

Supporting Information

Role of Metal Cations in Graphene Doping

Mechanisms

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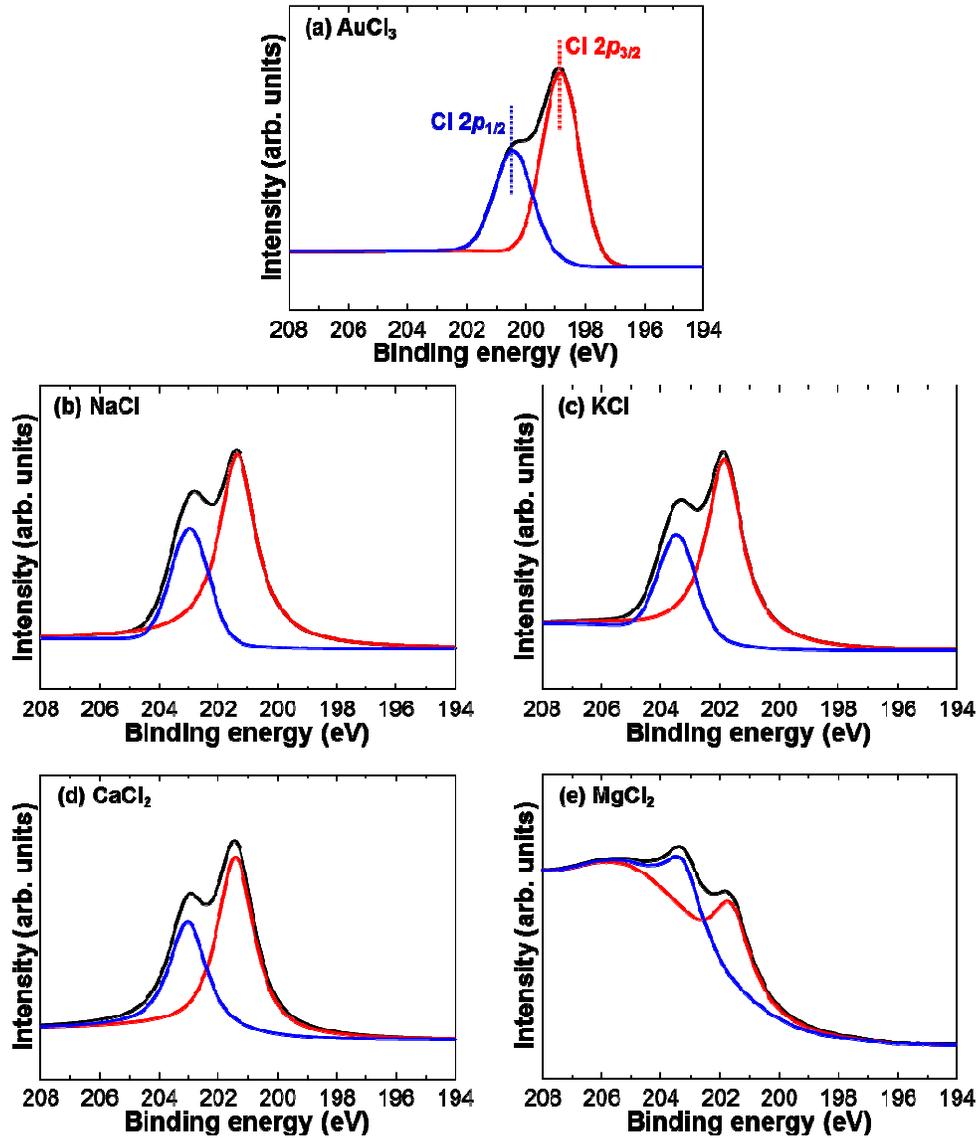
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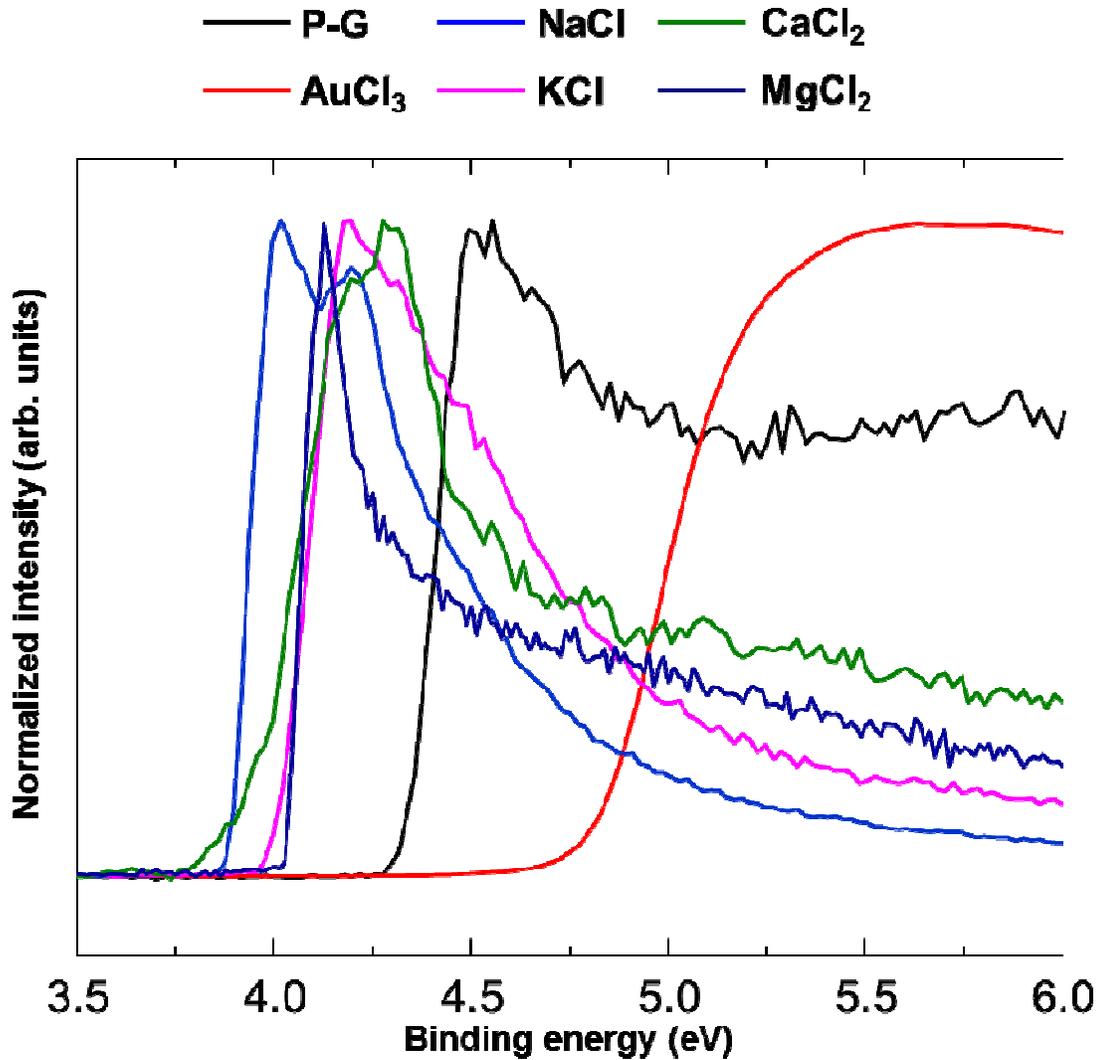
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Figure S11 shows the SRPES Cl 2*p* spectra of each different metal chloride doped graphene sheets.

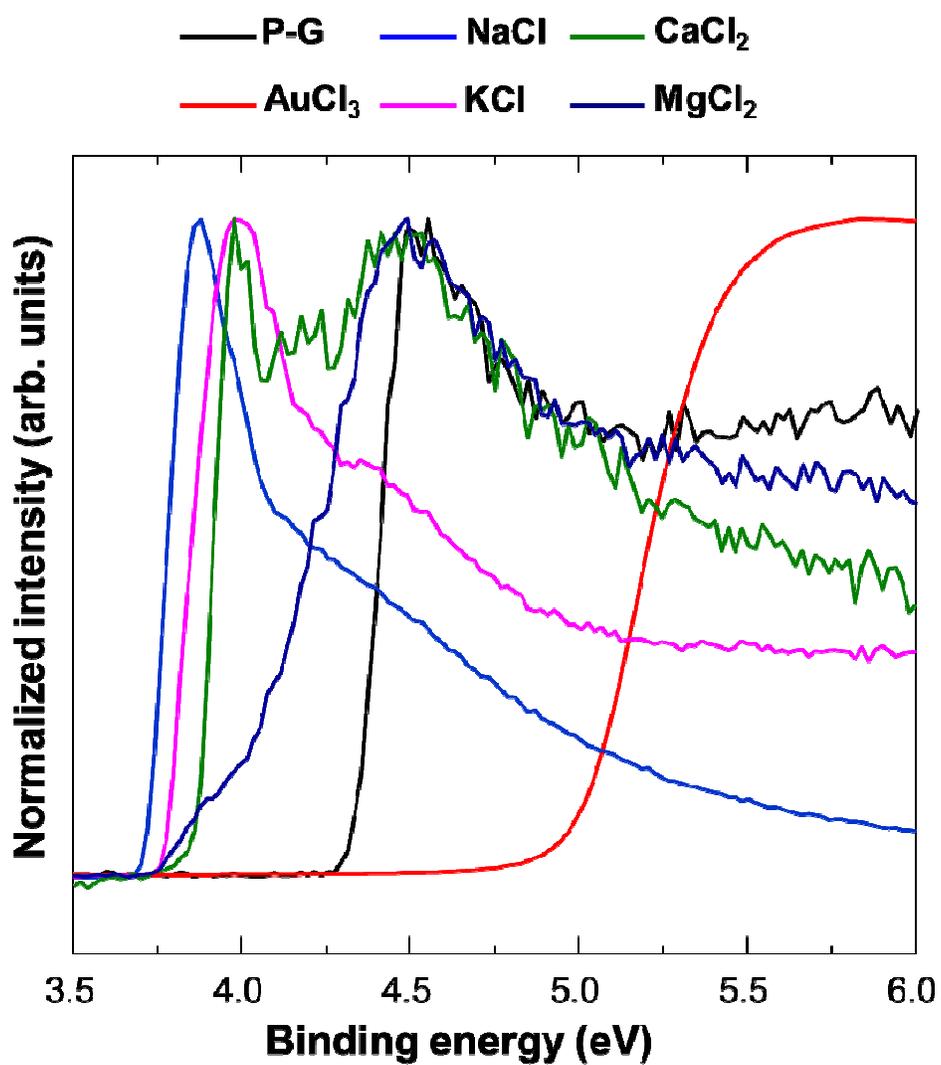


[Figure S11] The SRPES Cl 2*p* spectra of each different metal chloride doped graphene sheet were displayed with separated Cl 2*p*_{3/2} and Cl 2*p*_{1/2} peaks. (a) AuCl_3 , (b) NaCl , (c) KCl , (d) CaCl_2 , and (e) MgCl_2 doped graphene sheets.

Figure SI2 and SI3 show the work function changes in 0.5 M (10 mM for AuCl_3) and 1.0 M (20 mM for AuCl_3) alkali metal and gold chloride doped graphene sheets.



[Figure SI2] Work function of graphene doped with 0.5 M (10 mM for AuCl_3) displayed as a function of dopant metal. In alkali metal chlorides, the work function value significantly decreased after doping, but that of AuCl_3 doped graphene increased from 4.3 eV to about 4.8 eV.



[Figure SI3] Work function of graphene doped with 1.0 M (20 mM for AuCl₃) displayed as a function of dopant metal. In alkali metal chlorides, the work function value significantly decreased after doping compared to its pristine state, but that of AuCl₃ doped graphene increased from 4.3 eV to about 4.95 eV.