

Latest developments in the industrial production of 2D crystals

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The development of industrial-scale, reliable, inexpensive production processes of graphene and related two-dimensional materials (GRMs) is becoming the top priority in this field.[1,2] In fact, this is a key requirement for their widespread use in several application areas,[1-6] providing a balance between ease of fabrication and final product quality. In particular, in the energy sector, the production of GRMs in liquid phase [2,6] represents a simple and cost-effective pathway towards the development of GRMs-based energy devices, presenting huge integration flexibility compared to other production methods.

In this presentation, I will present the strategy of BeDimensional in the production of GRMs by wet-jet milling [7] and the Industrial scale up. Afterward, I will provide a brief overview on some key applications of the as-produced GRMs, for anticorrosion coatings and energy conversion[3,8-11] and storage[8,12-16] devices.

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