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High carrier mobility and strong electron-phonon coupling in graphene-WS_2 heterobilayers by pressure

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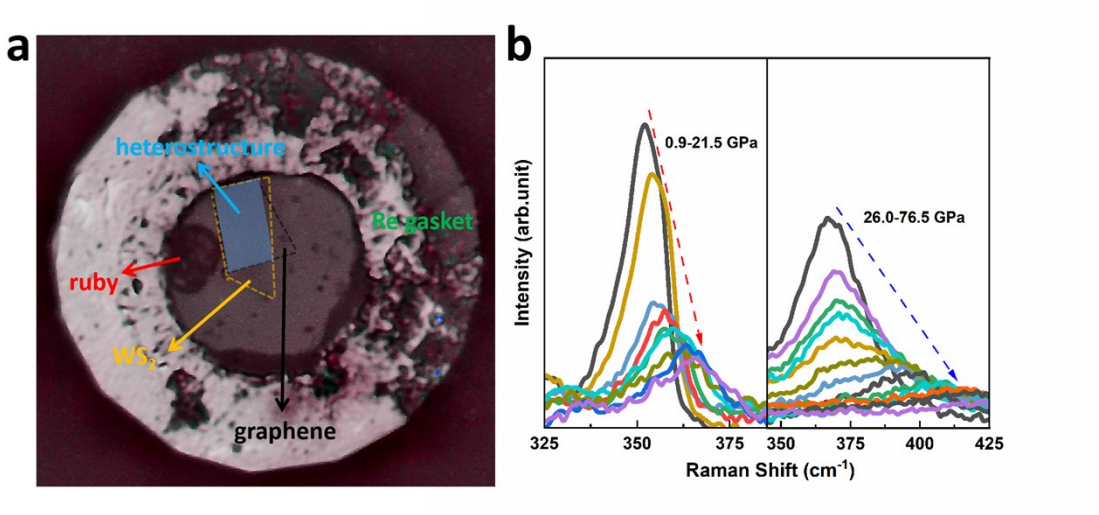

Figure S1: (a)Schematic diagram of heterojunction sample in DAC. (b) The evolution of E_{2g} with pressure.

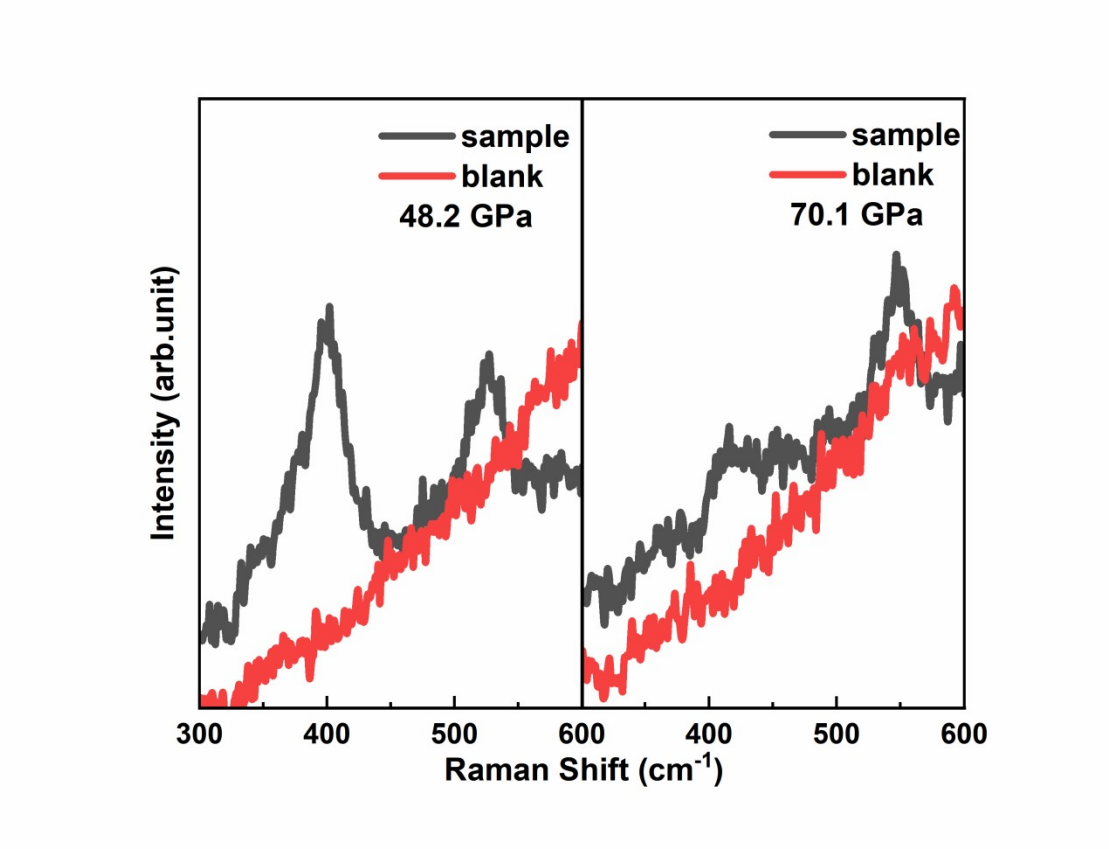

Figure S2: To distinguish true heterojunction signals, the target region signal is compared with the blank area signal under 48.2 and 70.1 GPa.

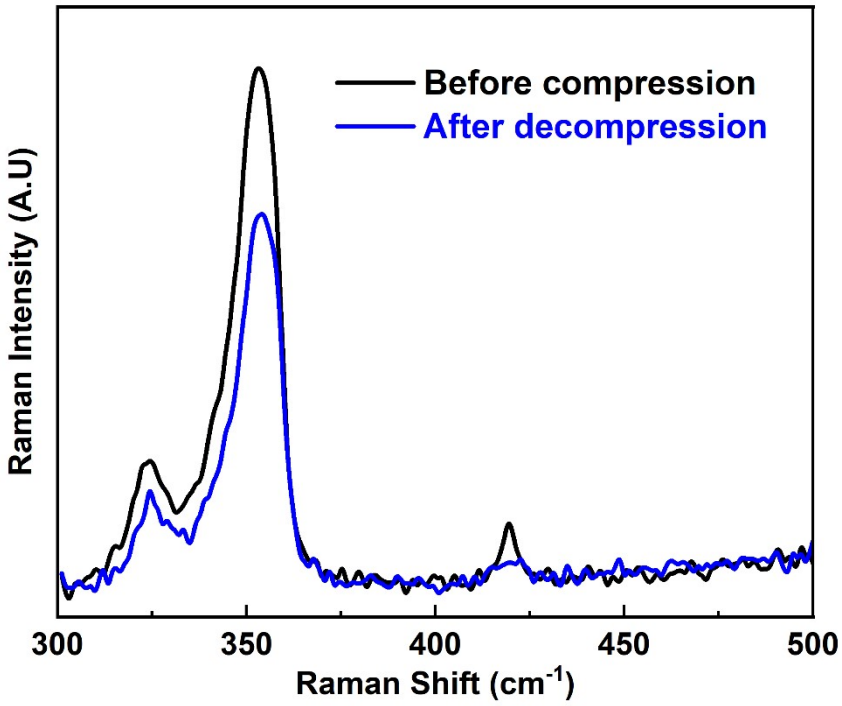

Figure S3: Comparison of Raman data before compression and after decompression.

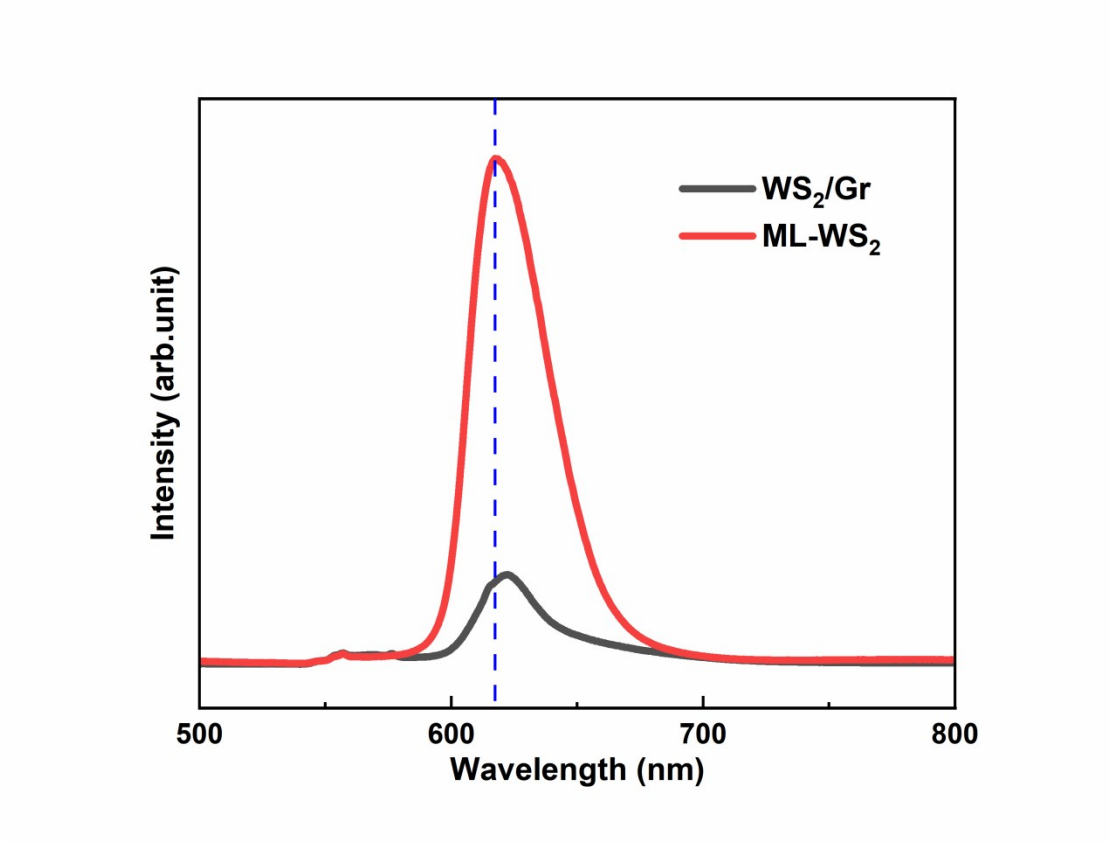

Figure S4: Comparing the PL spectra of WS_2 in the heterojunction with the monolayer WS_2 alone, it can be found that the exciton behavior is significantly weakened after the formation of heterojunction with graphene.