

Abnormal Citing Patterns on 10.1007/s10854-024-12166-7

Abnormal citing patterns are observed on the article [1], which cites a total number of 52 references, but 10 (about 19%) of them were coauthored by the Trukhanov family. One of those 10 references are relevant both to the topic of the article [1] and the citing statement, however, the other 9 (about 17% of the total reference) are irrelevant to the the topic of the article [1] or the citing statement. They were also heavily concentrated in Ref 2-4, 6-8 and 12-14, suggesting manipulation.

Facile synthesis of MnO ₂ /g-C ₃ N ₄ for photocatalytic reduction of methylene blue dye under visible light DOI: 10.1007/s10854-024-12166-7		
Citing Statement	Reference	Relevant
Although numerous methods have been employed to purify polluted water, the renewable nature of solar energy has generated considerable interest in visible light-based photocatalysis [2–4]	2. D.A. Vinnik, D.P. Sherstyuk, V.E. Zhivulin, D.E. Zhivulin, A.Y. Starikov, S.A. Gudkova, D.A. Zherebtsov, D.A. Pankratov, Y.A. Alekhina, N.S. Perov, S.V. Trukhanov , E.L. Trukhanova, A.V. Trukhanov , Ceram. Int. 48, 18124 (2022) "Effect of Co content on magnetic features and SPIN states IN Ni–Zn spinel ferrites" 3. M. Hassan, Y. Slimani, M.A. Gondal, M.J.S. Mohamed, S. Güner, M.A. Almessiere, A.M. Surrati, A. Baykal, S. Trukhanov , A. Trukhanov , Ceram. Int. 48, 24866 (2022) "Structural parameters, energy states and magnetic properties of the novel Se-doped NiFe ₂ O ₄ ferrites as highly efficient electrocatalysts for HER" 4. S.V. Trukhanov , A.V. Trukhanov , V.A. Turchenko, A.V. Trukhanov , E.L. Trukhanova, D.I. Tishkevich, V.M. Ivanov, T.I. Zubar, M. Salem, V.G. Kostishyn, L.V. Panina, D.A. Vinnik, S.A. Gudkova, Ceram. Int. 44, 290 (2018) "Polarization origin and iron positions in indium doped barium hexaferrites"	Irrelevant
The intrinsic physicochemical properties of materials, such as their bandgap location, pore size, and surface area, along with their morphological characteristics, often govern their photocatalytic properties [5–8]	6. D.P. Sherstyuk, A.Y. Starikov, V.E. Zhivulin, D.A. Zherebtsov, S.A. Gudkova, N.S. Perov, Y.A. Alekhina, K.A. Astapovich, D.A. Vinnik, A.V. Trukhanov , Ceram. Int. 47, 12163 (2021) "Impact of the Zn–Co content on structural and magnetic characteristics of the Ni spinel ferrites" 7. M. Mostafa, O. Saleh, A.M. Henaish, S.A.A. El-Kaream, R. Ghazy, O.M. Hemeda, A.M. Dorgham, H. Al-Ghamdi, A.H. Almuqrin, M.I. Sayyed, S.V. Trukhanov , E.L. Trukhanova, A.V. Trukhanov , D. Zhou, M.A. Darwish, Nanomaterials 12, 1045 (2022) "Structure, Morphology and Electrical/Magnetic Properties of Ni-Mg Nano-Ferrites from a New Perspective" 8. M.A. Almessiere, Y. Slimani, S. Ali, A. Baykal, R.J. Balasamy, S. Guner, I.A. Auwal, A.V. Trukhanov , S.V. Trukhanov , A. Manikandan, Nanomaterials 12, 2872 (2022) "Impact of Ga ³⁺ Ions on the Structure, Magnetic, and Optical Features of Co-Ni Nanostructured Spinel Ferrite Microspheres"	Irrelevant
Many scientists have worked hard to research novel catalysts or materials that may detoxify organic and harmful pollutants in wastewater [9–11].	11. D.A. Vinnik, V.V. Kokovkin, V.V. Volchek, V.E. Zhivulin, P.A. Abramov, N.A. Cherkasova, Z. Sun, M.I. Sayyed, D.I. Tishkevich, A.V. Trukhanov , Mater. Chem. Phys. 270, 124818 (2021) "Electrocatalytic activity of various hexagonal ferrites in OER process"	Relevant
Transition metal-based semiconductors are non-toxic, affordable, and abundantly dispersed in the earth's crust [12–14].	12. A.V. Trukhanov , V.O. Turchenko, I.A. Bobrikov, S.V. Trukhanov , I.S. Kazakevich, A.M. Balagurov, J. Magn. Magn. Mater. 393, 253 (2015) "Crystal structure and magnetic properties of the BaFe ₁₂ – xAlxO ₁₉ (x= 0.1–1.2) solid solutions" 13. M. Zdorovets, A. Kozlovskiy, D. Tishkevich, T. Zubar, A. Trukhanov , J. Mater. Sci. Mater. Electron. 31, 21142 (2020) "The effect of doping of TiO ₂ thin films with low-energy O ₂ ⁺ ions on increasing the efficiency of hydrogen evolution in photocatalytic reactions of water splitting" 14. A.V. Trukhanov , V.G. Kostishyn, L.V. Panina, V.V. Korovushkin, V.A. Turchenko, P. Thakur, A. Thakur, Y. Yang, D.A. Vinnik, E.S. Yakovenko, L.Y. Matzui, E.L. Trukhanova, S.V. Trukhanov , J. Alloys Compd. 754, 247 (2018) "Control of electromagnetic properties in substituted M-type hexagonal ferrites"	Irrelevant

[1] 10.1007/s10854-024-12166-7

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