IF: 14.8)
- [31] Poly(aniline boronic acid): A New Precursor to Substituted Poly(aniline)s
E. Shoji, M. S. Freund
Langmuir, **2001**, 17, 7183-7185. (IF: 3.7)
- [32] Organosulfur/Conducting Polymer Composite Cathodes, II. Spectroscopic Determination of the Protonation and
Oxidation States of 2,5-Dimercapto-1,3,4-thiadiazole
J. M. Pope, T. Sato, E. Shoji, N. Oyama, K. C. White, D. A. Buttry
Journal of The Electrochemical Society, **2002**, 149(7), A939-A952. (IF: 3.8)
- [33] Potentiometric Saccharide Detection Based on the pKa Changes of Poly(aniline boronic acid)
E. Shoji, M. S. Freund
Journal of the American Chemical Society, **2002**, 124, 12486-12493. (IF: 14.8)
- [34] Immiscible polymers in Double Spin-coated Electroluminescent Devices Containing Phenyl-substituted
Tris(8-hydroxyquinoline)aluminum Derivatives Soluble in a Host Polymer
E. Shoji, K. Miyatake, A. R. Hlil, A. S. Hay, T. Maindron, V. Jousseau, J. P. Dodelet, Y. Tao, M. D'Iorio,
Journal of Polymer Science Part A: Polymer Chemistry, **2003**, 41, 3006-3016. (IF: 2.9)
- [35] Effects of d.c. Potential Patterns on the Performance of Ion-exchange Polymer based Molecular Actuators
E. Shoji, D. Hirayama, M. Kusakabe, T Inoue
Polymers for Advanced Technologies, **2006**, 17, 53-57. (IF: 3.3)
- [36] The Effects of the Potential and Polarization Time on the Performance of Ionic Polymer Metal Composite Actuators:

- A Control of Forward and Reverse Displacements
E. Shoji, D. Hirayama
Polymers for Advanced Technologies, **2007**, 18, 346-352. (IF: 3.3)
- [37] Effects of Humidity on the Performance of Ionic Polymer-Metal Composite Actuators: Experimental Study of the Back-Relaxation of Actuators,
E. Shoji, D. Hirayama
Journal of Physical Chemistry B, **2007**, 111, 11915-11920. (IF: 2.8)
- [38] Novel Conducting Fabric Polymer Composites as Stretchable Electrodes: One-step Fabrication of Chemical Actuators.
E. Shoji, S. Takagi, H. Araie,
Polymers for Advanced Technologies, **2009**, 20, 423-426. (IF: 3.3)
- [39] Electrochemical properties of 3,5-diphenylaniline units encapsulated within a crown ether. Effects of the macrocycle's aromatic functionality and ring size
Y. Tokunaga, T. Iwamoto, S. Nakashima, E. Shoji, R. Nakata
Tetrahedron Letters., **2011**, 52, 240-243. (IF: 1.6)
- [40] Proposal to Use a Distributed Force Model to Describe the Action of a Polymer Actuator
M. Iwasaki, E. Shoji
Kobunshi Ronbunshu (Japanese Journal of Polymer Science and Technology), **2013**, 70, 289-294. (IF: 0.25)
- [41] Synthesis of Sulfonated Polyimides and Effect of their Solvent Solubility and Swelling Behavior on Copolymer Structures
N. Nanase, E. Shoji, M. Hatashita
Kobunshi Ronbunshu (Japanese Journal of Polymer Science and Technology), **2013**, 70, 282-288. (IF: 0.25)
- [42] Pulse Width Modulation (PWM) Control of the Bending Displacement and Force Generation of Ionomer-based Polymer Actuators
E. Shoji, Y. Komoda
Polymers for Advanced Technologies, **2013**, 24, 752-757. (IF: 3.3)
- [43] A proposal for a novel evaluation method of the bending velocities of polymer actuators
E. Shoji, M. Iwasaki
Polymers for Advanced Technologies, **2013**, 24, 841-846. (IF: 3.3)
- [44] Synthetic Route to Soluble Sulfonated Poly(arylene sulfone imide)
E. Shoji, N. Nasuno
Polymer Journal, **2014**, 46, 694-698. (IF: 2.5)
- [45] Fabrication of high-performance functional nanofibers and development of wearable electronics
Eiichi Shoji
Sen'i Gakkaishi, **2016**, 72-4, 204.
- [46] Development and Performance of the Battery Unnecessary Disaster-Prevention-Radio "HOOPRA" by Energy Harvesting from Radio Waves
E. Shoji
Journal of Disaster Research, **2016**, 11-3, 593-598. (IF: 0.7)
- [47] Temperature, Humidity, and Dimension Dependence of the Bending Motion of Ionomer-Based Polymer Actuators,
E. Shoji, M. Iwasaki
Polymers for Advanced Technologies, **2016**, 27, 1458-1464. (IF: 3.3)
- [48] Fabrication of a Diaphragm Micropump System Utilizing the Ionomer-based Polymer Actuator,

- E. Shoji
Sensors and Actuators B: Chemical, **2016**, 237, 660–665. (IF: 8)
- [49] Fabrication and electrochemical instrumentation of redox-active nanofiber mat for polyaniline incorporated with poly(imide sulfonate)
E. Shoji, H. Hatano, M Hatashita
Polymers for Advanced Technologies, **2020**, 31, 980-987. (IF: 3.3)
- [50] Fabrication of Cellulose Nanofiber Actuators by One-Step Adhesion of the Conducting Fabric Electrodes
E. Shoji
Journal of Fiber Science and Technology, **2020**, 76,223-227. (IF: 0.5)
- [51] Fabrication of Ionic Cellulose Nanofiber Composites by Electrospinning Cellulose Microfibril-Gel-Dispersions in Poly(vinyl alcohol) Solution
E. Shoji, Y. Hikida, and M. Hatashita
Journal of Natural Fibers, **2022**, 13, 4886-4896. (IF: 3.4)
- [52] Significance of Medium-Wave AM Radio Broadcasting for Enhanced Disaster Resilience in Japan: A Case Study in the Kanto Region and Fukui Using Nonpowered Hoop-Shaped Radio
E. Shoji, *Journal of Disaster Research*, **2023**, 18-6, 666-673. (IF: 0.7)
- [53] New Insights into Radio Wave Energy Harvesting across Wide Geographical Ranges Harnessing Medium-Wave Radio Broadcasting Infrastructure
E. Shoji, *Energy Technology*, **2024**, 12-1, 2300604 (IF: 3.8)

② 教育論文(審査付論文)

教育論文は特になし

③ 国際会議論文(審査付論文)

- [1] Proton Transfer Effects on the Charge Storage Processes of Organosulfur Composite Cathodes
J. M. Pope, E. Shouji, T. Sato, Y. Yokoyama, T. Tatsuma, N. Oyama
Electrochemical Society. Proceeding, **1997**, 96-17, 229-234.
- [2] Controlled Electron Transfer Reaction of Organosulfur Materials and Its Application as Cathode for Rechargeable Li Battery
N. Oyama, J. M. Pope, Y. Yokoyama, E. Shouji
Electrochemical Society. Proceeding, **1997**, 96-17, 223-228.
- [3] A new Templating Method for Producing Metal Oxide Cathode Materials with Improved Properties
E. Shouji, D. A Buttry
Proceedings - Electrochemical Society, 99-24(Intercalation Compounds for Battery Materials), **2000**, 208-214.
- [4] Poly(aniline) as a Non-enzymatic Sugar Sensor: Potentiometric Sensors based on the Inductive Effect
E. Shoji, M. S. Freund
Proceedings - Electrochemical Society, 2001-18(Chemical and Biological Sensors and Analytical Methods II), **2001**, 293-303.
- [5] Electrochemical Redox Processes of Poly(aniline boronic acid) V₂O₅ Composite
E. Shoji, M. Kusakabe

Proceedings - Electrochemical Society, 2004-18 (Electrode Processes VII), 2004, 97-103.

④ 国際会議論文

- [1] Diagnosis of Redox Behavior of 2,5-Dimercapto-1,3,4-thiadiazole and Its Derivatives by Correlation of Electrochemistry and Semi empirical Calculation of HOMO and LUMO Energy Levels
E. Shouji, and N. Oyama
189th, The Electrochemical Society Meeting, Second International Manuel M. Baizer Memorial Symposium on Organic Electrochemistry in Honor of Professor Henning Lund, Los Angels, California, USA, May 5-10, **1996**.
- [2] Infrared, Raman, and NMR Spectroscopic Studies of the DMCT/PAn Composite Cathode System Correlated with Electrochemical Behavior
N. Oyama, E. Shouji, T. Tatsuma, T. Sato, J. M. Pope, D. A. Buttry, and K. C. White
189th, The Electrochemical Society Meeting, Battery/Energy Technology Joint General Session, Los Angels, California, USA, May 5-10, **1996**.
- [3] Spectrochemical Study of Reversible Electron Transfer between Thiol/Disulfides and a Polyaniline Film
T. Tatsuma, H. Matsui, E. Shouji, and N. Oyama
189th, The Electrochemical Society Meeting, Second International Manuel M. Baizer Memorial Symposium on Organic Electrochemistry in Honor of Professor Henning Lund, Los Angels, California, USA, May 5-10, **1996**.
- [4] New Redox active Intercalation Materials Based on Vanadium Pentoxide and Organic Disulfides
D. A. Buttry, E. Shouji
215th American Chemical Society National Meeting, Dallas, Texas, USA, March 30, **1998**.
- [5] Acid/Base and Other Influences on the Reductive Cleavage of Disulfide Compounds: Relevance to New Cathode Materials for Li Secondary Batteries
E. Shouji, D. A. Buttry
Gordon Research Conference, Ventura, California, USA, January 18-22, **1998**.
- [6] Hybrid Organic-Inorganic Redox Active Intercalation Materials for Battery Applications,
E. Shouji, D. A. Buttry
193rd, The Electrochemical Society Meeting, San Diego, California, USA, May 6, **1998**.
- [7] The Influence of Proton Transfer Processes on the Behavior of Thiol/Disulfide Redox Couples
E. Shouji, D. A. Buttry
193rd, The Electrochemical Society Meeting, San Diego, California, USA, May 7, **1998**.
- [8] New Approaches to Lithium Battery Cathode Materials
K. White, E. Shouji, D. A. Buttry
40th Rocky Mountain Conference on Analytical Chemistry, Denver, Colorado, USA, July 27, **1998**.
- [9] Mechanistic Insights into a Thiol-Disulfide Redox Process Provided by Electrochemical Simulation
E. Shouji, D. A. Buttry
40th Rocky Mountain Conference on Analytical Chemistry, Denver, Colorado, USA, July 27, **1998**.
- [10] Organic-Inorganic Redox Active Materials for Battery Applications
E. Shouji, D. A. Buttry
216th American Chemical Society National Meeting, Boston, Massachusetts, USA, August 26, **1998**.
- [11] A New Templating Method for Producing Metal Oxide Cathode Materials with Improved Performance
E. Shouji, D. A. Buttry
Gordon Research Conference, Ventura, California, USA, January 17-21, **1999**.
- [12] A New Templating Method for Producing Metal Oxide Cathode Materials with Improved Properties.
E. Shouji, D. A. Buttry

- 196th, *The Electrochemical Society Meeting*, Honolulu, Hawaii, USA, October 17-22, **1999**.
- [13] The Influence of Proton Transfer Processes on the Behavior of Thiol/disulfide Redox Couples
E. Shouji, D. A. Buttry
Symposium on Polymers for Advanced Technologies, Tokyo, Japan, August 31-September 5, **1999**.
- [14] A New Templating Method for Producing Metal Oxide Cathode Materials with Improved Properties
E. Shouji, D. A. Buttry
8th Symposium on Macromolecule Metal Complexes (MMC-8), Tokyo, Japan, September 5-8, **1999**.
- [15] New Organic-inorganic Nanocomposite Materials for Energy Storage Applications
E. Shouji, D. A. Buttry
8th Symposium on Macromolecule Metal Complexes (MMC-8), Tokyo, Japan, September 5-8, **1999**.
- [16] A New Template Approach to Production of Ultra-high Surface Area Lithium Ion Intercalation Materials
E. Shouji, D. A. Buttry
217th American Chemical Society National Meeting, Anaheim, CA, USA, March 21-25, **1999**.
- [17] Polyaniline as a Non-enzymatic Sugar Sensor: Potentiometric Sensors Based on the Inductive Effect on the pK_a,
E. Shoji, E. M. S. Freund
2001 Joint International Meeting - the 200th Meeting of The Electrochemical Society, Inc. and the 52nd Annual Meeting of the International Society of Electrochemistry, San Francisco, California, USA, September 2-7, **2001**.
- [18] A Potentiometric Glucose Sensor Based on Complexation by Boronic Acid Containing Conducting Polymers
E. Shoji, M. S. Freund
Gordon Research Conference, Ventura, California, , USA, January 14-19, **2001**.
- [19] A New Precursor Route to Substituted Polyanilines
E. Shoji, M. S. Freund
Gordon Research Conference, Ventura, California, USA, January 20-25, **2002**.
- [20] Synthesis and Electrochemical Properties of Poly(aniline boronic acid): A Novel Transduction Method for a Non-enzymatic Glucose Sensor and A Precursor Route to Substituted Polyanilines
E. Shoji, M. S. Freund
The 201st, The Electrochemical Society Meeting, Philadelphia, Pennsylvania, USA May 12-17, **2002**.
- [21] Synthesis and Electrochemical Properties of Poly(aniline boronic acid)
E. Shoji, M. S. Freund
The Third International Symposium on Human and Artificial Intelligence Systems: Dynamic Systems Approach for Embodiment and Sociality, Proceedings of the Third International Symposium on Human and Artificial Intelligence Systems(HART2002), **2002**, 6, 306-307.
- [22] Electrochemical Redox Processes of Poly(aniline boronic acid)/V₂O₅ Composite
E. Shoji, M. Kusakabe
The 206th Meeting of The Electrochemical Society Meeting, Honolulu, Hawaii, USA, October 3-8, **2004**.
- [23] Performance Investigation of Ion-exchange Polymer Based Molecular Actuators,
E. Shoji, D. Hirayama, T. Adachi, T. Inoue, M. Kusakabe
Proceedings of the Fourth International Symposium on Human and Artificial Intelligence Systems(HART2004), **2004**, 1, 221-226.
- [24] Performance Investigation of Ion-exchange Polymer Based Molecular Actuators
E. Shoji, M. Kusakabe
Gordon Research Conference, Ventura, California, USA, February 20-25, **2005**.
- [25] Poly(aniline boronic acid) as an Electrochemical Non-enzymatic Sugar Sensor: The Effects of Templating Fructose on the Redox Processes of the Polymer
E. Shoji, Y. Komori
The Pacifichem 2005, SYMPOSIA: (63) Electroanalytical Chemistry, Honolulu, Hawaii, USA, December 15-20,

2005.

- [26] Performance Investigation of Ion-exchange Polymer based Molecular Actuators
E. Shoji, D. Hirayama, M. Kusakabe, T. Inoue
The Pacificchem 2005, SUBJECT AREA: (11) Physical and Theoretical Chemistry, Honolulu, Hawaii, USA, December 15-20, **2005**.
- [27] Development and Performance of Chemical Actuators (III): Synthesis of Poly(aromatic sulfonic anion)s as Bending Actuators
E. Shoji, R. Kakehashi, M. Hatashita
The 10th Pacific Polymer Conference (PPC 10): Polymers for Advanced Information and Electronics, Kobe, Japan, December 4-7, **2007**.
- [28] Development and Performance of Chemical Actuators (IV): The Effects of Humidity and Voltage Waveforms on the Performance of the Perfluoro-Ionomer Based Actuators
E. Shoji
The 10th Pacific Polymer Conference (PPC 10): Polymers for Advanced Information and Electronics, Kobe, Japan, December 4-7, **2007**.

⑤ 特許(登録済)

- [1] スリット切り換え装置
小林 達次, 岩館 義武, 坂上 好弘, 水野 恵夫, 庄司英一
登録番号: 特許 第 2839701 号 (公開番号: 特開平 4-184855), 登録日: 1998/9.22, 5pp.
- [2] ポリアリーレンチオエーテル誘導体の製造法
土田英俊, 西出宏之, 山元公寿, 庄司英一
登録番号: 特許 第 3108891 号 (公開番号: 平 5-178993), 登録日: 2000.9.14, 7pp.
- [3] ポリ(アルキル－P－チオフェノキシフェニルスルホニウム塩)化合物
土田英俊, 西出宏之, 山元公寿, 庄司英一
登録番号: 特許 第 3123724 号 (公開番号: 平 5-239213), 登録日: 2000.10.27, 7pp.
- [4] スルホン化ポリアリーレンスルフィド化合物の製造方法
土田英俊, 西出宏之, 山元公寿, 庄司英一, 宮武健治
登録番号: 特許 第 2988827 号 (公開番号: 平 7-304872), 登録日: 1999.10.8, 4pp.
- [5] ポリチオエーテル化合物の分解方法
山元公寿, 土田英俊, 庄司英一
登録番号: 特許 第 2973351 号 (公開番号: 平 9-52877), 登録日: 1999.9.3, 5pp.
- [6] Synthesis of Substituted Poly(aniline)s
M. S. Freund, E. Shoji
登録番号: 米国特許 US6737504B2, 登録日: 2004. 5. 18, 12pp.
- [7] Sensors and Sensing Methods for Detecting Analytes Based on Changes in pKa of a Sensing Polymer
M. S. Freund, E. Shoji
登録番号: 米国特許 US6797152B2, 登録日: 2004. 9. 28, 12pp.
- [8] Complex material
S. Takagi, M. Nomura, E. Shoji, K. Murase
登録番号: 米国特許 US8029654B2, 登録日: 2011. 10. 4, 12pp.
- [9] 複合材料
高木 進, 野村正和, 庄司英一, 村瀬一之
登録番号: 特許 第 5079244 号 (公開番号: 2007-244103), 登録日: 2012.9.7, 15pp.

- [10] 高分子アクチュエータおよびその製造方法
庄司英一
登録番号: 特許 第 5156940 号 (公開番号: 2007-329334), 登録日: 2012.12.21, 16pp.
- [11] アクチュエータ駆動システムおよびアクチュエータの制御方法
庄司英一
特許第 5252616 号 (公開番号: 2009-5436), 登録日: 2013.4.26, 13pp.
- [12] 高分子アクチュエータ
庄司英一
登録番号: 特許 第 5474387 号 (公開番号: 2010-226773), 登録日: 2014.2.14, 11pp.
- [13] ポリイミド系高分子アクチュエータ、及びその製造方法
庄司英一、畑下昌範
登録番号: 特許 第 5598817 号 (公開番号: 2012-16247), 登録日: 2014.8.22, 13pp.
- [14] 高分子アクチュエータ及びその製造方法
庄司英一、畑下昌範
登録番号: 特許 第 5604676 号 (公開番号: 2011-172383), 登録日: 2014.9.5, 10pp.
- [15] 金属メッキ材料の製造方法
庄司英一、畑下昌範
登録番号: 特許 第 5756657 号 (公開番号: 2012-184474), 登録日: 2015.6.5, 14pp.
- [16] アクチュエータにおける発生駆動力の評価方法
庄司英一、岩崎美晴
登録番号: 特許 第 6044989 号 (公開番号: 2014-193037), 登録日: 2016.11.25, 11pp.
- [17] 導電性ナノファイバーの製造方法
庄司英一
登録番号: 特許 第 6083751 号(公開番号: 2015-35291), 登録日: 2017.2.3, 9pp.
- [18] 高分子アクチュエータの制御方法、高分子アクチュエータ及びこの高分子アクチュエータを利用した微少流体送出装置
庄司英一、畑下昌範
登録番号: 特許 第 6586686 号(公開番号: 2016-032405), 登録日: 2019.9.20, 13pp.
- [19] 打楽器の自動演奏装置及び自動演奏方法
庄司英一
登録番号: 特許 第 6573355 号(公開番号: 2016-032405), 登録日: 2019.8.23, 12pp.
- [20] 演奏支援システムおよび制御方法
庄司英一
登録番号: 特許 第 7106091 号(公開番号: 2019-144360), 登録日: 2022.7.15, 21pp.
- [21] 磁界型フレキシブルエネルギーハーベスタ
庄司英一
登録番号: 特願 2020-563278(P2020-563278、国際公開番号 WO2020/138022), 特許査定: 2023.10.25, 41pp.
- [22] リズム把握支援システム
庄司英一
登録番号: 特許 第 7440727 号(公開番号: 2022-3382), 登録日: 2024.2.20, 18pp.特許出願番号: 2020-108253 (

特許(審査請求中)(参考)

[23] 電波発電装置

庄司英一

特許出願番号: 2021-163132 (2021/10/1) (審査請求, 2024.8.23)

[24] マルチループ型アンテナ、及びループアンテナ式無給電ラジオ

庄司英一

特許出願番号: 2021-163133 (2021/10/1) (審査請求, 2024.8.23)

⑥ 専門著書、教科書

[1] The Electrochemistry of Conducting Polymers with Emphasis Ion Transport Behavior and Application in Energy Storage

N. Naoi, E. Shouji

Handbook of Solid State Batteries and Capacitors, M. Z. A. Munshi, Ed.; World Scientific Publishing Co, Pte. Ltd.: Singapore, **1995**; pp.247-272.

[2] 高分子アクチュエータのパルス幅変調制御による運動性の制御, ソフトアクチュエータの材料開発とロボット・デバイスへの応用技術, S&T 出版, ISBN978-4-907002-61-9, **2016.11.8**

⑦ その他(報告書など)

36 件 詳細略

⑧ 国内学会発表

詳細略