

Supporting Information:

Mechanical and liquid phase exfoliation of cylindrite: a natural van der Waals superlattice with intrinsic magnetic interactions

Yue Niu¹, Julia Villalva², Riccardo Frisenda³, Gabriel Sanchez-Santolino³, Luisa Ruiz-González⁴, Emilio M. Pérez², Mar García-Hernández^{3,}, Enrique Burzuri^{2,*}, Andres Castellanos-Gomez^{3,*}*

¹*National Center for International Research on Green Optoelectronics & Guangdong Provincial Key Laboratory of Optical Information Materials and Technology, Institute of Electronic Paper Displays, South China Academy of Advanced Optoelectronics, South China Normal University, Guangzhou 510006, China.*

²*IMDEA Nanociencia, C\Faraday 9, Ciudad Universitaria de Cantoblanco, 28049 Madrid, Spain.*

³*Materials Science Factory, Instituto de Ciencia de Materiales de Madrid (ICMM), Consejo Superior de Investigaciones Científicas (CSIC), Sor Juana Inés de la Cruz 3, 28049 Madrid, Spain.*

⁴*Departamento de Química Inorgánica, Universidad Complutense de Madrid, Madrid, Spain.*

Email: MGH marmar@icmm.csic.es, EB enrique.burzuri@imdea.org, ACG andres.castellanos@csic.es

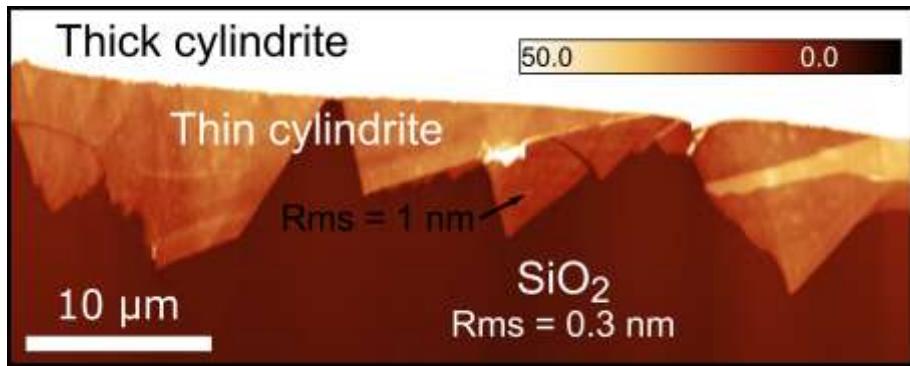


Figure S1. Detail of the AFM topography image displayed in Figure 2 in the main text. Information about the roughness have been included in the figure.

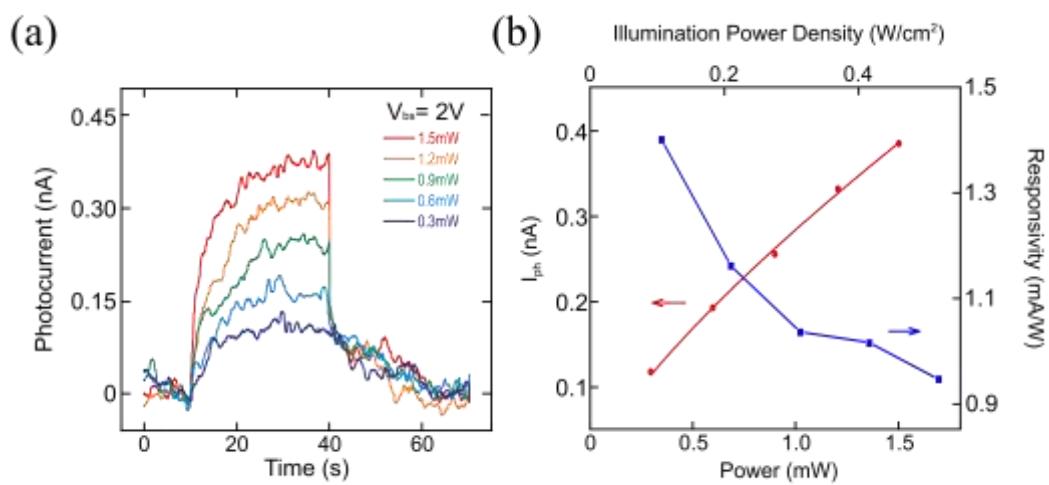


Figure S2. (a) Photocurrent versus time recorded at 2 V while switching on and off the illumination at 1050 nm with increasingly high power. (c) Power dependence of the photocurrent (red) and responsivity (blue) with 1050 nm and a bias voltage of 2 V.