For favour of posting

The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series

Speaker: Prof. Takehiko Yamato
Department of Advanced Technology Fusion
Graduate School of Science and Engineering
Saga University, Japan

Title: Synthesis and Photophysical Properties of Pyrene-Based Blue Light-Emitting Monomers

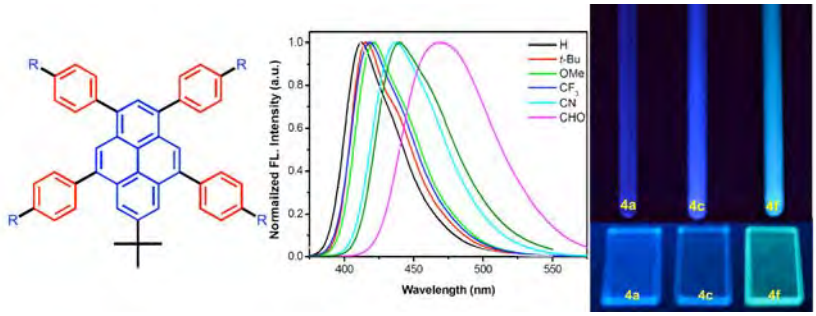
Date: March 18, 2014 (Tuesday)

Time: 4:30 p.m.

Venue: L2, Science Centre

< Abstract >

Due to pyrene exhibits excellent fluorescence properties, there is found many potentia applications in dyes, optical sensors, molecular electronics, nonlinear optics, light emitting diodes, photovoltaic cells and field-effect transistors. However, pyrenes easily form π aggregates/excimers in concentrated solution and the solid state, and the formation of π aggregates/excimers leads to long-wavelength excimer emission with low quantum efficiency.[1] Recently, to suppress formation of π aggregates/ excimers in pyrene system, many types of butterfly, branched, linear and cruciform-shaped molecular shape light-emitting monomers based on pyrene core have been designed and synthesized by Suzuki coupling or Sonogashira coupling reaction.[1–5] Here, we report the synthesis and fluorescence emission properties of novle butterfly-shaped, highly fluorescent stable monomers based on pyrene-core.[6,7]



References
1) J.-Y. Hu and T. Yamato, *MATERIAL, PROCESS AND DEVICES*, 2011, 21–60. 2) J.-Y. Hu, X.-L. Ni, X. Feng, M. Era, M. R. J. Elsegood, S. J. Teat and T. Yamato, *Org. Biomol. Chem.*, 2012, *10*, 2255–2262. 3) X. Feng, J.-Y. Hu, L. Yi, N. Seto, Z. Tao, D. L. Hughes, C. Redshaw, M. R. J. Elsegood and T. Yamato, *Chemistry Asian J.*, 2012, *7*, 2854–2863. 4) J.-Y. Hu, A. Paudel, N. Seto, X. Feng, M. Era, T. Matsumoto, J. Tanaka, M.R.J. Elsegood, C. Redshaw and T. Yamato, *Org. Biomol. Chem.*, 2013, *11*, 2186–2197. 5) X. Feng, F. Iwanaga, J.-Y. Hu, N. Seto, C. Redshaw, M. R. J. Elsegood and T. Yamato, *Org. Lett.*, 2013, *15*, 3594–3597. 6) X. Feng, J.-Y. Hu, F. Iwanaga, N. Seto, C. Redshaw, M. R. J. Elsegood and T. Yamato, *Org. Lett.*, 2013, *15*, 1318–1321. 7) X. Feng, J-Y. Hu, N. Seto, H. Tomiyasu, C. Redshaw, M. R. J. Elsegood and T. Yamato *Org. Biomol. Chem.*, 2013, *11*, 8366–8374.

Professor, Department of Advanced Technology Fusion, Graduate School of Science and Engineering, Saga University
Kyushu Institute of Technology (BS, 1975), Kyushu University (Ph.D., 1983), Postdoctoral research associate: State University of New York and University of Southern California (1983–1985), Saga University (1986–present).
Research Field: Synthetic Organic Chemistry, Supramolecular Chemistry, Development of OLED materials.

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Contact Person: Prof. Henry Wong

For favour of posting

The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series

Speaker: Prof. Masahiro Miura
Department of Applied Chemistry
Faculty of Engineering
Osaka University
Japan

Title: Development of Transition Metal Mediated Direct Aromatic Coupling Reactions

Date: March 21, 2014 (Friday)

Time: 4:30 p.m.

Venue: L1
Science Centre

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Contact Person:
Prof. Tony K.M. Shing