

X-ray diffraction data from a mixture of high-carbon martensite and retained austenite. The tetragonality of martensite is clear.

Courtesy of Apparao Chinthu. University of Cambridge.
<http://www.phase-trans.msm.cam.ac.uk>

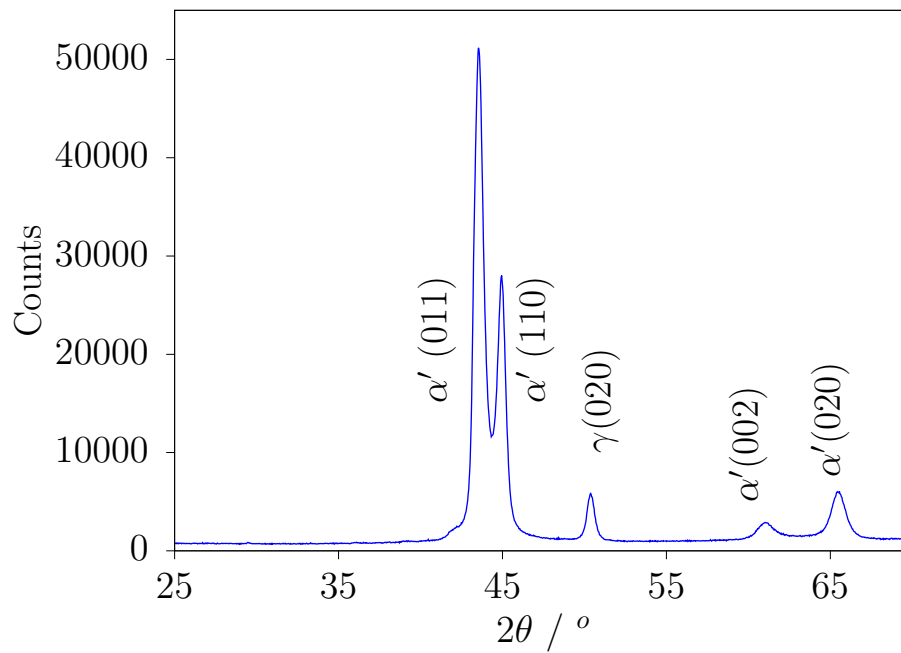


Figure 1: X-ray diffraction spectrum of steel with 1.6 wt% C in quenched condition.

The sample was annealed at 1120 °C for 1 h followed by quenching in water. The XRD spectrum for 2θ range of 25 - 70° with a step size of 0.03 and dwell time of 20 s obtained from Bruker D8 DAVINCI diffractometer using Cu_{Kα} radiation that was obtained at a 40 kV and 40 mA. 0.012 Ni filter was used to minimise unwanted Cu_{Kβ} radiation.

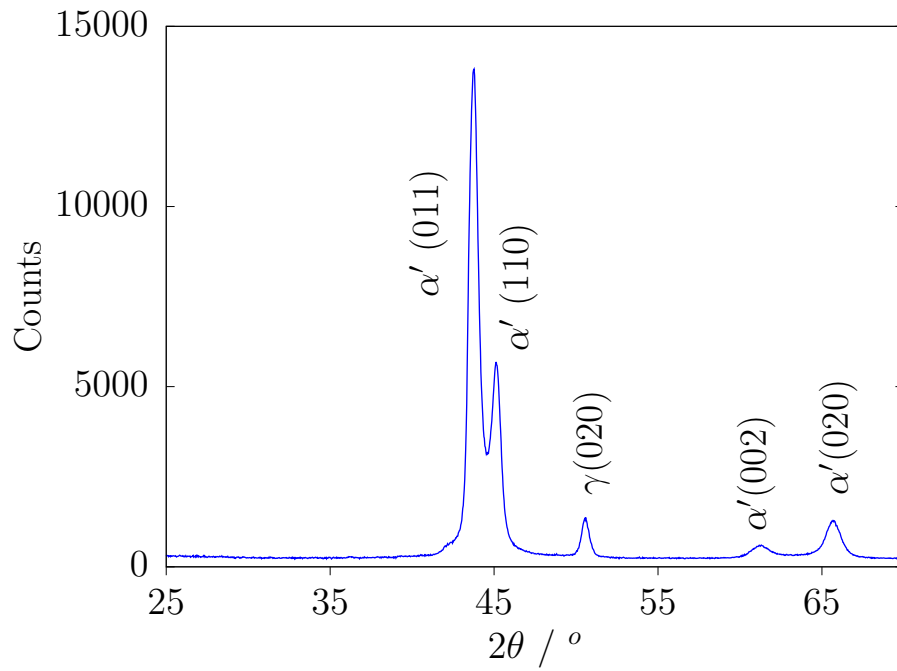


Figure 1: X-ray diffraction spectrum of steel with 1.6 wt% C in quenched condition.

The sample was annealed at 1120 °C for 1 h followed by quenching in water. The XRD spectrum for 2θ range of 25 - 70° with a step size of 0.03 and dwell time of 15 s obtained from Bruker D8 DAVINCI diffractometer using $\text{Cu}_{K\alpha}$ radiation that was obtained at a 40 kV and 40 mA. 0.012 Ni filter was used to minimise unwanted radiation of $\text{Cu}_{K\beta}$.