

## عنوان مقاله:

Geographic Information System for distribution of groundwater fluoride levels in Iranian city of Dehloran

## محل انتشار:

مجله پیشرفت در تحقیقات بهداشت محیط, دوره 5, شماره 1 (سال: 1395)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

Humans are faced with serious problems due to the unfit fluoride levels in potable water, which cause skeletal and dental fluorosis. Therefore, correct information regarding fluoride level in water resources is important in community dentistry, however this data is missing at national level. The aim of this descriptive-analytical study was to explore and map fluoride dispersion patterns of groundwater by Arcview GIS 9.3 software in April 2013 to March 2014 in Dehloran, Ilam County, located in western Iran. Water sampling was carried out on 8 wells which are sources of drinking water. The analytical technique applied for fluoride determination on 96 water samples was spectrophotometry by the SPADNS method according to the standard method. Fluoride concentration changed from 0.24 to 1.03mg/l with a mean of  $0.48 \pm 0.12$  mg/l. Approximately, 0% of the samples are above 1mg F/L. The appropriate percentage for human consumption limit is about 17.7% of water samples. Although 82.29% of the water samples were having less than the permissible range of 0.6 mg/l, there is a statistically significant relationship between the monthly average fluoride concentrations in each well. However, no significant associations were found between the average fluoride concentrations of different wells in each month.

## کلمات کلیدی:

Drinking Water, Fluorides, GIS, Ground Water Resources

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/753865>

