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Functional surfaces and devices enabled by two-dimensional materials

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Two-dimensional (2D) materials and their derivatives have attracted unprecedented enthusiasm during the past decade due to their exceptional mechanical, thermal, optical, and electrical properties not available in conventional materials. This article explores the innovative surfaces of 2D materials, which enable diverse applications of 2D materials by using the one-step mask-free direct laser printing (DLP) method [1]. Our results have demonstrated the great potentials of two-dimensional material films as an emerging integratable platform for ultrathin, light-weight and flexible photonic, electronic and biological devices towards all-optical communication, microscopic imaging, energy storage and biological applications [2-4].

Reference:

- [1] H Lin, B Jia, M Gu, Optics letters 36 (3), 406-408 (2011).
- [2] X. Zheng, B. Jia, X. Chen, M. Gu, Adv. Mater 26, 2699 (2014).
- [3] S. Fraser, X. Zheng, L. Qiu, D. Li, B. Jia, Applied Physics Letters, 107, 031112 (2015).
- [4] X. Zheng, B. Jia, H. Lin, L. Qiu, D. Li, M. Gu, Nature Communications, 6, 8433 (2015).

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