

Study on the Effect of Culture Media on Cell Density and Specific Growth Rate of *Scenedesmus obliquus*

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Abstract

The present study provides information of the effect of three culture media, viz. Tamiya, Trenkenshu and Guillard (f/2) on specific growth rate and cell density in alga *Scenedesmus obliquus* Kützing. The alga was isolated from the south cost of the Caspian Sea (the beach of Noor Town) and then it was purified and cultured in three media with three replications for each. Cell count was daily conducted with three replications by a hemocytometer and growth curves were plotted by excel. After calculating the specific growth rate, the one-way ANOVA was used to compare obtained values. The results of the present study showed that the highest density of cells (17×10^6 cell per mile liter) was in Trenkenshu culture medium, and the lowest density of cells (7×10^6 cell per mile liter) was in Guillard medium.

Keywords: *Green algae*, *Scenedesmus obliquus*, *Specific growth rate*, *Cell density*, *Caspian Sea*.
