

Estimation of Few Chemical Constraints of Industrial Effluents by Spectroscopy

Vipul Purohit¹, Sanjay Shukla¹, Dr. Ramesh Yamgar²

Department of Chemistry, Thakur College of Science and Commerce, Kandivali, Mumbai, Maharashtra¹

Department of Chemistry, C. S's Patkar Varde College, Goregaon (W), Mumbai, Maharashtra²

vipulpurohit7@gmail.com

Abstract: Purified water is an integral constituent for the subsistence of healthy life of human beings plants & animals. As part of the growing industrialization, there are various chemical industries located at Ambernath Maharashtra Industrial Development Corporation (MIDC) zone. The various chemical effluents from different chemical industries are discharged into the Waldhuni and Ulhas rivers. This results in the rise of the water pollution of these rivers. The present studies involve observations which were carried out post lockdown due to the Covid pandemic. The results obtained were very alarming with reference to the standards set by the Environmental Pollution Act, the Central Pollution Control Board (CPCB) the Maharashtra Pollution Control Board (MPCB) The instrumental spectroscopic techniques were carried out to estimate quantitatively certain chemical species. The instrumental methods are preferred over conventional volumetric and gravimetric estimation with respect to accuracy, sensitivity reproducibility (Precision) and speed of analysis. The results obtained from the different instrumental analysis for the Waldhuni and Ulhas rivers were compared and thus provided a platform of Comparison with reference to various chemical parameters.

Keywords: Industrialization, Rivers, AAS, Spectrophotometric, Fluorescence Spectroscopy, CPCB, MPCB, EPA

REFERENCES

- [1]. Adefemi S. O. and E. E. Awokunmi, (2010), Determination of Physico-chemical parameters and heavy metals in water samples from Itaogbolu area of Ondo-State, Nigeria, African
- [2]. Journal of Environmental Science and Technology, 4(3), pp 145-148. 2. Adeyeye EI, (1994),
- [3]. ASTM International, (2003), Annual Book of ASTM Standards, World Health Organization (W.H.O.) (1998) Guideline for drinking water quality.