



RESUMÉ



Name: Umar Ibrahim Gaya
Department: Pure and Industrial Chemistry
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Areas of Research Interest

Catalysis, kinetics, and frontiers in materials and applied physical chemistry.

Rank/Position

Associate Professor

Membership of Professional Bodies

Member of the Chemical Society of Nigeria
Member of the American Chemical Society
Member of the Asia-Pacific Chemical, Biological & Environmental Engineering Society (APCBEES)

Publications

- 1 M.M. Ibrahim, **U.I. Gaya**, Synthesis of Eosin Y sensitized Ag-TiO₂ nano-hybrid for optimized photocatalytic degradation of aqueous caffeine, *Journal of Chilean Chemical Society*, 2019. 64(1): 4265-4275.
- 2 A. Yusuf, **U. Gaya**, Mechanochemical Synthesis and Characterization of N-doped TiO₂ for Photocatalytic Degradation of Caffeine, *Nanochemistry Research*, 2018. 3(1): 29-35. DOI: 10.22036/ncr.2018.01.004.
- 3 A. Razani, A.H. Abdullahi, N.A. Yusof, A. Fitrianto, **U.I. Gaya**, Sol-gel synthesis of Fe₂O₃-doped TiO₂ photocatalyst for optimized photocatalytic degradation of 2,4-dichlorophenoxyacetic acid, *Oriental Journal of Chemistry*, 2017. 33(4): 1959-1968.



- 4 **U.I. Gaya**, Emmanuel Otene, A.H. Abdullahi, Adsorption of aqueous Cd(II) and Pb(II) on activated carbon nanopores prepared by chemical activation of doum palm shell, *SpringerPlus* 2015.
- 5 **U.I. Gaya**, Heterogeneous photocatalysis using inorganic semiconductor solids, Springer, 2014.
- 6 **U.I. Gaya**, A.U. Katsina, B.S. Ahmad, Adsorption of water-borne Pb²⁺ over chemically-treated leaves of *Tridax Procumbens*, Nigerian Journal of Science and Environment 12 (2013) 93-97.
- 7 Y. Abdollahi, A.H. Abdullah, **U.I. Gaya**, S. Ahmadzadeh, K. Shameli, Z. Zainal, H. Jahangirian, A. Zakaria, N. A. Yusof, Photocatalytic degradation of 1,4-benzoquinone in aqueous ZnO dispersions, *Journal of the Brazilian Chemical Society*, 2012. **23**: 236-240.
- 8 Ahmed Usman, **U.I. Gaya**, Contamination of roadside soil and bush mint (*Hyptis suaveolens*) with trace metals along major roads of Abuja, Environment and Pollution, *Environment and Pollution*, 2013. 2(4): 44-56.
- 9 **U.I. Gaya**, Comparative analysis of ZnO-catalyzed photo-oxidation of *p*-chlorophenols, *Eur J Chem*, 2011. 2:163-167.
- 10 Abdollahi, Y., A.H. Abdullah, **U. I. Gaya**, Z. Zainal, N. A. Yusof, Enhanced photodegradation of o-cresol in aqueous Mn(1%)-doped ZnO suspensions, *Environmental Technology*, 2011. **33**: 1183-1189.
- 11 **U. I. Gaya**, A. H. Abdullah, M.Z. Hussein, Z. Zainal, Photocatalytic removal of 2,4,6-trichlorophenol from water exploiting commercial ZnO powder, *Desalination*, 2010. **263**: 172-182.
- 12 **U.I. Gaya**, A.H. Abdullah, Z. Zainal and M. Zobir, Photocatalytic degradation of 2,4-dichlorophenol in irradiated aqueous ZnO suspension, *Int J Chem*, 2010. 2: 180-193.
- 13 S.M. Aminu, M.K. Yakubu, K.A. Bello and **U.I. Gaya**, Analysis of the physical properties of SAMCOT11, SAMCOT 13, EX-BENIN and BAR36 cotton varieties, *Bayero Journal of Pure and Applied Sciences*, 2010. **4**: 157-160.
- 14 S.M. Aminu, M.K. Yakubu, K.A. Bello and **U.I. Gaya**, Interdependence of crystallinity, morphology and dye absorption properties of SAMCOT11, SAMCOT 13, EX-BENIN and BAR36, *Biological and Environmental Sciences Journal for the Tropics*, 2009. **7**: 109-115.
- 15 **U.I. Gaya**, A.H. Abdullah, Z. Zainal and M. Zobir, Influence of Ring-Cl on aqueous phase photo-oxidative transformation of phenolic compounds mediated by ZnO as heterogeneous catalyst *Malaysian Journal of Science* (Special edition) 2009. 28: 169-174.
- 16 **U. I. Gaya**, A. H. Abdullah, Z. Zainal, M.Z. Hussein, Photocatalytic treatment of 4-chlorophenol in aqueous ZnO suspensions: Intermediates, influence of dosage and inorganic anions, *J. Hazard. Mater.*, 2009. **168**: 57-63.
- 17 **U.I. Gaya**, SA. Ikechukwu, Heavy metal contamination of selected spices obtained from Nigeria, *J. Appl. Sci. Environ. Manage.* 2016. 20 (3): 681-688.
- 18 **U. I. Gaya**, Abdul Halim Abdullah, Heterogeneous photocatalytic degradation of organic contaminants over titanium dioxide, *J. Photochem. Photobiol. C: Photochem. Rev.*, 2008. **9**: 1-12.
- 19 **U.I. Gaya**, S. Alimi, Spectrophotometric Determination of Nitrate in Vegetables Using Phenol. *J. Appl. Sci. Environ. Manage.*, 2006, **10**: 79 – 82.
- 20 **U.I. Gaya**, A.A. Audu, Effect of Irrigation on Soil Properties in Jakara Kano, Nigeria. *Caspian J. Env. Sci.*, 2005. **3**: 99-106.



Awards/Recognition

1. **Certificate of Award** (Academic Dr with enormous academic and humanitarian contribution), Rumfa Old Boys Association, RUMFOBA Class '89 Chapter, Rumfa College, Kano State, Nigeria, Tuesday 01/01/2009.
2. **Commendation of the 313th Senate of Bayero University, Kano**, for publishing with prestigious publishers.
3. **Commendation** of Bayero University for being 6th in Bayero University and 412th out of 800 Nigerian scientists/researchers' 2017 Ranking Web Universities funded by European Commission, ACUMEN and Spanish National Research Council.
4. **Certificate of Achievement** in Accessing Global Project Grants, by Favtoma Group, Supported by Committee of Vice Chancellors, National Universities Commission & Fed. Min of Education.
5. **Appreciation award** for the role of Speaker at the 3rd Biennial Conference of the Transplant Association of Nigeria & 1st International Conference of the College of Health Sciences Bayero University, Kano, held at Bristol Palace Hotel, Kano State, Nigeria 27th to 29th August, 2017.
6. **Acknowledgement award** from the Department of Chemistry, Universiti Putra Malaysia, for serving Chemistry Postgraduate Club Committee Member 2008.
7. **Appreciation award** by University Putra Malaysia, for serving Universiti Putra International Students Association 2009-2010.
8. **Postdoctoral fellow award**, Sultan Qaboos University, 2011.
9. **Postdoctoral fellow award**, Universiti Putra Malaysia, 2011.
10. **Kano State scholarship award** for PhD study, 2007.
11. **Graduate Research Fellow award**, Universiti Putra Malaysia, 2007.
12. **Certificate of Service**, Technical Aid Corps Volunteer in The Gambia in the 2002-2004. Awarded by the Ministry of Foreign Affairs, Nigeria.
13. **Shahadah Taqdir award**, Madarasatu Umar Bin Khattab Lit-tahfizul Qur'an, L/Makera, Gwale L.G.A., Kano, 2005.
14. **Mc Arthur foundations top-up award** for PhD study, 2007
15. **Kano State Scholarship Board (KSSB) award** for BSc degree study.
16. **Mc Arthur foundations Best in Financial Record in 2002**, received as Pioneer/Secretary for City Educational Trust for the Project "Rehabilitation of secondary school drop-outs".
17. **Honour award** by Nigerian Students' Community in Malaysia (NISCOM) at the occasion commemorating the 50th Anniversary of Nigeria IIUM, Gombak, Malaysia, 18th November, 2010.