a) L, μ_e, μ_c; applied force vs filament strain, μ_e, μ_c, WLC

b) ξ, l_c; F, filament slip vs time, F/ξ

c) ξ, υ; sliding rate vs pulling force, υ, ξ

d) φ

e) τ_r, e^{-t/τ_r} vs time

Model Parameters

L = filament length (µm)

μ_e = extensional modulus (nN)

μ_c = extensional modulus (nN)

ξ = inter-filament friction (nN·s)

l_c = cross-link spacing (µm)

υ = active filament force (nN)

φ = cross-link active fraction

τ_r = filament recycling time (s)

ζ = medium viscosity (nN·s/µm)