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Substrate-induced modification of band parameters of graphene SHI CHE<sup>1</sup>, PETR STEPANOV<sup>2</sup>, SUPENG GE<sup>3</sup>, YAFIS BARLAS<sup>4</sup>, University of California, Riverside, KENJI WATANABE<sup>5</sup>, TAKASHI TANIGUCHI<sup>6</sup>, National Institute for Materials Science, CHUN NING LAU<sup>7</sup>, University of California, Riverside — Graphene and its few-layer counterparts have emerged as an attractive platform for investigating physical and chemical processes in reduced dimensions. Their band structures are conventionally calculated based on the Slonczewski-Weiss-McClure hopping parameters of graphite. Here we present experimental and computational evidence that these hopping parameters are potentially modified by the substrates. Our work may pave the path in the band structure engineering.

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