CORRECTION



Correction to: Determination of trace metal concentration in compost, DAP, and TSP fertilizers by neutron activation analysis (NAA) and insights from density functional theory calculations

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The original version of this article unfortunately contained an error in the body text and in Tables 4 and 6.

The corrected version of the sentences and Tables are given below.

The online version of the original article can be found at https://doi.org/10.1007/s10661-017-6328-1.

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Results and discussion

Page 9, under Interaction and binding of Cr, Sb, and As with DAP section, second paragraph, lines 3–6 should be rewritten as: As predicted, the binding energy, enthalpy, and the Gibbs free energy of CrO3-DAP is –87.46, –88.06, and –37.17 kcal/mol;

Page 10, under Interaction and binding of Cr, Sb, and As with DAP section, last paragraph, lines 16–18 should be rewritten as: Compared to DAP, the HOMO and LUMO energies of the CrO₃-DAP, Sb₂O₃-DAP, and AsO₃-DAP complexes are significantly changed.

Page 10, under Interaction and binding of Cr, Sb, and As with DAP section, last paragraph, lines 24–25 should be rewritten as: And the HOMO and LUMO energies of the AsO₃-DAP complex are –9.53 and –4.07 eV respectively with a HOMO–LUMO gap of 5.46 eV.

Page 9, Title of Table 4 is corrected below.

Table 4 Selected bond distances (Å) and angles (°) of all complexes calculated at the B3LYP/SDD level of theory.

Page 10, The amended and corrected Table 6 is given in the next page.



Table 6 Energies (eV) of HOMO, LUMO orbitals, and HOMO-LUMO gaps are calculated at the B3LYP/SDD level of theory for all complexes

Molecular orbitals	CrO ₃	Sb_2O_3	AsO ₃	DAP	CrO ₃ - DAP	Sb ₂ O ₃ - DAP	AsO ₃ - DAP
LUMO + 2	-1.15	-0.84	-0.76	0.07	-0.41	1.97	-0.90
LUMO + 1	-1.27	-3.55	-4.35	-0.01	-0.72	-0.51	-1.72
LUMO	-1.27	-3.55	-5.46	-1.49	-1.82	-0.62	-4.07
HOMO	-8.95	-7.47	-10.26	-9.42	-9.48	-7.10	-9.53
HOMO-1	-10.09	-7.47	-10.35	-9.52	-9.55	-7.32	-9.62
HOMO-2	-10.09	-8.52	-11.06	-9.94	-9.85	-7.41	-10.00
Gap	7.68	3.92	4.80	7.93	7.66	6.48	5.46

