

Equal channel angular pressing (ECAP) belongs to advanced technologies for improving mechanical properties of materials. In the present work the influence of number of pressing by route B<sub>C</sub> on grain size, density and type of dislocation, evolution of microstructure and mechanical properties of IF steel has been investigated by means of optical microscopy, electron back-scattering diffraction (EBSD), diffraction profile analysis, microhardness testing and tensile deformations. It has been found, that the grain size decreasing with increasing number of passes. Simultaneously, the microhardness, density of dislocation and maximum true strength has been increased. The evolution of microstructure with increasing pressing number, particularly the forming of high-angle boundaries has been also examined.