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2-(1-(Benzylimino)ethyl)phenol as anticorrosive compound supported with Quantum chemical calculations

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Abstract : Corrosion inhibitions in corrosive solutions of hydrochloric acid for mild steel by chemical compound BEB (2-(1-(benzylimino)ethyl)phenol) had been investigated at 303K via weight loss technique. The outcomes show that the BEB displays great performances as inhibitor for mild steel in 1M hydrochloric acid. Inhibition efficiency increments with expanding of concentration and become 89.3% at the highest studied concentration. The results demonstrate that restraint happens by adsorption of the inhibitor on mild steel surface. The adsorption of BEB depending on adsorption isotherm of Langmuir. Quantum computations utilizing DFT with B3LYP/6-31G* level of hypothesis was utilized to estimate electr.
Keywords: isotherm; Langmuir; Quantum; BEB; Benzylimino.

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