Accepted Manuscript

Assessing the mobilization of As, Cr, Mo, and Se in Egyptian lacustrine and calcareous soils using sequential extraction and biogeochemical microcosm techniques



Sabry M. Shaheen, Raafat A. Ali, Mohamed E. Abo Waly, Abd El-Mageed A. Rabie, Naira E. El Abbasy, Jörg Rinklebe

PII:	80375-6742(17)30227-3
DOI:	doi:10.1016/j.gexplo.2018.05.003
Reference:	GEXPLO 6147
To appear in:	Journal of Geochemical Exploration
Received date:	30 March 2017
Revised date:	29 April 2018
Accepted date:	21 May 2018

Please cite this article as: Sabry M. Shaheen, Raafat A. Ali, Mohamed E. Abo Waly, Abd El-Mageed A. Rabie, Naira E. El Abbasy, Jörg Rinklebe, Assessing the mobilization of As, Cr, Mo, and Se in Egyptian lacustrine and calcareous soils using sequential extraction and biogeochemical microcosm techniques. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Gexplo(2017), doi:10.1016/j.gexplo.2018.05.003

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Assessing the mobilization of As, Cr, Mo, and Se in Egyptian lacustrine and calcareous soils using sequential extraction and biogeochemical microcosm techniques

Sabry M. Shaheen^{1, 2*}, Raafat A. Ali¹, Mohamed E. Abo Waly¹, Abd El-Mageed A. Rabie¹, Naira E. El Abbasy¹, Jörg Rinklebe^{2,3**}

¹ University of Kafrelsheikh, Faculty of Agriculture, Department of Soil and Water Sciences,

33 516 Kafr El-Sheikh, Egypt, E-mail: smshaheen@agr.kfs.edu.eg (S.M. Shaheen);

raafatali161950@gmail.com (R. A. Ali); mabowaly@yahoo.com (M. E. Abo Waly)

² University of Wuppertal, School of Architecture and Civil Engineering, Institute of Foundation

Engineering, Water- and Waste-Management, Laboratory of Soil- and Groundwater-

Management, Pauluskirchstraße 7, 42285 Wuppertal, Germany,

E-mail: rinklebe@uni-wuppertal.de

³ University of Sejong, Department of Environment, Energy, and Geoinformatics, Seoul 05006,

Republic of Korea

**Corresponding author: Phone: ++49 202 439 4057, Fax: ++49 202 439 4196; Email address: rinklebe@uni-wuppertal.de;

*Co-corresponding author: Phone: ++2 0100 4525256; Email address: smshaheen@agr.kfs.edu.eg

Abstract

The mobilization of As, Cr, Mo, and Se in four soil profiles representing Sodic Fluvisols (lacustrine deposits) and Haplic Calcisols (calcareous deposits) in Egypt were assessed using sequential extraction and an advanced biogeochemical microcosm technique. The concentrations of total and AB-DTPA-extractable elements were determined. The geochemical fractions (acid soluble (F1), reducible (F2), oxidizable (F3), and residual (F4) fraction) of the elements were extracted using the Commission of the European Communities Bureau of Reference (BCR)

Download English Version:

https://daneshyari.com/en/article/8865875

Download Persian Version:

https://daneshyari.com/article/8865875

Daneshyari.com