

Graphene composites: from lab to market

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In this talk I shall present our recent progresses on the large-scale production of graphene, two-dimensional crystals and related composites for industrial applications [1,2,3]. I will first discuss several two-dimensional crystal-based compounds and show the impact of the flake morphology and the compounding process on the thermal/electrical/mechanical properties of the final compound. I will then present a few examples of graphene products and discuss our strategy to fill the gap between research in the lab and final product in the market.

References

- [1] E. Lago et al. RSC Adv. (2016) 6, 97931
- [2] E. Lago et al. to be submitted
- [3] A.E. Del Rio Castillo et al., Chem. Mater. (2018)



Figure 1 MOMO DESIGN motorcycle helmet with graphene shelter technology developed by IIT Graphene Labs.



Figure 2: graphene-based shoe with improved thermal properties

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