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Showcasing research from the Institute of Chemistry,
Technology and Metallurgy, University of Belgrade
and New Zealand Institute for Advanced Study,
Massey University

Reduction of CO_2 in the presence of light *via* excited-state
hydride transfer reaction in a NADPH-inspired derivative

Our group is working on the structures and reactions
of molecules of environmental interest. Here we present
the results of the investigation of the photochemical
reduction of CO_2 in one of the benzimidazoline derivatives
by quantum-chemical methods. Our results reveal that
carbon dioxide can be reduced to formate by a hydride
transfer reaction in the excited state of the complex of this
benzimidazoline derivative and CO_2 .

As featured in:



See Bojana D. Ostojić,
Peter Schwerdtfeger *et al.*,
Phys. Chem. Chem. Phys.,
2024, **26**, 17504.