

Title: "The use of machine learning to develop models of nanoscale materials from first principles."

Abstract: Accurate modeling of nanoscale materials using methods such as density functional theory can be prohibitively expensive. It is possible to significantly reduce this cost while retaining a high level of accuracy by using machine learning methods to develop interatomic potential models for nanoscale materials. I will provide a brief overview of research in this area, with specific examples drawn from studies of alloy nanocatalysts.