

High quality 2D materials for energy applications

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We will present our latest progresses on the industrial-scaling up of the production of 2D materials.^[1-3] Defining production processes that are scalable, reliable, and inexpensive is a must for their extensive use in several application areas,^[1-8] requiring a balance between ease of fabrication and final product quality. We will show the efficiency of the production of high-quality 2D materials by wet-jet milling^[3] and the path towards forthcoming Industrial scale up.

Afterward, we will provide an overview on selected key applications of the as produced 2D materials, focusing on energy. We will show how the production of 2D materials in liquid phase by wet-jet milling^[3] represents a powerful pathway towards the development of 2D materials-based energy devices, offering massive integration flexibility compared to other production methods. We will present insights in application areas such as anticorrosion coatings^[4], energy conversion and storage.^[5-10]

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