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Nanostructured Diamond for Enhanced Collection Efficiency from NV Centers BRENDAN SHIELDS, NATHALIE DE LEON, ALEXANDER ZIBROV, HONGKUN PARK, MIKHAIL LUKIN, Harvard University Department of Physics — Nitrogen-vacancy (NV) centers in diamond are at the heart of a growing number of promising technologies, ranging from field sensing to solid-state quantum repeaters. Key to these applications is the ability to read out the electronic spin state accurately via the NV's optical transition. Here we present a method for enhanced photon collection efficiency from NVs near the interface between a diamond nanobeam and a glass plate.

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