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Cell Growth and Carotenoids Production by Moroccan Strain of *Dunaliella Salina*

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Abstract: The cell growth and carotenoids production were studied in halophilic green algal, *Dunaliella salina* (Morocco-10) in the Sidi Abed salt lagoon using a batch system in order to determine optimal conditions (salinity, incubation temperature, pH, and cultivation time) for the highest production of carotenoids. The optimum cell growth (8.99 cells*10^6 ml^{-1}) was obtained in a salinity of 2.25mol l^{-1} at 30°C and pH 7.5 during 120 h of cultivation time. Maximum carotenoid accumulation (2.71 µg ml^{-1}) was obtained using the same salinity and cultivation time at 37°C and pH 7.5.

Keywords*:* Carotenoids, Cell growth, *Dunaliella salina,* Green algal, Moroccan strain, Optimal conditions