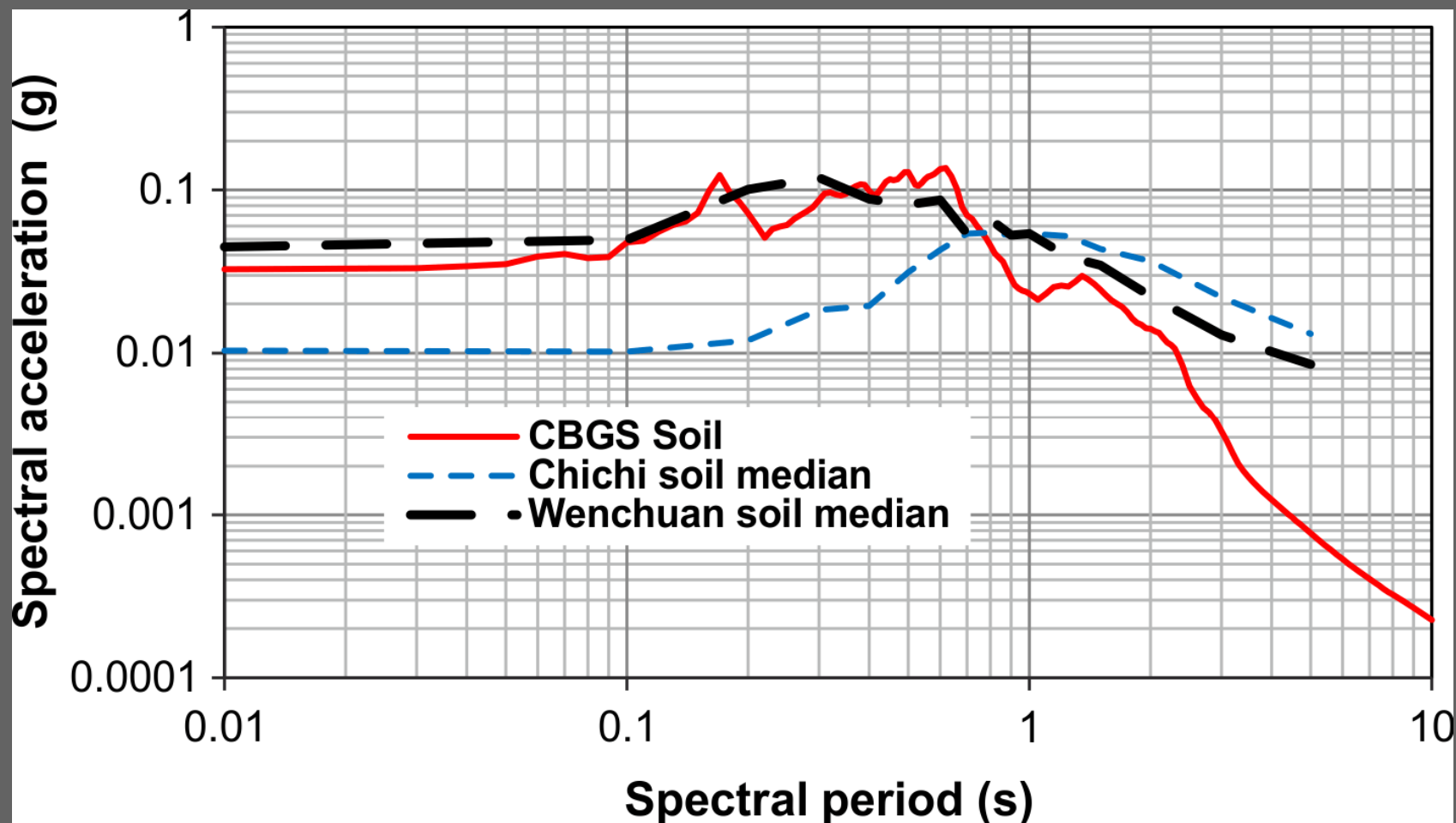


Estimated Christchurch spectra for Alpine Fault event



Much lower than even $Z=0.22$ design spectrum which peaks at 0.66g

Chichi Mw7.6 in Taiwan in 1999, Wenchuan Mw7.9 in China in 2008