

Abstract Submitted  
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**Characterization of NV diamond samples** LINH PHAM, Harvard University, DAVID LE SAGE, NIR BAR-GILL, CHINMAY BELTHANGADY, Harvard-Smithsonian, KEIGO ARAI, MIT, DANIEL TWITCHEN, MATTHEW MARKHAM, Element Six Ltd, RONALD WALSWORTH, Harvard University — We report recent progress in studying the effects of various diamond synthesis and processing techniques on the spin coherence behavior of the nitrogen-vacancy (NV) defect center. Measurements were made on single NV centers as well as on small ensembles in diamond samples containing varying concentrations of Nitrogen and  $^{13}\text{C}$  spin impurities and which have been subjected to a range of post-growth irradiation and annealing recipes.

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