

Abstract Submitted  
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**Optical determination of MoSe<sub>2</sub> layer number** XIAN ZHANG, JAMES HONE, Columbia University, COLUMBIA TEAM — We mechanically exfoliate mono- and few-layers of molybdenum diselenide. The exact number of layers is determined by atomic force microscopy, high-resolution Raman spectroscopy, and photoluminescence. We have quantitatively summarized the relation between Raman A<sub>1g</sub> mode positions and the layer numbers, from both 532nm wavelength and 633nm wavelength Raman lasers. The spectrum analysis is based on 1-4 layer MoSe<sub>2</sub> flakes. These observations provide useful information for the future opto-electronic devices based on these materials.

Xian Zhang  
Columbia University

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