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Wafer Scale Integration of Graphene for the 2D Experimental Pilot Line at AMO

Graphene has great potentials for applications in different fields such as electronics, optoelectronics, sensors, etc.[1] Forecasts of the markets of GRM based applications integrated with silicon technology show a massive economic impact.[2] To realize these appllications, a path to integrate graphene to state-of-the-art silicon technology process line platform needs to be developed. A fundamental roadblock facing the wafer-scale processing of graphene devices is addressed recently by the EU funded 2D-EPL Project which is part of the Graphene Flagship. In this presentation, AMO within the 2D-EPL Project is introduced and the current progress and examples of wafer scale integration of graphene is shown.

References

[1] D. Neumaier, S. Pindl, M. C. Lemme, Nature Materials, 18 (2019) 525.
[2] D. Akinwande, et al., Nature 573, (2019) 507

Figures

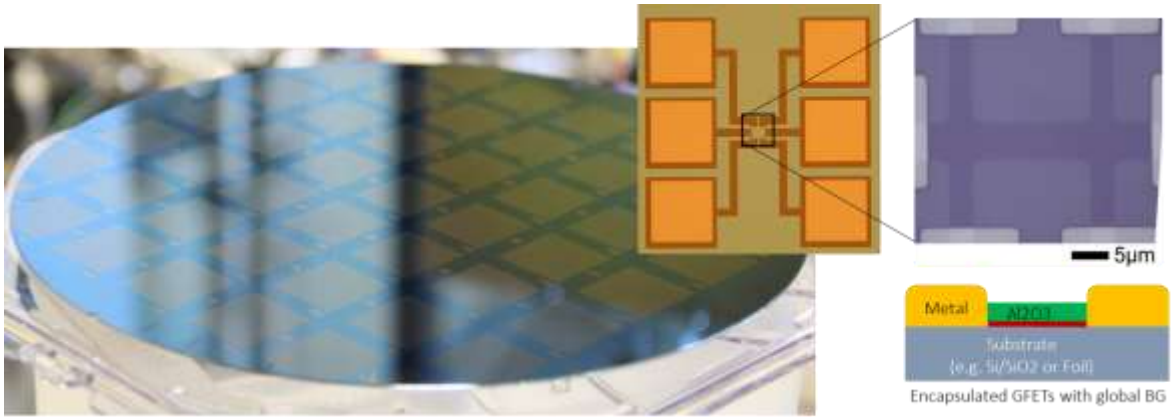

Figure 1: Graphene devices processed on 200 mm wafer at AMO