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発表論文等（論文、著書、総説等の発表状況）

- (1) Synthesis and Electronic Structure of Bisanthene: A Small Molecular-Sized Graphene with Zigzag Edges  
Hirao, Y.\*; Konishi, A.; Matsumoto, K.; Kurata, H.; Kubo, T.\* *Am. Inst. Phys. Conf. Proc.* 2010, in press.
- (2) Theoretical consideration of singlet open-shell character of polyperiacenes using Clar's aromatic sextet valence bond model and quantum chemical calculations  
Shimizu, A.; Hirao, Y.; Kubo, T.\*; Nakano, M.; Botek, E.; Champagne, B\*. *Am. Inst. Phys. Conf. Proc.*, in press.
- (3) Singlet Open-Shell Character of Conjugated Kekulé Molecules  
Kubo, T.\*; Shimizu, A.; Hirao, Y.; Matsumoto, K.; Kurata, H.; Nakano, M. *Am. Inst. Phys. Conf. Proc.*, in press.
- (4) Synthesis and Identification of a Trimethylenemethane Derivative  $\pi$ -Extended with Three Pyridinyl Radicals  
Matsumoto, K.\*; Inokuchi, D. \*; Hirao, Y.; Kurata, H.; Sato, K.; Takui, T.; Kubo, T.\* *Org. Lett.* **2010**, 12 (4), 836–839.
- (5) フェナレニルを基盤とする非局在型一重項ビラジカルの化学  
久保孝史\*, 清水章弘, 中野雅由, 中筋一弘, 有機合成化学協会誌, **2010**, 68 (1), 64–74.
- (6) Resonance Balance Shift in Stacks of Delocalized Singlet Biradicals  
Shimizu, A.; Uruichi, M.; Yakushi, K.; Matsuzaki, H.; Okamoto, H.; Nakano, M.; Hirao, Y.; Matsumoto, K.; Kurata, H.; Kubo, T.\* *Angew. Chem. Int. Ed.* **2009**, 48(30), 5482–5486.
- (7) Magnetic Properties of Iron(II) and Cobalt(II) Complexes of Tetrakis(2-pyridyl)methane. Spin-crossover Behavior in the Cobalt(II) Complex  
Ishikawa, R.; Matsumoto, K.\*; Onishi. K.; Kubo, T.; Fuyuhiro, A.; Hayami, S.; Inoue, K.; Kaizaki, S.; Kawata, S.\* *Chem. Lett.* **2009**, 38 (6), 620–621.

学会発表等（国内外の招待講演および国際会議での発表状況）

- (1) 開殻的電子構造を有するケクレ分子の化学

久保 孝史, 戰略的国際科学技術協力推進事業「ナノエレクトロニクス」, 首都大学東京, 2009.11.27(招待講演)

- (2) Synthesis and open-shell character of molecular-sized nanographenes

Kubo, T., India-Japan Conference on “Graphene”, Bangalore, India, 2009.11.17–18(招

待講演)

(3) Synthesis and Electronic Structure of Anthroxyl-Based Stable Biradical

Hirao, Y.\*; Konishi, A.; Matsumoto, K.; Kurata, H.; Kubo T. The 3rd Japanese-Russian Workshop on Open Shell Compounds and Molecular Spin Devices, Awaji Island, Japan, 2009.11.15–18 (招待講演)

(4) Chiral Tetraarylmethane Derivatives: Possible Bridging Ligands for Chiral Magnets

Matsumoto, K.\*; Miki, K.; Inagaki, T.; Inokuchi, D.; Hirao, Y.; Kurata, H.; Kubo, T. The 3rd Japanese-Russian Workshop on Open Shell Compounds and Molecular Spin Devices, Awaji Island, Japan, 2009.11.15–18 (招待講演)

(5) Synthesis, Structures and Properties of Acene-Annelated *p*-Terphenoquinone Derivatives

Kurata, H.\*; Sakai, K.; Hirao, Y.; Matsumoto, K.; Kubo, T., The 11<sup>th</sup> International Kyoto Conference on New Aspects on Organic Chemistry (IKCOC-11), Kyoto, Japan, 2009.11.9–13 (ポスター発表)

(6) Tetrahedral Oligothiophenes: Synthesis, Structure and Optical Properties of Highly Symmetrical Oligothiophenes

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(7) Singlet Open-Shell Character of Conjugated Kekulé Molecules

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(8) Synthesis and Electronic Structure of Bisanthene: A Small Molecular-Sized Graphene with Zigzag Edges

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(9) Polyperianthracenes: the onset of pseudo-spin in zigzag edged nanographene

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(10) Synthesis of Trimethylenemethane (TMM) Derivatives Extended with Pyridine Rings

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(11) Highly Delocalized Hydrocarbon Radical: Material Approach to Single-Component Hydrocarbon Conductor

Kubo, T.\*; Katada, Y.; Shimizu, A.; Hirao, Y.; Matsumoto K.; Kurata, H.; Sato, K.; Shiomi, D.; Takui, T.; Haddon, R. C., 13th International Symposium on Novel Aromatic Compounds (ISNA-13), Luxembourg, 2009.7.19–24(ポスター発表)

(12) Synthesis, X-Ray Analysis and Optoelectronic Properties of Tetrahedral Oligothiophenes  
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