Dalton Transactions



CORRECTION

View Article Online
View Journal | View Issue



Cite this: *Dalton Trans.*, 2016, **45**, 3648

Correction: Silver(1) complexes as precursors to produce silver nanowires: structure characterization, antimicrobial activity and cell viability

Nadia E. A. El-Gamel

DOI: 10.1039/c6dt90019d

www.rsc.org/dalton

Correction for 'Silver(i) complexes as precursors to produce silver nanowires: structure characterization, antimicrobial activity and cell viability' by Nadia E. A. El-Gamel, *Dalton Trans.*, 2013, **42**, 9884–9892.

In the original report, compound 1 was reported in Fig. 6 with the formula $[Ag(SPHX)_2\cdot NO_3]\cdot 2H_2O$ with a deprotonated amide sparfloxacin ligand. However, after careful re-analysis, the depicted structure does not match the reported sum formula, elemental analysis data, or represent the expected Ag(i) oxidation state. The author suggests the more feasible chemical model would be for the sparfloxacin ligand to be protonated, which fits with the reported elemental analysis data and a Ag(i) oxidation state. The author therefore suggests the following alternative elemental formula and approximate structure for compound 1:

C38H46N9O11F4Ag

Re-calculated elemental analysis:

Ag: 10.91%, C: 46.16%, F: 7.69%, H: 4.69%, N: 12.75%, O: 17.80%

Analysis found (as reported in the paper):

C: 46.11; H, 4.68; N, 12.74%.

Compound 2 was reported as $[Ag(ENRX)_2 \cdot NO_3] \cdot 2H_2O$ in Fig. 6 as a silver complex of two deprotonated enrofloxacin (ENRX) ligands. The author regrets that the charge balance and oxidation of the complex were both incorrect and suggests an alternative elemental formula and Ag(I) structure with two protonated ENRX ligands:

C₃₈H₅₀N₇O₁₂F₂Ag

Re-calculated elemental analysis:

Ag: 11.44%, C: 48.42%, F: 4.03%, H: 5.35%, N: 10.40%, O: 20.37%

Analysis found (as reported in the paper):

Found: C, 48.52; H, 5.11; N, 10.43%.

Dalton Transactions

In the abstract, compound 1 was incorrectly described as [Ag(SPHX)₂·NO₃]·3H₂O. The formula should read [Ag(SPHX)₂NO₃]·2H₂O, representing the number of associated water molecules described in Fig. 6. Compound 2 was also incorrectly described as [Ag(ENRX)₂·NO₃]·2H₂O; the correct formula of compound 2 is [Ag(ENRX)₂NO₃]·3H₂O, as reported in Fig. 6. The corrected structures of 1 and 2 are displayed in the revised Fig. 6 shown below:

Fig. 6 The proposed structures of the silver complexes 1 and 2.

Upon careful re-examination of the analytical data presented in this manuscript, the exact coordination mode of Ag⁺ in these two compounds remains elusive. Despite this, the author would like to state that the characterisation data for the precursor compounds 1 and 2 is reliable to the best of their knowledge and that this does not affect the primary conclusions of the paper: that the complexes 1 and 2 can be thermally degraded to form silver nanowires and that these materials show significant antimicrobial, antifungal and cytotoxic activities.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.