

Chem Soc Rev

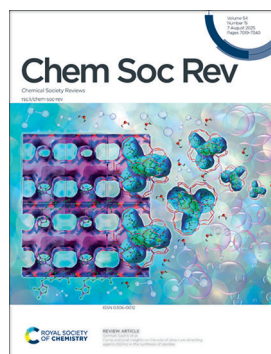
Chemical Society Reviews

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See German Sastre *et al.*, pp. 7067–7092. Image reproduced by permission of Katya Cuevas and German Sastre from *Chem. Soc. Rev.*, 2025, 54, 7067.



Inside cover

See Ruth Pérez-Fernández *et al.*, pp. 7093–7113. Image reproduced by permission of Ruth Pérez-Fernández from *Chem. Soc. Rev.*, 2025, 54, 7093.

TUTORIAL REVIEWS

7025

New guidelines and definitions for type I photodynamic therapy

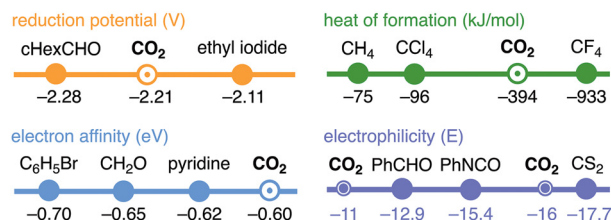
Mingle Li,* Jianhua Xiong, Yingying Zhang, Le Yu, Lizhou Yue, Changyu Yoon, Yujin Kim, Yang Zhou, Xiaoqiang Chen,* Yunjie Xu,* Xiaojun Peng* and Jong Seung Kim*



7058

Revisiting the reactivity of carbon dioxide: from physical and chemical properties to reactive carbon capture

Jerik Mathew Valera Lauridsen* and Ji-Woong Lee*



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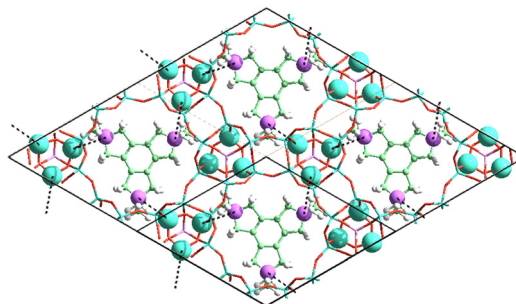
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7067

Computational insights on the role of structure-directing agents (SDAs) in the synthesis of zeolites

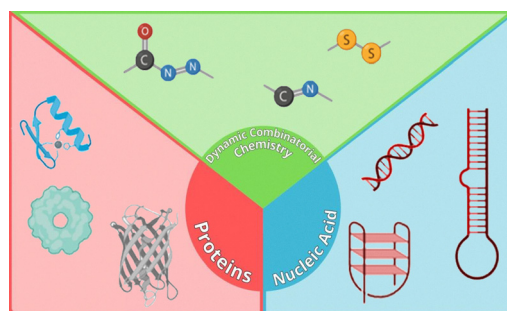
Xiaomin Tang, Omer F. Altundal, Frits Daeyaert, Zhiqiang Liu and German Sastre*



7093

Dynamic combinatorial chemistry directed by proteins and nucleic acids: a powerful tool for drug discovery

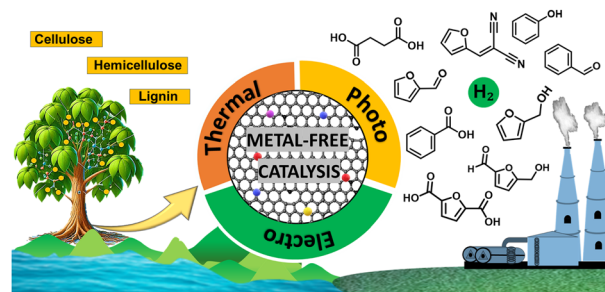
Antonio Aguanell, Marc Hennebelle, Miguel Ángel Ortega and Ruth Pérez-Fernández*



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Biomass valorization with metal-free catalysts: innovations in thermocatalytic, photocatalytic, and electrocatalytic approaches

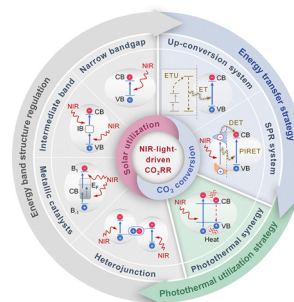
Arzoo Chauhan and Rajendra Srivastava*



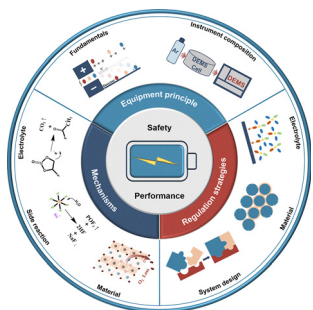
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Advancements and prospects of near-infrared-light driven CO₂ reduction reaction

Siheng Yang, Wei Che, Yanhua Shao, Woo Jin Byun, Xiaodong Li, Xingchen Jiao, Ruixiang Li,* Jae Sung Lee, Jiaqi Xu* and Jong-Beom Baek*



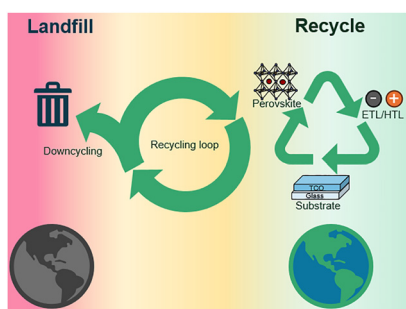
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Unveiling gas production in rechargeable batteries via *in situ* differential electrochemical mass spectrometry

Guochuan Tang, Jiyu Zhang, Siyu Ma, Junyu Li, Zhangquan Peng* and Weihua Chen*

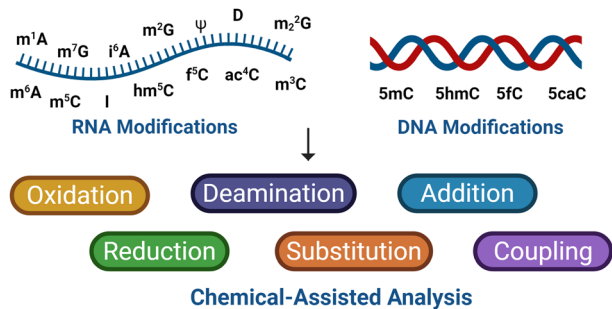
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Sustainable decommissioning of perovskite solar cells: from waste to resources

Valentina Larini, Matteo Degani, Silvia Cavalli and Giulia Grancini*

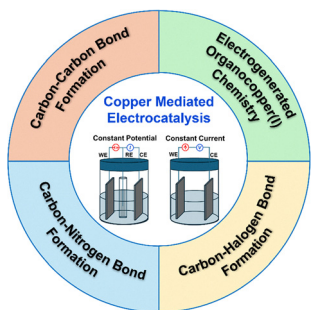
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Chemical-assisted analysis of epigenetic modifications

Xucong Teng, Qiushuang Zhang, Yicong Dai, Hongwei Hou and Jinghong Li*

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Emerging applications and mechanistic insights of copper mediated electrocatalysts in organic transformations

Masnun Naher,* Miguel A. González, Craig M. Williams and Paul V. Bernhardt

