

# Ferroelastic behavior of LaCoO<sub>3</sub>: A comparison of impression and compression techniques

Akbari-Fakhrabadi, Ali

Rodríguez, Oliver

Rojas, Ricardo

Meruane, Viviana

Pishahang, Mohammad Hossein

© 2018 Elsevier Ltd Ferroelastic mechanical behavior of LaCoO<sub>3</sub> was investigated by the impression test and compared with the conventional compression test using digital image correlation technique for deformation measurement. The results show that the coercive stress for ferroelastic deformation can be detected by impression test, which is less than critical stress for such deformation in the compression test. Room temperature ferroelastic impression creep characterization showed different equilibrium penetration of flat-end punch at different constant stresses, which can be characterized by Prony series equation.