

Abstract Submitted  
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**Pressure dependence of the first-order Raman frequency in isotopically mixed diamond**<sup>1</sup> ALEXANDER GONCHAROV, Lawrence Livermore National Laboratory, University of California, HISAO KANDA, National Institute for Material Science, Tsukuba, Japan, SERGEI STISHOV, Institute for High Pressure Physics, Russian Academy of Sciences, Troitsk, Russia — We report the results of the Raman measurements under hydrostatic pressure to 12 GPa in isotopically mixed  $^{12}\text{C}_{(1-x)}^{13}\text{C}_x$  ( $x=0.3$  and  $0.75$ ) diamonds in the diamond anvil cell using helium as a pressure medium. The results show that the pressure dependences of isotopically mixed samples are stronger than that for almost isotopically pure natural diamond ( $x=0.011$ ). We attribute this fact to the disorder effects that renormalizes the Raman frequency. We acknowledge the use of the CDAC facility in Geophysical Laboratory Carnegie Institution of Washington. SMS appreciates support from programs of Department of Physics of Russian Academy of Sciences.

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