

LOCALIZATION OF ATOMS OF CARBON IN THE CRYSTAL LATTICE OF NICKEL

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Channeling of accelerated protons technique was used for determination of carbon atoms location in Ni crystal lattice. ^{13}C isotope was dissolved in Ni samples. At angular scan near crystal axis $\langle 110 \rangle$ and plane (100) γ -rays yield of resonance reaction $^{13}\text{C}(p, \gamma)^{14}\text{N}$ and backscattered on Ni nuclei protons was measured. It was shown that at concentration level 0.18 at. % carbon atoms located in octahedral voids, and at concentration level 0.46 at. % carbon atoms located in tetrahedral voids of nickel.