

EES Catalysis

GOLD
OPEN
ACCESS

**Exceptional research on energy
and environmental catalysis**

Open to everyone. Impactful for all

rsc.li/EESCatalysis

**Fundamental questions
Elemental answers**



Showcasing research from Professor Bijin Li's laboratory,
School of Pharmaceutical Sciences, Chongqing University,
Chongqing, P. R. China.

Rh(III)-catalyzed building up of used heterocyclic cations:
facile access to white-light-emitting materials

The first example of rhodium-catalyzed nondirected C-H activation/annulation reactions for constructing structurally diverse pyrido-phenothiazin/phenoxazin/phenoselenazin/phenazin-12-iums is reported with excellent regioselectivity. This protocol provides an opportunity to rapidly access highly π -conjugated fused heterocyclic cations, which opens up a new avenue for efficient screening of single-molecular white-light-emitting materials, pure red-light-emitting materials, and π -conjugated radical materials. Importantly, the novel white-light-emitting material exhibited distinct anti-Kasha dual-emission and could rapidly be fabricated into robust organic and low-cost white light-emitting diodes.

As featured in:



See Haibo Ge, Bijin Li *et al.*,
Chem. Sci., 2024, **15**, 12270.