

# Adetunji M. Oyawale

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## EDUCATION

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**University of Science and Technology of China, 2020**

China

Doctor of Engineering (Ph.D.) in Nuclear Science and Technology

National Synchrotron Radiation Laboratory

Thesis: "Synthesis, X-Ray Characterizations, and Bio-Applications of Two-Dimensional Nanomaterials"

**Obafemi Awolowo University, 2015**

Nigeria

Master of Science (M.Sc.) in Medical Physics

Department of Physics and Engineering Physics

Thesis: " Hematological and Histomorphological Effects of Electromagnetic Radiation "

**Adekunle Ajasin University, 2008**

Nigeria

Bachelor of Science (B.Sc.) in Physics and Electronics

Department of Physics and Electronics

Thesis: " Design and Development of a Versatile AC-to-DC Power Converter "

## WORK EXPERIENCE

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Nov 2022 – Jul 2024

**Postdoctoral Research Fellow**

**West China Hospital of Sichuan University.**

China

Nov 2020 – Aug 2022

**Postdoctoral Research Fellow**

**Shenzhen Institute of Advanced Technology.**

China

Mar 2008 – Feb 2009

**Physics Lecturer (NYSC)**

**Auchi Polytechnic.**

Nigeria

## AWARDS

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1. **Excellent Employee of the Year:** Shenzhen Institute of Advanced Technology, 2022
2. **Outstanding International Student of the Year:** University of Science and Technology of China, 2019

## SELECTED SCIENTIFIC PUBLICATIONS

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1. Machine learning and robot-assisted synthesis of diverse gold nanorods via seedless approach: *Artificial Intelligence Chemistry*, 1(2), 100028. (2023).
2. Visualizing Catalytic Dynamics Processes via Synchrotron Radiation Multitechniques: *Advanced Materials*, 35(30), 2205346. (2023).
3. Room-temperature multiferroic properties of Ni-doped PbTiO<sub>3</sub> nanocrystals: *Journal of Alloys and Compounds*, 956, 170337. (2023).
4. Support Induced Phase Engineering Toward Superior Electrocatalyst: *Nano Research*, 15(3), 1831-1837. (2022).
5. 2D materials inks toward smart flexible electronics: *Materials Today*, 50, 116-148. (2021).
6. Synergistic Ice Inhibition Effect Enhances Rapid Freezing Cryopreservation with Low Concentration of Cryoprotectants: *Advanced Science*, 8(6), 2003387. (2021).
7. Integration of Data-Intensive, Machine Learning, and Robotic Experimental Approaches for Accelerated Discovery of Catalysts in Renewable Energy-Related Reactions: *Materials Reports: Energy*, 1(3), 100049. (2021).
8. Probing self-optimization of carbon support in oxygen evolution reaction: *Nano Research*, 14(12), 4534-4540. (2021).
9. Anomalous self-optimization of sulfate ions for boosted oxygen evolution reaction: *Science Bulletin*, 66(6), 553-561. (2021).
10. Operando X-ray Spectroscopy Visualizing the Chameleon-like Structural Reconstruction on an Oxygen Evolution Electrocatalyst: *Energy & Environmental Science*, 14(2), 906-915. (2020).
11. Engineering the In-Plane Structure of Metallic Phase Molybdenum Disulfide via Co and O Dopants toward Efficient Alkaline Hydrogen Evolution: *ACS nano* 13(10), 11733-11740. (2019).
12. PVP Intercalated Metallic WSe<sub>2</sub> as NIR Photothermal Agents for Efficient Tumor Ablation: *Nanotechnology*, 30(6), 065102. (2018).

## CONFERENCES & WORKSHOP

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1. Carbon-Rich Intercalation Triggered Phase Engineered 1T-WSe<sub>2</sub> in NIR Laser Cancer Therapy  
(*Physical Review Workshop on New Frontiers of Superconductivity, Hefei, China*). 2019
2. International training workshop of radiation safety and protection technology, Hefei, China. 2019