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Optimization of cultural conditions for enhancing biopigment - phycocyanin production by *Westiellopsis* species

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ABSTRACT

To increase the phycocyanin production and to use them as natural colorants, the following different approaches *viz.*, screening of the cyanobacterial cultures and standardization of culture conditions for maximum phycocyanin production was studied. Among the different cyanobacterial genera screened for the maximum phycocyanin pigment production the genus *Westiellopsis* was found to be superior in phycocyanin production. The phycocyanin production was significantly enhanced by the parameters *viz.*, 35^{0}C temperature, alkaline pH (9.0), red color light, 3000 lux light intensity, sodium carbonate as carbon source and potassium nitrate as nitrogen source. Among the cyanobacterial cultures studied, *Westiellopsis*-ARM 48 produced maximum phycocyanin content.

Key words : Cyanobacteria, Phycocyanin, pH, Temperature

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