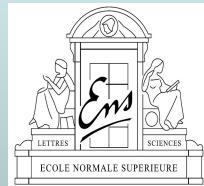


# Mechanical behavior and localized failure modes in a porous basalt from the Azores



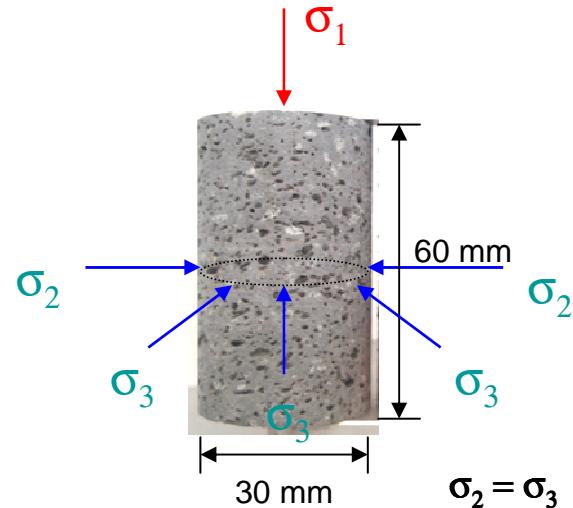
S. Loaiza <sup>a,\*</sup>, J. Fortin <sup>a</sup>, A. Schubnel <sup>a</sup>,  
Y. Guéguen <sup>a</sup>, M. Moreira <sup>b</sup>, S. Vinciguerra <sup>c</sup>

<sup>a</sup> Laboratoire de Géologie, Ecole Normale Supérieure, 24 rue Lhomond 75005 Paris, France

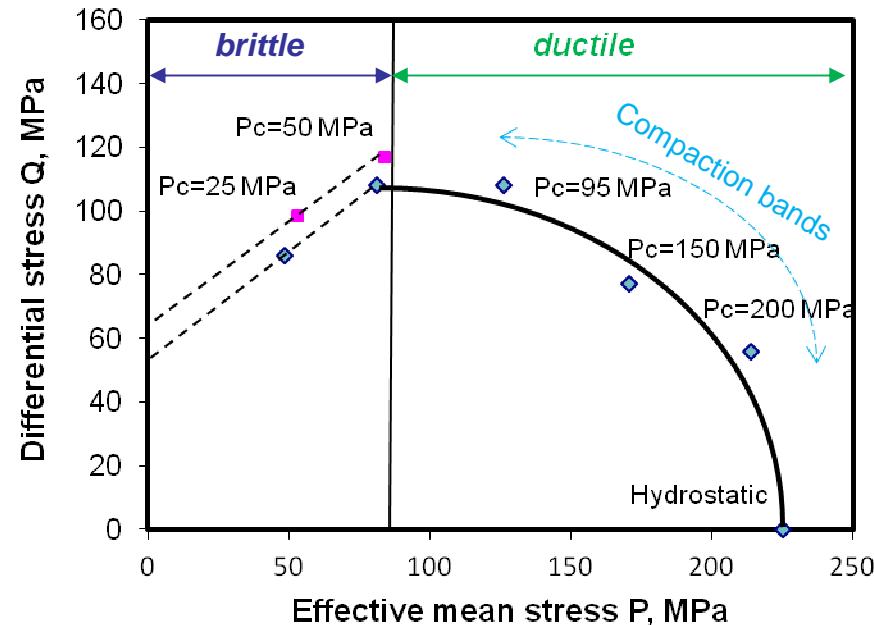
<sup>b</sup> Instituto Superior de Engenharia de Lisboa, Portugal

<sup>c</sup> Istituto Nazionale di Geofisica e Vulcanologia, Sezione di Roma 1, Italy

\*Corresponding author's e-mail: [sloaiza@geologie.ens.fr](mailto:sloaiza@geologie.ens.fr)



**Figure 1.** Cylindrical samples, the porosity appears in black.



**Figure 2.** Yield envelopes for brittle strength and shear enhanced compaction : peak stress and critical stress states are shown in the stress space. The compactive yield envelope follows approximately an ellipse.