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原著論文

Direct arylation polycondensation for the synthesis of medium-bandgap polymer donors (PBDB-T) for organic photovoltaics

Junpei Kuwabara*, Kota Hiyaji, Shuyang Guo, Xin Jiang, Takeshi Yasuda, Takaki Kanbara*

[Polym. J., 2023, 55, 395-404.](#)

Facile Synthesis of Bis-pentafluoroarylated Anthracene Derivatives for N-type Organic-Field-Effect Transistor Applications

Ryota Sato, Takeshi Yasuda, Takanobu Hiroto, Takaki Kanbara*, Junpei Kuwabara*

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One-pot two-step cross-dehydrogenative-coupling polycondensation for synthesis of tetrafluorobenzene-based conjugated polymer

Naoki Onda, Ryota Sato, Junpei Kuwabara, Takeshi Yasuda, Takaki Kanbara*

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Unique regioselectivity of the Pd-catalysed cross-dehydrogenative coupling reaction of simple polyaromatic hydrocarbons with polyfluoroarenes

Ryota Sato, Tomoki Iida, Takaki Kanbara*, Junpei Kuwabara*

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Tracking side reactions of the inverse vulcanization process and developing monomer selection guidelines

Yusuke Onose, Yuri Ito, Junpei Kuwabara*, Takaki Kanbara*

[Polym. Chem., 2022, 13, 5486-5493.](#)

Facile Synthesis of 1,7-Phenanthroline Derivatives and Evaluation of Their Properties as Hole-Blocking Materials in Organic Light-Emitting Diodes

Sachie Yamamoto, Takeshi Yasuda, Takaki Kanbara, Junpei Kuwabara*

[Bull. Chem. Soc. Jpn., 2022, 95, 458-465.](#) (BCSJ Award Article)

Nonstoichiometric hydroarylation polyaddition for synthesis of pyrrole-based poly(arylenevinylene)s

Ryota Iwamori, Ryota Sato, Junpei Kuwabara Takaki Kanbara*

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Hydrogen-bonded dimers of mono-alkylated diketopyrrolopyrroles and their physical properties

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Direct Evidence of the Internal Deterioration Mechanism due to Molecular Chain Ends in Polymer Solar Cells by Operando Spin Detection

Haruka Asai, Dong Xue, Shinpei Kamiya, Junpei Kuwabara, Takaki Kanbara, Kazuhiro Marumoto*

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Synthesis of Azine-Based Conjugated Polymers by Metal-Free Dehydration Polycondensation and Characterization of Their Physical Properties

Hiroki Murakami, Kyoya Kobayashi, Keita Suzuki, Takeshi Yasuda, Takaki Kanbara, Junpei Kuwabara*

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Synthesis of pyrrole-based poly(arylenevinylene)s via Co-catalyzed hydroarylation of alkynes

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Algae-Inspired, Sulfur-Based Polymer with Infrared Transmission and Elastic Function

Junpei Kuwabara, Kaho Oi, Makoto M. Watanabe, Takashi Fukuda*, Takaki Kanbara*

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Facile Synthesis of Thienopyrroledione-based π -Conjugated Polymers via Direct Arylation Polycondensation under Aerobic Conditions

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From Linear to Foldamer and Assembly: Hierarchical Transformation of a Coplanar Conjugated Polymer into a Microsphere

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出願番号：特願 2019-015514

特許番号：特許第 7228155 号

発明者：児島俊輔、福島伊織、桑原純平、神原貴樹、江しん

出願日：2019/1/31

発明の名称：Polymer Dye

出願番号：13/461,933

特許番号：8,816,040 B2

発明者：T. Kanbara, J. Kuwabara, H. Yamada, N. Fujimoto,

US への出願 13/461,933 特許 US8,816,040B2

発明の名称：高分子色素

出願番号：特願 2012-220175

特許番号：特許 5952156

発明者：神原貴樹、桑原純平、山田晃、藤本信貴、宮原亮

出願日：2012/10/2

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基盤 C, 2022-2025

可逆な Pd-C 結合を利用した自己組織化体の構築と環状および球状共役分子への変換

新学術領域研究 π 造形科学, H29-H30,
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有機薄膜太陽電池用素材の製造コスト低減と高純度化を達成する重縮合反応の
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JST A-Step フィージビリティスタディ・ステージ 探索タイプ, H23
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公益財団法人フジクラ財団 研究助成, H28-H29
有機顔料の特性を活かした有機半導体材料の創製

日揮・実吉奨学会 研究助成金, H24
高度に制御された π 共役高分子の新しい合成戦略

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総合工学振興会 研究奨励, H22,
n 型有機半導体としての機能を有する新規色素分子の開発

三菱化学研究奨励基金 研究助成, H22,
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理工学振興会 研究助成, H21,
導電性を有するゲルの合成

国際学会渡航費支援

財団法人 松籟科学技術振興財団 国際研究集会派遣, H24
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筑波大学内の競争的研究支援

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つくば励起光源としての応用を指向した紫外発光有機 EL の開発

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筑波大学学際物質科学研究拠点若手研究者研究支援, H22,
独自の метод論を用いた π 共役高分子の合成と有機電子材料としての評価

筑波大学研究基盤総合センター分析部門 研究助成, H20,
配位結合と DNA 塩基対の水素結合を用いた分子集合体の構築

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