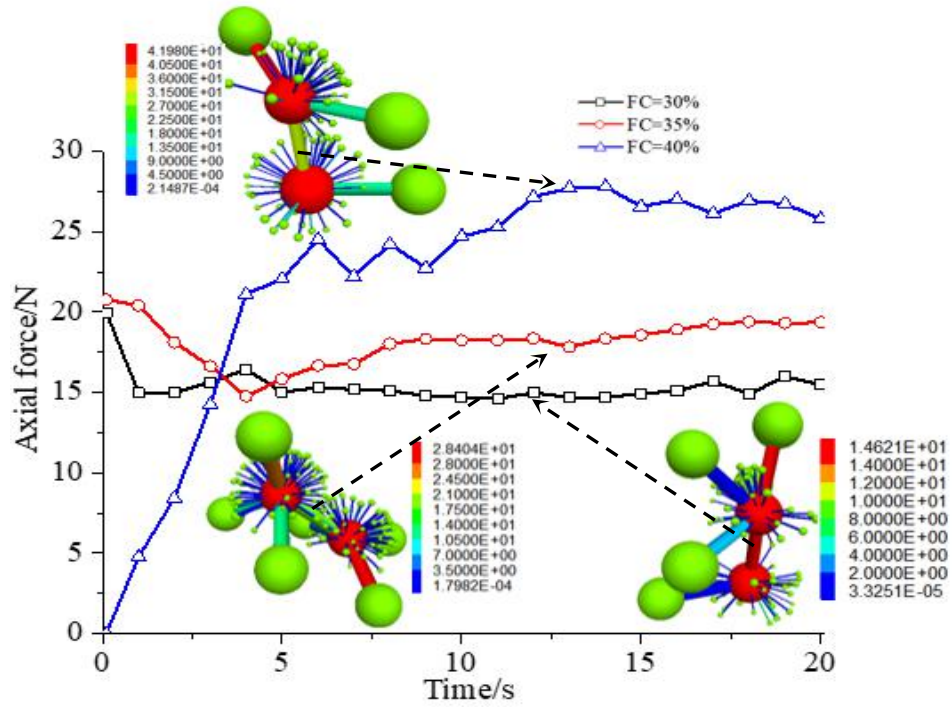


(a)



(b)

Figure 18 Evolution characteristics of the force chain for the samples with different FC: (a) upper part; (b) lower part