



## **ASEGUN HENRY**

### **Massachusetts Institute of Technology**

Asegun Henry started as an associate professor in the Department of Mechanical Engineering at Massachusetts Institute of Technology (MIT) in 2018. Currently, he directs the Atomistic Simulation & Energy (ASE) Research Group. Prior to joining MIT, Asegun was an assistant professor in the Woodruff School of Mechanical Engineering at the Georgia Institute of Technology. He holds a B.S. in mechanical engineering from Florida A&M University as well as an M.S. and a Ph.D. in mechanical engineering from MIT. Asegun's primary research is in heat transfer, with an emphasis on understanding the science of energy transport, storage, and conversion at the atomic level; and in the development of new industrial-scale energy technologies to mitigate climate change. Asegun has made significant advances and contributions to several fields within energy and heat transfer, including solar fuels and thermochemistry, phonon transport in disordered materials, and phonon transport at interfaces. In addition, he developed a ceramic-based mechanical pump able to operate at record temperatures of more than 1,400 degrees Celsius (1,673 Kelvin). This technological breakthrough, which is now in the Guinness Book of World Records, opened the door for new high-temperature energy systems concepts, including methane cracking for CO<sub>2</sub>-free hydrogen production and a new grid-level energy storage approach affectionately known as "Sun in a Box" which is cheaper than pumped hydro.