



## **Industrial applications of neutron techniques: a recent overview related to materials and components of technological interest**

M. Rogante

Rogante Engineering Office, C. da San Michele, 61/P.O. Box 189, 62012 Civitanova Marche, Italy / Laboratory of Nuclear Engineering of Montecuccolino, Univ. of Bologna, Italy

Neutron techniques, as non-destructive diagnostics, are getting more and more relevance in the characterization of materials and components related to industrial applications.

In this paper, the basic theoretical aspects and some applications of the same techniques are reported. Residual Stresses (RS) determination in welds, extruded specimens and component for nuclear/traditional energy industry is presented. Small Angle Neutron Scattering (SANS) is also presented to provide for microstructural information, especially related to the precipitate distribution, either in component for energy industry, or in automotive industry application.