

Jing Kong

Department of Electrical Engineering and Computer Science, MIT

jingkong@mit.edu

Synthesis of Two-dimensional Materials via Chemical Vapor Deposition

In recent years, tremendous efforts have been devoted to the research on two dimensional materials. Their unique structures and remarkable properties have offered great potential for a wide range of applications in electronics, optoelectronics, valleytronics, catalysis, etc. The synthesis of high quality large area mono- and few-layer 2D materials is highly desirable for their applications. In this talk I will present our further understanding regarding the chemical vapor deposition (CVD) synthesis (Fig. 1) process in monolayer MoS₂ [1], and our development of other novel 2D materials [2, 3].

References

- [1] Qingqing Ji, Cong Su, et.al. in preparation.
- [2] Yunfan Guo, et.al., in preparation
- [3] Luiz G Pimenta Martins, et. al., arXiv preprint arXiv:1910.01591

Figures

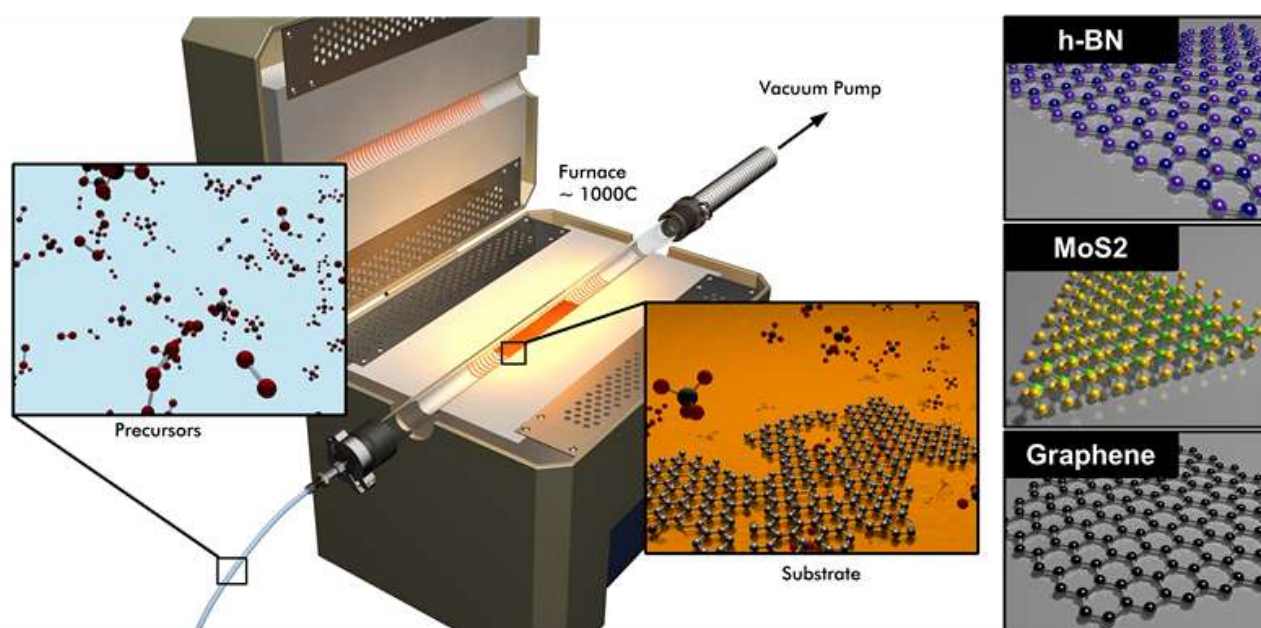


Figure 1: Schematic illustration of the Chemical Vapor Deposition synthesis process for 2D materials.