

## 2017

7) Molecular alignments of  $\sigma$  phase in co-evaporated pentacene and perfluoropentacene film on SiO<sub>2</sub> studied by grazing-incidence X-ray diffraction

I. Hirosawa, T. Watanabe, T. Koganezawa, K. Tada and N. Yoshimoto

*Mol. Cryst. Liq. Cryst.* **2017**, *654*, 47-52.

[DOI:org/10.1080/15421406.2017.1355212](https://doi.org/10.1080/15421406.2017.1355212)

6) The influence of branched alkyl side chains in A–D–A oligothiophenes on the photovoltaic performance and morphology of solution-processed bulk-heterojunction solar cells

I. Ata, S. Ben Dkhil, M. Pfannmöller, S. Bals, D. Duché, J.-J. Simon, T. Koganezawa, N. Yoshimoto, C. Videlot-Ackermann, O. Margeat, J. Ackermann and P. Bäuerle

*Org. Chem. Front.* **2017**, *4*, 1561-1573.

[DOI:10.1039/C7QO00222J](https://doi.org/10.1039/C7QO00222J)

5) Side-chain engineering in a thermal precursor approach for efficient photocurrent generation with insoluble tetrabenzoporphyrin–diketopyrrolopyrrole conjugates

K. Takahashi, D. Kumagai, N. Yamada, D. Kuzuhara, Y. Yamaguchi, N. Aratani, T. Koganezawa, S. Koshika, N. Yoshimoto, S. Masuo, M. Suzuki, K.-i. N., H. Yamada

*J. Mater. Chem. A* **2017**, *5*, 14003-14011.

[DOI:10.1039/C7TA04162D](https://doi.org/10.1039/C7TA04162D)

4) Synthesis, Characterization and Protonation Behavior of Quinoxaline-Fused Porphyccenes

D. Kuzuhara, M. Sakaguchi, W. Furukawa, T. Okabe, N. Aratani, H. Yamada

*Molecules* **2017**, *22*, 908.

[DOI:10.3390/molecules22060908](https://doi.org/10.3390/molecules22060908)

3) Improved performance of organic photovoltaic cells with PTB7-Th:PC71 BM by optimized solvent evaporation time in electrospray deposition

T. Fukuda, A. Toda, K. Takahira, D. Kuzuhara, N. Yoshimoto

*Org. Electron* **2017**, *48*, 96-105.

[DOI: 10.1016/j.orgel.2017.05.049](https://doi.org/10.1016/j.orgel.2017.05.049)

2) The effect of air exposure on the crystal structure of oligo-thiophene thin films investigated using in situ X-ray diffraction

T. Watanabe, T. Koganezawa, M. Kikuchi, C. V. Ackermann, J. Ackermann, H. Brisset, N. Yoshimoto and I. Hirosawa

*J. Cryst. Growth* **2017**, *468*, 816-820.

[DOI:org/10.1016/j.jcrysgro.2017.01.051](https://doi.org/10.1016/j.jcrysgro.2017.01.051)

1) P-type semiconductor surfactant modified zinc oxide nanorods for hybrid bulk heterojunction solar cells  
S. Ben Dkhil, M. Gaceur, W. Dachraoui, D. Hannani, S. Fall, F. Brunel, M. Wang, G. Poize, J. Mawyn, I. Shupyk, C. Martini, E. Shilova, F. Fages, T. Ishwara, J. Nelson, T. Watanabe, N. Yoshimoto, O. Margeat, C. Videlot-Ackermann, J. Ackermann  
*Sol. Energy Mater. Sol. Cells.* **2017**, *159*, 608-616.  
[DOI:10.1016/j.solmat.2016.01.006](https://doi.org/10.1016/j.solmat.2016.01.006)

## 2016

8) A new instrumentation for in situ characterization of the charge transport and crystallographic properties in co-evaporated organic thin film transistor

Takeshi Watanabe, Mamoru Kikuchi, Kousaku Nishida, Tomoyuki Koganezawa, Ichiro Hirosawa, Noriyuki Yoshimoto

*Mol. Cryst. Liq. Cryst.* **2016**, *636* 1, 168-175.

[DOI: org/10.1080/15421406.2016.1201411](https://doi.org/10.1080/15421406.2016.1201411)

7) 放射光を用いた有機半導体薄膜形成素過程の解明

吉本則之、菊池護

金属, **2016**, *86*, 687-691

6) Tuning the Work Function of Graphene with the Adsorbed Organic Molecules: First-Principles Calculations

Kazume Nishidate, Noriyuki Yoshimoto, Peerasak Chantngarm, Hiroaki Saito, Masayuki Hasegawa

*Mol. Phys.* **2016**, *114*, 2993-2998.

[DOI: 10.1080/00268976.2016.1213437](https://doi.org/10.1080/00268976.2016.1213437)

5) Synthesis and Metalation of Doubly o-Phenylene-Bridged Cyclic Bis(dipyrin)s with Highly Bent Skeleton of Dibenzoporphyrin(2.1.2.1)

Daiki Kuzuhara, Wataru Furukawa, Aya Kitashiro, Naoki Aratani, Hiroko Yamada

*Chem. Eur. J.* **2016**, *22*, 10671-10678.

[DOI: 10.1002/chem.201601083](https://doi.org/10.1002/chem.201601083)

4) Square-Centimeter-Sized High-Ef ciency Polymer Solar Cells: How the Processing Atmosphere and Film Quality In uence Performance at Large Scale

Sadok Ben Dkhil, Martin Pfannmöller, Sara Bals, Tomoyuki Koganezawa, Noriyuki Yoshimoto, Driss Hannani, Meriem Gaceur, Christine Videlot-Ackermann, Olivier Margeat Jörg Ackermann

*Adv. Energy. Mater.* **2016**, *6*, 1600290.

[DOI:10.1002/aenm.201600290](https://doi.org/10.1002/aenm.201600290)

3) Controlled donor-accepter ratio for application of organic photovoltaic cells by alternative intermittent electrospray co-deposition

Takeshi Fukuda, Katsumi Suzuki, Noriyuki Yoshimoto, Yingjie Liao

*Org. Electron.* 33, 32-39 (2016)

DOI:10.1016/j.orgel.2016.03.011

2) Observation of electric potential in organic thin-film transistor by bias applied hard X-ray photoemission spectroscopy

Takeshi Watanabe, Keisuke Tada, Satoshi Yasuno, Hiroshi Oji, Noriyuki Yoshimoto and Ichiro Hirosawa

*Jpn J. Appl. Phys.* 55, 03DD12 (2016)

DOI:10.7567/JJAP.55.03DD12

1) Effects of applying bias voltage on metal-coated pentacene films on SiO<sub>2</sub> studied by hard X-ray photoelectron spectroscopy

Ichiro Hirosawa, Takeshi Watanabe, Hiroshi Oji, Satoshi Yasuno, Tomoyuki Koganezawa, Keisuke Tada, Noriyuki Yoshimoto

*Jpn J. Appl. Phys.* 55, 03DD09 (2016)

DOI:10.7567/JJAP.5503DD09

## 2015

2) Collapsed armchair single-walled carbon nanotubes as an analog of closed-edged bilayer graphene nanoribbons

Masayuki Hasegawa, Kazume Nishidate, Noriyuki Yoshimoto

*Phys. Rev. B* **92** 245429 (2015)

DOI:10.1103/PhysRevB.92.245429

1) Morphology and microstructure of picene thin-films for air-operating transistors

Abdou Karim Diallo, Ryouta Kurihara, Noriyuki Yoshimoto, Christine Videlot-Ackermann

*Appl. Surf. Sci.*, 314, 704-710 (2014)

DOI:10.1016/j.apsusc.2014.07.085

## 2014

4) リアルタイム 2D-GIXD による有機半導体超薄膜の成長過程の観察

吉本 則之、渡辺 剛、小金澤 智之、菊池 譲、廣沢 一郎

SPring-8 利用者情報, 19, 313-317 (2014)

リンク先へ

3) 放射光を用いた有機薄膜成長の2次元X線回折その場観察

吉本 則之、渡辺 剛、小金澤 智之、菊池 譲、廣沢 一郎

2) Crystal structure of oligothiophene thin films characterized by two-dimensional grazing incidence X-ray diffraction

Takeshi Watanabe, Tomoyuki Koganezawa, Mamoru Kikuchi, Christine Videlot-Ackermann, Jörg Ackermann, Hugues Brisset, Ichiro Hirosawa Noriyuki Yoshimoto  
*Jpn. J. Appl. Phys.*, 53 01AD01 (2014).

[DOI:org/10.7567/JJAP.53.01AD01](https://doi.org/10.7567/JJAP.53.01AD01)

1) Characterization of aryl-functionalized 2,4,6-tri(2-thienyl)-1,3,5-triazine thin films and their application to organic field-effect transistors

Takuya Hosokai, Hiroki Muraoka, Masayoshi Mori, Ryota Kurihara, Satoshi Ogawa Noriyuki Yoshimoto  
*Jpn. J. Appl. Phys.*, 53 01AB15 (2014).

[DOI:org/10.7567/JJAP.53.01AB15](https://doi.org/10.7567/JJAP.53.01AB15)

## 2013

3) Synthesis and Properties of Thieno[3,2-*b*]thiophene Derivatives for Application of OFET Active Layer  
Hiroki Ito, Tatsuya Yamamoto, Noriyuki Yoshimoto, Noboru Tsushima, Hiroki Muraoka Satoshi Ogawa  
*Heteroatom Chem.* 24, 25-35 (2013)

[DOI:10.1002/hc.21059](https://doi.org/10.1002/hc.21059)

2) Electronic Properties and Field-Effect Transistors of Oligomers End-Capped with Benzofuran Moieties  
Charlotte Mallet, Yahia Didane, Takeshi Watanabe, Noriyuki Yoshimoto, Magali Allain, Christine Videlot-Ackermann, Pierre Frére

*ChemPlusChem* 78, 459–466 (2013)

[DOI:10.1002/cplu.201300037](https://doi.org/10.1002/cplu.201300037)

1) Electronic-structure modification of graphene on Ni(111) surface by the intercalation of a noble metal  
Masayuki Hasegawa, Kazume Nishidate, Takuya Hosokai, Noriyuki Yoshimoto  
*Phys. Rev. B* 87, 085439 (2013)

[DOI:10.1103/PhysRevB.87.085439](https://doi.org/10.1103/PhysRevB.87.085439)

## 2012

6) Organic Thin Film Transistors Based on Distyryl-Oligothiophenes: Role of AFM Images in Analyses of Charge Transport Properties

Noriyuki Yoshimoto, Hugues Brisset, Jörg Ackermann, Christine Videlot-Ackermann

*Open J. Appl. Sci.*, 2, 283-293 (2012)

[DOI:10.4236/ojapps.2012.24042](https://doi.org/10.4236/ojapps.2012.24042)

5) In situ real-time x-ray diffraction during thin film growth of pentacene

T. Watanabe, T. Hosokai, T. Koganezawa, N. Yoshimoto

*Mol. Cryst. Liq. Cryst.* 566, 18–21 (2012)

[DOI:10.1080/15421406.2012.701111](https://doi.org/10.1080/15421406.2012.701111)

4) Two Dimensional Grazing Incidence X-ray Diffraction of TIPS-Pentacene Thin Films

R. Kamiya, T. Hosokai, T. Watanabe, T. Koganezawa, M. Kikuchi, N. Yoshimoto

*Mol. Cryst. Liq. Cryst.* 568, 134–138 (2012)

[DOI:10.1080/15421406.2012.710306](https://doi.org/10.1080/15421406.2012.710306)

3) Towards n-channel organic thin film transistors based on a distyryl-bithiophene derivative

Yahia Didane, Rocio Ponce Ortiz, Jian Zhang, Keijyu Aosawa, Toshinori Tanisawa, Hecham Aboubakr,

Frédéric Fages, Jörg Ackermann, Noriyuki Yoshimoto, Hugues Brisset, Christine Videlot-Ackermann

*Tetrahedron* 68, 4664-4671 (2012)

[DOI:10.1016/j.tet.2012.04.020](https://doi.org/10.1016/j.tet.2012.04.020)

2) Towards solution-processed ambipolar organic thin film transistors based on  $\alpha,\omega$ -hexyl-distyryl-bithiophene (DH-DS2T) and a fluorocarbon-substituted dicyanoperylene (PDIF-CN<sub>2</sub>)

Sébastien Nénon, Takeshi Watanabe, Hugues Brisset, Zhihua Chen, Jörg Ackermann, Frédéric Fages,

Sandrine Bernardini, Marc Bendahan, Khalifa Aguir, Noriyuki Yoshimoto, Christine Videlot-Ackerman

*J. Optoelectron. Adv. Mater.* 14, 131-135 (2012)

1) In situ structural characterization of picene thin films by X-ray scattering: Vacuum versus O<sub>2</sub> atmosphere

T. Hosokai, A. Hinderhofer, A. Vorobiev, C. Lorch, T. Watanabe, T. Koganezawa, A. Gerlach, N. Yoshimoto,

Y. Kubozono, F. Schreiber;

*Chem. Phys. Lett.* 544, 34–38 (2012)

[DOI:10.1016/j.cplett.2012.07.006](https://doi.org/10.1016/j.cplett.2012.07.006)

## 2011

4) Functionalization of ‘kite’ shaped styryl end-capped benzodithiophene with ketone groups: synthesis, characterization and properties

Y. Didane, A. Kumagai, N. Yoshimoto, C. V.-Ackermann, H. Brisset

*Tetrahedron*, 67, 1628-1632 (2011)

[DOI:10.1016/j.tet.2011.01.006](https://doi.org/10.1016/j.tet.2011.01.006)

3) Crystal order in pentacene thin films grown on SiO<sub>2</sub> and its influence on electronic band structure

R. Matsubara, M. Sakai, K. Kudo, N. Yoshimoto, I. Hirosawa, M. Nakamura,

*Org. Electron.* 12, 195-201 (2011)

DOI:10.1016/j.orgel.2010.10.024

2) Ambipolar organic field-effect transistors based on CuPc and F<sub>16</sub>CuPc: Impact of the fine microstructure at organic–organic interface

S. Nénon, D. Kanehira, N. Yoshimoto, F. Fages, C. V. Ackermann,

*Synth. Met.* 161, 1915–1920 (2011)

DOI:10.1016/j.synthmet.2011.06.035

1) Hybrid Heterojunction Nanorods for Nanoscale Morphology Control in Bulk Heterojunction Solar Cells"

Jose Mawyn, Ivan Shupyk, Mingqing Wang, Guillaume Poize, Pedro Atienzar, Thilini Ishwara, James Durrant, Jenny Nelson, Daiki Kanehira, Noriyuki Yoshimoto, Cyril Martini, Ekaterina Shilova, Patrick Secondo, Hugues Brisset, Frederic Fages, Jörg Ackermann

*J. Phys. Chem. C* 115, 10881–10888 (2011)

DOI:10.1021/jp112369t

## Book

1. 「有機半導体の応用展開」吉本則之、谷口彬雄監修、シーエムシー出版 (2003)

2. 「有機エレクトロニクスにおける分子配向技術」吉本則之、内藤裕義他監修、シーエムシー出版 (2007)

3. 「有機デバイスのための塗布技術」吉本則之、竹谷純一監修、シーエムシー出版 (2012)