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Editorial Announcement

We are sorry to announce that the article

Adsorptive removal of cadmium (II) using *P. oceanica* biomass: Effect of NaCl concentration on equilibrium and kinetic parameters
by Fouad Krika, Noureddine Azzouz, Mohamed Chaker Ncibi

published in *Desalination and Water Treatment* vol. 51 (22–24) (2013) pp. 4413–4423

has been plagiarized from the article
Pb(II) biosorption on *Posidonia oceanica* biomass
by Fella-Naouel Allouche, Nabil Mameri, Eric Guibal

published in the *Chemical Engineering Journal* vol. 168(3) (2011) pp. 1174–1184.

The authors have copied the text (section 4.1) and image (Fig. 8) from the above article without citing the original source.

The following is the message of Dr. Fella-Naouel Allouche:

Letter to the Editor

Plagiarism and cheating of the paper "Adsorptive removal of cadmium (II) using ***P. oceanica*** biomass: effect of NaCl concentration on equilibrium and kinetic parameters" by Fouad Krika, Noureddine Azzouz and Mohamed Chaker Ncibi published in ***Desalination and Water Treatment*** 51, 22-24, 4413–4423, June 2013.

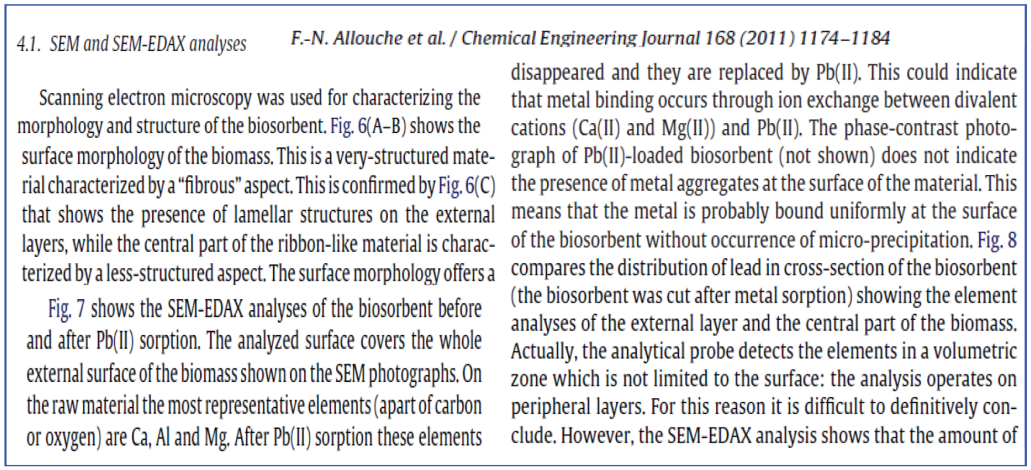
I am very sorry to announce plagiarism by Fouad Krika, Noureddine Azzouz and Mohamed Chaker Ncibi not only in one journal but in two different journals.

- *Desalination and Water Treatment*.
  Fouad Krika, Noureddine Azzouz and Mohamed Chaker Ncibi, "Adsorptive removal of cadmium (II) using *P. oceanica* biomass: effect of NaCl concentration on equilibrium and kinetic parameters." *Desalination and Water Treatment*, June 2013, Volume 51, Issues 22-24, pp. 4413–4423, doi: 10.1080/19443994.2013.767214, published online 11 February 2013.
- I*nternational Journal of Environmental Science and Technology* published by Springer.
  Fouad Krika, Noureddine Azzouz, Mohamed Chaker Ncibi, "Adsorptive removal of cadmium from aqueous media using *Posidonia oceanica* biomass: equilibrium, dynamic and thermodynamic studies". *International Journal of Environmental Science and Technology*, March 2015, Volume 12, Issue 3, pp. 983–994, doi:10.1007/s13762-013-0483-x, published online 18 February 2014.

The author has copied the text and the SEM image, without citing the original source. The SEM images of *Posidonia* before and after Pb(II) sorption, have been replaced by Cd (II) before and after biosoption. Furthermore, the SEM images published by the author suppose that *Posidonia* biosorption SEM results will be the same with all heavy metals!!

The following text (section 4.1) was copied:

However, for the SEM images, you can check my original image and you can compare it with the problematic



4.1. SEM and SEM-EDAX analyses

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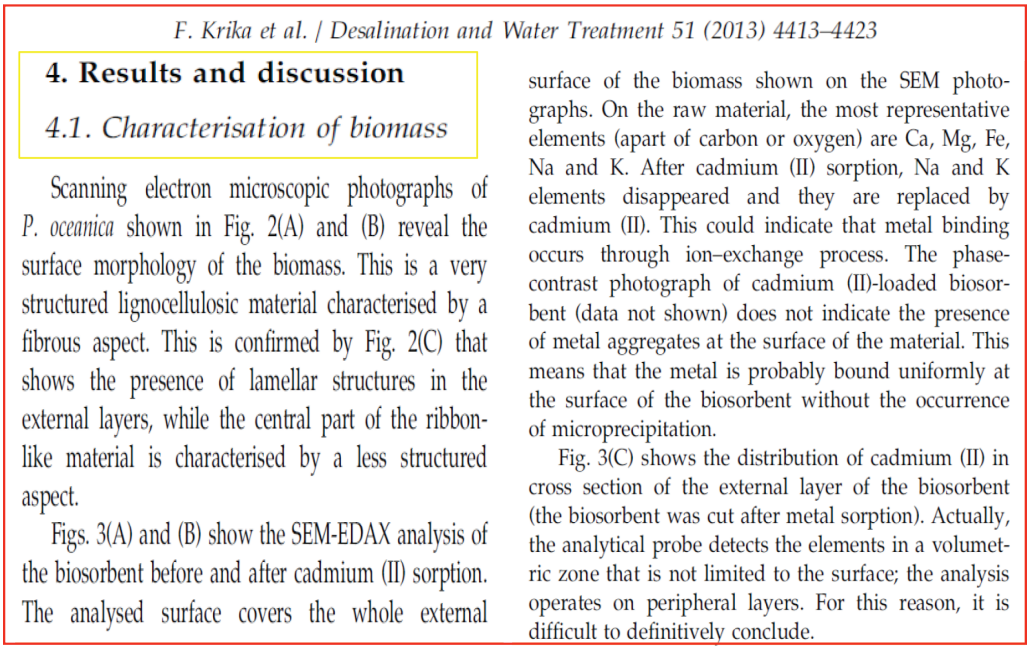
Scanning electron microscopy was used for characterizing the morphology and structure of the biosorbent. Fig. 6(A–B) shows the surface morphology of the biomass. This is a very-structured material characterized by a "fibrous" aspect. This is confirmed by Fig. 6(C) that shows the presence of lamellar structures on the external layers, while the central part of the ribbon-like material is characterized by a less-structured aspect. The surface morphology offers a

Fig. 7 shows the SEM-EDAX analyses of the biosorbent before and after Pb(II) sorption. The analyzed surface covers the whole external surface of the biomass shown on the SEM photographs. On the raw material the most representative elements (apart of carbon or oxygen) are Ca, Al and Mg. After Pb(II) sorption these elements disappeared and they are replaced by Pb(II). This could indicate that metal binding occurs through ion exchange between divalent cations (Ca(II) and Mg(II)) and Pb(II). The phase-contrast photograph of Pb(II)-loaded biosorbent (not shown) does not indicate the presence of metal aggregates at the surface of the material. This means that the metal is probably bound uniformly at the surface of the biosorbent without occurrence of micro-precipitation. Fig. 8 compares the distribution of lead in cross-section of the biosorbent (the biosorbent was cut after metal sorption) showing the element analyses of the external layer and the central part of the biomass. Actually, the analytical probe detects the elements in a volumetric zone which is not limited to the surface: the analysis operates on peripheral layers. For this reason it is difficult to definitively conclude. However, the SEM-EDAX analysis shows that the amount of



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4. Results and discussion

4.1. Characterisation of biomass

Scanning electron microscopic photographs of *P. oceanica* shown in Fig. 2(A) and (B) reveal the surface morphology of the biomass. This is a very structured lignocellulosic material characterised by a fibrous aspect. This is confirmed by Fig. 2(C) that shows the presence of lamellar structures in the external layers, while the central part of the ribbon-like material is characterised by a less structured aspect.

Figs. 3(A) and (B) show the SEM-EDAX analysis of the biosorbent before and after cadmium (II) sorption. The analysed surface covers the whole external surface of the biomass shown on the SEM photographs. On the raw material, the most representative elements (apart of carbon or oxygen) are Ca, Mg, Fe, Na and K. After cadmium (II) sorption, Na and K elements disappeared and they are replaced by cadmium (II). This could indicate that metal binding occurs through ion–exchange process. The phase-contrast photograph of cadmium (II)-loaded biosorbent (data not shown) does not indicate the presence of metal aggregates at the surface of the material. This means that the metal is probably bound uniformly at the surface of the biosorbent without the occurrence of microprecipitation.

Fig. 3(C) shows the distribution of cadmium (II) in cross section of the external layer of the biosorbent (the biosorbent was cut after metal sorption). Actually, the analytical probe detects the elements in a volumetric zone that is not limited to the surface; the analysis operates on peripheral layers. For this reason, it is difficult to definitively conclude.

one. The image has been cut from my original picture, even black, pink and blue colors, which surrounded the image, are still clearly visible (Figure 8). You can see the detail in my original paper. The similarity between his images and references of SEM analysis are questionable. Even if I would like to repeat the same analysis, it is practically impossible to obtain the same image from the same sample of *Posidonia*. Moreover, their images didn't have the same SEM reference in his paper. The copied images and other SEM images, which are published in his paper, have not the same SEM reference.

1. Why did the author copy the text in two different journals without citing the original source?

Original image **Copy image**

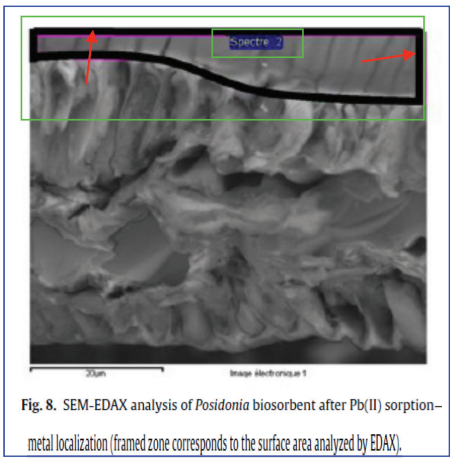


Fig. 8. SEM-EDAX analysis of *Posidonia* biosorbent after Pb(II) sorption–metal localization (framed zone corresponds to the surface area analyzed by EDAX).

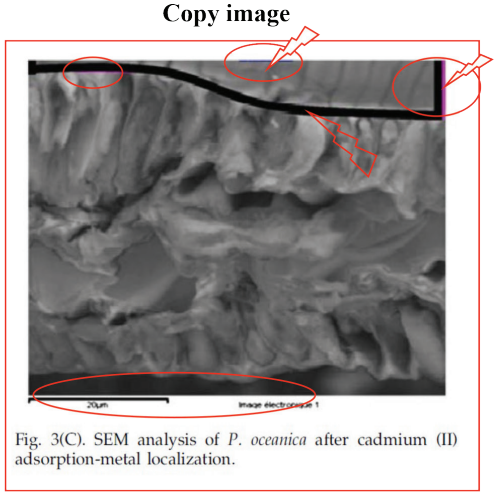
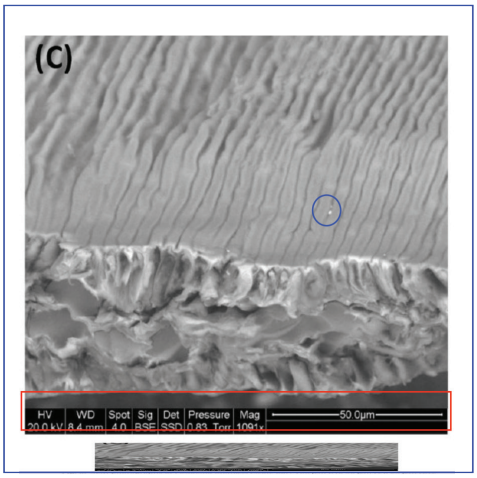


Fig. 3(C). SEM analysis of *P. oceanica* after cadmium (II) adsorption-metal localization.



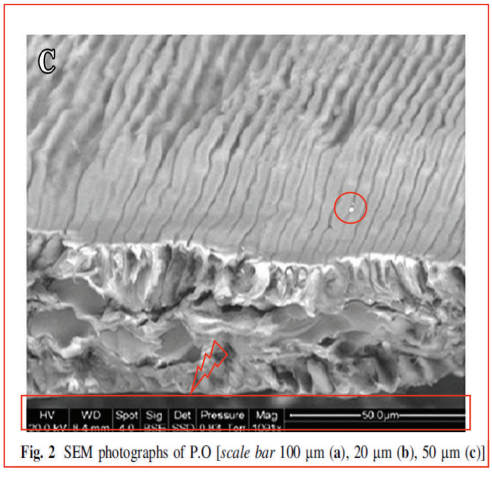


Fig. 2 SEM photographs of P.O [*scale bar* 100 µm (**a**), 20 µm (**b**), 50 µm (**c**)]

2. Why doesn't the author obtain the SEM images used in the paper with the same SEM reference?
3. How is it possible that lead biosorption is the same as the cadmium biosorption by *Posidonia*? So, if it is possible, please, give me an example in literature where by changing metals, we get the same SEM image results with the same algae.

The author needs to give a solid argument with his own results.

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