

## Supplementary Materials

### **Electrochemical performance of potassium bromate active electrolyte for laser-induced KBr-graphene supercapacitor electrodes**

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[Figure S1](#) shows a more detailed analysis of all the Raman spectra parameters, showing the shift of the three peak positions, the full-width half maximum (FWHM), as well as the area under each peak.. The FWHM of the pristine and KBr-doped graphene peaks is shown in [Figure S1e](#). The FWHM increased with upon adding of KBr, indicating the incorporation of KBr molecules into the graphene lattice. Since the Raman spectra are sensitive to the change of the crystallization process in the material, an increase in the FWHM indicates a disorder in the chains of the graphene lattice. Also, this can be observed due to the increase in the intensity of the D peak, as well as the increase in the area under peaks, as in [Figure S1f](#).

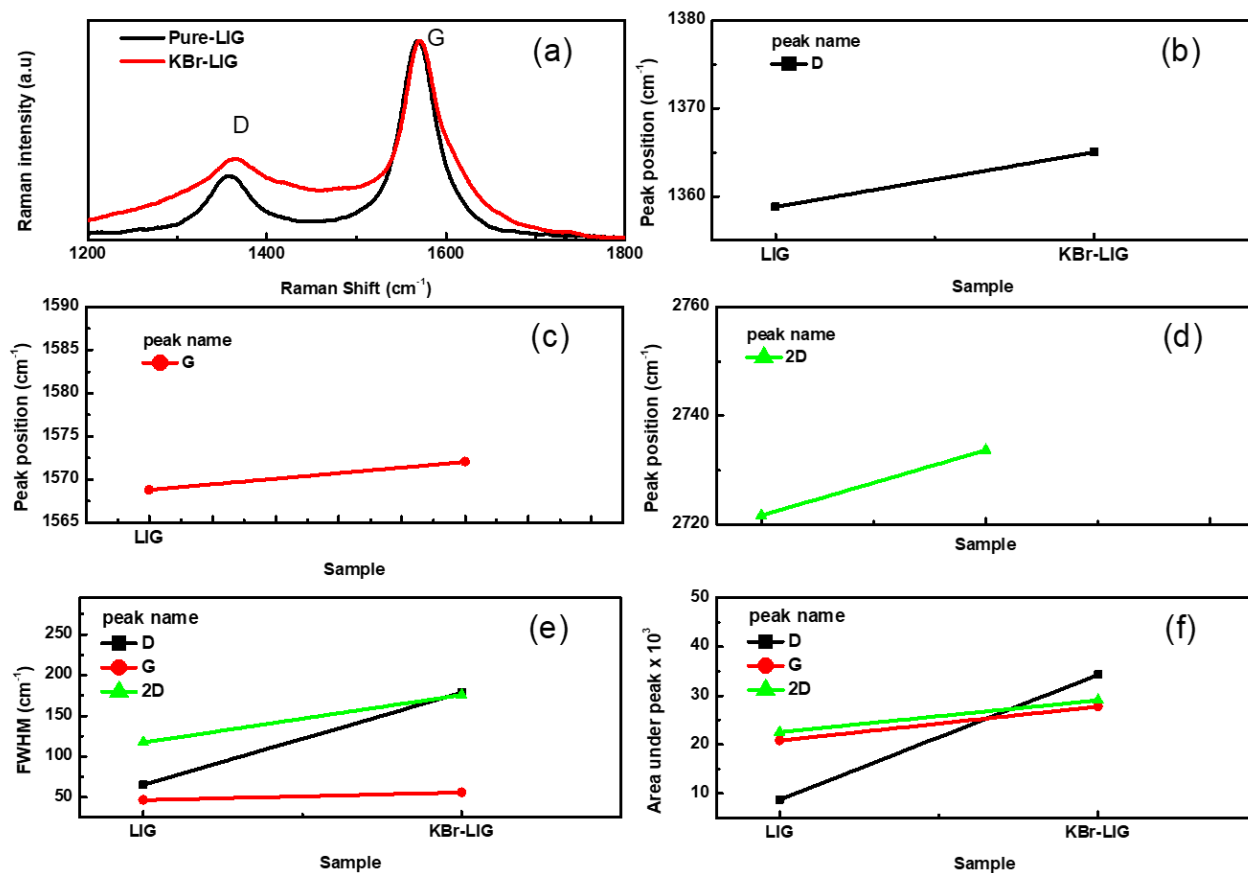


Figure S1. The measured Raman spectra of LIG, and KBr-LIG samples.