Publications 2013

- Tam, A. Y. Y.; Yam, V. W. W., "Recent Advances in Metallogels", *Chem. Soc. Rev.* **2013** *42*, 1540-1567.
- Lam. W. H.; Lam, E. S. H.; Yam, V. W. W., "Computational Studies on Excited States of Luminescent Platinum(II) Alkynyl Systems of Tridentate Pincer Ligands in Radiative and Non-Radiative Processes", *J. Am. Chem. Soc.* **2013**, *135*, 15135-15143.
- Chan, J. C. H.; Lam, W. H.; Wong, H. L.; Wong, W. T.; Yam, V. W. W., "Tunable Photochromism in Air-Stable, Robust Phosphole-Containing Dithienylethene Through the Facile Modifications at the Phosphorus Center", *Angew. Chem. Int. Ed.* **2013**, *52*, 11504-11508.
- Tanaka, Y.; Wong, K. M. C.; Yam, V. W. W., "Platinum-Based Phosphorescent Double-Decker Tweezers: A Strategy for Extended Heterologous Metal-Metal Interactions", *Angew. Chem. Int. Ed.* **2013**, *52*, 14117-14120.
- Leung, S. Y. L.; Lam, W. H.; Yam, V. W. W., "Dynamic Scaffold of Inherently Chiral Binaphthol Derivatives from Random Coil to Helical Strand Leading to Twist Sense Bias with the Formation of Metal···Metal and π–π Interactions of Alkynylplatinum(II) Terpyridine Moiety", *Proc. Natl. Acad. Sci. U. S. A.* **2013**, 7986-7991.
- Chung, C. Y. S.; Yam, V. W. W., "Selective Label-Free Detection of G-quadruplex Structure of Human Telomere by Emission Spectral Changes in Visible-and-NIR Region under Physiological Condition Through the FRET of a Two-component PPE-SO_3^--Pt(II) Complex Ensemble with Pt···Pt, Electrostatic and π–π Interactions", *Chem Sci.* **2013**, *4*, 377-387.
- Chung, C. Y. S.; Li, S. P. Y.; Louie, M. W.; Lo, K. K. W.; Yam, V. W. W., "Induced Self-Assembly and Disassembly of Water-Soluble Alkynylplatinum(II) Terpyridyl Complexes with "Switchable" Near-Infrared (NIR) Emission Modulated by Metal-Metal Interactions Over Physiological pH: Demonstration of pH-Responsive NIR Luminescent Probes in Cell-Imaging Studies", *Chem. Sci.* **2013**, *4*, 2453-2462.
- Yeung, M. C. L.; Yam, V. W. W., "Phosphate Derivative-Induced Supramolecular Assembly and NIR-Emissive Behavior of Alkynylplatinum(II) Terpyridine Complexes For Real-Time Monitoring of Enzymatic Activities", *Chem. Sci.* **2013**, *4*, 2928-2935.
- Leung, S. Y. L.; Yam, V. W. W., "Hierarchical Helices of Helices Directed by Pt···Pt and π–π Stacking Interactions: Reciprocal Association of Multiple Helices of Dinuclear Alkynylplatinum(II) Complex with Luminescence Enhancement Behavior", *Chem. Sci.* **2013**, *4*, 4228-4234.
- Wong, K. M. C.; Au, V. K. M.; Yam, V. W. W., "8.03 Non-Covalent Metal-Metal Interactions", *Comprehensive Inorganic Chemistry II*, Volume 8, Elsevier, **2013**, pp. 59-130.

- Poon, C. T.; Lam, W. H.; Yam, V. W. W., "Synthesis, Photochromic and Computational Studies of Dithienylethene-Containing *β*-Diketonate Derivatives and Their Near-Infrared Photochromic Behavior Upon Coordination of Boron(III) Center", *Chem. Eur. J.* **2013**, *19*, 3467-3476.
- Li, Y.; Lam, E. S.-H.; Tam, A. Y.-Y.; Wong, K. M.-C.; Lam, W. H.; Wu, L.; Yam, V. W.-W., "Cholesterol-/Estradiol-Appended Alkynylplatinum(II) Complexes As Supramolecular Gelators: Synthesis, Characterization, Photophysical and Gelation Studies", *Chem. Eur. J.* **2013**, *19*, 9987-9994.
- Leung, S. Y. L.; Lam, E. S. H.; Lam, W. H.; Wong, K. M. C.; Wong, W. T.; Yam, V. W. W., "Luminescent Cyclometalated Alkynylplatinum(II) Complexes with Tridentate Pyridine-Based *N*-Heterocyclic Carbene Ligand: Synthesis, Characterization, Electrochemistry, Photophysics, and Computational Studies", *Chem. Eur. J.* **2013**, *19*, 10360-10369.
- Chung, C. Y. S., Yam, V. W. W., "Dual pH- and Temperature-Responsive Metallosupramolecular Block Copolymers with Tunable Critical Micelle Temperature *via* Modulation of Self-Assembly of NIR Emissive Alkynylplatinum(II) Complexes Induced by Changes in Hydrophilicity and Electrostatic Effects", *Chem. Eur. J.* **2013**, *19*, 13182-13192.
- Yu, T.; Tsang, D. P. K.; Au, V. K. M.; Lam, W. H.; Chan, M. Y.; Yam, V. W. W., "Synthesis, Characterization, Electrochemistry, Photophysics and Electroluminescence Studies of Deep Red to Near-infrared Emitting Rhenium(I) Complexes", *Chem. Eur. J.* **2013**, *19*, 13418-13427.
- Li, Y. G.; Zhao, L.; Tam, A. Y. Y.; Wong, K. M. C.; Wu, L. X.; Yam, V. W. W., "Luminescent Amphiphilic 2,6-Bis(1,2,3-triazol-4-yl)pyridine-Platinum(II) Complexes: Synthesis, Characterization, Electrochemical, Photophysical, and Langmuir-Blodgett Film Formation Studies", *Chem. Eur. J.* **2013**, *19*, 14496-14505.
- Po, C.; Ke, Z. H.; Tam, A. Y. Y.; Chow, H. F.; Yam, V. W. W., "Platinum(II) Terpyridine Metallogel with L-Valine Modified Alkynyl Ligand: Interplay of Pt···Pt, π–π and Hydrogen Bonding Interactions", *Chem. Eur. J.* **2013**, *19*, 15735-15744.
- Au, V. K. M.; Zhu, N.; Yam, V. W. W., "Luminescent Metallogels of Bis-Cyclometalated Alkynylgold(III) Complexes", *Inorg. Chem.* **2013**, *52*, 558-567.
- Au, V. K. M.; Tsang, D. P. K.; Wong, K. M. C.; Chan, M. Y.; Zhu, N; Yam, V. W. W., "Functionalized Bis-Cyclometalated Alkynylgold(III) Complexes: Synthesis, Characterization, Electrochemistry, Photophysics, Photochemistry and Electroluminescence Studies", *Inorg. Chem.* **2013**, *52*, 12713-12725.
- Moussa, J.; Wong, K. M. C.; Le Goff, X. F.; Rager, M. N.; Chan, C. K. M.; Yam, V. W. W.; Amouri, H., "Dinuclear Platinum(II) Terpyridyl Complexes with a *para*-Diselenobenzoquinone Organometallic Linker: Synthesis, Structures, and Room-Temperature Phosphorescence", *Organometallics* **2013**, *32*, 4985-4992.

- Chung, W. K.; Wong, K. M. C.; Lam, W. H.; Zhu, X.; Zhu, N.; Kwok, H. S.; Yam, V. W. W., "Syntheses, Characterization, Photophysical, Electrochemical, Electroluminescence Properties and Computational Studies of Rhenium(I) Diimine Triarylamine-Containing Alkynyl Complexes" *New J. Chem.* **2013**, *37*, 1753-1767.
- Yam, V. W. W., "Photofunctional Organometallics – From Fundamentals to Design, Assembly and Applications" *Pure Appl. Chem.* **2013**, *85*, 1321-1329.
- Wong, H. L.; Zhu, N.; Yam, V. W. W., "Photochromic Alkynylplatinum(II) Diimine Complexes Containing A Versatile Dithienylethene-Functionalized 2-(2'-Pyridyl)imidazole Ligand", *J. Organomet. Chem.* **2013**, *751*, 430-437.
- Cheng, G.; Chow, P. K.; Kui, S. C. F.; Kwok, C. C.; Che, C. M., "High-Efficiency Polymer Light-Emitting Devices with Robust Phosphorescent Platinum(II) Emitters Containing Tetradentate Dianionic O^N^C^N Ligands", *Adv. Mater.* **2013**, *25*, 6765-6770.
- Zou, T.; Lum, C. T.; Chui, S. S. Y., Che, C. M., "Gold (III) Complexes Containing *N*-Heterocyclic Carbene Ligands: Thiol "Switch-on" Fluorescent Probes and Anti-Cancer Agents", *Angew. Chem. Int. Ed.* **2013**, *52*, 2930-2933.
- Tao, W. P.; Chan, K. T.; Tong, G. S.; Ma; C.; Kwok, W. M.; Guan, X.; Low, K. H.; Che, C. M., "Strongly Luminescent Gold(III) Complexes with Long-Lived Excited States: High Emission Quantum Yields, Energy Up-Conversion, and Nonlinear Optical Properties", *Angew. Chem. Int. Ed.* **2013**, *52*, 6648-6652.
- Chow, P. K.; Ma, C.; To, W. P.; Tong, G. S. M.; Lai, S. L.; Kui, S. C. F.; Kwok, W. M.; Che, C. M., "Strongly Phosphorescent Palladium(II) Complexes of Tetradentate Ligands with Mixed Oxygen, Carbon, and Nitrogen Donor Atoms: Photophysics, Photochemistry, and Applications", *Angew. Chem. Int. Ed.* **2013**, *52*, 11775-11779.
- Li, K.; Cheng, G.; Ma, C.; Guan, X.; Kwok, W. M.; Chen, Y.; Lu, W.; Che, C. M., "Light-Emitting Platinum(II) Complexes Supported by Tetradentate Dianionic Bis(*N*-heterocyclic carbene) Ligands: towards Robust Blue Electrophosphors", *Chem. Sci*. **2013**, *4*, 2630-2644.
- Zou,T.; Lok, C. N.; Fung, Y. M. E.; Che, C. M., "Luminescent Organoplatinum(II) Complexes Containing Bis(*N*-heterocyclic carbene) Ligands Selectively Target the Endoplasmic Reticulum and Induce Potent Photo-Toxicity", *Chem. Commum.* **2013**, *49*, 5423-5425.
- Yim, S. L.; Chow, H. F.; Chan, M. C.; Che, C. M.; Low, K. H., "Synthesis and Thermoreversible Gelation Properties of Main Chain Poly(Pyridine-2,6-Dicarboxamide-Triazole)s", *Chem. Eur. J.* **2013**, *19*, 2478-2486.
- To, W. P.; Liu, Y.; Lau, T. C.; Che, C. M., "A Robust Palladium(II)-Porphyrin Complex as Catalyst for Visible Light Induced Oxidative C–H Functionalization", *Chem. Eur. J.* **2013**, *19*, 5654-5664.

- Cheng. G.; Chen, Y.; Yang, C.; Lu, W.; Che, C. M., "Highly Efficient Solution-Processable Organic Light-Emitting Devices with Pincer-Type Cyclometalated Platinum(II) Arylacetylide Complexes", *Chem. Asian J.* **2013**, *8*, 1754-1759.
- Guan, X.; Chan, S. L. F.; Che, C. M., "A Highly Oxidizing and Isolable Oxoruthenium(V) Complex $[Ru^{V}(N_4O)(O)]^{2+}$: Electronic Structure, Redox Properties, and Oxidation Reactions Investigated by DFT Calculations", *Chem. Asian J.* **2013**, *8*, 2046-2056.
- To, W. P.; Zou, T.; Sun, R. W. Y.; Che, C. M., "Light-Induced Catalytic and Cytotoxic Properties of Phosphorescent Transition Metal Compounds with a d^8 Electronic Configuration", *Phil. Trans. R. Soc. A* **2013**, *371*, 20120126.
- Kan, Y; Tso, K. C. H.; Chan, S. L. F.; Guan, X.; Che, C. M., "Electronic Structures and Binding Properties of Chalcogenolate-Bridged Molecular Wheels of Ruthenium and Osmium", *New J. Chem.* **2013**, *37*, 1811-1816.
- Man, W. L.; Xie, J.; Pan, Y.; Lam, W. W. Y.; Kwong, H. K.; Ip, K. W.; Yiu, S. M.; Lau, K. C.; Lau, T. C., "C–N Bond Cleavage of Anilines by a (Salen)ruthenium(VI) Nitrido Complex", *J. Am. Chem. Soc*. **2013,** *135*, 5533-5536.
- Chen, G.; Chen, L.; Ng, S. M.; Man, W. L.; Lau, T. C., "Chemical and Visible Light-Driven Water Oxidation by Iron Complexes at pH 7-9. Evidence for Dual Active Intermediates in Iron-Catalyzed Water Oxidation", *Angew. Chem. Int. Ed*. **2013**, *52*, 1789-1791.
- Tang, Q.; Ni, W. X.; Leung, C. F.; Man, W. L.; Lau, K. K. K.; Liang, Y.; Lam, Y. W.; Wong, W. Y.; Peng, S. M.; Liu, G. J.; Lau, T. C., "Synthesis and antitumor activity of a series of osmium(VI) nitrido complexes bearing quinolinolato ligands", *Chem. Commun.* **2013**, *49*, 9980-9982.
- Jing, X.; Jia, L. H.; Wang, B. W.; Yiu, S. M.; Peng, S. M.; Wong, W. Y.; Gao, S.; Lau, T. C., "The Synthesis, Structures and Magnetic Properties of Polynuclear Ru^{III}-3*d* (3*d* = $Mn^{II/III}$, Ni^{II}, Cu^{II}) Compounds Based on $[Ru^{III}(Q)_2(CN)_2]^-$", *Dalton Trans*. **2013**, *42*, 3876-3887.
- Chen, S.; Hong, Y.; Liu, Y.; Liu, J.; Leung, C. W. T.; Li, M.; Kwok, R. T. K.; Zhao, E.; Lam, J. W. Y.; Yu, Y.; Tang, B. Z., "Full-Range Intracellular pH Sensing by an AIE-Active Two-Channel Ratiometric Fluorogen", *J. Am. Chem. Soc.* **2013**, *135*, 4926-4929.
- Wang, Z.; Chen, S.; Lam, J. W. Y.; Qin, W.; Kwok, R. T. K.; Xie, N.; Hu, Q.; Tang, B. Z., "Long-Term Fluorescent Cellular Tracing by the Aggregates of AIE Bioconjugates", *J. Am. Chem. Soc.* **2013**, *135*, 8238-8245.
- Yang, Z.; Qin, W.; Lam, J. W. Y.; Chen, S.; Sung, H. H. M.; Williams, I. D.; Tang, B. Z., "Fluorescent pH Sensor Constructed from a Heteroatom-Containing Luminogen with Tunable AIE and ICT Characteristics", *Chem. Sci.* **2013**, *4*, 3725-3730.
- Yu, Y.; Li, J.; Chen, S.; Hong, Y.; Ng, K. M.; Luo, K. Q.; Tang, B. Z., "Thiol-Reactive Molecule with Dual-Emission Enhancement Property for Specific Prestaining of Cysteine Containing Proteins in SDS-PAGE", *ACS Appl. Mater. Interfaces* **2013**, *5*, 4613-4616.

- Zhao, N.; Li, M.; Yan, Y.; Lam, J. W. Y.; Zhang, Y. L.; Zhao, Y. S.; Wong, K. S.; Tang, B. Z., "A Tetraphenylethene-Substituted Pyridinium Salt with Multiple Functionalities: Synthesis, Stimuli-Responsive Emission, Optical Waveguide and Specific Mitochondrion Imaging", *J. Mater. Chem. C* **2013**, *1*, 4640-4646.
- Zhao, E.; Lam, J. W. Y.; Hong, Y.; Liu, J.; Peng, Q.; Hao, J.; Sung, H. H. Y.; Williams, I. D.; Tang, B. Z., "How Do Substituents Affect Silole Emission?", *J. Mater. Chem. C* **2013**, *1*, 5661-5668.
- Han, T.; Hong, Y.; Xie, N.; Chen, S.; Zhao, N.; Zhao, E.; Lam, J. W. Y.; Sung, H. H. Y.; Dong, Y.; Tong, B.; Tang, B. Z., "Defect-Sensitive Crystals Based on Diaminomaleonitrile-Functionalized Schiff Base with Aggregation-Enhanced Emission", *J. Mater. Chem. C* **2013**, *1*, 7314-7320.
- Ding, D.; Li, K.; Qin, W.; Zhan, R.; Hu, Y.; Liu, J.; Tang, B. Z.; Liu, B., "Conjugated Polymer Amplified FR/NIR Fluorescence from Nanoparticles with Aggregation-Induced Emission Characteristics for Targeted in Vivo Imaging", *Adv. Healthcare Mater.* **2013**, *2*, 500-507.
- Chen, X.; Shen, X. Y.; Guan, E.; Liu, Y.; Qin, A.; Sun, J. Z.; Tang, B. Z., "A Pyridinyl-Functionalized Tetraphenylethylene Fluorogen for Specifically Sensing Trivalent Cations" *Chem. Commun.* **2013**, *49*, 1503-1505.
- Han, T.; Lam, J. W. Y.; Zhao, N.; Gao, M.; Yang, Z.; Zhao, E.; Dong, Y.; Tang, B. Z., "A Fluorescence-Switchable Luminogen in the Solid State: A Sensitive and Selective Sensor for the Fast "Turn-On" Detection of Primary Amine Gas", *Chem. Commun.* **2013**, *49*, 4848-4850.
- Chan, C. Y. K.; Tseng, N.W.; Lam, J. W. Y.; Liu, J.; Kwok, R. T. K.; Tang, B. Z., "Construction of Functional Macromolecules with Well-Defined Structures by Indium-Catalyzed Three-Component Polycoupling of Alkynes, Aldehydes and Amines", *Macromolecules* **2013**, *46*, 3246-3256.
- Chan, C. Y. K.; Lam, J. W. Y.; Jim, C. K. W.; Sung, H. H.-Y.; Williams, I. D.; Tang, B. Z., "Polycyclotrimerization of Dinitriles: A New Polymerization Route for the Construction of Soluble Nitrogen-Rich Polytriazines with Hyperbranched Structures and Functional Properties" *Macromolecules* **2013**, *46*, 9494-9506.
- Mei, J.; Wang, Y.; Tong, J.; Wang, J.; Qin, A.; Sun, J. Z.; Tang, B. Z., "Discriminatory Detection of Cysteine and Homocysteine Based on Dialdehyde Functionalized AIE Fluorophores", *Chem. Eur. J.* **2013**, *19*, 612-619.
- Li, M.; Lam, J. W. Y.; Mahtab, F.; Chen, S.; Zhang, W.; Hong, Y.; Xiong, J.; Zheng, Q.; Tang, B. Z., "Biotin-Decorated Fluorescent Silica Nanoparticles with Aggregation-Induced Emission Characteristics: Fabrication, Cytotoxicity and Biological Applications", *J. Mater. Chem. B* **2013**, *1*, 676–684.

- Gao, M.; Lam, J. W. Y.; Liu, Y. J.; Li, J.; Tang, B. Z., "A New Route to Functional Polymers: Atom-Economical Synthesis of Poly(pyrazolylnaphthalene)s by Rhodium-Catalyzed Oxidative Polycoupling of Phenylpyrazole and Internal Diynes", *Polym. Chem.* **2013**, *4*, 2841-2849.
- Leung, C. W. T.; Hong, Y.; Chen, S.; Zhao, E.; Lam, J. W. Y.; Tang, B. Z., "A Photostable AIE Luminogen for Specific Mitochondrial Imaging and Tracking", *J. Am. Chem. Soc.* **2013**, *135*, 62-65.
- Shen, X. Y.; Wang, Y. J.; Zhao, E.; Yuan, W. Z.; Liu, Y.; Lu, P.; Qin, A.; Ma, Y.; Sun, J.; Tang, B. Z., "Effects of Substitution with Donor-Acceptor Groups on the Properties of Tetraphenylethene Trimer: Aggregation-Induced Emission, Solvatochromism, and Mechanochromism", *J. Phys. Chem. C* **2013**, *117*, 7334-7347.
- Li, M.; Hong, Y.; Wang, Z.; Chen, S.; Gao, M.; Kwok, R. T. K.; Qin, W.; Lam, J. W. Y.; Zheng, Q.; Tang, B. Z., "Fabrication of Chitosan Nanoparticles with Aggregation-Induced Emission Characteristics and Their Applications in Long-Term Live Cell Imaging", *Macromol. Rapid Commun.* **2013**, *34*, 767-771.
- Li, K.; Qin, W.; Ding, D.; Tomczak, N.; Geng, J.; Liu, R.; Liu, J.; Zhang, X.; Liu, H.; Liu, B.; Tang, B. Z., "Photostable Fluorescent Organic Dots with Aggregation-Induced Emission (AIE Dots) for Noninvasive Long-Term Cell Tracing", *Scientific Reports* **2013**, *3*, 1150.
- Hong, Y.; Chen, S.; Leung, C. W. T.; Lam, J. W. Y.; Tang, B. Z., "Water-Soluble Tetraphenylethene Derivatives as Fluorescent "Light-Up" Probes for Nucleic Acid Detection and Their Applications in Cell Imaging", *Chem. Asian J.* **2013**, *8*, 1806-1812.
- Hu, R.; Ye, R.; Lam, J. W. Y.; Li, M.; Leung, C. W. T.; Tang, B. Z., "Conjugated Polyelectrolytes with Aggregation-Enhanced Emission Characteristics: Synthesis and Their Biological Applications", *Chem. Asian J.* **2013**, *8*, 2436-2445.
- Shi, H.; Zhao, N.; Ding, D.; Liang, J.; Tang, B. Z.; Liu, B., "Fluorescent Light-Up Probe with Aggregation-Induced Emission Characteristics for *In Vivo* Imaging of Cell Apoptosis", *Org. Biomol. Chem.* **2013**, *11*, 7289-7296.
- Zhao, Z.; Lam, J. W. Y.; Tang, B. Z., "Self-Assembly of Organic Luminophors with Gelation-Enhanced Emission Characteristics", *Soft Matter* **2013**, 4564-4579.
- Hu, Z.; Ma, L.; Xie, J.; Du, H.; Lam, W. W. Y.; Lau, T. C., "Ruthenium-Catalyzed oxidation of alcohols by bromate in water", *New J. Chem.* **2013**, *37*, 1707-1710.
- Li, J.; Liu, J.; Lam, J. W. Y.; Tang, B. Z., "Poly(aryleneynonylene) with An Aggregation-Enhanced Emission Characteristic: A Fluorescent Sensor for Both Hydrazine and Explosive Detection", *RSC Adv.* **2013**, *3*, 8193-8196.
- Yue, Z.; Cheung, Y. F.; Choi, H. W.; Zhao, Z.; Tang, B. Z.; Wong, K. S., "Hybrid GaN/Organic White Light Emitters with Aggregation Induced Emission Organic Molecule", *Opt. Mater. Express* **2013**, *3*, 1906-1911.

- Hu, R.; Lam, J. W. Y.; Li, M.; Deng, H.; Li, J.; Tang, B. Z., "Homopolycyclotrimerizaton of A_4-Type Tetrayne: a New Approach for the Creation of a Soluble Hyperbranched Poly(tetraphenyl ethene) with Multifunctionalities", *J. Polym. Sci. Part A: Polym. Chem.* **2013**, *51*, 4752-4764.
- Chang, S.; Wang, H.; Hua, Y.; Li, Q.; Xiao, X.; Wong, W. K.; Wong, W. Y.; Zhu, X.; Chen, T., "Conformational Engineering of Co-Sensitizers to Retardback Charge Transfer for High-Efficiency Dye-Sensitizedsolar Cells", *J. Mater. Chem. A* **2013**, *1*, 11553-11558.
- Hua, Y.; Chang, S.; Huang, D.; Zhou, X.; Zhu X.; Zhao, J.; Chen, T.; Wong, W. Y.; Wong, W. K., "Significant Improvement of Dye-Sensitized Solar Cell Performance Using Simple Phenothiazine-Based Dyes", *Chem. Mater.* **2013**, *25*, 2146-2153.
- Tan, G.; Chen, S.; Sun, N.; Li, Y.; Fortin, D.; Wong, W. Y.; Kwok, H. S.; Ma, D.; Wu, H.; Wang, L.; Harvey, P. D., "Highly Efficient Iridium(III) Phosphors with Phenoxy-Substituted Ligands and their High-Performance OLEDs", *J. Mater. Chem. C*, **2013**, *1*, 808-821.
- Wild, A.; Teichler, A.; Ho, C. L.; Wang, X. Z.; Zhan, H.; Schlütter, F.; Winter, A.; Hager, M. D.; Wong, W. Y.; Schubert, U. S., "Formation of Dynamic Metallo-Copolymers by Inkjet Printing: Towards White-Emitting Materials", *J. Mater. Chem. C*, **2013**, *1*, 1812-1822.
- Yang, X. L.; Sun, N.; Dang, J. H.; Huang, Z.; Yao, C. L.; Xu, X. B.; Ho, C. L.; Zhou, G. J.; Ma, D. G.; Zhao, X.; Wong, W. Y., "Versatile Phosphorescent Color Tuning of Highly Efficient Borylated Iridium(III) Cyclometalates by Manipulating the Electron-Accepting Capacity of the $B(Mes)_2$ Group", *J. Mater. Chem. C*, **2013**, *1*, 3317-3326.
- Zhang, B. H.; Liu, L. H.; Tan, G. P.; Yao, B.; Ho, C. L.; Wang, S. M.; Ding, J. Q.; Xie, Z. Y.; Wong, W. Y.; Wang, L. X., "Interfacial Triplet Confinement for Achieving Efficient Solution-Processed Deep-Blue and White Electrophosphorescent Devices with Underestimated Poly(*N*-vinylcarbazole) as the Host", *J. Mater. Chem. C* **2013,** *1*, 4933-4939.
- Hua, Y.; Jin, B.; Wang, H.; Zhu, X.; Wu, W.; Cheung, M. S.; Lin, Z.; Wong, W. Y.; Wong, W. K., "Bulky Dendritic Triarylamine-Based Organic Dyes for Efficient Co-Adsorbent-Free Dye-Sensitized Solar Cells", *J. Power Sources*, **2013**, *237*, 195-203.
- Yang, X.; Huang, Z.; Dang, J.; Ho, C. L.; Zhou, G.; Wong, W. Y., "Effective Phosphorescence Quenching in Borylated Pt^{II} ppy-type Phosphors and their Application as I^- Ion Sensors in Aqueous Medium", *Chem. Commun.*, **2013**, *49*, 4406-4408.
- Cui, C.; Min, J.; Ho, C. L.; Ameri, T.; Yang, P.; Zhao, J.; Brabec, C. J.; Wong, W. Y., "A New Two-Dimensional Oligothiophene End-Capped with Alkyl Cyanoacetate Groups for Highly Efficient Solution-Processed Organic Solar Cells", *Chem. Commun.*, **2013**, *49*, 4409-4411.
- Lai, L. F.; Ho, C. L.; Chen, Y. C.; Wu, W. J.; Dai, F. R.; Chui, C. H.; Huang, S. P.; Guo, K. P.; Lin, J. T.; Tian, H.; Yang, S. H.; Wong, W. Y., "New Bithiazole-Functionalized Organic Photosensitizers for Dye-Sensitized Solar Cells", *Dyes and Pigments*, **2013**, *96*, 516-524.

- Qin, C.; Wong, W. Y.; Han, L., "Squaraine Dyes for Dye-Densitied Solar Cells: Recent Advances and Future Challenges", *Chem. Asian J.*, **2013**, *8*, 1706-1719.
- Zhou, Y.; Han, S.; Zhou, G.; Wong, W. Y.; Roy, V. A. L., "Ambipolar Organic Light-Emitting Electrochemical Transistor Based on a Heteroleptic Charged Iridium(III) Complex", *Appl. Phys. Lett.*, **2013**, *102*, 083301.
- Guo, F. Q.; Tian, M. G.; Miao, F.; Zhang, W. J.; Song, G. F.; Liu, Y.; Yu, X. Q.; Sun, J. Z.; Wong, W. Y., "Lighting Up Cysteine and Homocysteine in Sequence Based on the Kinetic Difference of the Cyclization/addition Reaction", *Org. Biomol. Chem* **2013,** *11*, 7721-7728.
- Yang, X.; Huang, Z.; Ho, C. L.; Zhou, G.; Whang, D. R.; Yao, C.; Xu, X.; Park, S. Y.; Chui, C. H.; Wong, W. Y., "Dynamic Dual Stage Phosphorescence Chromatic Change in a Diborylated Iridium Phosphor for Fluoride Ion Sensing with Concentration Discriminating Capability", *RSC Adv.*, **2013**, *3*, 6553-6563.
- Yao, C. L.; Jiao, B.; Yang, X. L.; Xu, X. B.; Dang, J. S.; Zhou, G. J.; Wu, Z. X.; Lv, X. Q.; Zeng, Y.; Wong, W. Y., "Tris(cyclometalated) Iridium(III) Phosphorescent Complexes with 2-Phenylthiazole-Type Ligands: Synthesis, Photophysical, Redox and Electrophosphorescent Behavior", *Eur. J. Inorg. Chem.* **2013,** 4754-4763.
- Zhang, J.; Zhong, C.; Zhu, X.; Tam, H. L.; Li, K. F.; Cheah, K. W.; Wong, W. Y.; Wong, W. K.; Jones, R. A., "Synthesis and Two-Photon Absorption of Unsymmetrical Metallosalophen Complexes", *Polyhedron* **2013**, *49*, 121-128.
- Ho, C. L.; Yao, B.; Zhang, B. H.; Wong, W. Y.; Xie, Z. Y.; Wang, L. X.; Lin, Z. Y., "Metallophosphors of Iridium(III) Containing Borylated Oligothiophenes with Electroluminescence Down to the Near-Infrared Region", *J. Organomet. Chem.*, **2013**, *730*, 144-155.
- Ho, C. L.; Poon, S. Y.; Liu, K.; Wong, C. K.; Lu, G. L.; Petrov, S.; Manners, I.; Wong, W. Y., "Synthesis, Photophysics and Pyrolytic Ceramization of a Platinum(II)-Containing Poly(germylacetylene) Polymer", *J. Organomet. Chem.* **2013,** *744*, 165-171.
- Siu, C. H.; Ho, C. L.; He, J.; Chen, T.; Cui, X. N.; Zhao, J. Z.; Wong, W. Y., "Thiocyanate-Free Ruthenium(II) Cyclometalated Complexes Containing Uncommon Thiazole and Benzothiazole Chromophores for Dye-Sensitized Solar Cells", *J. Organomet. Chem.* **2013,** *748*, 75-83.
- Zhang, S. X.; Gu, Z. R.; Li, F. B.; Liu, L.; Fu, Q. M.; Liu, S. Z.; Du, Z. L.; Wong, W. Y., "Preparation, Characterization and Photoelectric Properties of Hybrid Langmuir-Blodgett Films of Alkynylplatinum(II)zinc(II) Porphyrinate/Hetero-Polyoxometalate", *J. Inorg. Organomet. Polym. Mater.*, **2013**, *23*, 95-103.
- Liu, D.; Xu, X.; Su, Y.; He, Z.; Xu, J.; Miao, Q., "Self-Assembled Monolayers of Phosphonic Acids with Enhanced Surface Energy for High-Performance Solution-Processed *N*-Channel Organic Thin Film Transistors", *Angew. Chem. Int. Ed.* **2013**, *52*, 6222-6227.

- Shan, L.; Liang, Z.; Xu, X.; Tang, Q.; Miao, Q., "Revisiting Zethrene: Synthesis, Reactivity and Semiconductor Property", *Chem. Sci.* **2013**, *4*, 3294-3297.
- Yim, S. L.; Chow, H. F.; Chan, M. C.; Che, C. M.; Low, K. H., "Synthesis and Thermoreversible Gelation Properties of Main Chain Poly(Pyridine-2,6-Dicarboxamide–Triazole)s", *Chem. Eur. J.* **2013**, *19*, 2478-2486.
- Zhang, J.; Chow, H. F.; Chan, M. C.; Chow, G. K. W.; Kuck, D., "From Non-Gelating to Gelating: Synthesis and Structural−Self-Assembly Property Relationships of a Homologous Series of Oligo(amidetriazole)s", *Chem. Eur. J.* **2013**, *19*, 15019-15025.
- Wang, T.; Zhang, Y. F.; Hou, Q. Q.; Xu, W. R.; Cao, X. P.; Chow, H. F.; Kuck, D., "Versatile C_3-Symmetrical Tribenzotriquinacene Derivatives: Optical Resolution through Cryptophane Synthesis and Supramolecular Self-Assembly into Nanotubes", *J. Org. Chem.* **2013**, *78*, 1062-1069.
- Choi, L. S.; Chow, H. F., "Versatile Synthesis of Amphiphilic Oligo(Aliphatic Glycerol) Layer-Block Dendrons with Different Hydrophilic-Lipophilic Balance Values", *Synlett*, **2013**, *24*, 201-206.
- Lo, L. T. L.; Lai, S. W.; Yiu, S. M.; Ko, C. C., "A New Class of Highly Solvatochromic Dicyano Rhenate(I) Diimine Complexes – Synthesis, Photophysics and Photocatalysis", *Chem. Commun.* **2013**, *49*, 2311-2313.
- Wang, X.; Guo, L.; Xia, P. F.; Zheng, F.; Wong, M. S.; Zhu, Z., "Dye-Sensitized Solar Cells based on Organic Dyes with Naphtho[2,1-b:3,4-b']dithiophene as the Conjugated Linker", *J. Mater. Chem. A* **2013**, *1,* 13328-13336.
- Su, Y. R.; Ouyang, M.; Liu, P. Y.; Luo, Z.; Xie, W.; Xu, J., "Insights into the Interfacial Properties of Low-Voltage CuPc Field-Effect Transistor", *ACS Appl. Mater. Interfaces* **2013**, *5*, 4960-4965.
- Su, Y.; Jiang, J.; Ke, N.; Zhao, N.; Xie, W.; Xu, J., "Low-Voltage Flexible Pentacene Thin Film Transistors with a Solution-Processed Dielectric and Modified Copper Source–drain Electrodes" *J. Mater. Chem. C*, **2013**, *1*, 2585-2592.
- Wan, X.; Chen, K.; Du, J.; Liu, D.; Chen, J.; Lai, X.; Xie, W.; Xu, J., "Enhanced Performance and Fermi-Level Estimation of Cronene-Derived Graphene Transistors on Self-Assembled Monolayer Modified Substrates in Large Areas", *J. Phys. Chem. C* **2013**, *117*, 4800-4807.
- Su, Y.; Wang, W.; Xie, F.; Chen, J.; Xie, W.; Zhao, N.; Xu, J., "In situ Modification of Low-Cost Cu Electrodes for High-Performance Low-Voltage Pentacene Thin Film Transistors (TFTs)" *Organic Electronics* **2013**, *14*, 775-781.
- Su, Y. R.; Xie, W. G.; Li, Y.; Shi, Y.; Zhao, N.; Xu, J. B., "A Low-Temperature, Solution-Processed High-*k* Dielectric for Low-Voltage, High-Performance Organic Field-Effect Transistors (OFETs)" *J. Phys. D: Appl. Phys.* **2013**, *46*, 095105.

- Lee, S. F.; Zhu, X. M.; Wang, Y. X. J.; Xuan, S. H.; You, Q.; Chan, W. H.; Wong, C. H.; Wang, F.; Yu, J. C.; Cheng, C. H. K.; Leung, K. C. F., "Ultrasound, pH, and Magnetically Responsive Crown-Ether-Coated Core/Shell Nanoparticles as Drug Encapsulation and Release Systems", *ACS Appl. Mater. Interfaces* **2013**, *5*, 1566-1574.
- Leung, K. C. F.; Chak, C. P.; Lee, S. F.; Lai, J. M. Y.; Zhu, X. M.; Wang, Y. X. J.; Sham, K. W. Y.; Cheng, C. H. K., "Enhanced Cellular Uptake and Gene Delivery of Glioblastoma with Deferoxamine-Coated Nanoparticle/Plasmid DNA/Branched Polyethylenimine Composites", *Chem. Commun.* **2013**, *49*, 549-551.
- Ho, W. K. W.; Lee, S. F.; Wong, C. H.; Zhu, X. M.; Kwan, C. S.; Chak, C. P.; Mendes, P. M.; Cheng, C. H. K., Leung, K. C. F., "Type III-B Rotaxane Dendrimers", *Chem. Commun.* **2013**, *49*, 10781-10783.
- Leung, K. C. F.; Chak, C. P.; Lee, S. F.; Lai, J. M. Y.; Zhu, X. M.; Wang, Y. X. J.; Sham, K. W. Y.; Wong, C. H.; Cheng, C. H. K., "Increased Efficacies in Magnetofection and Gene Delivery to Hepatocellular Carcinoma Cells with Ternary Organic-Inorganic Hybrid Nanocomposites", *Chem. Asian J.* **2013**, *8*, 1760-1764.
- Wong, W. Y.; Lee, S. F.; Chan, H. S.; Mak, T. C. W.; Wong, C. H.; Huang, L. S.; Stoddart, J. F.; Leung, K. C. F., "Recognition Between V- and Dumbbell-Shaped Molecules", *RSC Adv.* **2013**, *3*, 26382-26390.
- Leung, K. C. F.; Lee, S. F.; Wong, C. H.; Chak, C. P.; Lai, J. M. Y.; Zhu, X. M.; Wang, Y. X. J.; Sham, K. W. Y.; Cheng, C. H. K., "Nanoparticle-DNA-Polymer Composites for Hepatocellular Carcinoma Cell Labeling, Sensing, and Magnetic Resonance Imaging", *Methods* **2013**, *64*, 315-321.
- Sham, K. C.; Yiu, S. M.; Kwong, H. L., "Dodecanuclear Hexagonal-Prismatic $M_{12}L_{18}$ Coordination Cages by Subcomponent Self-assembly", *Inorg. Chem.* **2013**, *52*, 5648-5650.
- Hanway, P. J.; Xue, J.; Bhattachrarejee, U.; Milot, M. J.; Zhu, R.; Phillips, D. L.; Winter, A. H., "Direct Detection and Reactivity of the Short-Lived Phenyloxenium Ion", *J. Am. Chem. Soc.* **2013**, *135*, 9078-9082.
- Li, M. D.; Su, T.; Ma, J.; Liu, M.; Liu, H.; Li, X.; Phillips, D. L., "Phototriggered Release of a Leaving Group in Ketoprofen Derivatives via a Benzylic Carbanion Pathway, But not via a Biradical Pathway", *Chem. Eur. J.* **2013**, *19*, 11241-11250.
- Ma, J.; Su, T.; Li, M. D.; Zhang, X.; Huang, J.; Phillips, D. L., "Meta versus para Substitution: How Does C−H Activation in a Methyl Group Occur in 3-Methylbenzophenone but Does Not Take Place in 4-Methylbenzophenone?", *J. Org. Chem.* **2013**, *78*, 4867-4878.
- Yu, L. H.; Xi, J.; Chan, H. T.; Su, T.; Antrobus, L. J.; Tong, B.; Dong, Y. P.; Chan, W. K., Phillips, D. L., "Novel Organic D-π-2A Sensitizer for Dye Sensitized Solar Cells and Its Electron Transfer Kinetics on TiO_2 Surface", *J. Phys. Chem. C* **2013**, *117*, 2041-2052.

- Li, M. D.; Ma, J.; Su, T.; Liu, M. Y.; Phillips, D. L., "A Time-Resolved Spectroscopy and Density Functional Theory Study of the Solvent Dependent Photochemistry of Fenofibric Acid", *Phys. Chem. Chem. Phys.* **2013**, *15***,** 1557-1568.
- Su, T.; Ma, J.; Li, M. D.; Guan, X. G.; Yu, L. H.; Phillips, D. L., "Time-Resolved Spectroscopic Study of the Photochemistry of Tiaprofenic Acid in a Neutral Phosphate Buffered Aqueous Solution from Femtoseconds to Final Products", *J. Phys. Chem. B* **2013**, *117*, 811-824.
- Su, T.; Ma, J.; Wong, N.; Phillips, D. L., "Time-Resolved Spectroscopic Characterization of a Novel Photodecarboxylation Reaction Mediated by Homolysis of a Carbon α-Bond in Flurbiprofen", *J. Phys. Chem. B* **2013**, *117*, 8347-8359.