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Large scale production of 2D-materials for energy applications

2D materials are emerging as promising materials¹⁻⁵ to improve the performance of existing devices or enable new ones.¹⁻⁵ A key requirement for the implementation of 2D materials in applications as flexible (opto)electronics and energy is the development of industrial-scale, reliable, inexpensive production processes,² while providing a balance between ease of fabrication and final product quality.

The production of 2D materials by solution processing^{2,6} represents a simple and cost-effective pathway towards the development of 2D materials-based (opto)electronic and energy devices, presenting huge integration flexibility compared to other production methods. Here, I will first present our strategy to produce 2D materials on large scale by wet-jet milling⁷ of their bulk counterpart and then an overview of their applications for flexible and printed (opto)electronic and energy devices.^{3,8,9,10,11,12,13,14}

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We acknowledge financial support from the European Union's Horizon 2020 Graphene Flagship.