

# Green Chemistry

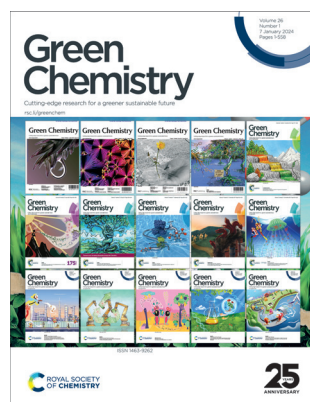
Cutting-edge research for a greener sustainable future

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Celebrating 25 years of covers on Green Chemistry



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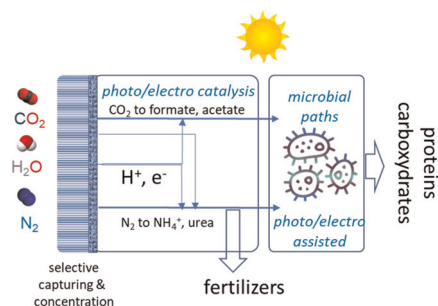
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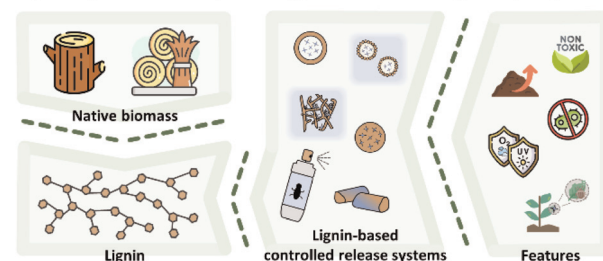


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Empowering the reduction of pesticide application and enhancing efficacy in agriculture



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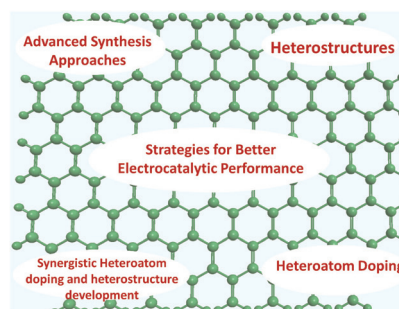
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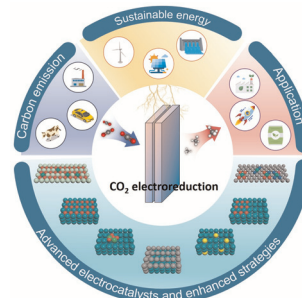
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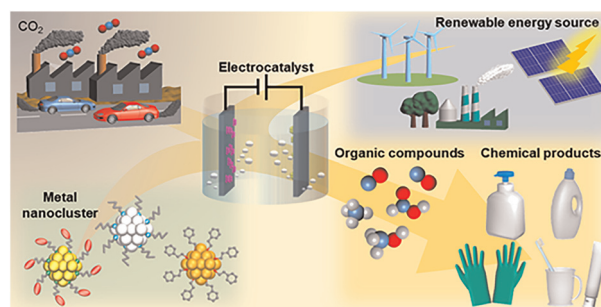


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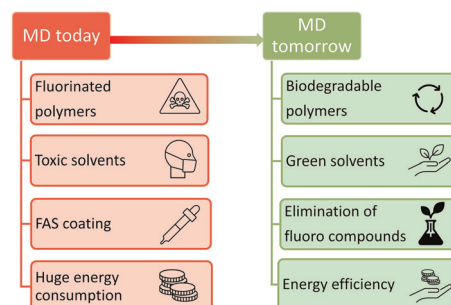
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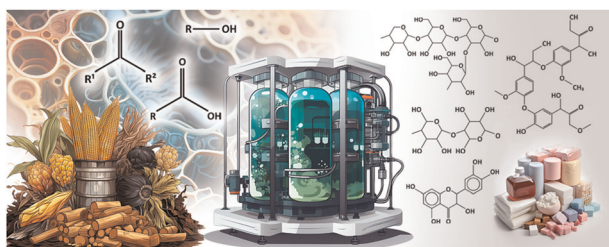
Emilia Gontarek-Castro\* and Roberto Castro-Muñoz





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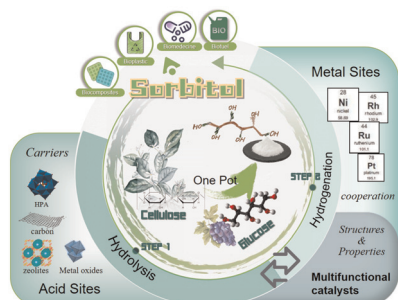
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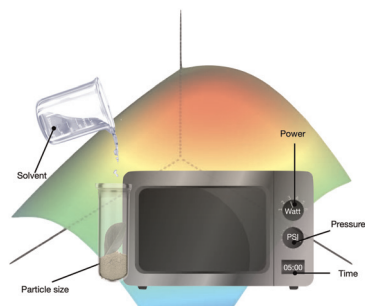
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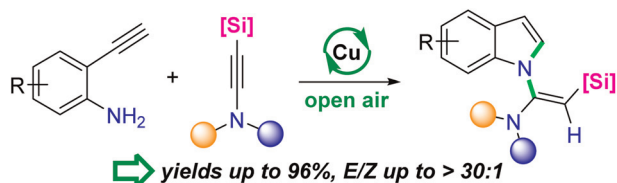


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Valeria Cavalloro, Giorgio Marrubini,\* Giacomo Rossino, Emanuela Martino\* and Simona Collina

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- ♦ one-step synthesis
- ♦ ligand-free catalysis
- ♦ open vial operation
- ♦ cheap  $\text{CuBr}_2$  as catalyst
- ♦ 100% atom-economical
- ♦ valuable organosilanes

### Unexpected stereoselective $\text{CuBr}_2$ -catalyzed cascade reaction of 2-ethynylanilines with silylynamides: facile and atom-economical access to N-vinylsilylindoles

Zengzeng Li, Fei Lu, Qingchun Xu, Gang Liu, Ximei Zhao\* and Guanghui Wang\*

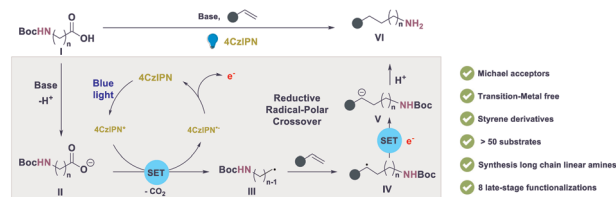


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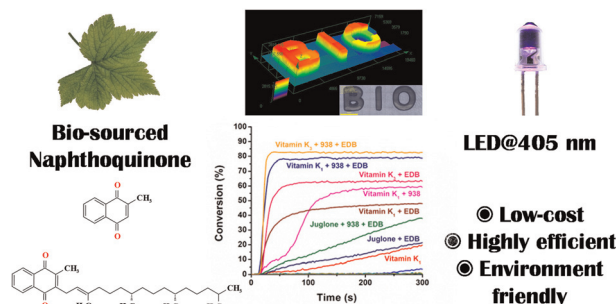
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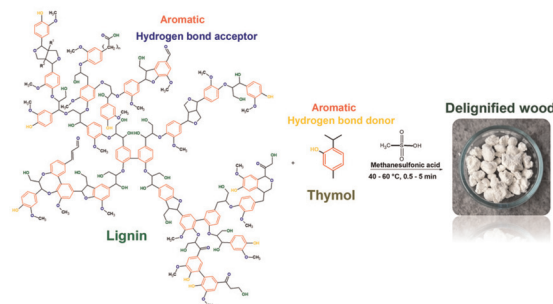
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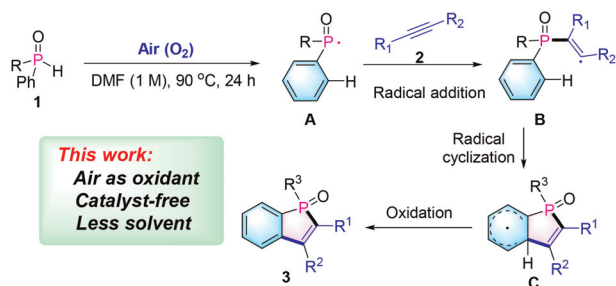
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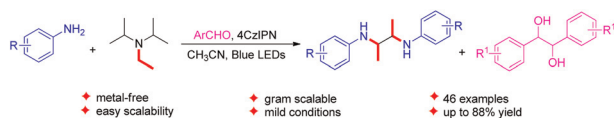
### Direct air-induced arylphosphinoyl radicals for the synthesis of benzo[*b*]phosphole oxides

Mingqing Huang, Haiyang Huang,\* Mengyao You, Xinxin Zhang, Longgen Sun, Chao Chen, Zhichao Mei, Ruchun Yang and Qiang Xiao\*



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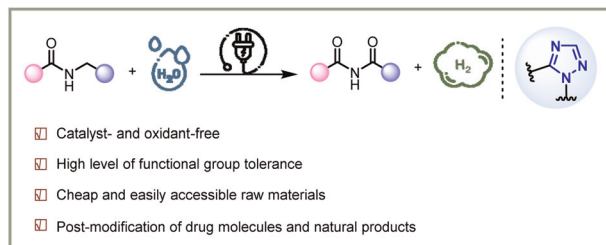
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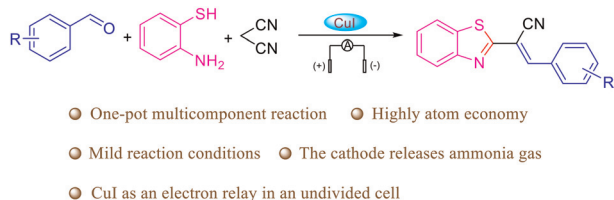
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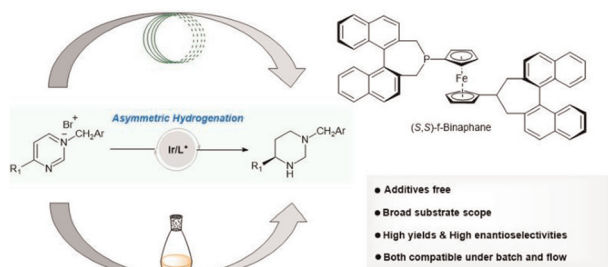
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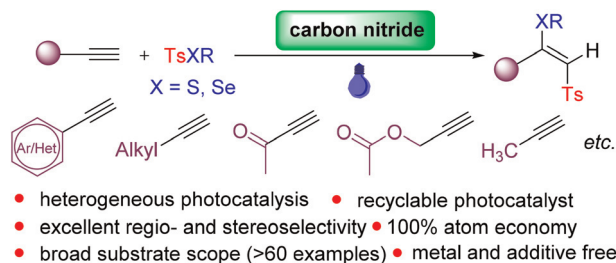


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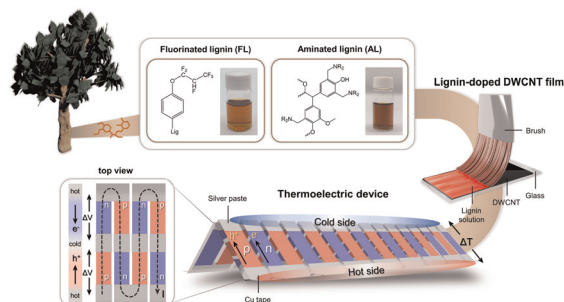
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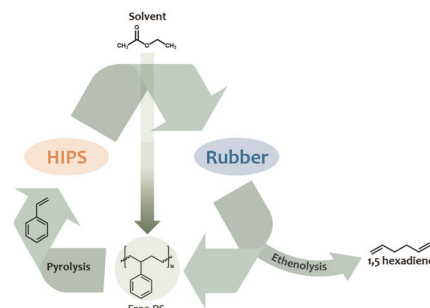
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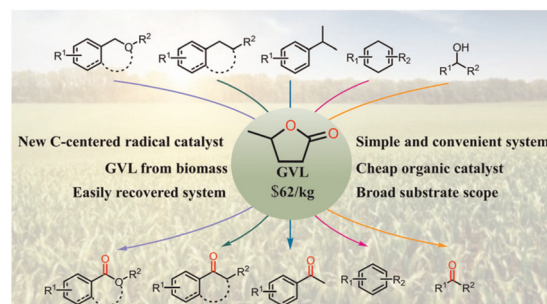
Nikolaos S. Giakoumakis, Christophe Vos, Kwinten Janssens, Jelle Vekeman, Mats Denayer, Frank De Proft, Carlos Marquez\* and Dirk De Vos\*



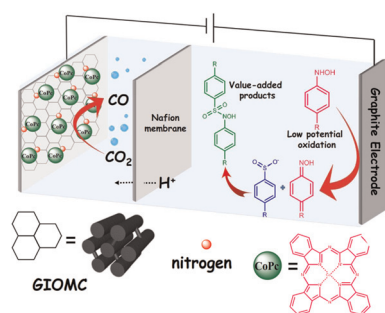
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Anwei Wang, Jiayin Huang, Chunsheng Zhao, Yu Fan, Junfeng Qian, Qun Chen, Mingyang He\* and Weiyou Zhou\*



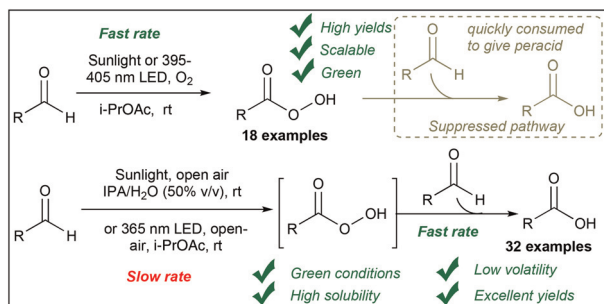
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Samin Barat-Abtahi, Faranak Jafari-Hafshejani, Fahimeh Varmaghani,\* Babak Karimi\* and Hamzeh H. Veisi

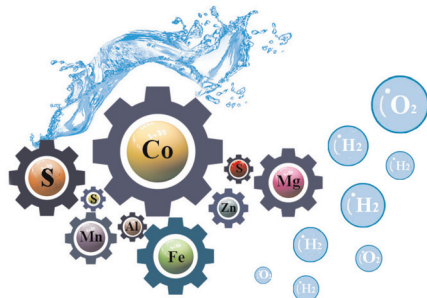
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### Light-induced autoxidation of aldehydes to peracids and carboxylic acids

Mohamed S. H. Salem, Carla Dubois, Yuya Takamura, Atsuhito Kitajima, Takuma Kawai, Shinobu Takizawa\* and Masayuki Kirihaara\*

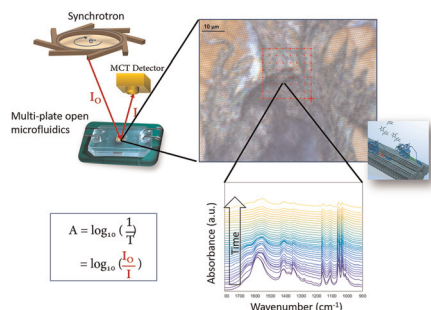
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Tina Jeoh,\* Jennifer Danger Nill, Wujun Zhao, Sankar Raju Narayanasamy, Liang Chen and Hoi-Ying N. Holman\*



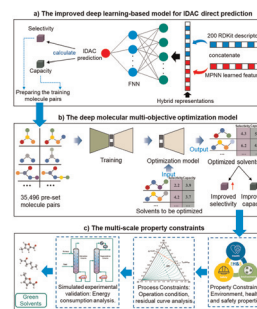


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# Multi-objective optimization strategy for green solvent design via a deep generative model learned from pre-set molecule pairs

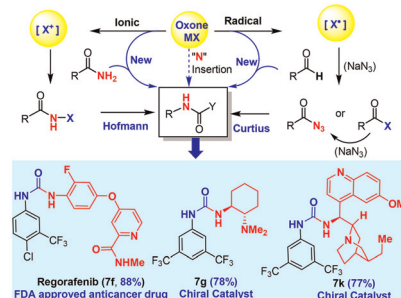
Jun Zhang, Qin Wang,\* Huaqiang Wen,  
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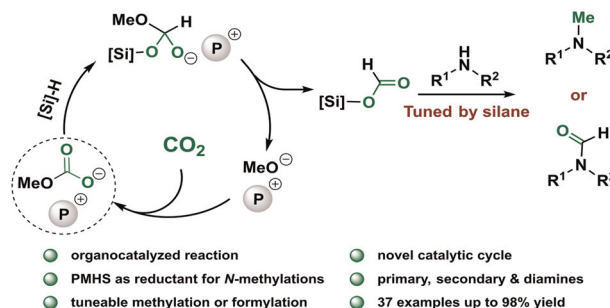
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Xiaohong Pan, Binbin Huang, Hongliang Yao, Ran Lin\*  
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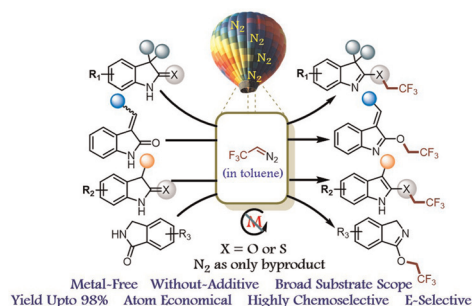
Changyue Ren, Constanza Terazzi and Thomas Werner\*



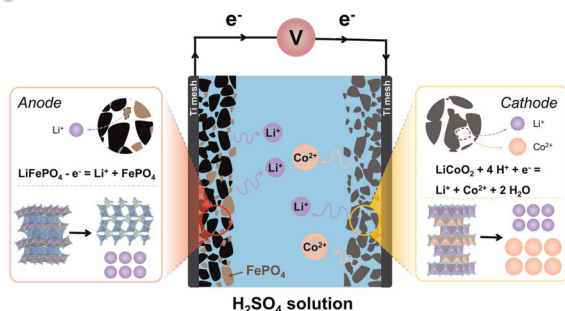
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# Metal- and additive-free TfOH catalyzed chemoselective *O*- and *S*-trifluoroethylation of oxindoles, isoindolines and thio-oxindoles

Manisha Lamba, Prasoon Raj Singh, Shubham Bhatt and  
Avijit Goswami\*



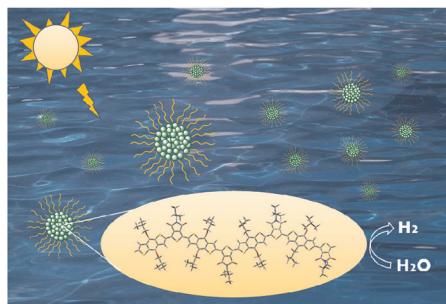
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Jingjing Zhao, Fengyin Zhou, Hongya Wang, Xin Qu, Danfeng Wang, Zhiyu Zheng, Yuqi Cai, Shuaibo Gao,\* Dihua Wang and Huayi Yin\*

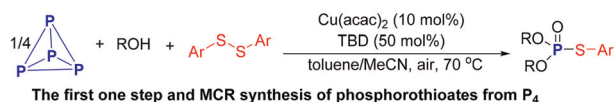
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### Green and sustainable synthesis of TPD-based donor-acceptor-type conjugated polymer photocatalysts for hydrogen production under visible light

Menghan Chang, Xinjuan Zhang, Lin Wang, Di Wang, Qiang Zhang\* and Yan Lu\*

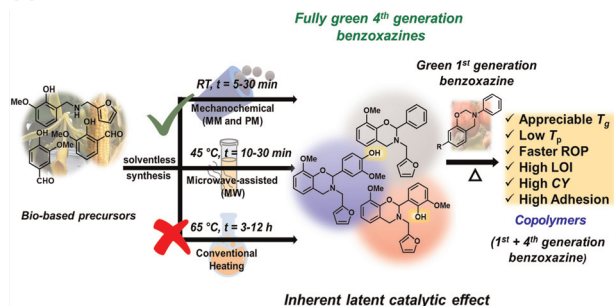
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Vaishaly Duhani, Shivani Yadav, Christophe Len and Bimlesh Lochab\*

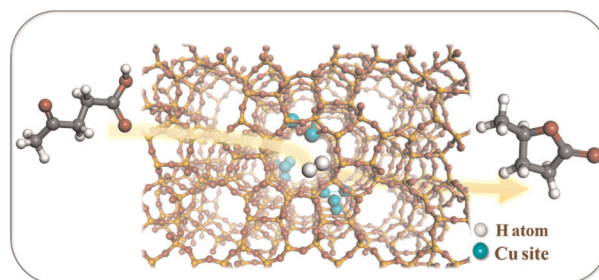


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**MFI zeolite with confined adjustable synergistic Cu sites for the hydrogenation of levulinic acid**

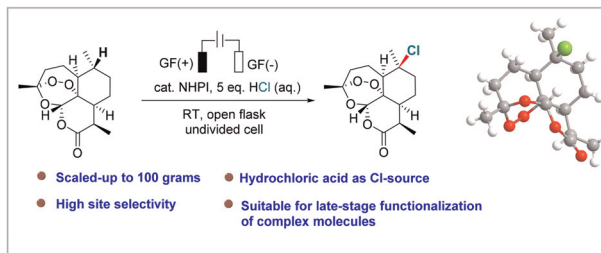
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**Electrochemical chlorination of least hindered tertiary and benzylic C(sp<sup>3</sup>)–H bonds**

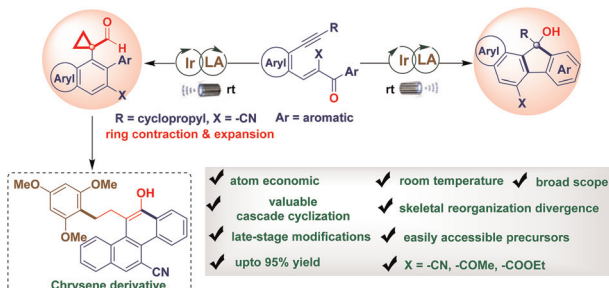
Jianyou Zhao, Jiatai Zhang, Pengkai Fang, Jintao Wu, Fan Wang and Zhong-Quan Liu\*



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**Visible light-driven highly atom-economical divergent synthesis of substituted fluorenols and cyclopropylcarbaldehydes**

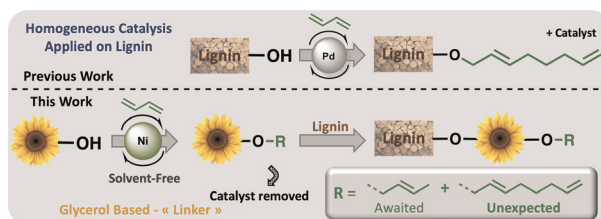
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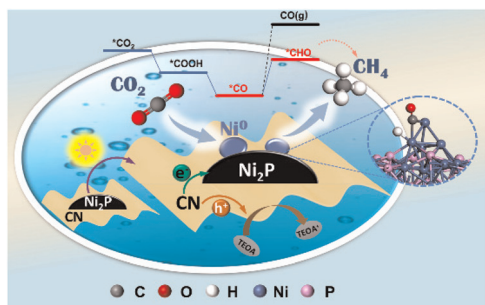
**Efficient nickel-catalysed telomerisation on glycerol carbonate: a new linker route for lignin functionalisation**

Tiphaine Richard, Walid Abdallah, Xavier Trivelli, Mathieu Sauthier and Clément Dumont\*



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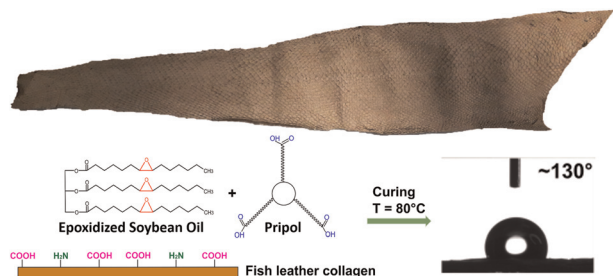
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Xuemei Liu, Chaonan Cui, Shuoshuo Wei, Jinyu Han, Xinli Zhu, Qingfeng Ge\* and Hua Wang\*

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### Hydrophobic and water resistant fish leather: a fully sustainable combination of discarded biomass and by-products of the food industry

Marta Fadda,\* Arkadiusz Zych, Riccardo Carzino, Athanassia Athanassiou and Giovanni Perotto\*

