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Micro Raman spectroscopy of graphene Hall Bars in the QHE regime SEBASTIAN REMI, CONSTANZE METZGER, ANNA SWAN, BENNETT B. GOLDBERG, Boston University — One of the most intriguing aspects in the physics of graphene are new types of quantum Hall effects which differ significantly from observations on conventional 2DEG samples. Furthermore the Raman spectrum of graphene shows charge carrier dependent Kohn anomalies. So far transport and optical measurements on graphene haven't been combined to explore the behavior of the Raman features dependent on the Landau levels. We present our latest measurements of Raman scattering on graphene single and bilayers in the Quantum Hall regime.

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