

# Abu Yaya

## List of Publications by Year in descending order

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69  
papers

1,101  
citations

430874

18  
h-index

454955

30  
g-index

69  
all docs

69  
docs citations

69  
times ranked

1556  
citing authors

#	ARTICLE	IF	CITATIONS
1	Band Gap Engineering via Edge-Functionalization of Graphene Nanoribbons. Journal of Physical Chemistry C, 2013, 117, 26790-26796.	3.1	78
2	Bromination of Double-Walled Carbon Nanotubes. Chemistry of Materials, 2012, 24, 2708-2715.	6.7	76
3	Modified halloysite nanoclay as a vehicle for sustained drug delivery. Heliyon, 2018, 4, e00689.	3.2	67
4	A comparative study of density functional and density functional tight binding calculations of defects in graphene. Physica Status Solidi (B): Basic Research, 2012, 249, 276-282.	1.5	55
5	Stability of Fluorinated Double-Walled Carbon Nanotubes Produced by Different Fluorination Techniques. Chemistry of Materials, 2010, 22, 4197-4203.	6.7	49
6	Awaso bauxite red mud-cement based composites: Characterisation for pavement applications. Case Studies in Construction Materials, 2017, 7, 45-55.	1.7	42
7	A Comparative Study of Antibacterial Activity of CuO/Ag and ZnO/Ag Nanocomposites. Advances in Materials Science and Engineering, 2020, 2020, 1-18.	1.8	41
8	Bromination of graphene and graphite. Physical Review B, 2011, 83, .	3.2	40
9	Characterization and Evaluation of Zeolite A/Fe <sub>3</sub> O <sub>4</sub> Nanocomposite as a Potential Adsorbent for Removal of Organic Molecules from Wastewater. Journal of Chemistry, 2019, 2019, 1-13.	1.9	36
10	The effect of natural fibre reinforcement on polyurethane composite foams – A review. Scientific African, 2021, 11, e00722.	1.5	34
11	Application of clay ceramics and nanotechnology in water treatment: A review. Cogent Engineering, 2018, 5, 1476017.	2.2	33
12	The effect of NaOH catalyst concentration and extraction time on the yield and properties of Citrullus vulgaris seed oil as a potential biodiesel feed stock. South African Journal of Chemical Engineering, 2018, 25, 98-102.	2.4	32
13	Ag <sub>2</sub> CO <sub>3</sub> -halloysite nanotubes composite with enhanced removal efficiency for water soluble dyes. Heliyon, 2019, 5, e01969.	3.2	28
14	Characterisation and identification of local kaolin clay from Ghana: A potential material for electroporcelain insulator fabrication. Applied Clay Science, 2017, 150, 125-130.	5.2	25
15	Synthesis and characterisation of zeolite-A and Zn-exchanged zeolite-A based on natural aluminosilicates and their potential applications. Cogent Engineering, 2018, 5, 1440480.	2.2	23
16	Synthesis and kinetic adsorption characteristics of Zeolite/CeO <sub>2</sub> nanocomposite. Scientific African, 2020, 7, e00257.	1.5	23
17	Synthesis and characterization of zinc and copper oxide nanoparticles and their antibacteria activity. Results in Materials, 2020, 7, 100099.	1.8	23
18	Rapid microwave synthesis of needle-like hydroxyapatite nanoparticles via template directing ball-milled spindle-shaped eggshell particles. Ceramics International, 2018, 44, 7165-7171.	4.8	22

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19	Preparation and Characterization of Rubber Blends for Industrial Tire Tread Fabrication. International Journal of Polymer Science, 2018, 2018, 1-12.	2.7	20
20	Surface energy of Si(110)- and 3C-SiC(111)-terminated surfaces. Physica Status Solidi (B): Basic Research, 2014, 251, 1408-1415.	1.5	18
21	Improved photoconductive properties of composite nanofibers based on aligned conjugated polymer and single-walled carbon nanotubes. Nano Research, 2013, 6, 149-158.	10.4	17
22	Induced ferromagnetism in bilayer hexagonal Boron Nitride (h-BN) on vacancy defects at B and N sites. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 126, 114436.	2.7	17
23	Purification of single-walled carbon nanotubes. EPJ Applied Physics, 2011, 54, 10401.	0.7	16
24	Photocatalytic degradation of fractionated crude oil: potential application in oil spill remediation. Cogent Engineering, 2020, 7, 1744944.	2.2	15
25	Synthesis and Application of Fe-Doped TiO <sub>2</sub> -Halloysite Nanotubes Composite and Their Potential Application in Water Treatment. Advances in Materials Science and Engineering, 2019, 2019, 1-15.	1.8	13
26	Outwitting an Old Neglected Nemesis: A Review on Leveraging Integrated Data-Driven Approaches to Aid in Unraveling of Leishmanicides of Therapeutic Potential. Current Topics in Medicinal Chemistry, 2020, 20, 349-366.	2.1	13
27	Comparative Study of Phosgene Gas Sensing Using Carbon and Boron Nitride Nanomaterials—A DFT Approach. Molecules, 2021, 26, 120.	3.8	13
28	Boron Nitride Nanotubes for Curcumin Delivery as an Anticancer Drug: A DFT Investigation. Applied Sciences (Switzerland), 2022, 12, 879.	2.5	13
29	Indirect phase transition of TiC, ZrC, and HfC crystal structures. Physica Status Solidi (B): Basic Research, 2016, 253, 1177-1185.	1.5	12
30	Effect of Magnesium and Sodium Salts on the Interfacial Characteristics of Soybean Lecithin Dispersants. Industrial & Engineering Chemistry Research, 2017, 56, 12608-12620.	3.7	12
31	Nanostructured stannic oxide: Synthesis and characterisation for potential energy storage applications. Results in Physics, 2018, 9, 1391-1402.	4.1	12
32	Formation of Chitosan Nanoparticles Using Deacetylated Chitin Isolated from Freshwater Algae and Locally Synthesized Zeolite A and their Influence on Cancer Cell Growth. Journal of Nano Research, 0, 48, 156-170.	0.8	11
33	New 2D Structural Materials: Carbon—Gallium Nitride (CC—GaN) and Boron—Gallium Nitride (BN—GaN) Heterostructures—Materials Design Through Density Functional Theory. ACS Omega, 2019, 4, 1722-1728.	3.5	11
34	Curing Temperature Effects on the Tensile Properties and Hardness of $\text{Fe}^{13}$ Reinforced PDMS Nanocomposites. Advances in Materials Science and Engineering, 2020, 2020, 1-11.	1.8	10
35	Synthesis and microstructural characterization of kaolin-polyethylene composites. Polymer Composites, 2014, 35, 1507-1515.	4.6	9
36	Electronic interaction in composites of a conjugated polymer and carbon nanotubes: first-principles calculation and photophysical approaches. Beilstein Journal of Nanotechnology, 2015, 6, 1138-1144.	2.8	9

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37	Industrial Applications of Clay Materials from Ghana (A Review). <i>Oriental Journal of Chemistry</i> , 2018, 34, 1719-1734.	0.3	9
38	Effects of substrates on the performance of optoelectronic devices: A review. <i>Cogent Engineering</i> , 2020, 7, 1829274.	2.2	9
39	Development and Characterization of Clay-Nanocomposites for Water Purification. <i>Materials</i> , 2020, 13, 3793.	2.9	9
40	Graphene Edge Structures: Folding, Scrolling, Tubing, Rippling and Twisting. <i>Carbon Nanostructures</i> , 2012, , 75-85.	0.1	9
41	Nanocomposite sodalite/ceramic membrane for pre-combustion CO <sub>2</sub> capture: synthesis and morphological characterization. <i>International Journal of Coal Science and Technology</i> , 2017, 4, 60-66.	6.0	8
42	A comparative study of the interaction of nickel, titanium, palladium, and gold metals with single-walled carbon nanotubes: A DFT approach. <i>Results in Physics</i> , 2019, 12, 2100-2106.	4.1	8
43	Iron and silver nanostructures: Biosynthesis, characterization and their catalytic properties. <i>Nano Structures Nano Objects</i> , 2020, 22, 100453.	3.5	8
44	Single-Walled boron nitride nanotubes interaction with nickel, titanium, palladium, and gold metal atoms- A first-principles study. <i>Results in Materials</i> , 2019, 2, 100029.	1.8	7
45	Potential Application of Dioctyl Sodium Sulfosuccinate Salt (DOSS) Saponin Binary Dispersant in Oil Spill Remediation: Synergistic Interaction Between DOSS and Saponin. <i>Water, Air, and Soil Pollution</i> , 2020, 231, 1.	2.4	6
46	Mapping the stacking interaction of triphenyl vinylene oligomers with graphene and carbon nanotubes. <i>Carbon</i> , 2019, 141, 274-282.	10.3	5
47	Comparative analyses of rice husk cellulose fiber and kaolin particulate reinforced thermoplastic cassava starch biocomposites using the solution casting technique. <i>Polymer Composites</i> , 2021, 42, 3216-3230.	4.6	5
48	Synthesis of nanostructured cupric oxide for visible light assisted degradation of organic wastewater pollutants. <i>Cogent Engineering</i> , 2021, 8, 1920563.	2.2	5
49	A study of polybromide chain formation using carbon nanomaterials via density functional theory approach. <i>Cogent Engineering</i> , 2016, 3, 1261509.	2.2	5
50	Effects of Purity on the Mechanical Properties of Single-Walled Carbon Nanotubes-Polymer Nanocomposites. <i>British Journal of Applied Science &amp; Technology</i> , 2013, 3, 884-897.	0.2	4
51	Preparation and Characterization of Indium and Gallium doped Transparent ZnO Films for Solar Cell Applications. <i>Oriental Journal of Chemistry</i> , 2018, 34, 2325-2331.	0.3	3
52	Exploring the impact of hydrostatic pressure on the structural, electronic and mechanical properties of ZrNiPb half-Heusler alloy: A DFT approach. <i>International Journal of Modern Physics B</i> , 2018, 32, 1850248.	2.0	3
53	Ablation of Hepatic Tumors through the Use of a Novel Magnetic Nanocomposite Probe: Magnetic Characterization and Finite Element Method Analysis. <i>Journal of Nanotechnology</i> , 2019, 2019, 1-9.	3.4	3
54	The physico-mechanical influence of dehydroxylized activated local kaolin: A supplementary cementitious material for construction applications. <i>Case Studies in Construction Materials</i> , 2020, 12, e00306.	1.7	3

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55	Destruction of Fibroadenomas Using Photothermal Heating of Fe <sub>3</sub> O <sub>4</sub> Nanoparticles: Experiments and Models. Applied Sciences (Switzerland), 2020, 10, 5844.	2.5	3
56	Catalytic Pyrolysis of Waste Engine Oil over Y Zeolite Synthesized from Natural Clay. Waste and Biomass Valorization, 2021, 12, 4157-4170.	3.4	3
57	Density Functional Theory-Based Studies Predict Carbon Nanotubes as Effective Mycolactone Inhibitors. Molecules, 2022, 27, 4440.	3.8	3
58	Development and Comparative Analysis of Aluminosilicate Based Ceramic Filters for Ground Water Defluoridation. Advanced Materials Research, 2014, 936, 822-828.	0.3	2
59	A plasmonic photo-thermal probe for thermoablation of post-operative breast cancer cells. Cogent Engineering, 2017, 4, 1331966.	2.2	2
60	Synthesis and Pore Structure Characterisation of Novel Mesoporous MgO-CeO <sub>2</sub> /SBA-15 as a Potential Catalyst Support. Materials Science Forum, 2017, 900, 40-45.	0.3	2
61	Structural and Electronic properties of PVK/C60 Nanoheterostructure interfaces- A DFT Approach. Surfaces and Interfaces, 2020, 20, 100556.	3.0	2
62	Dispersion and functionalization of single-walled carbon nanotubes (SWCNTS) for nanocomposite applications. Materiaux Et Techniques, 2016, 104, 607.	0.9	2
63	Photothermally-Heated Superparamagnetic Polymeric Nanocomposite Implants for Interstitial Thermotherapy. Nanomaterials, 2022, 12, 955.	4.1	2
64	Stacking Interactions of Poly Para-Phenylene Vinylene Oligomers with Graphene and Single-Walled Carbon Nanotubes: A Molecular Dynamics Approach. Molecules, 2020, 25, 4812.	3.8	1
65	Modified nanostructured titania photocatalysts for aquatic disinfection applications. Materials Today: Proceedings, 2021, 38, 1183-1190.	1.8	1
66	The stability of 3C-SiC(1 1 1) on Si(1 1 1) thin films: First-principles calculation. Chemical Physics Letters, 2021, 766, 138318.	2.6	1
67	First-principles calculations on structure and electronic properties of $\hat{1}\pm$ -zirconium hydrogen phosphate. MRS Advances, 2019, 4, 2699-2707.	0.9	0
68	A theoretical study of the structural and electronic properties of poly(9-vinylcarbazole) interacting with small-diameter single-walled carbon nanotubes. International Journal of Computational Materials Science and Engineering, 2020, 09, 2050009.	0.7	0
69	Light-soaking tests of zinc oxide photoanodes sensitized with an indoline dye on different transparent conductive substrates. AIMS Energy, 2018, 6, 949-958.	1.9	0