

Supplementary material

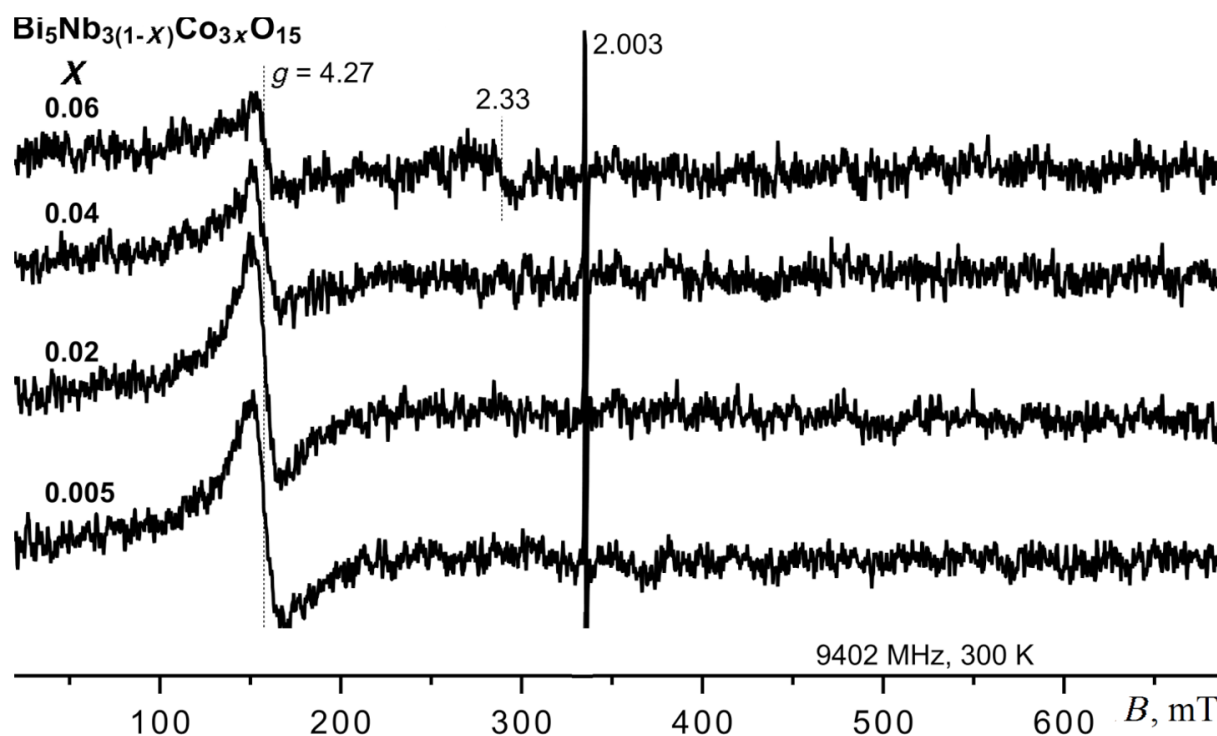


Fig. S1. EPR spectra of solid solutions $\text{Bi}_5\text{Nb}_{3-3x}\text{Co}_{3x}\text{O}_{15-\delta}$.

ESR spectra of the polycrystalline samples of the $\text{Bi}_5\text{Nb}_{3-3x}\text{Co}_{3x}\text{O}_{15-\delta}$ were recorded using a RadioPAN SE/X 2547 radiospectrometer of X-diapason (Center for Collective Usage “Geonauka”, Komi Scientific Center, Ural Branch, Russian Academy of Sciences). The spectra were recorded using a rectangular resonator (RX102, TE 102 mode) at room temperature as the first derivative at the HF modulation frequency of 100 kHz with the amplitude of 0.25 mT and the SHF (Super-High Frequency) field power of 35 mW. A batch of a sample (≈ 100 mg) was put into a quartz tube (external diameter of 4 mm). The ESR signal of a miniature reference sample (anthracite, singlet line $g_0 = 2.003$, width as the distance between extremums of derivative line $\Delta B_{pp} = 0.5$ mT) was used to calibrate the amplification of the apparatus. The quartz ampoule with the reference sample was rigidly fixed in the resonator coaxially to the test tube with the measured sample. For each sample, the spectrum in the magnetic field range of 0 – 700 mT and the lines of the reference were separately recorded with the scan step of 5 mT. The total spectra were normalized to the reference line intensity and then to 100 mg of the sample.