

EES Catalysis

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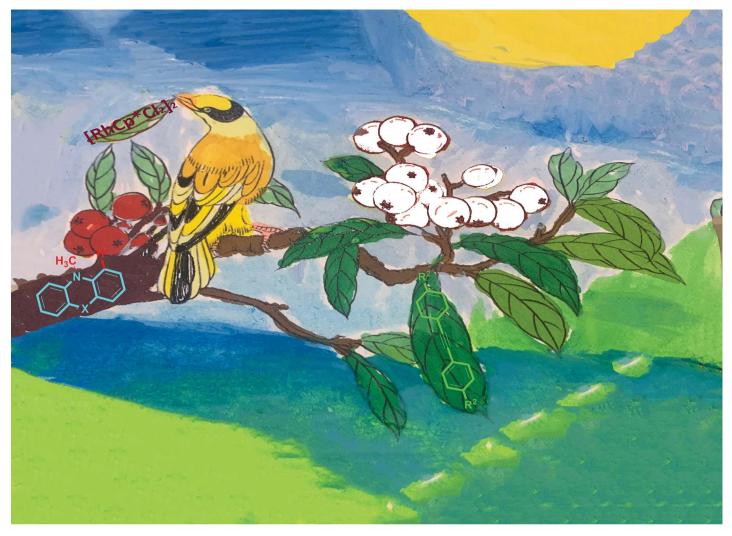
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Fundamental questions
Elemental answers

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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.

