

Ahmed et al. [21] investigated, this study investigated the treatment of dairy wastewater using the electrocoagulation method with iron filings as electrodes. Due to its effects on the environment and to comply with local legislations, treating these wastewaters using eco-friendly processes was highly recommended taking in consideration the economic feasibility, flexibility and easiness to operate. The respective optimum value was 1 cm for the distance between electrodes, (60–120) min for detention time, 250 mg NaCl/L added, C0/6= 5,775 mg COD/L as initial COD concentration, and 7.884– 8.077 mA/cm² as current provided. The Response Surface Methodology (RSM) was used to optimize five experimental variables at six levels for each variable, for estimating chemical oxygen demand (COD) removal efficiency. These variables were the distance between electrodes, detention time, dosage of NaCl as electrolyte, initial COD concentration, and current density. RSM was investigated the direct and complex interaction effects between parameters to estimate the optimum values. Meanwhile, the study also performed removal efficiency for nitrogen (N) and phosphate (P) due to their effects on the aquatic life and systems. The optimum removal efficiency for phosphorus and nitrogen was 98.0% and 80.3%, respectively.