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RETRACTION



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Retraction: Cation substitution effects (Mn, Ni, and Zn) on ZIF-67 derived spinel modified with 3DGO for the detection of NO_2 gas with high sensitivity and selectivity

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Retraction of 'Cation substitution effects (Mn, Ni, and Zn) on ZIF-67 derived spinel modified with 3DGO for the detection of NO₂ gas with high sensitivity and selectivity' by Banalata Maji *et al.*, *Environ. Sci.: Nano*, 2024, **11**, 3637–3656, **https://doi.org/10.1039/D3EN00205E**.

The Royal Society of Chemistry hereby wholly retracts this *Environmental Science: Nano* article due to concerns with the reliability of the data.

In the XRD data in Fig. 1, there are sections of the traces for $NiCo_2O_4$ and $MnCo_2O_4$ that are identical, and a repeating fragment in the ZIF-67 trace.

The authors have stated that a human error occurred while plotting the data from Excel to the Origin file by copy-pasting the same XRD graph in the $MnCo_2O_4$ data plot. Regarding the ZIF-67 trace, the authors admit that there were no data after 40°, and this baseline was added.

The authors have provided the raw data, and requested a correction. The independent expert we consulted was not satisfied with the explanation provided by the authors.

Given the significance of these concerns, the Editor has lost confidence that the findings presented in this paper are reliable. The authors were informed about the retraction of the article. Banalata Maji, Priyabrat Dash, Adyasha Das and Bapun Barik have not agreed with the decision.

Signed: Jon Ferrier, Executive Editor, *Environmental Science: Nano* Date: 12th May 2025

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