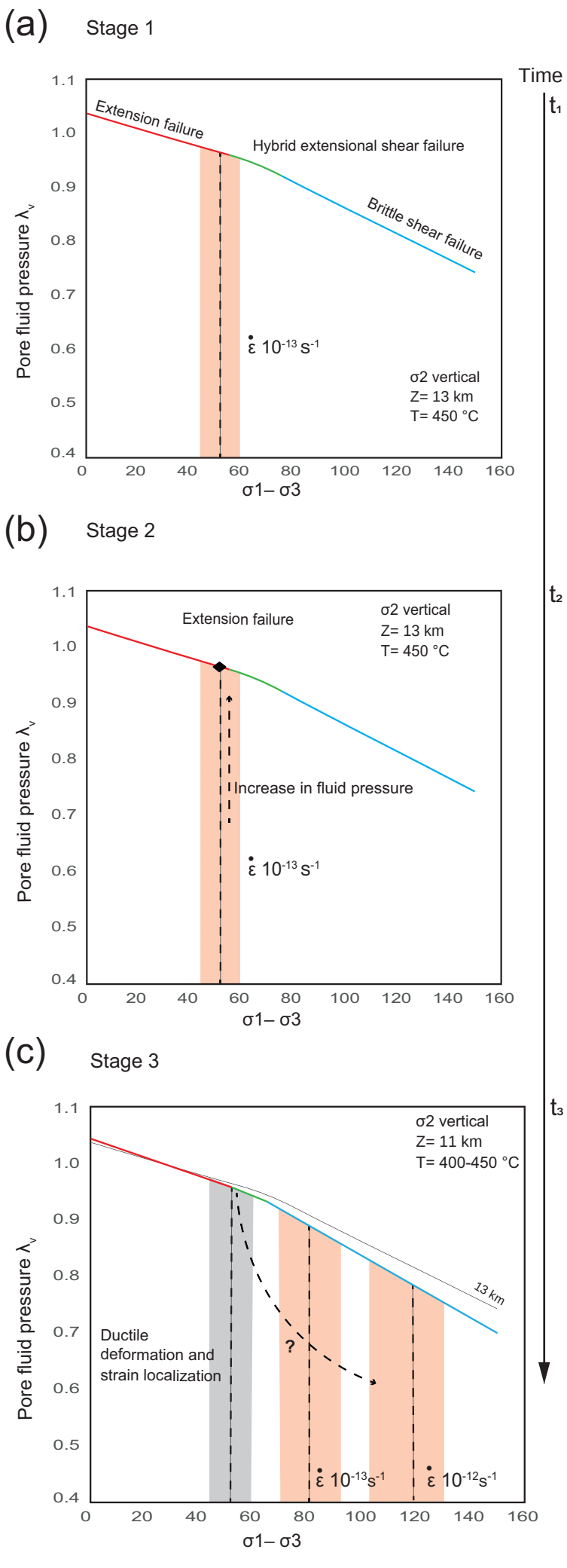
(a)
Stage 1
Time
t1
Extension failure
Hybrid extensional shear failure
Brittle shear failure
Pore fluid pressure λv
ε̇ 10-13 s-1
σ2 vertical
Z= 13 km
T= 450 °C
σ1– σ3
(b)
Stage 2
t2
Extension failure
σ2 vertical
Z= 13 km
T= 450 °C
Increase in fluid pressure
ε̇ 10-13 s-1
(c)
Stage 3
t3
σ2 vertical
Z= 11 km
T= 400-450 °C
13 km
Ductile
deformation and
strain localization
?
ε̇ 10-13s-1
ε̇ 10-12s-1