



ChemTech

## International Journal of ChemTech Research

CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555  
Vol.10 No.6, pp 980-985, 2017

# Studies on the Seasonal Variation of Physicochemical Characteristics of Kadiyapattanam Estuary, the South West Coast of India

\*Sreekala. S, H. Mary Helen

P.G and Research Department of Chemistry, S.T. Hindu College, Nagercoil,  
Kanyakumari District, Tamil Nadu, India

**Abstract :** The objective of the study is to evaluate the physicochemical parameters of river Valliyar adjacent to Kadiyapattanam estuary. For the present study, five sampling stations were identified and water samples were collected for a period of twelve months from June 2015 to May 2016 covering, the monsoon (June-September), post-monsoon (October-January) and pre-monsoon (February-May) seasons. Seasonal variation of physicochemical characteristics of surface water such as water temperature, pH, electrical conductivity, TDS, Alkalinity, Total hardness, sodium, nitrate, chloride, and dissolved oxygen was estimated for the collected samples. Station I (Kadiyapattanam estuary) shows higher values of electrical conductivity, TDS, Total hardness, Sodium, and chloride, in all seasons throughout the study period compared to other stations. Highest value was recorded in Station I at pre monsoon seasons may be due to increase in rate of evaporation. Water quality parameters may vary due to different environmental and climatic conditions, geological location, agricultural practice and land run off during rainy seasons. All stations show values below the acceptable limits except estuary station.

**Keywords :** Water, seasons, physicochemical characteristics, pollutant, estuary.

Sreekala *et al* /International Journal of ChemTech Research, 2017,10(6): 980-985.

\*\*\*\*\*