a)

l_s

L

applied force

μ_e

μ_c

segment strain

b)

l_c

ξ

F

filament slip

F/ξ

time

c)

υ

sliding rate

υ

ξ

pulling force

d)

τ_r

old filaments

e^{-t/τ_r}

time

e)

o

Fundamental Parameters:
L = filament length (μm)
μ_e = extensional modulus (nN)
μ_c = extensional modulus (nN)
l_c = cross-link spacing (μm)

ξ = inter-filament friction (nN•s/μm)
υ = active filament force (nN)
ϕ = cross-link active fraction
τ_r = filament recycling time (s)
ζ = medium viscosity (nN•s/μm^2)