

# **Calculation of Parameters Associated With the Design of Industrial Wastewater Treatment and Reclamation of Razi Petrochemical Co, for the Purpose of Removing Nitrogen and Phosphorus Compounds.**

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The removal of nitrogen and phosphorus wastewater has attracted worldwide attention due to the adverse effects of these pollutants, which cause the growth of algae and aquatic plants. In this study, we investigated the removal of phosphate ion by magnetic graphene oxide. The parameters of pH, adsorbent content, initial concentration, contact time and temperature were investigated. Further isotherm studies were performed on the data. The isotherm results show that the Langmuir model for adsorption of phosphate by graphene oxide at different concentrations and at different temperatures was adapted. The results also showed that graphene oxide is a suitable adsorbent for phosphate removal water. The highest adsorption percentage was 93.4% at pH = 6 adsorbent at 3 h.

**Keywords :** Phosphorus, Nitrogen, Industrial Wastewater, Uterification, Graphene Oxide, Razi Petrochemical

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