

# Structural and strains analyses of FeCo/Al<sub>2</sub>O<sub>3</sub> elaborated by milling time

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**Abstract :** The effect of milling time of Fe matrix strengthened with 40% wt % Al<sub>2</sub>O<sub>3</sub> during mechanical alloying was examined for nanocomposite alloy at different milling times (5, 15, 20, 30 h), during milling the lattice strain increased from 0.34 to 0.64%, and residual stress increased from 93.024 to 175.104 Gpa, it is due to sever deformation plastic.

**Keywords :** Fe/Al<sub>2</sub>O<sub>3</sub> nanostructured, MEB, DRX, EDX