Obed J. Dodo, Ph.D.

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October 26, 2024

Graduate Admissions at Carnegie Mellon University

I am writing this letter to highly recommend First and Last Name for the Chemistry Ph.D. program at Carnegie Mellon University. X is currently a Senior at Miami University and a member of the Konkolewicz Polymer Research Group where I worked with X as his graduate research mentor from May 2022 to April 2023. While conducting research under my tutelage as a mentee, X demonstrated great commitment and drive for research, as evidenced by his enthusiasm to learn, which facilitated significant progress in his research projects. Although X was a Junior when he joined my group, he was already certain that his next direction after obtaining a bachelor's degree would be to pursue a Ph.D. in Chemistry. He consistently demonstrated a responsible sense of ownership for his projects by actively contributing to brainstorming sessions and conceptualization of new ideas that ultimately result in high-impact research. As his graduate mentor and now life mentor, X is easily the most outstanding undergraduate student I have had the privilege of mentoring throughout my career. I am confident in his capability to succeed as a Doctoral research student. Besides being highly proactive, he possesses a high level of creativity, mental acuity, and scientific readiness to tackle the demanding responsibilities of graduate school. Hence, the Chemistry Ph.D. program at Carnegie Mellon University is an ideal opportunity that aligns well with his skills and goals as a researcher and future leader in Chemistry, Polymer Science, and Materials Engineering research.

X has exhibited an extraordinary level of diligence and hard work as a student, successfully completing a total of 14 college-level courses, equivalent to 47 credit hours, all while in high school. This achievement is noteworthy, showcasing his unwavering dedication to academics and learning. Through his accomplishments at Columbus State Community College and North Central State College, X is currently on a trajectory to earn his B.S. degree in Chemistry after just 3 years at Miami University, underscoring his exceptional academic prowess. His mastery extends across various domains, including General Chemistry, Organic Chemistry, Biophysical Chemistry, Biochemistry, Physics, Statistics, and Calculus. Importantly, X has demonstrated the ability to translate his knowledge from these courses into high-impact ideas relevant to polymer science and materials targeted research in Konkolewicz group.

Since joining the Konkolewicz group in 2022, X has consistently displayed remarkable enthusiasm for research, actively contributing to the conceptualization of innovative ideas. Notably, X has taken the lead on his current project and serves as the lead author, owing to his exceptional contributions across research methodology, synthesis, characterization, data processing, and manuscript development. His performance marks him as an emerging leader in the field of polymers by showcasing a promising future in their applications. X has concurrently engaged in three high-impact projects, resulting in a recently published article in RSC Applied Polymers, with another manuscript currently in preparation for peer-reviewed publication by the spring of 2024. He has mastered standard analytical characterization techniques and proficiently utilizes instruments such as NMR, FTIR, GPC, SEC, DMA, TGA, DSC, Instron for tensile testing, and rheometer for rheological structure-property characterization of polymeric materials. X's expertise extends to polymer synthesis, particularly using controlled radical polymerization techniques like RAFT, and the characterization of both liquid and bulk polymers. Among his undergraduate peers, X stands out as a highly efficient collaborator. His exceptional time management skills and meticulous approach make his lab hours highly productive, where he spends an impressive 18 hours over three days each week. This commitment not only reflects his passion for research but also grants him the confidence and competitive advantage to outperform his peers.

X's research focuses on self-healing/dynamic polymers, nano-reinforced dynamic polymer nanocomposites, and electronic materials. His impactful contributions have extended the applications of these materials, showcasing their functionality in areas such as adhesives, organic polymer resistors, and sensing devices. Beyond his technical prowess, X exemplifies exceptional teamwork, dependability, and interpersonal skills. Therefore, X embodies a well-rounded scientist with the trajectory to emerge as a leader in the fields of Chemistry and Materials Science. X's rapid learning abilities, coupled with his capacity to generate high-value ideas and a steadfast commitment to personal and professional growth, makes him as an exceptional candidate for the Chemistry Ph.D. program at Carnegie Mellon University.

Sincerely,

Dr. Obed J. Dodo