



THÈSE DE DOCTORAT
DE L'UNIVERSITÉ PSL

Préparée à [Ecole Normale Supérieure]

Spécialité
Géophysique

**Physical and mechanical properties of a thermally
cracked andesite**

Soutenue par
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Time : 14 :00, 22 March 2019

Location : Salle E314, Ecole Normale Supérieure

24 Rue Lhomond, 75231 PARIS CEDEX 05

Abstracts :

The physical properties and mechanical behavior of andesite are of interest in the context of geothermal reservoir, CO₂ sequestration and for several natural processes. The effects of thermal crack damage on the physical properties and rupture processes of andesite were investigated under triaxial deformation at room temperature. Secondly we did research on the effect of alteration on physical behavior and mineralogy. At last a series of experiments were performed in order to investigate the effect of fluid pressure variation i) on the mechanical behavior of andesite samples and ii) on acoustic emissions activities

Composition du jury :

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