

# ChemComm

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Fundamental questions  
Elemental answers

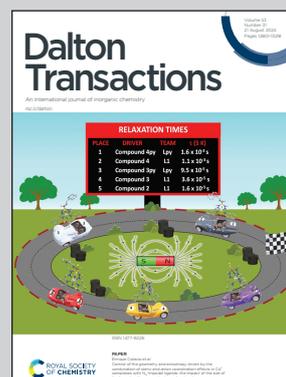


Showcasing research from Dr. Starla D. Glover's laboratory, Department of Chemistry-Ångström, Uppsala University, Uppsala, Sweden.

Hydrogen production by a fully *de novo* enzyme

Inspired by Nature: Hydrogen is produced in a new artificial enzyme based on a *de novo* three alpha-helical protein,  $\alpha_3C$ , and a cobalt-based catalyst. The engineered artificial enzyme produces hydrogen under electrochemical, photochemical and chemical conditions in neutral water. This study highlights the potential of small *de novo* proteins as enzyme scaffolds for bioinspired catalysts, contributing to the development of efficient, sustainable hydrogen production systems.

As featured in:



See Starla D. Glover *et al.*, *Dalton Trans.*, 2024, 53, 12905.