

**Source:** [Heravi, M. M.](#), Zadsirjan, V., Kouhestanian, E., & AlimadadiJani, B. (2020). Electrochemically Induced Diels-Alder Reaction: An Overview. *The Chemical Record*, 20(4), 273-331. <https://doi.org/10.1002/tcr.201900018>

# Electrochemically Induced Diels-Alder Reaction: An Overview

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## Abstract

One of the most important name reactions in organic chemistry, is the Diels-Alder cycloaddition reaction. It is a chemical reaction between a conjugated diene and a substituted alkene, commonly termed the dienophile to construct a substituted cyclohexene derivative. It is the stereotypical example of a pericyclic reaction with a concerted mechanism. In synthesis, the use of electricity instead of stoichiometric amounts of oxidant or reducing agents is definitely appealing for economic, ecological and selective, reasons. In this review, we try to underscore the combination of the electrosynthesis with Diels-Alder cycloaddition reaction to establish of a powerful synthetic tool which may encourage synthetic organic chemists to use it in the future.

**Keywords:** Diels-Alder reaction, Electrosynthesis, Multicomponent reaction, Carbon-carbon bond formation, Cycloaddition