

研究業績 2006年～2020年

Articles and Reviews /原著論文,総説

Lab. members are indicated with underline.

(著者に関し本研究室のメンバー(学生・教員)には下線が引いてあります。)

The Role of Initial and Final States in Molecular Spectroscopies – the Example of Tetraphenyldibenzoperiflanthene (DBP) on Graphite
Tino Kirchhübel, Satoshi Kera, Toshiaki Munakata, Nobuo Ueno, Ryo Shiraishi, Takuma Yamaguchi, Keiichirou Yonezawa, Takahiro Ueba, Fabio Bussolotti, Jinpeng Yang, Takashi Yamada, Ryosuke Mori, Shogo Kunieda, Tobias Hümpfner, Marco Gruenewald, Roman Forker, and Torsten Fritz*
[The Journal of Physical Chemistry C, 124, 19622–19638 \(2020\).](#)

A computational examination of the electric-field-induced proton transfer along the interface hydrogen bond between proton donating and accepting self-assembled monolayers
Yusuke Kanematsu, Hiroyuki S. Kato, Shinya Yoshimoto, Akira Ueda, Susumu Yamamoto, Hatsumi Mori, Jun Yoshinobu, Iwao Matsuda, Masanori Tachikawa
[Chemical Physics Letters, 741, 137091 \(2020\).](#)

Structural Characterization and Photoluminescence Properties of Monolayer Perylene on Graphite Surface
Takashi Yamada*, Kento Araragi, Hiroyuki S. Kato, and Toshiaki Munakata
[The Journal of Physical Chemistry C 124, 23, 12485–12491\(2020\).](#)

Formation and regulation of unoccupied hybridized band with image potential states at perylene/graphite interface
Takashi Yamada*, Natsumi Ito, Noriaki Kawakita, Hiroyuki S. Kato, and Toshiaki Munakata
[The Journal of Chemical Physics 151, 224703 \(2019\).](#)

Deviation from Point Dipole Analysis for Exciton Quenching in Quaterthiophene-Terminated Self-Assembled Monolayers on Au(111)
Yuji Osumi, Takashi Yamada, Yutaka Ie, Hiroyuki S. Kato*

[The Journal of Physical Chemistry C , 123, 16127–16136 \(2019\).](#)

The Role of Initial and Final States in Molecular Spectroscopies,
(Perspective article)

T. Kirchhübel, O. L. A. Monti, [T. Munakata](#), S. Kera, R. Forker and T. Fritz
[Phys. Chem. Chem. Phys. ,21, 12730–12747 \(2019\)](#)

Direct Evidence of Interfacial Hydrogen Bonding in Proton–Electron
Concerted 2D Organic Bilayer on Au Substrate,

S. Yamamoto, [H.S. Kato*](#), A. Ueda, S. Yoshimoto, Y. Hirata, J. Miyawaki, K.
Yamanoto, Y. Harada, H. Wadati, H. Mori, J. Yoshinobu, I. Matsuda,
[e–Journal of Surface Science and Nanotechnology 17 49–55 \(2019\).](#)

Hybridization of Unoccupied Molecular Orbital with Image Potential State at
Lead Phthalocyanine/Graphite Interface

[T. Yamada*](#), [N. Kawakita](#), [C. Okui](#) and [T. Munakata*](#)
[J. Phys. Cond. Matt, 31, 044004\(2019\).](#)
as a part of "Special Issue on Internal Interface"

Spectroscopic and Microscopic Investigations of Organic Ultrathin Films:
Correlation between Geometrical Structures and Unoccupied Electronic
States (Review Article)

[T. Yamada*](#) and [T. Munakata](#)
[Progress in Surface Science, 93, 108–130 \(2018\).](#)

(オープンアクセスにつき、無料でダウンロードできます。)

(総説)「有機超薄膜の非占有準位・分光イメージングとナノスケール構造観察」
[山田剛司*](#), 分子科学会誌 (Award Accounts)

[Molecular Science Vol.12 p. A0098\(2018\).](#)

(オープンアクセスにつき、無料でダウンロードできます。)

Direct Visualization of Diffuse Unoccupied Molecular Orbitals at a
Rubrene/Graphite Interface

[T. Yamada*](#), [M. Kinoshita](#), [K. Araragi](#), [Y. Watanabe](#), [T. Ueba](#), [H. S. Kato](#), and
[T. Munakata](#),

[Phys. Chem. Chem .Phys. 20,147415–17422 \(2018\),](#)

Strong Hydrogen Bonds at the Interface between Proton–Donating and
Accepting Self–Assembled Monolayers on Au(111)

[H. S. Kato*](#), S. Yoshimoto, A. Ueda, S. Yamamoto, Y. Kanematsu, M.
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[H. S. Kato*](#), [Y. Murakami](#), [R. Saitoh](#), [Y. Osumi](#), [D. Okaue](#), [Y. Kiriyaama](#), [T. Ueba](#), [T. Yamada](#), [Y. Ie](#), [Y. Aso](#), [T. Munakata](#),
[Surface Science, 669, 160–168 \(2018\)](#)

Metastable phase of lead phthalocyanine film on graphite: correlation between geometrical and electronic structures
[N. Kawakita](#), [T. Yamada](#), [M. Meissner](#), [R. Forker](#), [T. Fritz](#), and [T. Munakata*](#)
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Electronic excitation and relaxation dynamics of the LUMO-derived level in rubrene thin films on graphite
[T. Ueba](#), [T. Yamada](#), and [T. Munakata*](#)
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Naphthalene's Six Shades on Graphite: A Detailed Study on the Polymorphism of an Apparently Simple System
[F. Sojka](#), [M. Meissner](#), [T. Yamada](#), [T. Munakata](#), [R. Forker](#), and [T. Fritz*](#)
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[T. Ueba](#), [J. Park](#), [R. Terawaki](#), [Y. Watanabe](#), [T. Yamada](#), [T. Munakata](#)
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[C. Udhardt](#), [R. Forker](#), [M. Gruenewald](#), [Y. Watanabe](#), [T. Yamada](#), [T. Ueba](#), [T. Munakata](#), and [T. Fritz](#)
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[T. Yamada](#), [R. Yamamoto](#), [T. Munakata](#)
[J. Elec. Spec. Rel. Pheno.204,145 \(2015\).](#)

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[Hiroyuki S. Kato](#), [Yoshinari Murakami](#), [Yoshiaki Kiriyaama](#), [Riyo Saitoh](#),

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Awards/受賞

2018.3

山田剛司

[コニカミノルタ画像科学奨励賞](#)

「レーザー2光子励起・時空間分光マッピングによる有機デバイス材料評価技術の確立」

2017.9

蘭 堅斗

[第10回分子科学討論会 分子科学会優秀ポスター賞](#)

「有機超薄膜の非占有準位・分光イメージングとナノスケール構造観察」

2017.9

山田剛司

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「有機超薄膜の非占有準位・分光イメージングとナノスケール構造観察」

2015.3

國枝省吾 大阪大学 [楠本賞](#)

2013.12

村上吉成

[表面・界面スペクトロスコープー2013 Student Prize](#)

「オリゴチオフェン誘導体単分子膜の電子励起状態ダイナミクス」

2013.12

Matthias Meissner (Visiting Students)

[表面・界面スペクトロスコープー2013 Student Prize](#)

「Lead-phthalocyanine on graphite(0001) – structural analysis via low-

energy electron diffraction (LEED)」

2013.6

上羽貴大

[USD8 \(Colorado, USA\) best poster prize](#)

第8回 表面超高速ダイナミクス国際会議 (コロラド州、アメリカ)

最優秀ポスター賞

「Electronic Structure and Relaxation Dynamics at the Interface between Rubrene and Graphite」

2012.9

森川高典

[第6回分子科学討論会 分子科学会優秀ポスター賞](#)

「ルブレンにおける空間的広がりの大きい原子軌道様の非占有準位」

2012.4

山本亮太

[日本化学会第92回年会学生講演賞](#)

「フタロシアニン1層膜の非占有準位電子状態の顕微角度分解光電子分光」

2011.9

山本亮太

[第5回分子科学討論会 分子科学会優秀ポスター賞](#)

「フタロシアニン膜の非占有準位の顕微角度分解光電子分光」

2011.9

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「ナフタレン薄膜の2光子光電子分光とSTMによる局所電子状態計測」

2011.6

山本亮太

[第27回化学反応討論会 ベストポスター賞](#)

「Angle-resolved micro-spot two-photon photoemission spectroscopy for unoccupied electronic states of phthalocyanine film」

2010.10

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「The lateral inhomogeneity of unoccupied states for PbPc and CuPc films」

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