Graphene nanoribbons (GNRs) are at the forefront of nanocarbon research and hold great promise for electronic and optoelectronic applications. In this talk, I will discuss how GNRs can be synthesized with atomic precision and how they could be used for emerging quantum technologies.

Alexander Sinitskii is a Professor of Chemistry at the University of Nebraska – Lincoln. He received his B.S. and Ph.D. degrees in Materials Science from Moscow State University, and then worked as a postdoc at Rice University before joining UNL. His research program is addressing the synthesis and properties of low-dimensional materials with applications in nanoelectronics, optoelectronics and chemical sensing. Sinitskii has published over 160 papers, which received over 20,000 citations (h-index > 40) and is a co-inventor on 10 patents. He received several awards for his research and teaching, including an NSF CAREER Award, a UNL College of Arts and Sciences Distinguished Teaching Award, and an Outstanding Research and Creative Activity (ORCA) Award, and is currently leading an ONR MURI project on Synthetic Carbon Electronics.