

Past and Present Research Systems of Green Chemistry

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Physico-chemical analysis of drinking water of Kheda district Gujarat, India

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Physico-Chemical analysis such as temperature, pH, dissolved Oxygen (DO), total dissolved solids (TDS), electrical conductivity (EC), total alkalinity (TA), calcium hardness (CaH), magnesium hardness (MgH), chloride (Cl), sulphate (SO₄-2), Nitrate (NO₃-1) of water samples of twenty villages of Kheda District, Gujarat state, India was carried out. Quality of water is an important factor for drinking and in some villages it was found to have maximum limit and minimum tolerance range for drinking water. The experimental values of water samples were compared with standard values given by world health organization (WHO) and Indian standards. The results show that quality of water is poor but quite good for drinking and irrigation purposes respectively. The present talk deals with the study that phosphate parameters are higher than the prescribed values. The higher values of phosphate are mainly due to the use of fertilizers and pesticides by the people residing in this area. If phosphate is consumed in excess, phosphine gas is produced in gastro-intestional tract on reaction with gastric juice, similarly nitrate parameter is higher than the tolerance range. Nitrate, nitrogen is one of the major constituents of organism along with carbon and hydrogen as amino acids proteins and organic compounds in the drinking water. All the parameters were carried out during 2012-2013 in order to assess water quality index.

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