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# Assessment of water quality trend in some selected hydrometric stations (Atrak River, Iran)

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In this study in order to assess hydro-chemical trend of Atrak River and to evaluate water quality of this river, some 790 chemical analysis samples from 3 hydrometric stations (Maraveh, Chat and Hootan) were used. These data were measured from 1979 to 2005 and the stations are located in main branch of Atrak River. In any sample the following hydro-chemical characteristics were measured: PH, EC, SAR, TDS and Current cations and anions accumulation. Initially, data were evaluated on the bases of various methods to correct the outsized mistakes and to delete the outliers data. Assessment of electrical conductivity as the salinity index shows that by crossing toward the downstream, electrical conductivity (EC) was increased. Also data analyses results indicate the high correlation coefficient between discharge and PH, EC, SAR, TDS and Current cations and anions accumulation, which provides the possibility of estimation above mentioned factors on the bases of observed discharges. Comparing the value of PH, Current cations and anions accumulation form the initial years with the final years, showed a significantly changes according to the results of t Statistical index test.

**Keyword:** Water quality; hydro-chemical trends; human affects; EC; PH; Atrak River.