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Probing the electron transfer mechanism of the half-sandwich iron(II)-carbonyl complexes and their catalysis on proton reduction

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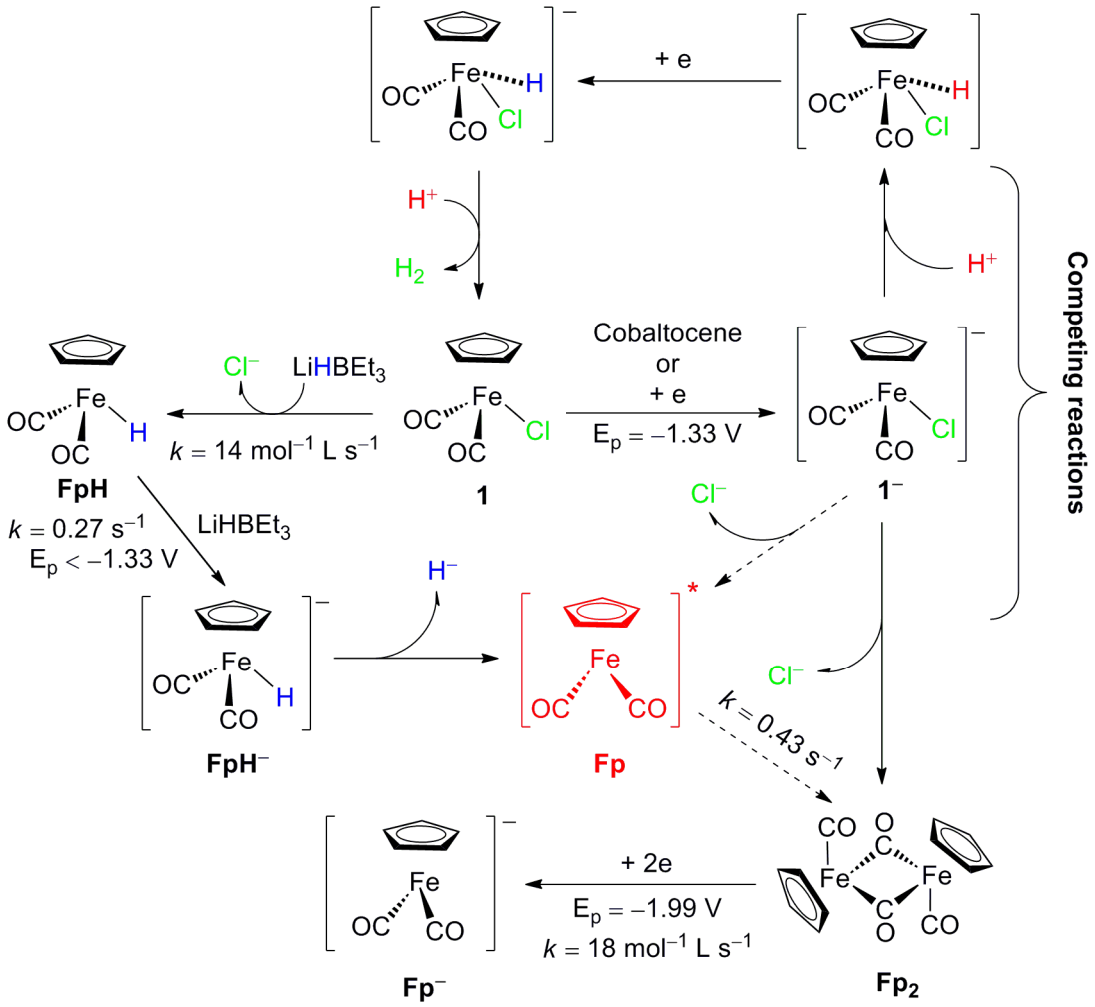
Graphic abstract



By using cyclic voltammetry and stop-flow infrared spectroscopic technique combining with chemical reduction, the electron transfer process of half-sandwich iron(II) complex **1** and coupled chemical reaction were well established and kinetic parameters for related reactions were derived.