

The present invention relates to a method for evaluating the hydrogen content in a steel sheet while being submitted to an annealing process, comprising the following steps: estimating the microstructure of the steel sheet according to the temperature curve, computing the solubility of the hydrogen C_H , computing the volume concentration of trapped hydrogen in dislocations C_T and the volume concentration of hydrogen in interstitial sites of the crystal lattice C_L , calculating the hydrogen content $C_{total}=C_L+C_T$ at each time step of the annealing process and outputting the hydrogen content C_{total} at each time step to a user.