

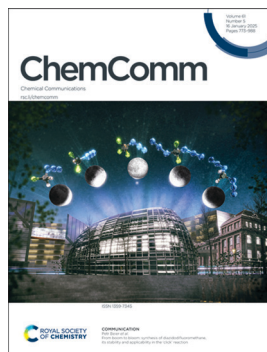
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ISSN 1359-7345 CODEN CHCOFS 61(5) 773-988 (2025)



Cover

See Zhi-bei Qu *et al.*, pp. 881-884.
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Inside cover

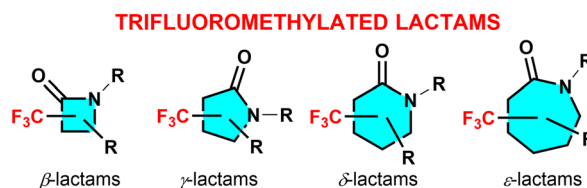
See Petr Beier *et al.*, pp. 885-888.
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HIGHLIGHTS

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Trifluoromethylated lactams: promising small molecules in the search for effective drugs

Monika Bilska-Markowska, Tomasz Cytlak and Marcin Kaźmierczak*



synthetic methods

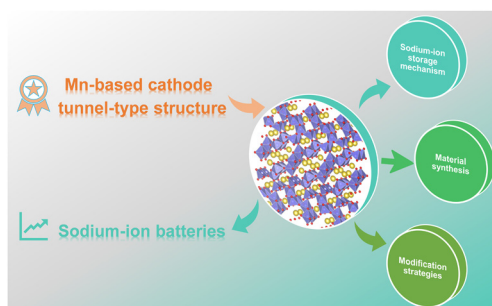
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Mn-based tunnel-structured $\text{Na}_{0.44}\text{MnO}_2$ cathode materials for high-performance sodium-ion batteries: electrochemical mechanism, synthesis and modifications

Dong Wang, Liumei Teng and Weizao Liu*



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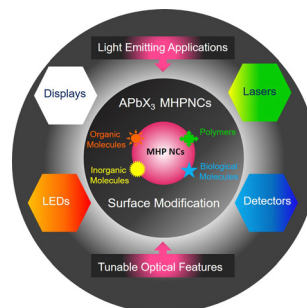


FEATURE ARTICLES

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Surface modification unleashes light emitting applications of APbX₃ perovskite nanocrystals

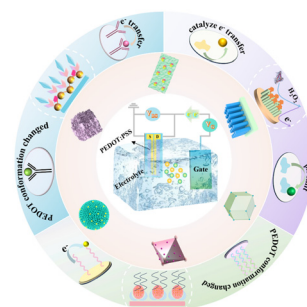
Satyapriya Bhandari,* Sabyasachi Pramanik,*
Mihir Manna, Sumit Singha and Farhin Akhtar



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Photoactive gate material-based organic photoelectrochemical transistor sensors: working principle and representative applications

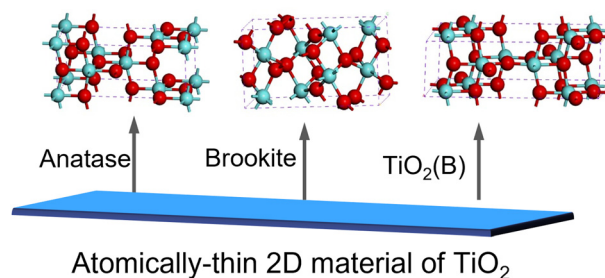
Xiuli Hou, Shanfeng Li, Xin Gao, Yuxin Peng, Qian Liu*
and Kun Wang*



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Bottom-up approaches to prepare ultrathin TiO₂ nanosheets

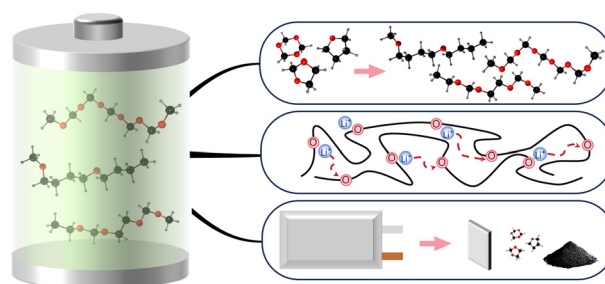
Wenyu Jia, Tianyu Zhai, Xiaotong Lu, Pengfei Cui,
Yuan Wang, Yuxuan Wang, Jiani Jiang, Xinchun Liu and
Guolei Xiang*



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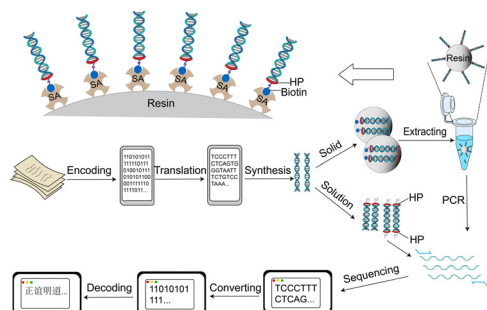
In situ polymerized ether-based polymer electrolytes towards practical lithium metal batteries

Sisi Peng, Jialong Fu, Lu Wei and Xin Guo*



COMMUNICATIONS

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**Headpiece-assisted DNA data storage in solution and solid**

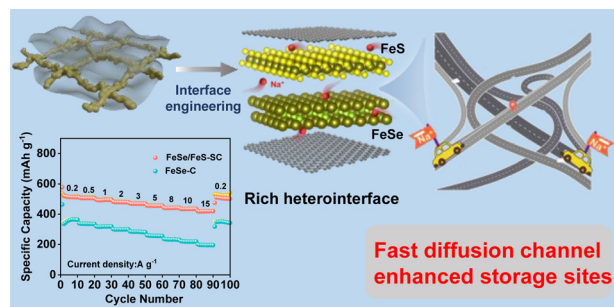
Chunjie Hu, Qingya Wen, Qiuyang Lai, Ziyi Xie, Kaiyue Zhang, Lu Zhou and Zhi-bei Qu*

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**From boom to bloom: synthesis of diazidodifluoromethane, its stability and applicability in the 'click' reaction**

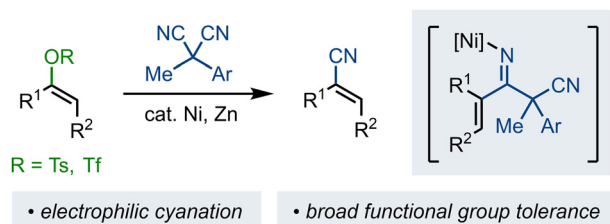
Mykyta Ziabko, Sergeii Suikov, Josef Filgas, Petr Slaviček, Michaela Gazdurová, Lucie Bednářová, Robert Matyáš, Blanka Klepetářová, Tomáš David and Petr Beier*

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**Electrochemically self-driven integration of FeSe/FeS heterostructures for enhanced sodium storage and rapid kinetics**

Hui Li, Yanchen Fan, Guangshuai Han, Xin Zhang, Haoxi Ben, Claire (Hui) Xiong,* Chunrong Ma* and Zhaoying Li*

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**Ni-catalyzed reductive cyanation of alkenyl tosylates and triflates**

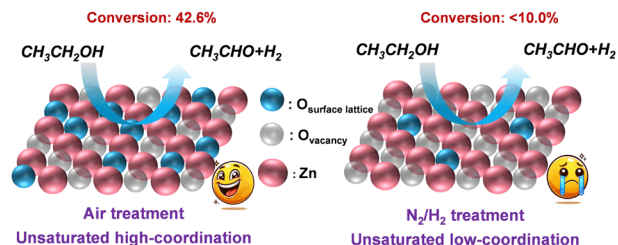
Joshua M. Graham and Sophie A. L. Rousseaux*



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A surface lattice oxygen-promoted ZnO catalyst for ethanol nonoxidative dehydrogenation

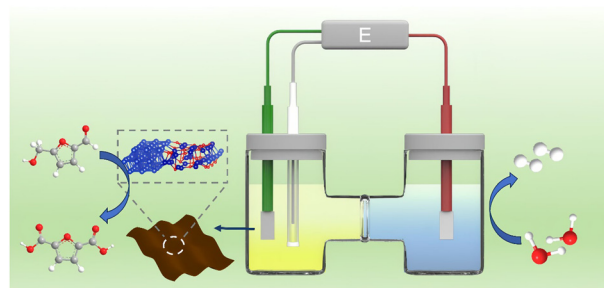
Zheng Zhang, Mingming Hou, Tao Gan, Wenjuan Zhang and Gang Liu*



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Designing Cu–CoO heterostructure nanosheets for efficient electrooxidation of 5-hydroxymethylfurfural to 2,5-furandicarboxylic acid

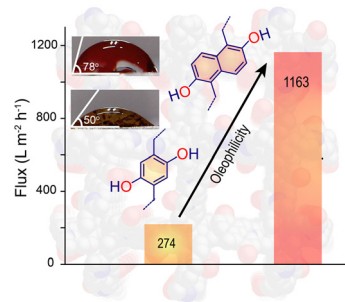
Dongfang Ji, Wenke Wang, Ting Sang, Jingcheng Hao, Xiaoyu Zhang* and Zhonghao Li*



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A superoleophilic free-standing three-dimensional covalent organic framework membrane for water–oil flush demulsification

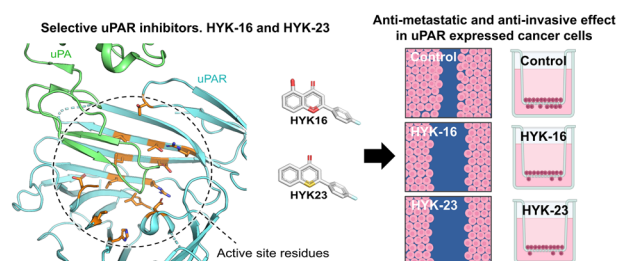
Adithyan Puthukkudi, Dipansu D. Behera, Sharmistha Anwar and Bishnu P. Biswal*



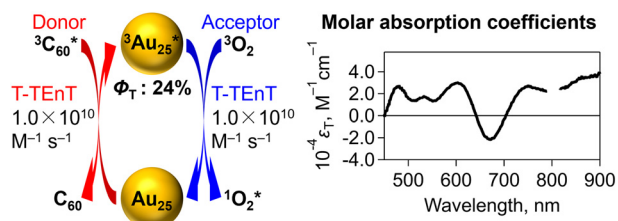
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(Thio)chromenone derivatives exhibit anti-metastatic effects through selective inhibition of uPAR in cancer cell lines: discovery of an uPAR-targeting fluorescent probe

So-Young Chun, Chanhee Park, Jiwon Oh, Hey-Jin Yoon, Tae-il Kim, Youngmi Kim, Seung Wook Ham, Hye Ran Koh, Hyung Ho Lee, Hun Young Kim* and Kyungsoo Oh*



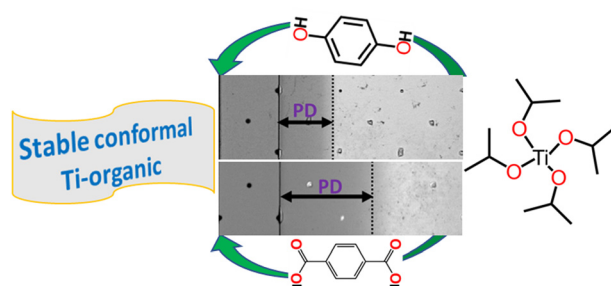
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Sensitization experiments of ultrasmall gold nanoclusters: determination of triplet quantum yields and molar absorption coefficients

Hayato Sakai, Sunao Hiramatsu, Aoi Akiyama, Yuichi Negishi* and Taku Hasobe*

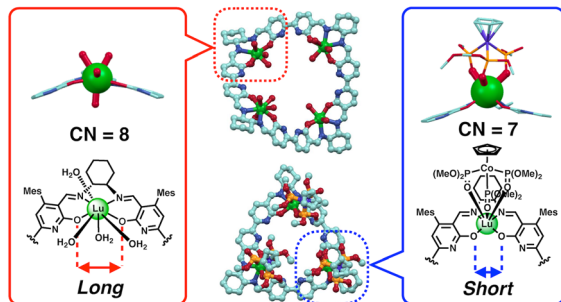
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Highly stable and conformal Ti-organic thin films from sustainable precursors *via* atomic/molecular layer deposition towards green energy applications

Anish Philip, Umaid Lone, Olga Partanen, Eero Haimi and Maarit Karppinen*

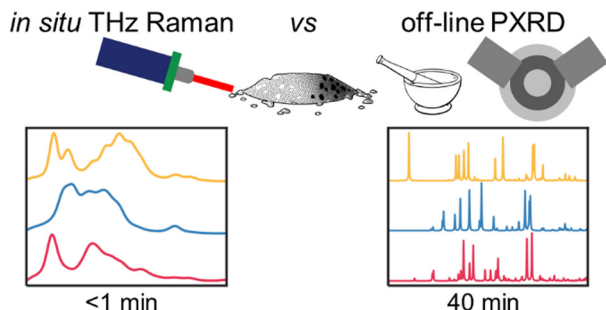
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Synthesis of macrocyclic salen rare-earth complexes and their framework conversion regulated by coordination sphere engineering

Yi-Fu Liu, Guzmán Gil-Ramírez* and Takashi Nakamura*

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Calibration free approaches for rapid polymorph discrimination *via* low frequency (THz) Raman spectroscopy

Magdalene W. S. Chong,* Martin R. Ward, Catriona McFarlan, Andrew J. Parrott, Paul Dallin, John Andrews, Iain D. H. Oswald and Alison Nordon*

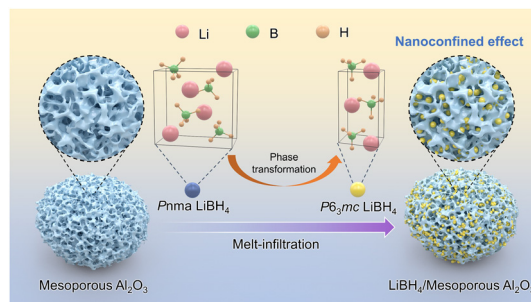


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Stabilization of fast lithium-ionic conduction phase of nanoconfined LiBH_4 for lithium metal solid-state batteries

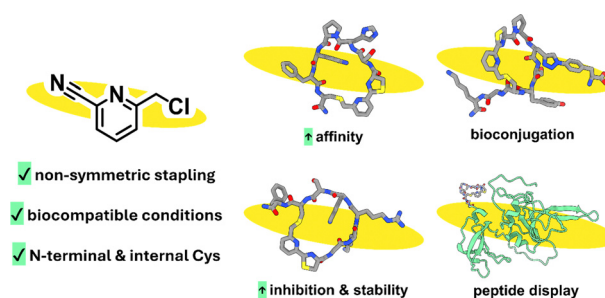
Shunqin Zeng, Kaixiang Ren, Hongfei Ding,*
Shendong Xu,* Hai-Wen Li and Yongtao Li*



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Non-symmetric cysteine stapling in native peptides and proteins

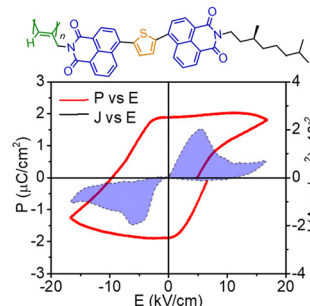
Sven Ullrich,* Bishvanwasha Panda,
Upamali Somathilake, Douglas J. Lawes and
Christoph Nitsche*



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A ferroelectric helical polymer

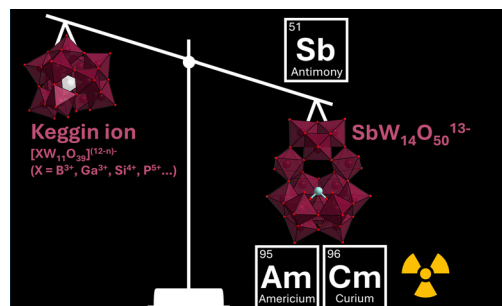
Supriya Bandyopadhyay, Shubhankar Barman,
Swadesh Paul, Anuja Datta* and Suhrit Ghosh*



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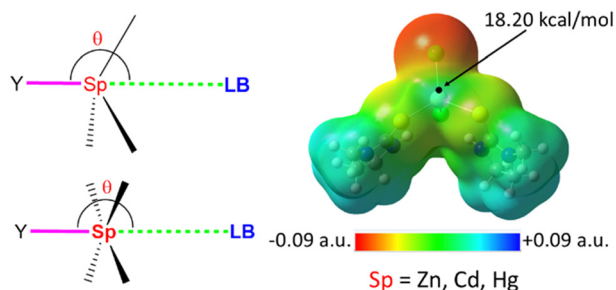
Isolation and characterization of a new polyoxometalate ligand, $\text{H}_3\text{SbW}_{14}\text{O}_{50}^{10-}$, and its interactions with f-elements

Ian Colliard* and Gauthier J.-P. Deblonde*



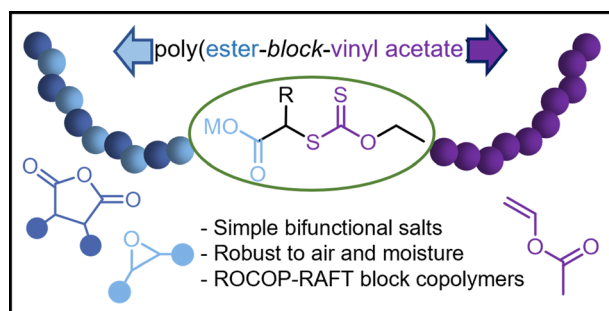
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**Are spodium bonds directional?**

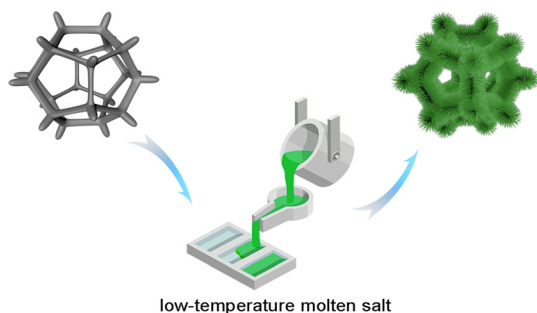
Velina R. Boro, Binoy K. Saha* and Gurudosguptha Rangazhvar

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**Simple bifunctional salts for synthesising block copolymers from anhydrides/epoxides and vinyl acetate**

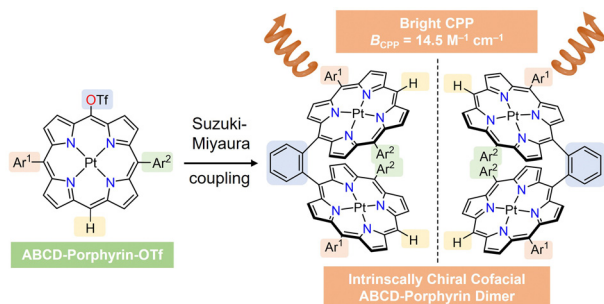
Anna Lykkeberg and Jennifer A. Garden*

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**Repeatable and renewable synthesis of nickel–iron nitrate hydroxide needle-like arrays for water electrolysis**

Lihua Gao, Junjie Huang, Yuan Heng, Zhong-Qin Pan, Changqing Ye, Yuhuan Yang,* Xiao-Lei Huo* and Qingwen Zhou*

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**Optically active cofacial ABCD-Pt(II)-porphyrin dimer exhibits bright circularly polarized phosphorescence**

Ryo Inoue,* Mayu Kobayashi and Yasuhiro Morisaki*

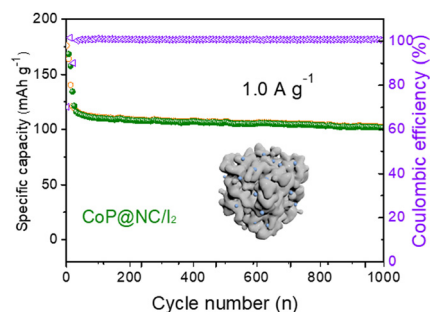


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CoP electrocatalysts embedded in nitrogen-doped carbon as a host toward fast iodine conversions

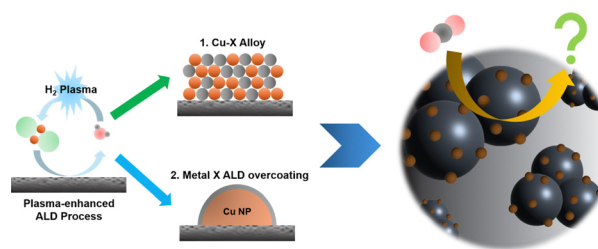
Lingfeng Zhu, Xinwei Guan, Zhenfang Zhang, Yang Fu, Zhilong Yuan, Congcong Zhang, Ye Wang, Hua Fan, Haimei Xu, Xiaoning Li, Hui Li, Baohua Jia, Hai Yu, Yifei Sun* and Tianyi Ma*



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Tuning the selectivity of bimetallic Cu electrocatalysts for CO₂ reduction using atomic layer deposition

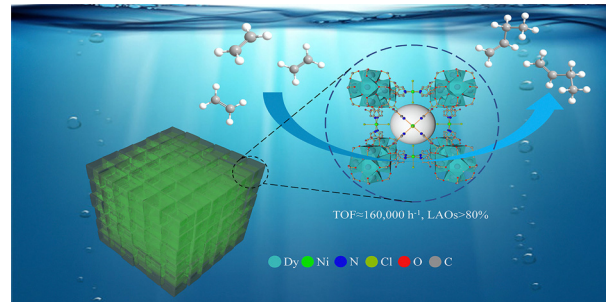
Si Young Lee, Julia D. Lenef, Daniel O. Delgado Cornejo, Alondra M. Ortiz-Ortiz, Tao Ma, Timothy S. Arthur, Charles A. Roberts* and Neil P. Dasgupta*



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A heterobimetallic MOF as a stable heterogeneous catalyst with high activity for ethylene oligomerization

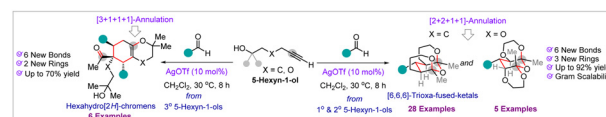
Anfeng Peng, Gang Li,* Cong Wang and Zheng Huang



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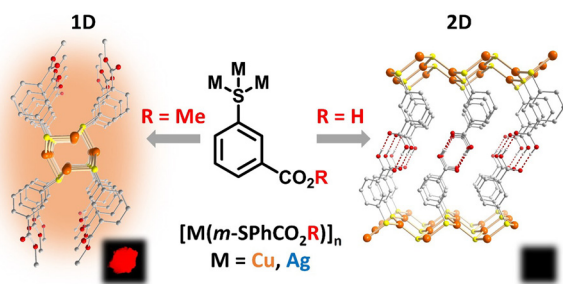
AgOTf-catalyzed cascade annulation of 5-hexyn-1-ols and aldehydes: enabling the diastereoselective synthesis of [6,6,6]-trioxo-fused ketals and hexahydro-2H-chromenes

Ramavath Vinodkumar, Ashwini K. Nakate, Gamidi Rama Krishna and Ravindar Kontham*



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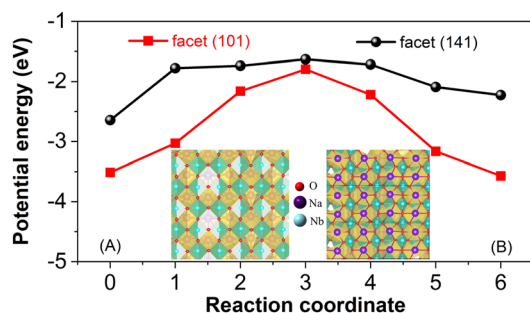
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Effect of the 1D/2D dimensionality in copper and silver thiolate coordination polymers on their photophysical properties

Oleksandra Veselska, Ahmad Abdallah, Alexis Giraudon, Chloé Andrade, Saly Hawila, Nathalie Guillou, Erwann Jeanneau, Miguel Monge, Adel Mesbah, Alexandra Fateeva, Stéphane Pailhès, Gilles Ledoux, Florent Perret and Aude Demessence*

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Facet-engineered NaNbO_3 cubes with exposed (101) plane for enhanced lithium-ion storage

Hongping Li, Rong Kang, Zhilong Song, Dickon H. L. Ng, Xiaoshui Peng, Fen Qiao, Jia Yan* and Jiabiao Lian*

CORRECTIONS

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Correction: Mass-tagged aminated probes for rapid discovery of azaphilic natural products in fungal crude extracts

Victor Flon, Coralie Pavesi, Samuel Oger, Stéphane Leleu, Pascal Retailleau, Laurence K. Jennings, Soizic Prado* and Xavier Franck*

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Correction: Elucidation of the mechanism of the esterification of boric acid with aliphatic diols: a computational study to help set the record straight

Corrado Bacchiocchi* and Manuel Petroselli*

