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elyteunetwork.com (Company)

Top Skills

Research
Analysis
Public Speaking

Languages

English (Native or Bilingual)
Spanish
French (Elementary)

Certifications

Parliamentary Procedures

Honors-Awards

Gamma Sigma Epsilon Chemistry Honors Society
Phi Alpha Theta Historical Honors Society
Dr. Frank "Tick" Coleman Award
Leaders Awards Gala 2016 Distinguished Honoree
HBCU Male Student of the Year Award

Publications

Thermodynamics, kinetics and modeling studies of KH- RbH- and CsH-doped 2LiNH2/MgH2 hydrogen storage systems
Rubidium Hydride: An Exceptional Dehydrogenation Catalyst for the Lithium Amide/Magnesium Hydride System
Potassium, rubidium and cesium hydrides as dehydrogenation catalysts for the lithium amide/ magnesium hydride system

Jalaal Hayes, PhD

Research Chemist | STEM/STEAM Educator | Author | Inventor | TEDx Speaker
Philadelphia, Pennsylvania

Summary

I am a creative, resourceful, and flexible individual that aims to help students and educators to engage in Science, Technology, Engineering, and Mathematics (STEM) with the integration of the arts (STEAM) disciplines and facilitate the learning of each discipline.

Experience

Lincoln University
Assistant Professor Of Chemistry
August 2019 - Present
Lincoln University, PA

Teaching undergraduate courses in the chemical sciences.

Dr. JAH Academy (not yet launched)
Founder & CEO
October 2018 - Present
Dover, Delaware Area

Dr. JAH Academy is a platform that educate communities and community partners about the importance and applications of Science, Technology, Engineering, Arts, and Mathematics (STEAM). Our focus is to engage, empower, and educate middle school and high school students with a humanistic approach to science and mathematic disciplines. The curriculum created for the academy is based on Next Generation Science Standards and 21st-century teaching style.

Elyte Universal Network
Founder
September 2014 - Present

Elyte Universal Network (EUN) is a Science, Technology, Engineering, Arts, and Mathematics (STEAM)- based content entity that focuses on making hard and complex sciences simple and accessible to all communities.

Hydriding and Dehydriding Kinetics of RbH- Doped 2LiNH2/MgH2 Hydrogen Storage System

Patents

A Rubidium Hydride Catalyzed Lithium Amide/Magnesium Hydride System for Hydrogen Storage Applications

Delaware State University

Visiting Assistant Professor of Physical Chemistry

August 2017 - August 2019 (2 years 1 month)

Dover, Delaware Area

- Taught Physical Chemistry on the undergraduate and graduate level in the department.
- Conducted research in energy production consisting of biomass energy production and materials sciences.
- Assisted student to engage in research and development opportunities at my university and create collaborations with other departments.

University of Oxford

Keynote Talk Presenter at the International Applied Energy Conference.

March 2019 - March 2019 (1 month)

Oxford, United Kingdom

Gave a keynote talk entitled, "Recent Advances and Challenges of Renewable Energy Sources"

TEDxWilmington

Speaker

December 2017 - December 2017 (1 month)

Route 9 Library and Innovation Center

Spoke on the topic entitled, "The Chemistry to Community Building".

Elyte Universal Network

Book Author

December 2017 - December 2017 (1 month)

North Carolina Central University

Panelist

November 2017 - November 2017 (1 month)

Raleigh-Durham, North Carolina Area

Spoke on the panel at North Carolina Central School of Law first annual Intellectual Property Law Institute (IPLI). The focus of the discussion was the importance of research development and the experience of going through the patent process on the university level and the entrepreneurship level.

NOBCChE

Public Speaker

October 2017 - November 2017 (2 months)

Greater Minneapolis-St. Paul Area

Spoke on the experiences of becoming a chemist and the commitment, dedication, and endurance it takes to become a STEM industry leader. The audience was scholars between the ages of 11-18.

Cristo Rey Philadelphia High School
Science Instructor
July 2016 - June 2017 (1 year)
Greater Philadelphia Area

-Taught Honors Biology and college-level physics to 9th grade and 11th grade students respectively.
- Served as a mentor to students who deal with daily struggles.
-Taught students ACT prep, an exam that prepares them to go to college.
- Enforced scientific literacy in the curriculum.
-Led in various Science, Technology, Engineering, and Mathematics (STEM) activities within the school.
- Assisted with designing science labs for new school.

Universal Companies
Anatomy and Physiology Teacher
October 2015 - June 2016 (9 months)
Greater Philadelphia Area

I have taught concepts and essentials of the human anatomy and physiology. These things included cell theory, different types of tissues, skeletal system, and much more. In addition, I taught Keystone Prep for biology to students. This helped students become proficient in the subject and be able to graduate high school with no remedial classes in biology.

Gordon Research Conferences
Poster Presenter
July 2015 - July 2015 (1 month)
Stonehill College in Easton, Massachuetts

Presented novel research entitled, "Comparative Analysis of Alkali Metal-Doped 2LiNH2-MgH2 Hydrogen Storage System. This research work was sponsored by the U.S. Department of Energy and the U.S. Department of Transportation

Delaware State University
Research Assistant
August 2011 - June 2015 (3 years 11 months)
Delaware State University

As a research assistant at Delaware State University, I have done the following duties:

-Conducted experiments on the X-Ray Diffractometer (XRD), Thermogravimetric/Differential Analyzer (TGA), Pressure-Composition Isotherm (PCI) machine, and Fourier Transform Infrared Spectrometer (FTIR).

- Provided training services to 30 students and faculty collectively on XRD and TGA instruments for class and research purposes respectively.

-Occasionally conducted calibration tests and maintenance on the instruments discussed previously for maximum performance and accurate data acquisitions.

United States Department of Energy
Research Fellow
August 2011 - June 2015 (3 years 11 months)
Dover, Delaware Area

Conducted research under Department of Energy Metal Hydrogen Storage initiatives for automobiles and many other practical applications.

University of Salford
Poster Presenter at International Metal Hydrogen Conference 2014
July 2014 - July 2014 (1 month)
The Lowry in Manchester, UK

Presented further studies of the novel rubidium hydride (RbH) additive on the 2LiNH2-1.1MgH2 hydrogen storage system with the introduction of absorption studies and cycling stability of the system.

Gordon Research Conferences
1 month

Oral Presenter
July 2013 - July 2013 (1 month)
Tuscany, Italy

Presented research results discussing the effects of the novel catalytic additive, rubidium hydride (RbH), on the lithium amide-magnesium hydride (2LiNH2/MgH2) hydrogen storage system. This was done by analyzing the thermodynamic and kinetic properties through desorption studies of the RbH-catalyzed lithium amide-magnesium hydride system.

Carl Storm Fellow

July 2013 - July 2013 (1 month)
Tuscany, Italy

Poster Presenter
July 2013 - July 2013 (1 month)
Tuscany, Italy

Presented research results discussing the effects of the novel catalytic additive, rubidium hydride (RbH), on the lithium amide-magnesium hydride (2LiNH2/MgH2) hydrogen storage system. This was done by analyzing the thermodynamic and kinetic properties through desorption studies of the RbH-catalyzed lithium amide-magnesium hydride system.

Howard University Beltsville Center for Climate System Observation
Summer Intern at Howard University Beltsville Center for Climate Systems and Observation (BCCSO)
June 2012 - August 2012 (3 months)
Howard University

Worked with the NASA campaign entitled DISCOVER-AQ at the Beltsville Center for Climate Systems and Observations at Howard University. This campaign consisted of collecting regulatory data ozone layer and aerosol (particular matter, NOx, sulfates, and carbon-based compounds) data-sets for the Maryland Department of Environment and other environmental agencies.

Philadelphia College of Osteopathic Medicine
Medical Assistant
May 2011 - May 2011 (1 month)

Shadowed a pediatric physician and learned various medical terms and methods regarding pediatric medicine.

Lincoln University Great Center for Health Disparities
Research Assistant
January 2011 - April 2011 (4 months)
Lincoln University, PA

The following things that I have accomplished at the Great Center for Health Disparities are:

• Worked with Liquid Chromatography/Mass Spectroscopy to determine the levels of nicotine and its major metabolites in the urine samples of African American patients who were participating in smoking cessation clinics.

• Developed lab skills using instrumentation such as centrifugation and fluorescence spectroscopy in order to separate and analyzed urine samples collected from the research subjects.

Lincoln University

Peer Tutor for Lincoln Excelling Academic Program in Sciences (LEAPS)

June 2009 - August 2009 (3 months)

Lincoln University, PA

Tutored pre-freshman students in Biology I, Chemistry I, College Algebra, Pre-Calculus, and Calculus I courses during the summer session in order to prepare them for the following fall semester. Those early experiences provided an opportunity to jump start their academic career in science and mathematics at the university.

Education

Delaware State University

Doctor of Philosophy (Ph.D.), Applied Chemistry · (2011 - 2015)

Lincoln University

Bachelor of Science (B.S.), General Science and History · (2008 - 2011)