

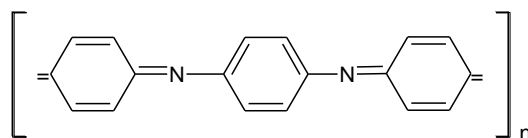
## 23. Synthesis and Characterization of Benzoquinone- Diamine polymer

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### ABSTRACT

An attempt has been made to synthesize Benzoquinone-diamine polymer by polycondensation reaction of aromatic diamine with p-benzoquinone. Quinone-diamine polymer was obtained by the condensation reaction of 0.01 mole of diamine with 0.01 mole of p-benzoquinone by conventional heating under as well as by microwave irradiation. The resulting polymer was black in colour, slightly soluble in alcohol & other common organic solvents. The structures of all these polymers have been confirmed on the basis of elemental analysis, chemical properties, IR and PMR- spectral data. The synthesized polymer is expected to possess electrical conductivities.

Polymer with aromatic quinone imine backbone-



Polymer fragment

**Keywords:** P-Benzoquinone. P-phenylene diamine, poly-condensation