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Properties of graphene-metal contacts probed by Raman spectroscopy

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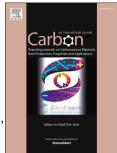
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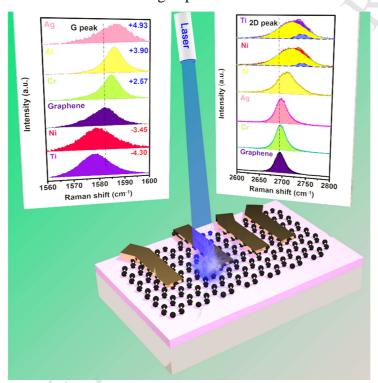
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#### ACCEPTED MANUSCRIPT

### **Graphic Abstract**

The signature of the graphene/metal bonding properties with various metal electrodes is probed by using high-resolution Raman spectroscopy. As FET size scaling down, the graphene-metal contact resistance is found to be a significant contributor to the total resistance. This study unearths the properties of the graphene/metal bonding, and paves a way for the investigations into improving the stability and scalability of the graphene-based transistor for future high-speed nanoelectronics.



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