

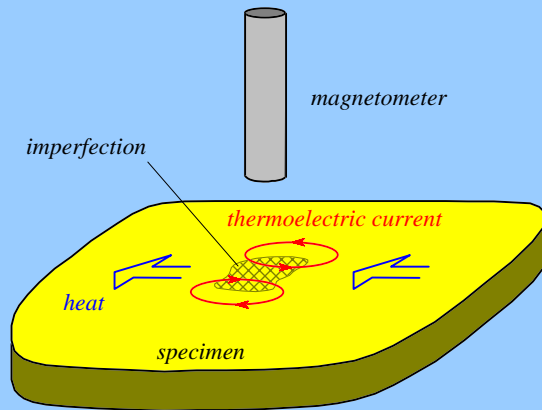
# THERMOELECTRIC NONDESTRUCTIVE CHARACTERIZATION OF METALS



Hector Carreon and Peter B. Nagy  
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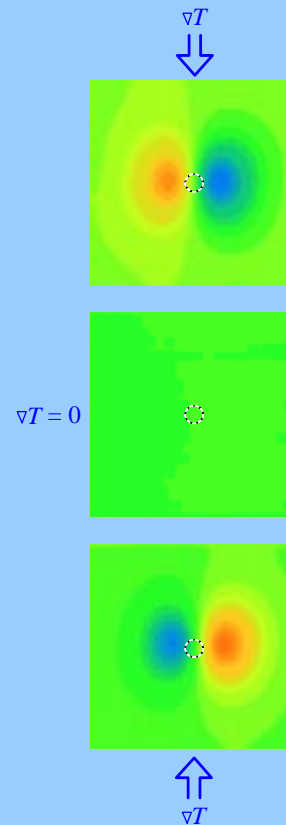
## OBJECTIVE

To develop a new nondestructive testing method based on magnetic sensing of local thermoelectric currents around imperfections when a temperature gradient is established throughout the specimen.



## TECHNICAL CHALLENGE

To detect otherwise hidden material imperfections, such as plasticity, hardening, fatigue damage, and the presence of residual stresses.



## BENEFITS

New analytical, computational, and experimental methods that constitute the foundations of this new field of nondestructive materials characterization.

