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The work function of small radius carbon nanotubes. WAN-SHENG SU, TSAN-CHUEN LEUNG, Department of Physics, National Chung Cheng University, CHE-TING CHAN COLLABORATION — Carbon nanotubes workfunctions can deviate from that of graphene due to geometric and structural factors. We have systematically investigated the work functions of various forms of small radius carbon nanotubes and their derivatives by density functional calculations. We considered and compared the workfunctions of tubes and tube-bundles in order to understand the effects of chirality, tube-length and capping condition. Systematic trends are unraveled and discussed.

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