# Masatoshi Hasegawa

List of Publications by Year
in descending order



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|---|---|---|---|
| 79 papers | 3,285 citations | 109137 35 h-index | 149479 56 g-index |
| 79 all docs | 79 docs citations | 79 times ranked | 1308 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Structure and Properties of Novel Asymmetric Biphenyl Type Polyimides. Homo- and Copolymers and Blends. Macromolecules, 1999, 32, 387-396. | 2.2 | 172 |
| 2 | Spontaneous Molecular Orientation of Polyimides Induced by Thermal Imidization. 2. In-Plane Orientation. Macromolecules, 1996, 29, 7897-7909. | 2.2 | 150 |
| 3 | Molecular aggregation and fluorescence spectra of aromatic polyimides. European Polymer Journal, 1989, 25, 349-354. | 2.6 | 141 |
| 4 | Molecular Design of Heat Resistant Polyimides Having Excellent Processability and High Glass Transition Temperature. High Performance Polymers, 2001, 13, S61-S72. | 0.8 | 135 |
| 5 | Development of Solution-Processable, Optically Transparent Polyimides with Ultra-Low Linear Coefficients of Thermal Expansion. Polymers, 2017, 9, 520. | 2.0 | 119 |
| 6 | Solutionâ€processable colorless polyimides derived from hydrogenated pyromellitic dianhydride with controlled steric structure. Journal of Polymer Science Part A, 2013, 51, 575-592. | 2.5 | 112 |
| 7 | Polyimides Containing Trans-1,4-cyclohexane Unit. Polymerizability of their Precursors and Low-CTE, Low-K and High-Tg Properties. High Performance Polymers, 2003, 15, 47-64. | 0.8 | 94 |
| 8 | Ultralow-Dielectric-Constant Films Prepared from Hollow Polyimide Nanoparticles Possessing Controllable Core Sizes. Chemistry of Materials, 2009, 21, 419-424. | 3.2 | 93 |
| 9 | Colorless polyimides derived from 1S,2S,4R,5R-cyclohexanetetracarboxylic dianhydride, self-orientation behavior during solution casting, and their optoelectronic applications. Polymer, 2014, 55, 4693-4708. | 1.8 | 92 |
| 10 | Spontaneous molecular orientation of polyimides induced by thermal imidization (6). Mechanism of negative in-plane CTE generation in non-stretched polyimide films. European Polymer Journal, 2010, 46, 681-693. | 2.6 | 87 |
| 11 | Polyimides Containing Trans-1,4-cyclohexane Unit (II). Low-K and Low-CTE Semi- and Wholly Cycloaliphatic Polyimides. High Performance Polymers, 2007, 19, 175-193. | 0.8 | 85 |
| 12 | Superheat-resistant polymers with low coefficients of thermal expansion. Polymer, 2017, 111, 91-102. | 1.8 | 85 |
| 13 | Poly(ester imide)s Possessing Low Coef-cient of Thermal Expansion and Low Water Absorption. High Performance Polymers, 2006, 18, 697-717. | 0.8 | 83 |
| 14 | Poly(ester imide)s possessing low coefficients of thermal expansion (CTE) and low water absorption (III). Use of bis(4-aminophenyl)terephthalate and effect of substituents. European Polymer Journal, 2010, 46, 1510-1524. | 2.6 | 83 |
| 15 | Solution-processable transparent polyimides with low coefficients of thermal expansion and self-orientation behavior induced by solution casting. European Polymer Journal, 2013, 49, 3657-3672. | 2.6 | 80 |
| 16 | Solutionâ€processable colorless polyimides with ultralow coefficients of thermal expansion for optoelectronic applications. Polymer International, 2016, 65, 1063-1073. | 1.6 | 72 |
| 17 | Semi-Aromatic Polyimides with Low Dielectric Constant and Low CTE. High Performance Polymers, 2001, 13, S93-S106. | 0.8 | 70 |
| 18 | Photophysical processes in aromatic polyimides. Studies with model compounds. Journal of Polymer Science, Part B: Polymer Physics, 1993, 31, 1617-1625. | 2.4 | 69 |

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| 19 | Poly(ester imide)s Possessing Low CTE and Low Water Absorption (II). Effect of Substituents. Polymer Journal, 2008, 40, 56-67. | 1.3 | 68 |
| 20 | Spontaneous molecular orientation of polyimides induced by thermal imidization (5). Effect of ordered structure formation in polyimide precursors on CTE. European Polymer Journal, 2010, 46, 283-297. | 2.6 | 68 |
| 21 | Colorless poly(ester imide)s derived from hydrogenated trimellitic anhydride. European Polymer Journal, 2012, 48, 483-498. | 2.6 | 67 |
| 22 | Spontaneous Molecular Orientation of Polyimides Induced by Thermal Imidization. 3. Component Chain Orientation in Binary Polyimide Blends. Macromolecules, 1997, 30, 5745-5752. | 2.2 | 65 |
| 23 | Colorless polyimides with low coefficient of thermal expansion derived from alkyl-substituted cyclobutanetetracarboxylic dianhydrides. Polymer International, 2014, 63, 486-500. | 1.6 | 64 |
| 24 | Isomeric Biphenyl Polyimides. (I) Chemical Structure-property Relationships. High Performance Polymers, 2005, 17, 317-333. | 0.8 | 62 |
| 25 | Improvement of thermoplasticity for s-BPDA/PDA by copolymerization and blend with novel asymmetric BPDA-based polyimides. Journal of Polymer Science, Part B: Polymer Physics, 1999, 37, 2499-2511. | 2.4 | 59 |
| 26 | Buffer-like Action in Water Pool of Aerosol OT Reverse Micelles. Langmuir, 2001, 17, 1426-1431. | 1.6 | 58 |
| 27 | Low-CTE Polyimides Derived from 2,3,6,7-Naphthalenetetracarboxylic Dianhydride. Polymer Journal, 2007, 39, 610-621. | 1.3 | 56 |
| 28 | Thermo-Processable Polyimides with High Thermo-Oxidative Stability as Derived from Oxydiphthalic Anhydride and Bisphenol a Type Dianhydride. High Performance Polymers, 2000, 12, 377-393. | 0.8 | 51 |
| 29 | Optically transparent aromatic poly(ester imide)s with low coefficients of thermal expansion (1). Self-orientation behavior during solution casting process and substituent effect. Polymer, 2015, 74, 1-15. | 1.8 | 51 |
| 30 | Spontaneous molecular orientation of polyimides induced by thermal imidization (4): Casting- and melt-induced in-plane orientation. European Polymer Journal, 2010, 46, 69-80. | 2.6 | 50 |
| 31 | Isomeric Biphenyl Polyimides. (II) Glass Transitions and Secondary Relaxation Processes. High Performance Polymers, 2005, 17, 335-347. | 0.8 | 48 |
| 32 | Thermo-Processable Polyimides with HighTg and High Thermo-Oxidative Stability as Derived from 2,3,3â€²,4â€²-biphenyltetracarboxylic dianhydride. High Performance Polymers, 2001, 13, 355-364. | 0.8 | 43 |
| 33 | Ultra-Low CTE and Improved Toughness of PMDA/PDA Polyimide-based Molecular Composites Containing Asymmetric BPDA-type Polyimides. High Performance Polymers, 2009, 21, 709-728. | 0.8 | 42 |
| 34 | High-temperature polymers overcoming the trade-off between excellent thermoplasticity and low thermal expansion properties. Polymer, 2016, 99, 292-306. | 1.8 | 36 |
| 35 | Thermal- and solution-processable polyimides based on mellophanic dianhydride and their applications as heat-resistant adhesives for copper-clad laminates. Reactive and Functional Polymers, 2011, 71, 109-120. | 2.0 | 35 |
| 36 | Spontaneous molecular orientation of polyimides induced by thermal imidization. I. Uniaxial stretching of polyamic acid film. Journal of Polymer Science, Part B: Polymer Physics, 1994, 32, 1299-1303. | 2.4 | 33 |

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| 37 | Using a polyelectrolyte to fabricate porous polyimide nanoparticles with craterâ€like pores. Polymers for Advanced Technologies, 2009, 20, 43-47. | 1.6 | 29 |
| 38 | Role of the in-plane orientation of polyimide films in graphitization. Journal of Polymer Science, Part B: Polymer Physics, 2001, 39, 3011-3019. | 2.4 | 28 |
| 39 | Solution-processable Low-CTE Polybenzoxazoles. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2004, 17, 253-258. | 0.1 | 26 |
| 40 | Polyimides Containing Trans-1,4-cyclohexane unit (III). Ordered Structure and Intermolecular Interaction in s-BPDA/CHDA Polyimide. High Performance Polymers, 2009, 21, 282-303. | 0.8 | 26 |
| 41 | Symmetric and asymmetric spiro-type colorless poly(ester imide)s with low coefficients of thermal expansion, high glass transition temperatures, and excellent solution-processability. Polymer, 2019, 169, 167-184. | 1.8 | 26 |
| 42 | Highly Tough and Highly Transparent Soluble Polybenzoxazoles. High Performance Polymers, 2007, 19, 243-269. | 0.8 | 24 |
| 43 | Approaches to improve the film ductility of colorless cycloaliphatic polyimides. Polymers for Advanced Technologies, 2018, 29, 921-933. | 1.6 | 24 |
| 44 | Polyimide/Polyimide Blend Miscibility Probed by Perylenetetracarboxydiimide Fluorescence. Macromolecules, 1999, 32, 6111-6119. | 2.2 | 23 |
| 45 | Optically transparent aromatic poly(ester imide)s with low coefficients of thermal expansion. 2: Effect of the introduction of alkylâ€substituted <i>p</i>â€biphenylene units. Polymer International, 2018, 67, 431-444. | 1.6 | 23 |
| 46 | Highly Tough and Highly Transparent Soluble Polybenzoxazoles (II): Effect of Sulfone Group. High Performance Polymers, 2009, 21, 219-244. | 0.8 | 22 |
| 47 | Enhanced thermal conductivity of semiâ€aliphatic liquid crystalline polybenzoxazoles using magnetic orientation. Polymer International, 2011, 60, 1240-1247. | 1.6 | 21 |
| 48 | Fluoreneâ€Containing Poly(ester imide)s and their Application to Positiveâ€Type Photosensitive Heatâ€Resistant Materials. Macromolecular Materials and Engineering, 2011, 296, 1002-1017. | 1.7 | 21 |
| 49 | cis,cis,cis-1,2,4,5-Cyclohexanetetracarboxylic acid and its dianhydride. Acta Crystallographica Section C: Crystal Structure Communications, 2003, 59, o435-o438. | 0.4 | 18 |
| 50 | Poly(ester imide)s Possessing Low Coefficients of Thermal Expansion and Low Water Absorption (V). Effects of Ester-linked Diamines with Different Lengths and Substituents. Polymers, 2020, 12, 859. | 2.0 | 18 |
| 51 | Unique fluorescence behavior of perylenetetracarboxydiimides in polyimide systems. Journal of Polymer Science, Part B: Polymer Physics, 1998, 36, 827-840. | 2.4 | 15 |
| 52 | Solution-Processable Colorless Polyimides Derived from Hydrogenated Pyromellitic Dianhydride: Strategies to Reduce the Coefficients of Thermal Expansion by Maximizing the Spontaneous Chain Orientation Behavior during Solution Casting. Polymers, 2022, 14, 1131. | 2.0 | 15 |
| 53 | Poly(ester imide)s possessing low coefficients of thermal expansion and low water absorption (IV): Effects of esterâ€linked tetracarboxylic dianhydrides with longitudinally extended structures. Polymers for Advanced Technologies, 2020, 31, 389-406. | 1.6 | 14 |
| 54 | Solution-processable CF 3 -substituted ductile polyimides with low coefficients of thermal expansion as novel coating-type protective layers in flexible printed circuit boards. Progress in Organic Coatings, 2016, 99, 125-133. | 1.9 | 13 |

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| 55 | Câ€“Hâ‹¯Cl<sup>â^’</sup> hydrogen bonds in solution and in the solid-state: HgCl<sub>2</sub> complexes with cyclen-based cryptands. Dalton Transactions, 2017, 46, 3800-3804. | 1.6 | 13 |
| 56 | Crosslinkable polyimides obtained from a reactive diamine and the effect of crosslinking on the thermal properties. Reactive and Functional Polymers, 2019, 139, 181-188. | 2.0 | 12 |
| 57 | Colorless Polyimides Derived from Cycloaliphatic Tetracarboxylic Dianhydrides with Controlled Steric Structures (4). Applications to Positive-type Photosensitive Polyimide Systems with Controlled Extents of Imidization.. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2009, 22, 411-415. | 0.1 | 10 |
| 58 | Ultra-low-modulus Polyimides and Their Applications. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2010, 23, 495-499. | 0.1 | 9 |
| 59 | Thermosets containing benzoxazole units: Liquidâ€crystalline behavior and thermal conductivity. Polymers for Advanced Technologies, 2019, 30, 128-142. | 1.6 | 9 |
| 60 | Structure, Properties, and Intermolecular Charge Transfer of Polyimides. ACS Symposium Series, 1995, , 395-412. | 0.5 | 8 |
| 61 | Strategy for Improvement of Non-flammability in Functional Polyimides. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2011, 24, 287-291. | 0.1 | 8 |
| 62 | Effect of reaction temperature on Feâ€“Al analcime formation. Journal of Porous Materials, 2007, 14, 443-448. | 1.3 | 7 |
| 63 | Î³â€Butyrolactoneâ€processable highâ€modulus poly(ester imide)s. Polymer International, 2012, 61, 466-476. | 1.6 | 7 |
| 64 | Characterization and properties of iron-incorporated gismondine prepared at 80Â°C. Journal of Porous Materials, 2008, 15, 35-42. | 1.3 | 6 |
| 65 | Polyimides Containing Benzoxazole Units and Their Liquid-Crystalline Behavior. Macromolecular Research, 2018, 26, 900-912. | 1.0 | 5 |
| 66 | Film Properties of Polyazomethines (1). Effect of Incorporation of Intramolecular Cyclodehydrating Units. High Performance Polymers, 2010, 22, 259-273. | 0.8 | 4 |
| 67 | Liquidâ€crystalline behavior and thermal conductivity of vinyl polymers containing benzoxazole side groups. Polymer International, 2021, 70, 812-822. | 1.6 | 4 |
| 68 | High-Modulus Positive-type Photosensitive Poly(amide-benzoxazole)s. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2008, 21, 151-154. | 0.1 | 3 |
| 69 | Anomalous Polyimide Nanoparticles Prepared from Blending of Unlike Polymers. Molecular Crystals and Liquid Crystals, 2009, 504, 9-17. | 0.4 | 3 |
| 70 | Ultraâ€low modulus polyazomethines and enhanced adhesion strength with copper foils. Polymers for Advanced Technologies, 2016, 27, 477-485. | 1.6 | 3 |
| 71 | Poly(ester imide)s with low coefficients of thermal expansion (<scp>CTEs</scp>) and low water absorption (<scp>WI</scp>): an attempt to reduce the modulus while maintaining low <scp>CTEs</scp> and other desired properties. Polymer International, 2022, 71, 1164-1175. | 1.6 | 3 |
| 72 | Effect of anion species from Ca-sources on framework type of Naâ€“Ca zeolites prepared at 80Â°C. Journal of Porous Materials, 2007, 14, 401-407. | 1.3 | 2 |

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| 73 | (1<i>S</i>*,2<i>S</i>*,4<i>R</i>*,5<i>R</i>*)-Cyclohexane-1,2,4,5-tetracarboxylic acid. Acta Crystallographica Section E: Structure Reports Online, 2014, 70, o75-o75. | 0.2 | 2 |
| 74 | Photophysics, Photochemistry, and Intramolecular Charge Transfer of Polyimides. ACS Symposium Series, 1995, , 379-394. | 0.5 | 1 |
| 75 | Rhodium-incorporated faujasite prepared at 80ÂÂ°C. Journal of Porous Materials, 2008, 15, 685-694. | 1.3 | 1 |
| 76 | Corrosion and Adhesion Properties of a Low-CTE Polybenzoxazole Film. Journal of Japan Institute of Electronics Packaging, 2006, 9, 48-51. | 0.0 | 1 |
| 77 | Low-CTE and Low-water Absorption Polyimides for FPC Applications. Journal of Japan Institute of Electronics Packaging, 2013, 16, 399-404. | 0.0 | 0 |
| 78 | Ultra-low-modulus Photosensitive Polybenzoxazole Systems. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2015, 28, 206-213. | 0.1 | 0 |
| 79 | Influence of the Concentration of the Chlorine Ion in the Polybenzoxazole Precursors on the Corrosion of Metals. Journal of Japan Institute of Electronics Packaging, 2005, 8, 561-566. | 0.0 | 0 |