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Two Dimensional Transition Metal Dichalcogenide and Their Heterostructures Through Chemical Vapor Deposition Synthesis

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In recent years tremendous efforts have been devoted to the research on two dimensional materials. Among them transition metal dichalcogenides (TMDs) have attracted significant attention owing to their unique structures, remarkable properties, and great potential for a wide range of applications in electronics, ENREF_1 optoeletronics, valleytronics, catalysis, etc. The synthesis of high quality large area mono- and few-layer TMD materials is highly desirable for their applications. In this talk I will present the chemical vapor deposition (CVD) approach we have developed to synthesis these TMD materials and their heterostructures.