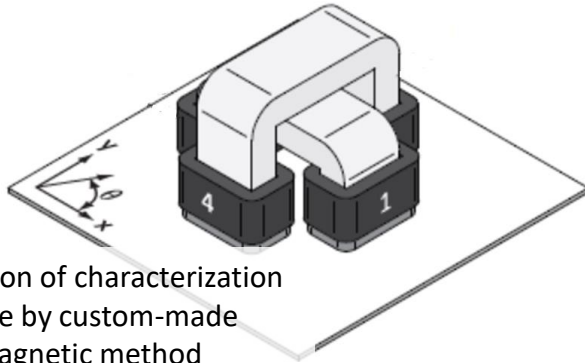


Non Destructive Analysis and Characterization of Fe-C Steels

AND and CND methods developed

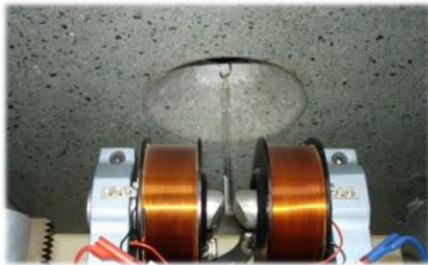
Electromagnetic Methods



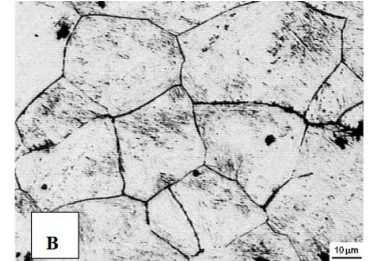
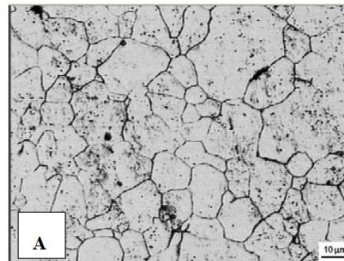
Realization of characterization probe by custom-made magnetic method



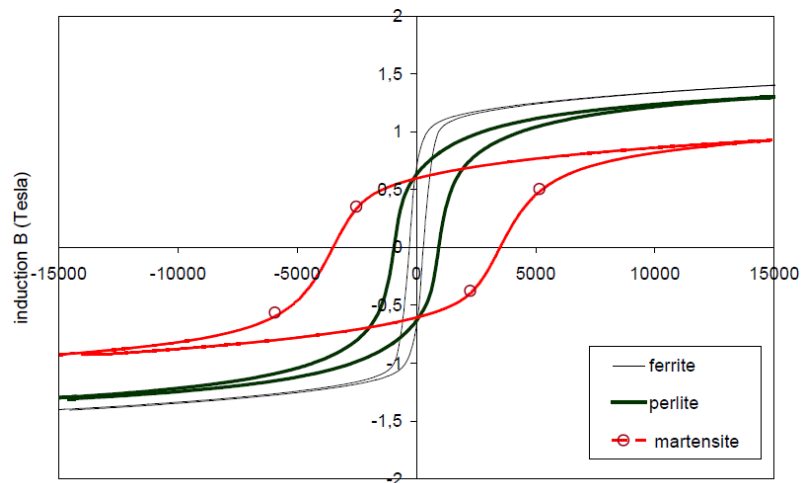
Measurement of the ferrite rate and the evolution of μ_r on the weld bead



Evaluation of the grain size by electromagnetic method on austenitic steels



μ_{max} measurement probes
Carbon rate

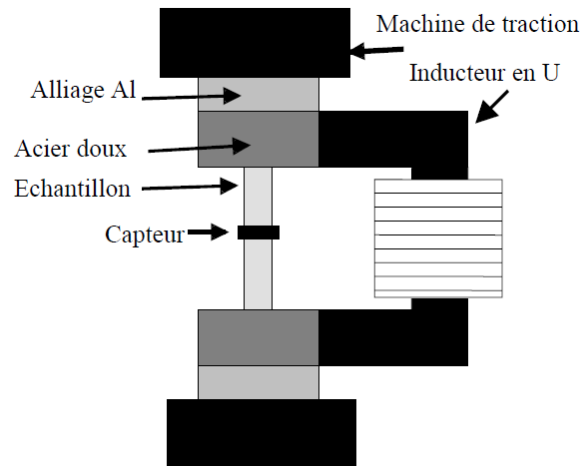


Determination of the metallurgical phases as a function of the Hysteresis cycle B-H

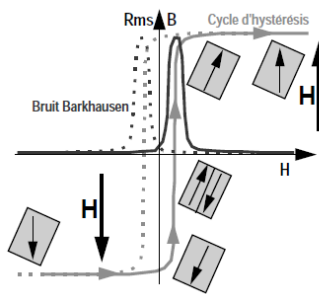
Non Destructive Analysis and Characterization of Fe-C Steels

Méthodes AND et CND développées

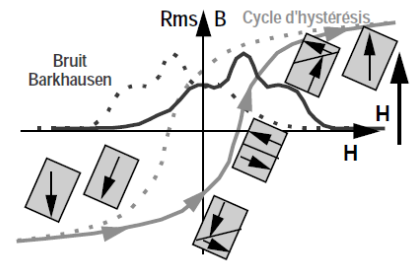
Magnetic properties as a function of mechanical stresses



Evolution of the magnetic microstructure as a function of the magnetic field, for different stress states

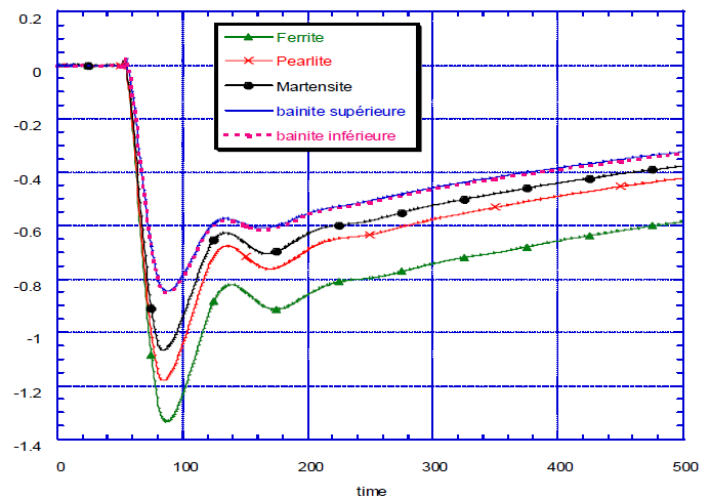
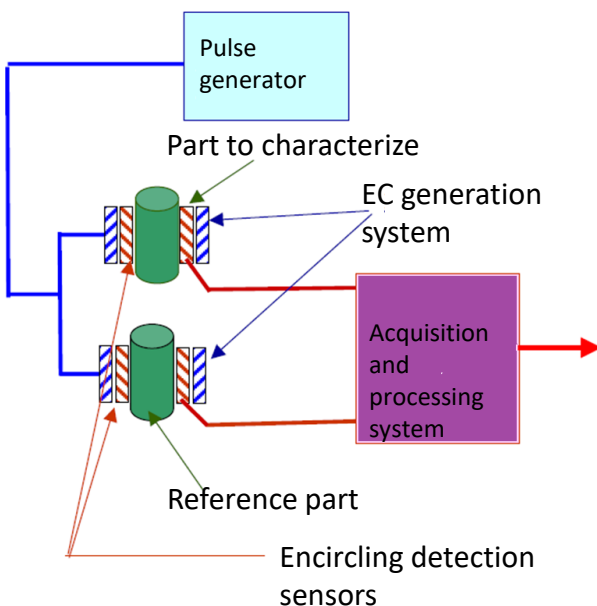


Traction



Compression

Eddy currents as a function of metallurgical phases



Eddy current signals received depending on the metallographic structure of the part