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Metallic Adhesion in Atomic-Size Junctions NICOLAS AGRAIT, GABINO RUBIO-BOLLINGER, PHILIPPE JOYEZ[1], Univ Autonoma de Madrid — We report high resolution simultaneous measurements of electrical conductance and force gradient between two sharp gold tips as their separation is varied from the tunneling distance to atomic-size contact. The use of atomically sharp tips minimizes van der Waals interaction, making it possible to identify the short-range metallic adhesion contribution to the total force. [Phys. Rev. Lett. 93, 116803]

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