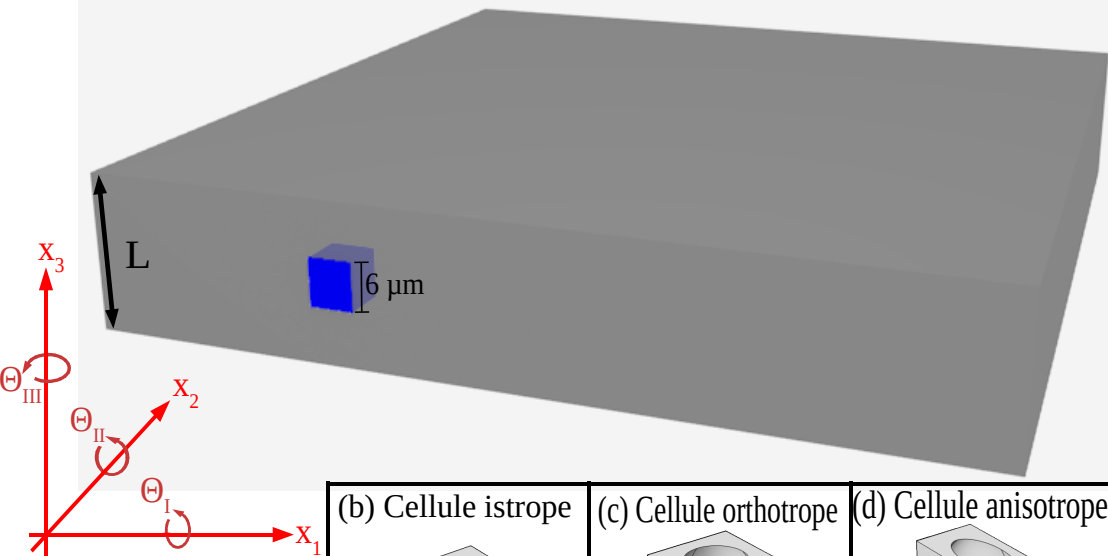
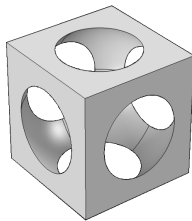


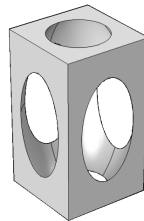
(a) Couche de matériau poreux vu comme un fluide équivalent (modèle JCAL)



(b) Cellule isotrope

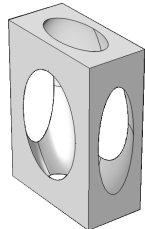


(c) Cellule orthotrope



$$\theta_I = 15^\circ, \theta_{II} = 55^\circ, \theta_{III} = 80^\circ$$

(d) Cellule anisotrope



$$\theta_I = 2^\circ, \theta_{II} = 37^\circ, \theta_{III} = 60^\circ$$