Multi-Process Graphene-CNT-TMD R&D Platform

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Abstract:

Over the last 20+ years, R&D has been done extensively on CNTs, Si NWs, ZnO NWs, Graphene and lately on TMD materials. To support related research efforts, a wide variety of single-purpose CVD R&D systems have been developed and offered to researchers worldwide by many companies.

However, we all have experienced that the demands for R&D processing systems are changing about every 2-3 years, making these single purpose CVD R&D systems quickly obsolete. In addition, many researchers want the capability to work on a range of different processes within the same research laboratory, preferably also on the same CVD R&D system platform.

To serve this need, CVD Equipment Corporation has been offering and selling our FirstNano® EasyTube© R&D systems configured for multi-process capabilities for CNTs, Si NWs, ZnO NWs and Graphene.

Here we present an innovative hardware and software solution for TMD process development that is compatible with the FirstNano® EasyTube© platform. We can offer TMD processing capabilities to the existing multi-process system options of Graphene, CNTs and other selected nanomaterial processes.

This extended multi-process integration research was undertaken with the goal to offer a configurable, multi-process R&D EasyTube® platform that includes the highest possible safety controls, industrial process control software, and additional process relevant feedback information not presently available on other commercial R&D system platforms.