

## عنوان مقاله:

Assessment of the treated wastewater quality for groundwater recharge and agricultural reuse

## محل انتشار:

نخستین کنفرانس ملی چالش های محیط زیست: صنعت و معدن سبز (سال: 1401)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

Present study tries to demonstrate the crucial role of assesmenting the quality of Eshtehard treated wastewater, located in the southwest of Alborz province, Iran, on suitability for groundwater recharge and its irrigation uses based on local (IDOE) and global (FAO) standards. By taking and analyzing three wastewater samples from WWTP (wastewater treatment plant) for physicochemical, microbiological and heavy metals the experiment was carried out during spring and summer, April to August ۲۰۱۹. Analytical results indicated that all parameters such as pH, electrical conductivity, major ions (Na<sup>+</sup>, K<sup>+</sup>, Ca<sup>۲+</sup>, Mg<sup>۲+</sup>, HCO<sub>3</sub><sup>-</sup>, CO<sub>3</sub><sup>۲-</sup>, Cl<sup>-</sup>, SO<sub>4</sub><sup>۲-</sup>, NO<sub>3</sub><sup>-</sup>), BOD<sub>5</sub>, COD, Coliform and Focal Coliform have an increasing trend over time and the values that were obtained in June and August were above the limited standard values and the results of most of the irrigation indices such as TH, SAR, RSC, SP and MAR were above the limited standard values. Therefore, most of the samples were not suitable for reuse. The analysis of heavy metals (As, Cd, Co, Cr, Cu, Fe, Mn, Ni, Pb, V, Zn) has also done, although the concentration changes varied over time .for the elements, all were below the allowed limit and the effluent was not contaminated

## کلمات کلیدی:

Hydrogeochemistry; Wastewater reuse; Physicochemical analyses; Eshtehard treated wastewater

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1491830>

