ISTerre
Institut des Sciences de la Terre

# Grand Séminaire 2014/2015



# Onset of subduction and the genesis of TTG's (tonalites-trondhjemites-granodiorites) in the earliest Earth


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*One of the most popular theories of early continental crust development is that an older basaltic protocrust was partially re-melted to produce felsic magmas plus a residue of garnet + pyroxene + rutile, with the felsic melts are now represented by the TTG granitoids that dominate most surviving Archaean terrains. In this study we present new experimental evidence that is consistent with this model, but which also indicates that TTG magma formation was probably a more complex process than has just been described. These greenstones have compositional affinities with modern subduction zone magmas. Thus, arc-like mafic rocks appear to have been selectively involved in TTG formation, implying the involvement of crustal recycling in TTG genesis and plate interaction very early in Earth's history.*


## Jeudi 25 septembre 2014 à 11h

## Salle de conférences d'ISTerre

OSUG-C, 1381 rue de la piscine, Campus Universitaire
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