

Enormously high concentrations of fluorescent nitrogen-vacancy centers fabricated by sintering of detonation nanodiamonds

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Abstract

High-pressure, high-temperature sintering of detonation nanodiamonds is used to fabricate material containing high concentrations of nitrogen-vacancy (NV) centers, without post or prior irradiation of the samples. The concentration of the NV centers in the sintered nanodiamond clusters is up to 10^4 ppm (1%) and is three orders of magnitude higher than any reported so far. © 2011 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim.

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Keywords

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