



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون أية تغيرات



يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %



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بعض الوثائق الأصلية تالفة



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بالرسالة صفحات
لم ترد بالأصل

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SELECTIVE ADSORPTION OF
IONS ON SOME SOIL EXCHANGERS

BY

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the requirements for the degree of
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APPROVAL SHEET

SELECTIVE ADSORPTION OF IONS ON SOME SOIL EXCHANGERS

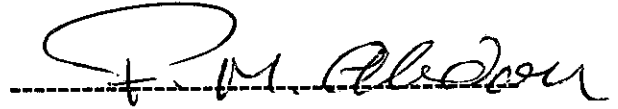
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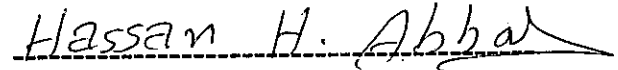
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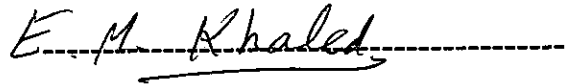
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ABSTRACT

Four clay minerals, namely, kaolinite, illite, playgořskite and bentonite along with three soil clays separated from Shalakan, El-Hammol and Maryout areas were subjected to equilibrium with 0.01 N chloride solutions having different Ca/Mg ratios varied from 10-90 to 90-10. The studied selectivity parameters showed preferential Ca^{++} adsorption relative to Mg for all the studied exchangers at the relatively lower Ca/Mg solution ratios. A clear Mg preference was recorded for all the exchangers at the relatively higher Ca/Mg

solution ratios, except for kaolinit

The same exchangers were subjected also to equilibrium with 0.01N chloride solutions having different K-Ca and K-Mg ratios varied from 10/90 to 90/10. Results showed that adsorbed K/Ca and K/Mg ratios on the investigated exchangers increased by increase of K/Ca or K/Mg solution ratios. The total adsorbed K in K-Mg systems was relatively higher than the adsorbed k in k-ca systems. Gapon coefficient was reduced by increasing k/ca and k/Mg solution ratios. Data also showed that each exchanger had hearty a constant total CEC and specific CEC (CECs) and non-specific CEC (CEC_{ns}).

The CEC_s and k_s for K-Mg systems could be arranged as follow for separated soil clays Maryout > Shalakan > El-Hammol. For K-Ca systems the arrangement was Maryout > El-Hammol > Shalakan.

Key - words : soil exchangers , selective adsorption , Kaolinite , Illite , Bentonite , Palygorskite , Ca/Mg , K/Ca , K/Mg ratios-chloride forms , Gapon coefficient , CEC_s , CEC_{ns} , K_s .

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