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

Nadia E. A. El-Gamel

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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 $[\text{Ag}(\text{SPHX})_2 \cdot \text{NO}_3] \cdot 2\text{H}_2\text{O}$ 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**:



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 $[\text{Ag}(\text{ENRX})_2 \cdot \text{NO}_3] \cdot 2\text{H}_2\text{O}$ 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:



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%.



In the abstract, compound **1** was incorrectly described as $[\text{Ag}(\text{SPHX})_2 \cdot \text{NO}_3] \cdot 3\text{H}_2\text{O}$. The formula should read $[\text{Ag}(\text{SPHX})_2 \cdot \text{NO}_3] \cdot 2\text{H}_2\text{O}$, representing the number of associated water molecules described in Fig. 6. Compound **2** was also incorrectly described as $[\text{Ag}(\text{ENRX})_2 \cdot \text{NO}_3] \cdot 2\text{H}_2\text{O}$; the correct formula of compound **2** is $[\text{Ag}(\text{ENRX})_2 \cdot \text{NO}_3] \cdot 3\text{H}_2\text{O}$, as reported in Fig. 6.

The corrected structures of **1** and **2** are displayed in the revised Fig. 6 shown below:

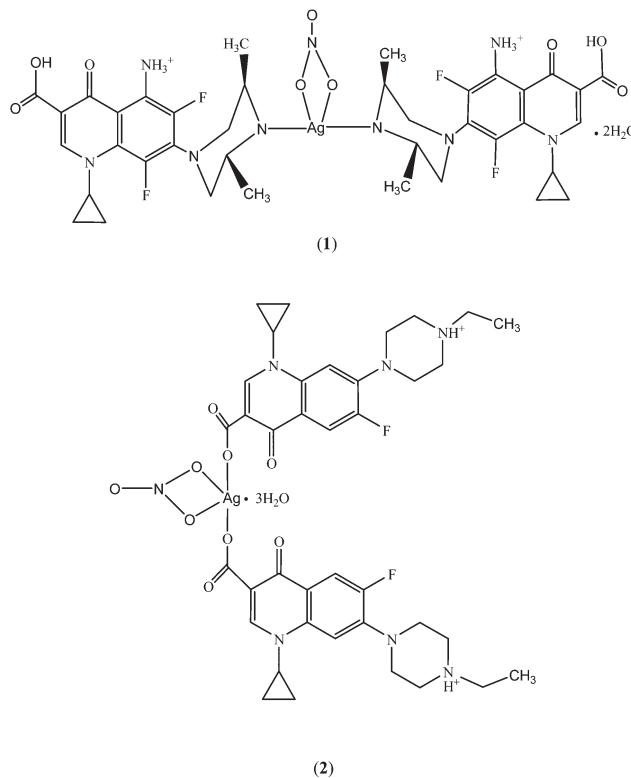


Fig. 6 The proposed structures of the silver complexes **1** and **2**.

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.

