

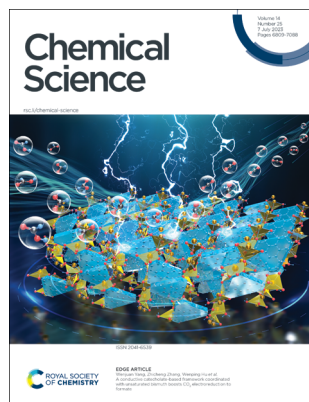
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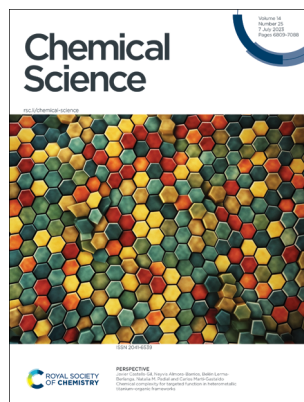
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ISSN 2041-6539 CODEN CSHCBM 14(25) 6809–7088 (2023)



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**Inside cover**  
See Carlos Martí-Gastaldo *et al.*, pp. 6826–6840.  
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## EDITORIAL

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### Addressing the sustainability challenges for polymers in liquid formulations

Caroline Louise Kelly

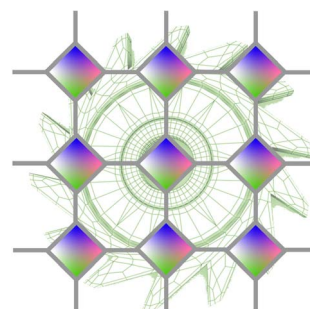


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### Chemical complexity for targeted function in heterometallic titanium–organic frameworks

Javier Castells-Gil, Neyvis Almora-Barrios, Belén Lerma-Berlanga, Natalia M. Padial and Carlos Martí-Gastaldo\*



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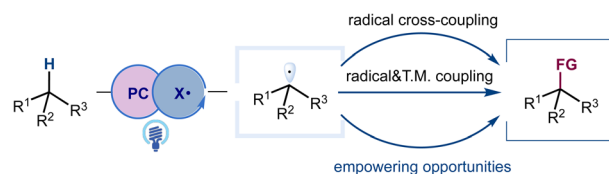


## PERSPECTIVES

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### Resurgence and advancement of photochemical hydrogen atom transfer processes in selective alkane functionalizations

Liang Chang, Shun Wang, Qing An, Linxuan Liu, Hexiang Wang, Yubo Li, Kaixuan Feng and Zhiwei Zuo\*

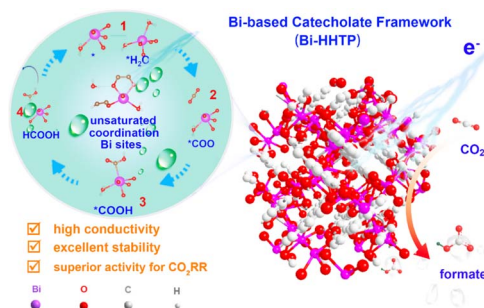


## EDGE ARTICLES

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### A conductive catechol-based framework coordinated with unsaturated bismuth boosts CO<sub>2</sub> electroreduction to formate

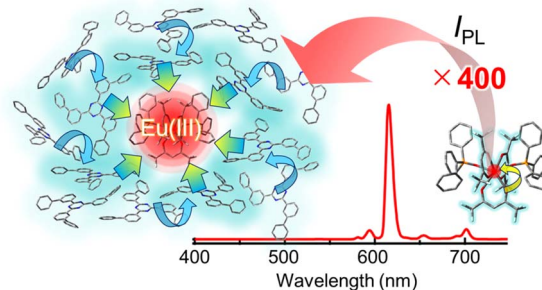
Zengqiang Gao, Man Hou, Yongxia Shi, Li Li, Qisheng Sun, Shuyuan Yang, Zhiqiang Jiang, Wenjuan Yang,\* Zhicheng Zhang\* and Wenping Hu\*



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### Highly efficient light harvesting of a Eu(III) complex in a host-guest film by triplet sensitization

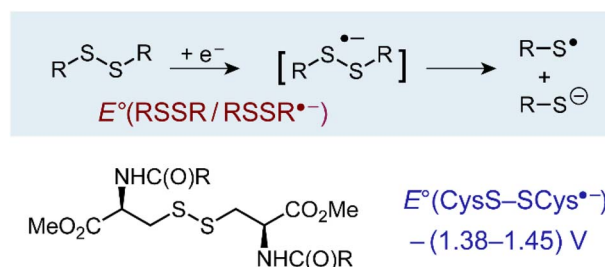
Shiori Miyazaki, Kenichi Goushi, Yuichi Kitagawa, Yasuchika Hasegawa, Chihaya Adachi, Kiyoshi Miyata\* and Ken Onda\*



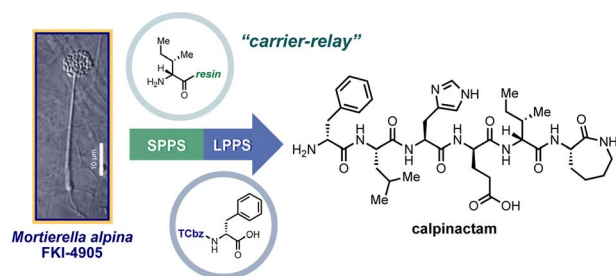
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### Disulfide radical anion as a super-reductant in biology and photoredox chemistry

Qilei Zhu,\* Cyrille Costentin, JoAnne Stubbe and Daniel G. Nocera\*



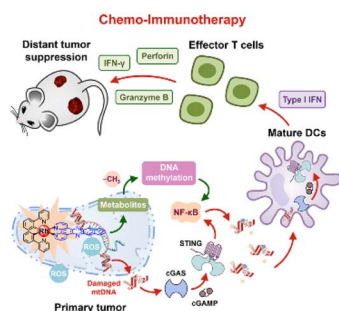
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### Development of a nitrogen-bound hydrophobic auxiliary: application to solid/hydrophobic-tag relay synthesis of calpinactam

Hiroki Nakahara, Goh Sennari, Yoshihiko Noguchi, Tomoyasu Hirose\* and Toshiaki Sunazuka\*

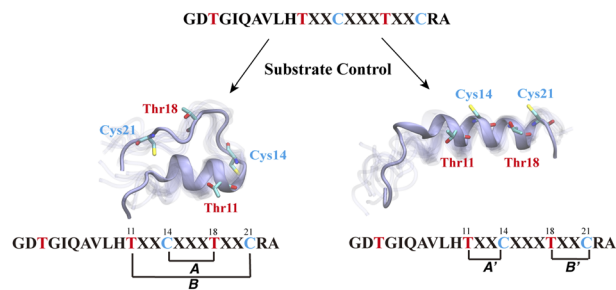
6890



### Activation of the cGAS-STING pathway by a mitochondrial DNA-targeted emissive rhodium(III) metallointercalator

Yue Zheng, Xiao-Xiao Chen, Dong-Yang Zhang, Wen-Jin Wang, Kun Peng, Zhi-Yuan Li, Zong-Wan Mao\* and Cai-Ping Tan\*

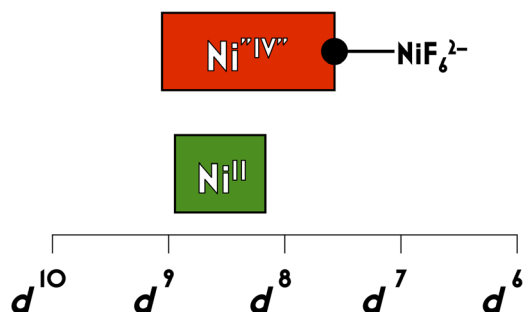
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### Sequence controlled secondary structure is important for the site-selectivity of lanthipeptide cyclization

Xuenan Mi, Emily K. Desormeaux, Tung T. Le, Wilfred A. van der Donk\* and Diwakar Shukla\*

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### Scrutinizing formally Ni<sup>IV</sup> centers through the lenses of core spectroscopy, molecular orbital theory, and valence bond theory

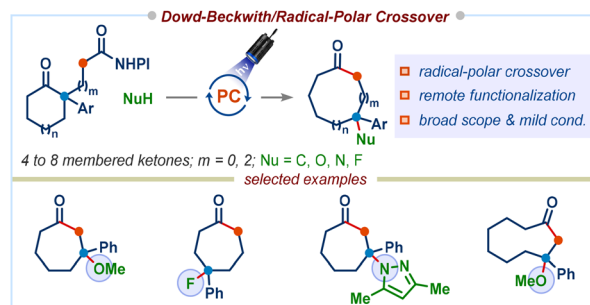
Ida M. DiMucci, Charles J. Titus, Dennis Nordlund, James R. Bour, Eugene Chong, Dylan P. Grigas, Chi-Heng Hu, Mikhail D. Kosobokov, Caleb D. Martin, Liviu M. Mirica, Noel Nebra, David A. Vicic, Lydia L. Yorks, Sam Yruegas, Samantha N. MacMillan,\* Jason Shearer\* and Kyle M. Lancaster\*



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### Photocatalyzed Dowd–Beckwith radical-polar crossover reaction for the synthesis of medium-sized carbocyclic compounds

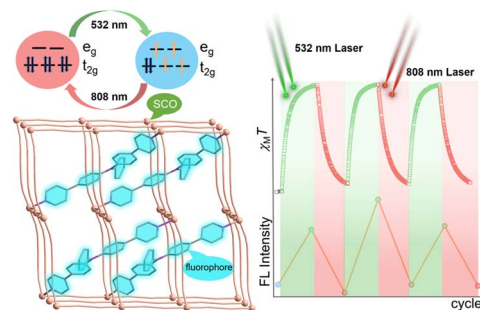
Tushar Singha, Ganesh Arjun Kadam and Durga Prasad Hari\*



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### Manipulating fluorescence by photo-switched spin-state conversions in an iron(II)-based SCO-MOF

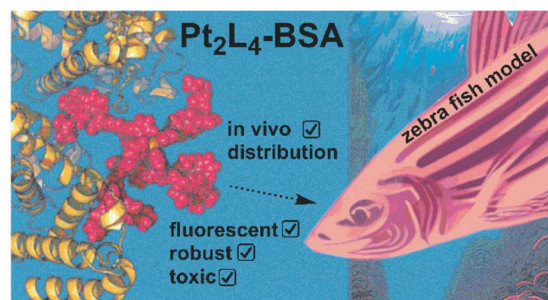
Fei-Fei Yan, Wen-Jing Jiang, Nian-Tao Yao, Pan-Dong Mao, Liang Zhao, Hui-Ying Sun, Yin-Shan Meng and Tao Liu\*



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### In vivo biodistribution of kinetically stable Pt<sub>2</sub>L<sub>4</sub> nanospheres that show anti-cancer activity

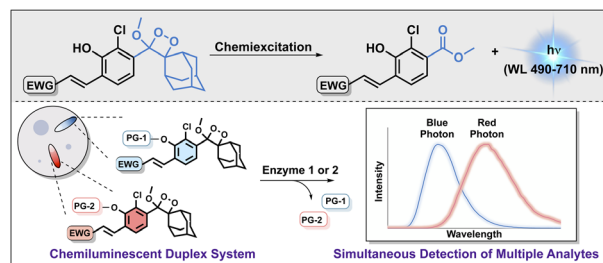
Eduard O. Bobylev, Renzo A. Knol, Simon Mathew, David A. Poole, III, Ioli Kotsogianni, Nathaniel I. Martin, Bas de Bruin, Alexander Kros\* and Joost N. H. Reek\*



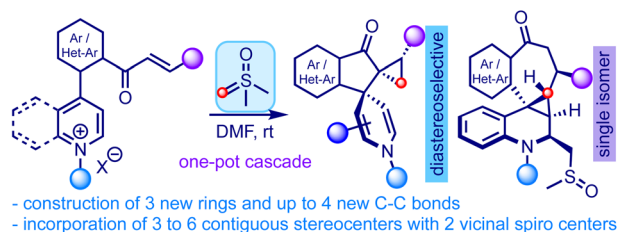
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### Chemiluminescent duplex analysis using phenoxy-1,2-dioxetane luminophores with color modulation

Sara Gutkin, Rozan Tannous, Qais Jaber, Micha Fridman and Doron Shabat\*



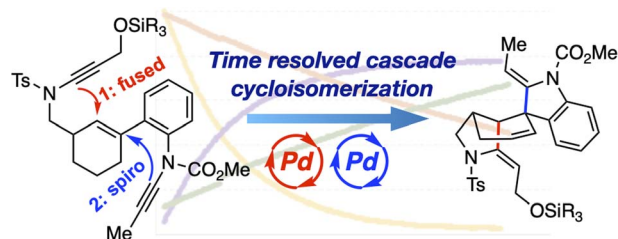
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### An interrupted Corey–Chaykovsky reaction of designed azaarenium salts: synthesis of complex polycyclic spiro- and fused cyclopropanoids

Bara Singh, Arshad J. Ansari, Nirmal Malik and S. S. V. Ramasastry\*

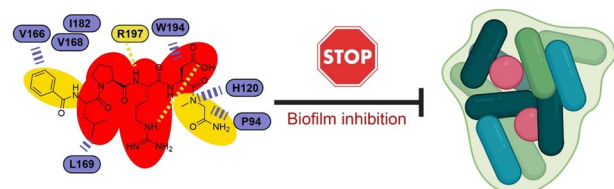
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### Sequencing palladium-catalyzed cycloisomerization cascades in a synthesis of the gelsemine core

Guoduan Liang and Edward A. Anderson\*

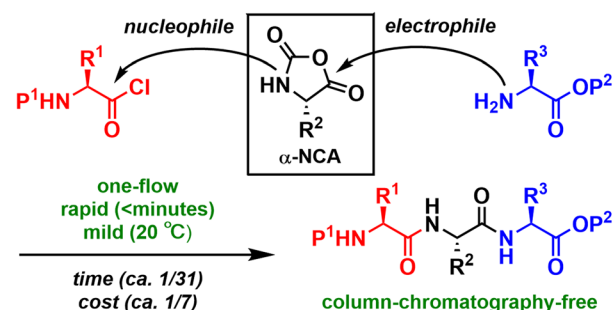
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### Substrate-derived Sortase A inhibitors: targeting an essential virulence factor of Gram-positive pathogenic bacteria

Helal Abujubara, Jordi C. J. Hintzen, Shadi Rahimi, Ivan Mijakovic, Daniel Tietze and Alesia A. Tietze\*

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### Rapid and column-chromatography-free peptide chain elongation via a one-flow, three-component coupling approach

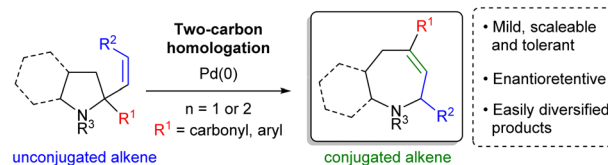
Naoto Sugisawa, Akira Ando and Shinichiro Fuse\*



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### Stereoselective two-carbon ring expansion of allylic amines via electronic control of palladium-promoted equilibria

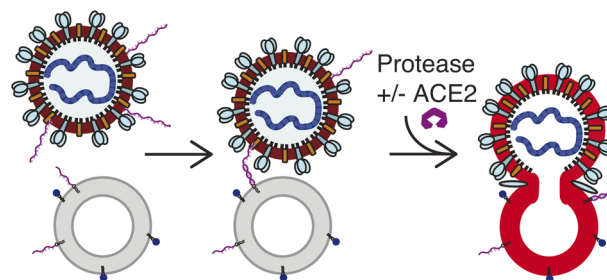
Charles P. Mikan, Aidan Matthews, Daniel Harris, Charlotte E. McIvor, Paul G. Waddell, Mark T. Sims and Jonathan P. Knowles\*



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### The ACE2 receptor accelerates but is not biochemically required for SARS-CoV-2 membrane fusion

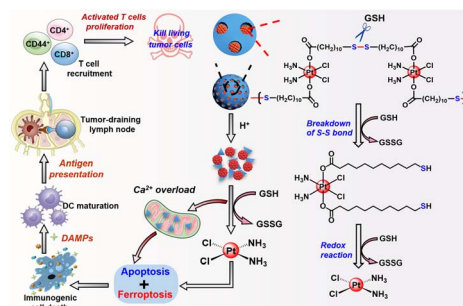
Marcos Cervantes, Tobin Hess, Giorgio G. Morbioli, Anjali Sengar and Peter M. Kasson\*



7005

### In situ oxidative polymerization of platinum(IV) prodrugs in pore-confined spaces of CaCO<sub>3</sub> nanoparticles for cancer chemoimmunotherapy

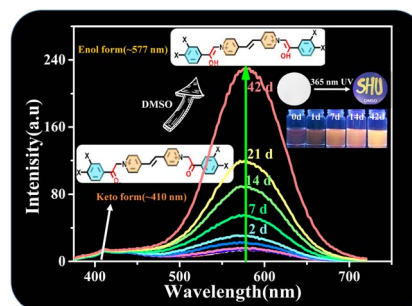
Fangmian Wei, Libing Ke, Siyuan Gao, Johannes Karges, Jinqian Wang, Yu Chen, Liangnian Ji and Hui Chao\*



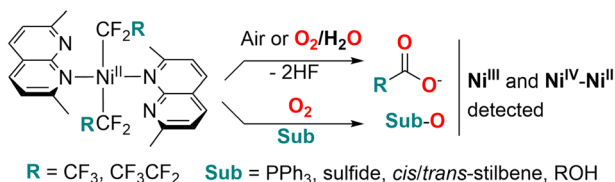
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### Isomerization-induced fluorescence enhancement of two new viologen derivatives: mechanism insight and DFT calculations

Xiuping Yin, Xinxing Li, Xuyi Li, Malgorzata Biczysko,\* Shourong Zhu, Jiaqiang Xu and Yue-Ling Bai\*



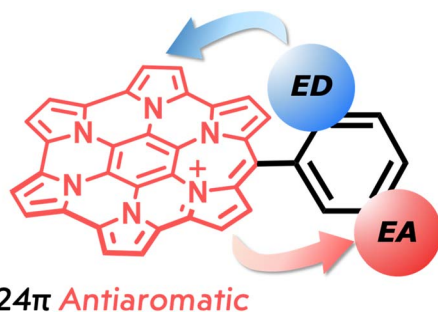
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Oxygenation by O<sub>2</sub> via Ni long-chain perfluoroalkyl complexes

## Oxygen transfer reactivity mediated by nickel perfluoroalkyl complexes using molecular oxygen as a terminal oxidant

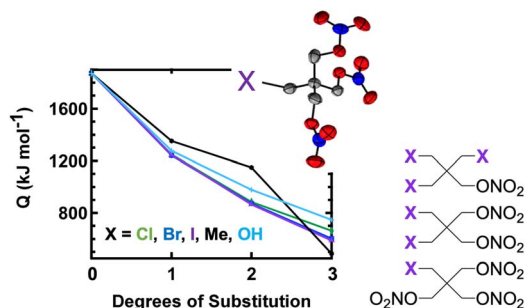
Shubham Deolka, R. Govindarajan, Eugene Khaskin, Serhii Vasylevskyi, Janet Bahri, Robert R. Fayzullin, Michael C. Roy and Julia R. Khusnutdinova\*

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Substituent effects on paratropicity and diatropicity in  $\pi$ -extended hexapyrrolohexaazacoronene

Masayoshi Takase,\* Toranosuke Takata, Kosuke Oki, Shigeki Mori and Hidemitsu Uno\*

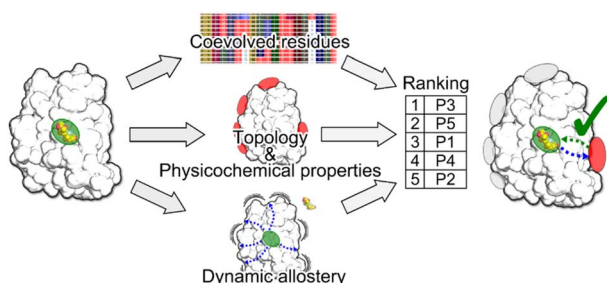
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## Halogenated PETN derivatives: interplay between physical and chemical factors in explosive sensitivity

Nicholas Lease,\* Kyle D. Spielvogel, Jack V. Davis, Jeremy T. Tisdale, Lisa M. Klamborowski, M. J. Cawkwell and Virginia W. Manner

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## Combining structural and coevolution information to unveil allosteric sites

Giuseppina La Sala,\* Christopher Pflieger, Helena Käck, Lisa Wissler, Philip Nevin, Kerstin Böhm, Jon Paul Janet, Marianne Schimpl, Christopher J. Stubbs, Marco De Vivo, Christian Tyrchan, Anders Hogner, Holger Gohlke\* and Andrey I. Frolov\*

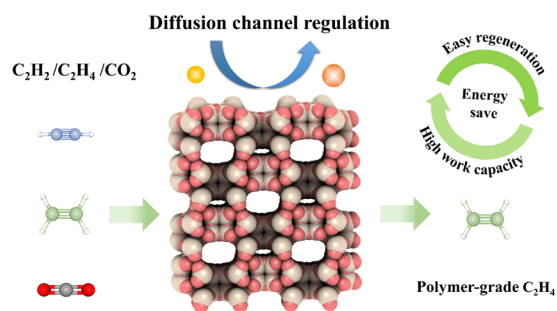




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## Deep removal of trace $C_2H_2$ and $CO_2$ from $C_2H_4$ by using customized potassium-exchange mordenite

Hongwei Chen, Binyu Wang, Bin Zhang, JiuHong Chen, Jiabao Gui, Xiufeng Shi, Wenfu Yan, Jinping Li and Libo Li\*



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## Near-infrared AIEgens with high singlet-oxygen yields for mitochondria-specific imaging and antitumor photodynamic therapy

Shasha Zhang, Wenfang Yang, Xiao Lu, Xinyi Zhang, Zhichao Pan, Da-Hui Qu, Dong Mei,\* Ju Mei\* and He Tian

