PERSONAL INFORMATION

Anteneh Fufa Baye

Myongji University, 116 Myongji-ro, Cheoin-gu, Yongin-si Gyeonggi-do, South Korea

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Date of birth	: 19/08/1993
Marital status	: Single
Nationality	: Ethiopian
Known Languages	: English & Amharic

EDUCATION

Addis Ababa Institute of Technology (AAiT)
Bachelor's degree in Chemical engineering
CGPA 3.61/4.00
2011 (September) – 2016 (July)

Myongji University (MJU)
Ph.D in Energy Science & Technology
CGPA 4.43/4.5
2017 (September) – 2021 (August)

PUBLICATIONS

Engineered iron-carbon-cobalt (Fe_3O_4@C-Co) core-shell composite with synergistic catalytic properties towards hydrogen generation via $NaBH_4$ hydrolysis
Anteneh F. Baye, Medhen W. Abebe, Richard Appiah-Ntiamoah, Hern Kim, *Journal of Colloid and Interface Science 543, (2019) 273–284.*

Synergism of transition metal (Co, Ni, Fe, Mn) nanoparticles and "active support" Fe_3O_4@C for catalytic reduction of 4-nitrophenol
Anteneh F. Baye, Richard Appiah-Ntiamoah, Hern Kim, *Science of The Total Environment 712, (2020) 135492.*

Graphene oxide interlayered Ga-doped $FeSe_2$ nanorod: A robust nanocomposite with ideal electronic structure for electrochemical dopamine detection
Anteneh F. Baye[1], Richard Appiah-Ntiamoah[1], John Amalraj, K.Koteshwara Reddy, Hern Kim, *Electrochimica Acta 363, (2020) 137245.*

Improving the reduction and sensing capability of Fe_3O_4 towards 4-nitrophenol by coupling with ZnO/Fe^0/Fe_3C/graphitic carbon using ZnFe-LDH@carbon as a template
Anteneh F. Baye, Dong-Ho Han, Shimelis K. Kassahun, Richard Appiah-Ntiamoah, Hern Kim, *Electrochimica Acta 398, (2021) 139343.*

ZnO@Ni foam photoelectrode modified with heteroatom doped graphitic carbon for enhanced photoelectrochemical water splitting under solar light
Bekelcha T. Gadisa[1], Anteneh F. Baye[1], Richard Appiah-Ntiamoah, Hern Kim, *International Journal of Hydrogen Energy 46, (2021) 2075-2085.*

Utilization of the superior properties of highly mesoporous PVP modified $NiCo_2O_4$ with accessible 3D nanostructure and flower-like morphology towards electrochemical methanol oxidation reaction
Gracita M. Tomboc, Medhen W. Abebe, Anteneh F. Baye, Hern Kim, *Journal of Energy Chemistry 29, (2019)136-147.*

In-situ prepared ZnO-$ZnFe_2O_4$ with 1-D nanofiber network structure: An effective adsorbent for toxic dye effluent treatment
Richard Appiah-Ntiamoah, Anteneh.F Baye, Bekelcha T. Gadisa, Medhen W. Abebe, Hern Kim, *Journal of Hazardous Materials 373, (2019) 459-467.*

Degradation kinetics of polyanethole: A newly synthesized green polymer
Richard Appiah-Ntiamoah, Hern Kim, Bekelcha.T. Gadisa, Anteneh F. Baye, Medhen W. Abebe, S.V. Kostjuk*, Materials Chemistry and Physics 219, (2018) 468-477.*

In Situ Electrochemical Formation of a Core-Shell $ZnFe_2O_4$@Zn (Fe)OOH Heterostructural Catalyst for Efficient Water Oxidation in Alkaline Medium
Richard Appiah-Ntiamoah, Anteneh F. Baye, Hern Kim, *ChemElectroChem 7, (2020) 3478-3486.*

Process optimization and kinetics analysis for photocatalytic degradation of emerging contaminate using N-doped TiO_2-SiO_2 nanoparticle: Artificial Neural Network and Surface Response Methodology approach
Shimelis Kebede Kassahun, Zebene Kiflie, Hern Kim, Anteneh F. Baye, *Environmental Technology & Innovation, 23 (2021) 101761.*

Multinary ZnO-$ZnFe_2O_4$/Fe_3O_4/N(S)-doped carbon nanocomposite derived from adsorption-sludge with physicochemical properties conducive for trace-level dopamine electroanalysis in urine
Richard Appiah-Ntiamoah, Anteneh F. Baye, Hern Kim, *Journal of Alloys and Compounds (Submitted).*

[1] Equal contribution

CONFERENCES

International Conference on Functional Materials (ICFM) [Oral]
Functionalized graphene oxide-gallium iron selenide nanocomposite for electrochemical detection of dopamine, *September 2018 (Shanghai, China)*
Korean Society of Industrial & Engineering Chemistry (KSIEC) [Poster]
Magnetic Fe_3O_4@C@Co core-shell nanoparticles for catalytic reduction of 4-nirophenol, *November 2018 (Jeju, Korea)*
Korean Society of Industrial & Engineering Chemistry (KSIEC) [Poster]
Graphene oxide/gallium iron selenide hybrid nanocomposite-modified electrode for electrochemical detection of dopamine, *May 2019 (Busan, Korea)*
Korean Society of Industrial & Engineering Chemistry (KSIEC) [Poster]
Mesoporous g-C_3N_4-prussian blue nanohybrid for efficient electrochemical detection of 4-nitrophenol, *November 2019 (Jeju, Korea)*
Korean Society of Industrial & Engineering Chemistry (KSIEC) [Poster]
Prussian blue decorated Fe_3O_4@carbon core-shell nanocomposite for highly sensitive electrochemical detection of caffeine, *November 2019 (Jeju, Korea)*
Korean Institute of Chemical Engineers (KICHE) [Poster]
Carbothermic synthesis of FeO_X/ZnO@carbon for electrochemical detection of 4-nitrophenol, *October 2020 (Virtual, Korea)*
Korean Institute of Chemical Engineers (KICHE) [Poster]
Radical and single oxygen induced degradation of caffeine with Fe^o-D-glucose carbon as heterogeneous activator for peroxymonosulfate, *October 2020 (Virtual, Korea)*
Korean Society of Industrial & Engineering Chemistry (KSIEC) [Poster]
Rational design of Fe species/ZnO@carbon core-shell nanocomposite for voltammetric detection of trace levels of 4-nitrophenol in water, *May 2021 (Busan, Korea)*
The Polymer Society of Korea [Poster]
Prussian blue intercalated chitosan-grafted-polyaniline conductive ink for electrochemical sensing of caffeine in coffee, *October 2021 (Gyeongju, Korea)*

ACHIEVEMENTS AND AWARDS

Best oral presentation in the 2018 International Conference on Functional Materials (ICFM) held in Shanghai, China.

TECHNICAL SKILLS

- Practical experience in material characterization and analytical equipment: FT-IR spectroscopy, UV-Vis spectroscopy, ICP-MS analysis, BET analysis, TGA analysis and Electrochemical techniques (CV, EIS, DPV and LSV).
- Data analysis and interpretation from different material characterization techniques: XRD, XPS, HR-TEM, FE-SEM (EDS).
- Laboratory skills for the synthesis of materials by different techniques including carbothermic synthesis, hydrothermal synthesis, wet synthesis, surface functionalization, electrodeposition and electrospinning.
- Software programs for data analysis and interpretation: MS-Office, OriginPro 2016, ChemDraw, X'Pert HighScore Plus and Edraw Max.

PERSONAL STRENGTHS

Excellent technical writing and presentation skill, peaceful interpersonal relation with advisor and colleagues, determined to deliver tasks on time, excited to learn new things, easily adapt new environment.

REFERENCES

Professor Hern Kim
Chairperson of Department of Energy Science & Technology
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DECLARATION

I hereby certify that the above information is true and correct to the best of my knowledge.

Anteneh Fufa Baye