

عنوان مقاله:

Evaluation of different forms of phosphorus in western bed sediments of Urmia Lake and surrounding soils

محل انتشار:

هفتمین همایش بین المللی مهندسی کشاورزی و محیط زیست با رویکرد توسعه پایدار (سال: 1401)

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خلاصه مقاله:

Phosphorus is one of the essential elements of the plant that is found in various chemical and biochemical forms in the soil, therefore phosphorus is susceptible to the effects of processes and environmental conditions. This research was carried out with the aim of investigating the distribution of different forms of phosphorus and its ability to function in three areas of the orchards, agricultural, marginal lands and sediments of Urmia Lake. In this research, extraction was used except for one, which is one of the practical and simple tools for evaluating the state of phosphorus in the soil. Available phosphorus, total phosphorus, organic phosphorus and inorganic phosphorus plus several inorganic forms were measured in sediments of Urmia Lake and physicochemical parameters of soil were also studied. The results indicate that the region is oscillating in terms of acidity and alkalinity in the range of neutral and alkaline, and the amount of lime in the region is relatively high. The sedimentary texture of Urmia Lake samples is generally silty, and the soil texture in the A and B regions is sandy loamy (light). Mean concentrations of different forms of phosphorus including KCl-P, NaOH-P, HCl-P and Res-P in area A were measured to be ۹.۵۵, ۲۳.۹۵, ۲۰۱.۱۵, and ۱۷۵.۱۶ mg.kg, in area B was obtained ۷.۷۶, ۲۹.۵۴, ۱۹۶.۵۴ and ۱۵۰.۴۳ mg.kg, in the region C was obtained ۷.۶۰, ۳۹.۱۹, ۱۰۷.۳۵ and ۱۴۴.۲۵ mg.kg. In general, different forms of phosphorus have a significant relationship with acidity and alkalinity and calcium carbonate.

کلمات کلیدی:

Inorganic Phosphorus, Organic Phosphorous, Sediment, Urmia Lake

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