

Turkish Journal of Chemistry



Turkish Journal

of

Chemistry

Electrooxidation of hydrazine by carminic acid as a mediator on a glassy carbon electrode

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 [Keywords](#)
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Abstract: Electrocatalytic oxidation of hydrazine on a glassy carbon electrode with carminic acid as a homogeneous mediator in 0.1 M phosphate buffer solution (pH 8.0) was studied. Cyclic voltammetry study showed that the catalytic current of the system depends on the concentration of hydrazine. The magnitude of the peak current obtained by linear sweep voltammetry for carminic acid increased sharply in the presence of hydrazine and proportional to the hydrazine concentration in the ranges of 5.0-800.0 μ M and the

detection limit was $3.0 \mu\text{M}$ by this technique. The detection limit was promoted by differential pulse voltammetry and decreased to $0.03 \mu\text{M}$. The diffusion