

A heterogeneous III-V / Si₃N₄ quantum photonic integration platform (*Invited Paper*)

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Author(s): Marcelo I. Davanco, National Institute of Standards and Technology (United States); Jin Liu, Sun Yat-Sen Univ. (China); Luca Sapienza, Univ. of Southampton (United Kingdom); Chen-Zhao Zhang, South China Normal Univ. (China); Jose V. De Miranda Cardoso, Univ. Federal de Campina Grande (Brazil); Varun B. Verma, Richard P. Mirin, Sae-Woo Nam, National Institute of Standards and Technology (United States); Liu Liu, South China Normal Univ. (China); Kartik Srinivasan, National Institute of Standards and Technology (United States)

We develop a heterogeneous integration platform for quantum photonic chips based on low-loss, passive Si₃N₄ waveguides and GaAs nanophotonic devices with InAs quantum dots. With our platform, we demonstrate pure single-photon emission from individual quantum dots located in GaAs waveguides and cavities, with strong control of spontaneous emission rates, directly launched with > 90 % efficiency into Si₃N₄ waveguides through evanescent coupling.