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Obstacles and prospects in Paper-Based packaging

Abstract:

Almost 50% of plastic waste is generated from packaging, with increasing worries about microplastics driving the move to coated paper as a sustainable alternative. Yet, the majority of coated papers cannot be recycled or decomposed naturally. In this presentation, I will showcase our team's work on paper coating aimed at achieving zero-waste packaging. I will conclude this lecture with significant findings from our research and the challenge yet to be solved.

Biography

Muhammad Rabnawaz is a professor, educator, author, inventor, and entrepreneur. Since 2016, he has been a professor in the School of Packaging at Michigan State University (MSU). He has developed and taught three advanced-level courses for MSU students and two short online courses for industry professionals on packaging sustainability. He has filed over 45 patent applications and has been issued nine patents in sustainable packaging, recycling, and multifunctional coatings. In addition, he was awarded the College of Agriculture and Natural Resources (CANR) Faculty Laureate (2022), MSU Innovator of the Year Award (2021), the NSF Career Award (2021), and Senior Member of US National Academy of Inventors (2023).