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CORRECTION

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Correction: Antiproliferative activity of Ni(II), Cu(II), and Zn(II) complexes of dithiocarbamate: synthesis, structural characterization, and thermal studies

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Correction for 'Antiproliferative activity of Ni(II), Cu(II), and Zn(II) complexes of dithiocarbamate: synthesis, structural characterization, and thermal studies' by Anupam Singh *et al.*, *Dalton Trans.*, 2024, **53**, 1196–1208, https://doi.org/10.1039/D3DT03724J.

The authors regret the errors in the assignment of the oxidation state and geometry of the iron and cobalt (dithiocarbamate) complexes (**1** and **2**). In the original paper, the iron and cobalt (dithiocarbamate) complexes were reported in +2 oxidation state with tetrahedral geometry. In fact, these complexes are air-sensitive and tend to oxidize readily into Fe(III) and Co(III) tris (dithiocarbamate) complexes with octahedral geometry.[1,2]

In view of these inaccuracies, the Fe(II) and Co(II) dithiocarbamate complexes and their properties throughout the paper including the title (as reflected in the title shown here) should be omitted.

This correction will not affect the conclusions or the main finding of the manuscript (kindly refer to the slightly modified version of the conclusion as given below).

Conclusion: In summary, three new complexes have been prepared and characterized by various techniques. Further Cu(II) and Zn(II) complexes were characterized by single crystal-X-ray data. The structures of Cu(II) and Zn(II) complexes are stabilized by intermolecular hydrogen bonding. Single-crystal X-ray data reveals that the Cu(II) complex has distorted square planar geometry whereas the Zn(II) complex has distorted tetrahedral geometry around the central metal ions. In the Zn(II) complex, the bonded dithiocarbamate moiety of the ligand uses the second sulfur to bridge the two Zn(II) centers resulting in a binuclear dimeric Zn(II) complex. The thermal studies of the metal complexes as analyzed by TG-DTA data, showed strong evidence for the formation of their respective metal sulfide at higher temperatures. The cytotoxic efficacy of the ligands and their metal complexes were examined on DL cells. Cytotoxicity assay results indicate that complexes have significant cytotoxic potential as compared to the free ligand. Complexes have significant antitumor activity against malignant lymphoma cells *in vitro* and *in vivo* in an animal model of lymphoma. In comparison to the standard drug cisplatin, the coordinate complexes are superior with reference to the IC_{50} value, indicating better applicability against malignant lymphoma. The Zn(II) complex was significantly tumoricidal both *in vitro* and *in vivo*. The cytotoxicity study suggests that the Zn(II) complex may be used as an antitumor agent. These applications of complexes will give new insights into the further development of anticancer drugs based on transition metal ions.

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

References

1 G. Hogarth, *Prog. Inorg. Chem.*, 2005, **53**, 71–561.
2 G. Hogarth, *Mini-Rev. Med. Chem.*, 2012, **12**, 1202–1215.

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