

# Accepted Manuscript

Phytoremediation of barium-affected flooded soils using single and intercropping cultivation of aquatic macrophytes



Cássio Francisco Moreira de Carvalho, Douglas Gomes Viana, Fábio Ribeiro Pires, Fernando Barboza Egreja Filho, Robson Bonomo, Luiz Fernando Martins, Leila Beatriz Silva Cruz, Mauro César Pinto Nascimento, Alberto Cargnelutti Filho, Paulo Roberto da Rocha Júnior

PII: S0045-6535(18)31751-X

DOI: 10.1016/j.chemosphere.2018.09.096

Reference: CHEM 22176

To appear in: *Chemosphere*

Received Date: 28 June 2018

Accepted Date: 16 September 2018

Please cite this article as: Cássio Francisco Moreira de Carvalho, Douglas Gomes Viana, Fábio Ribeiro Pires, Fernando Barboza Egreja Filho, Robson Bonomo, Luiz Fernando Martins, Leila Beatriz Silva Cruz, Mauro César Pinto Nascimento, Alberto Cargnelutti Filho, Paulo Roberto da Rocha Júnior, Phytoremediation of barium-affected flooded soils using single and intercropping cultivation of aquatic macrophytes, *Chemosphere* (2018), doi: 10.1016/j.chemosphere.2018.09.096

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.

**Phytoremediation of barium-affected flooded soils using single and intercropping cultivation of aquatic macrophytes**

Cássio Francisco Moreira de Carvalho <sup>A</sup>, Douglas Gomes Viana <sup>B</sup>, Fábio Ribeiro Pires <sup>A\*</sup>, Fernando Barboza Egreja Filho <sup>C</sup>, Robson Bonomo <sup>A</sup>, Luiz Fernando Martins <sup>D</sup>, Leila Beatriz Silva Cruz <sup>E</sup>, Mauro César Pinto Nascimento <sup>E</sup>, Alberto Cargnelutti Filho <sup>F</sup>, Paulo Roberto da Rocha Júnior <sup>G</sup>

<sup>A</sup> Department of Agricultural and Biological Sciences, Federal University of Espírito Santo, São Mateus, ES, Brazil

<sup>B</sup> Department of Soil Science, “Luiz de Queiroz” College of Agriculture, University of São Paulo, Piracicaba, São Paulo, Brazil

<sup>C</sup> Chemistry Department - ICEX - Federal University of Minas Gerais, Belo Horizonte, MG, Brazil

<sup>D</sup> Petrobras Research and Development Center (CENPES), Rio de Janeiro, RJ, Brazil

<sup>E</sup> Environmental Engineering area of Petrobras (E&P-UO-ES/SMS/MA), Vitória, ES, Brazil

<sup>F</sup> Division of Plant Experimentation, Department of Crop Sciences, Federal University of Santa Maria, RS, Brazil

<sup>G</sup> Senior Researcher at Startup Rizoma - Itirapina, SP, Brazil

\* Corresponding author

Tel.: +55 (27) 3312-1535

E-mail addresses: [pires.fr@gmail.com](mailto:pires.fr@gmail.com) (F. R. Pires)

Download English Version:

<https://daneshyari.com/en/article/10223404>

Download Persian Version:

<https://daneshyari.com/article/10223404>

[Daneshyari.com](https://daneshyari.com)