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Asymmetry of the energy dependence of the charge density wave modulation of $2H\text{-NbSe}_2$ ¹ CHRISTIAN LUPIEN, BEHNAZ BEHMAND, Université de Sherbrooke — Theoretical predictions of unconventional charge density waves (CDW) such as pair density waves have a characteristic symmetry of the energy dependence of the local density of state (LDOS) modulations. The scanning tunneling microscopy (STM) and spectroscopy (STS) techniques obtain information related to the LDOS and could extract the symmetry but setpoint effects prevent a direct identification of the theoretical energy symmetry. We have investigated these effects in the conventional CDW compound $2H\text{-NbSe}_2$ with very low temperature STM/STS. We observed the expected setpoint effects on the LDOS modulation and describe ways to identify it. We also obtain that the CDW modulation in $2H\text{-NbSe}_2$ seems to be present over a large energy range (up to 140 meV).

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