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Room temperature single photon generation at 1. 5 m from covalent dopant states of carbon nanotubes HAN HTOONB, XIAOWEI HE, NICOLAI HARTMANN, XUEDAN MA, STEPHEN DOORN, Center for Integrated Nanotechnologies, Los Alamos National Laboratory, CENTER FOR INTEGRATED NANOTECHNOLOGIES, LOS ALAMOS NATIONAL LABORATORY TEAM — Recent demonstration that oxygen dopant states covalently attached to the single-walled carbon nanotubes (SWCNTs) are capable of emitting single photons at room-T (RT) opens the possibility of building room-T electrically-driven single photon sources for quantum communication applications.[1] The RT single photon generation was not observed only at wavelength beyond 1.3 m. Here in this work we demonstrate RT single photon generation at 1. 5 m from diazonium dopant states of (10,3) nanotubes. [1] Ma, Xuedan. et al. Nature Nanotech. 2015, 10, 671

Han Htoon
Center for Integrated Nanotechnologies, Los Alamos National Laboratory

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