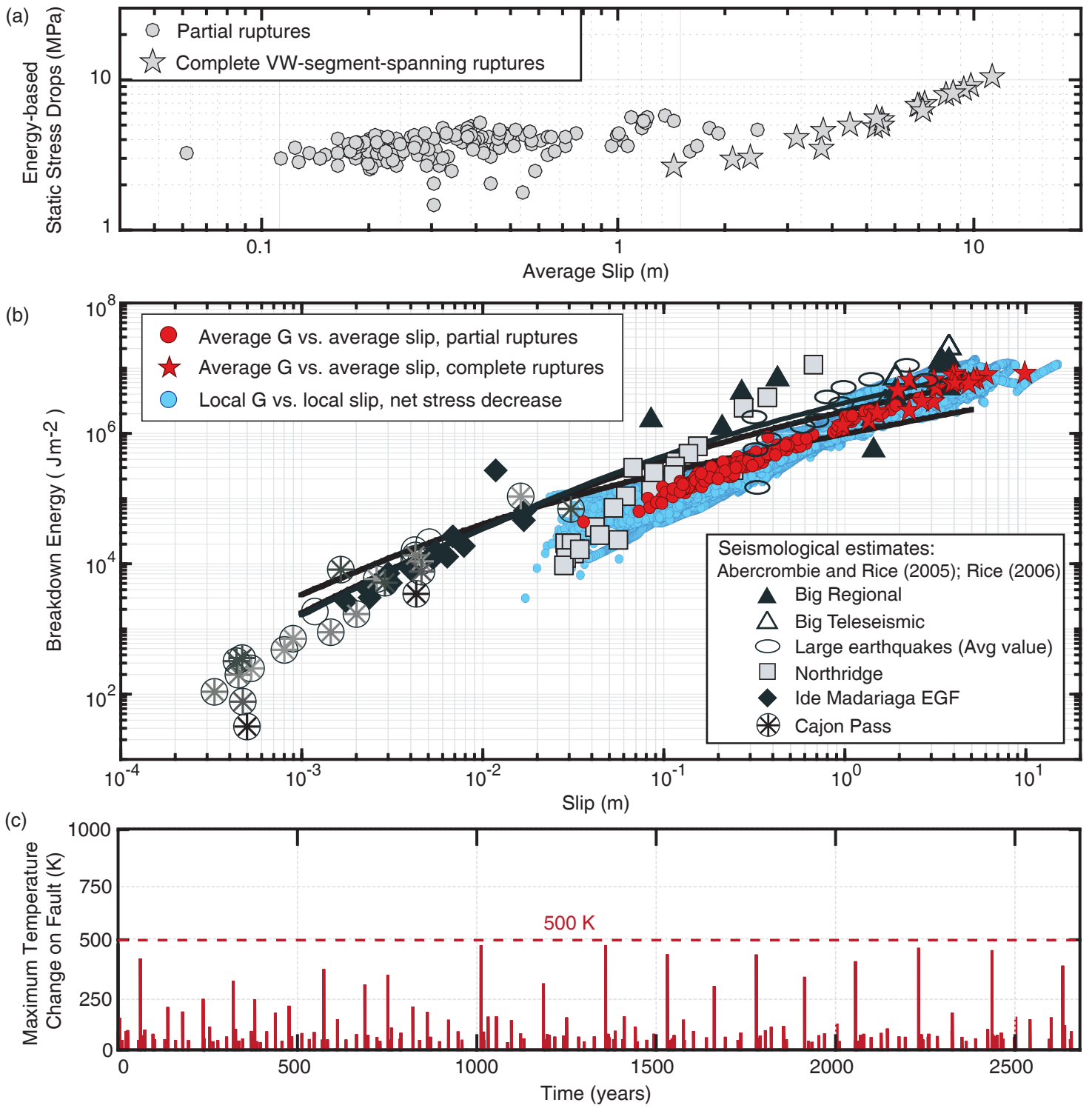
(a)
Partial ruptures
Complete VW-segment-spanning ruptures
Energy-based Static Stress Drops (MPa)
10
1
0.1
1
10
Average Slip (m)
(b)
Average G vs. average slip, partial ruptures
Average G vs. average slip, complete ruptures
Local G vs. local slip, net stress decrease
Breakdown Energy (J m-2)
10^8
10^6
10^4
10^2
Seismological estimates:
Abercrombie and Rice (2005); Rice (2006)
Big Regional
Big Teleseismic
Large earthquakes (Avg value)
Northridge
Ide Madariaga EGF
Cajon Pass
10^-4
10^-3
10^-2
10^-1
10^0
10^1
Slip (m)
(c)
Maximum Temperature Change on Fault (K)
1000
750
500
250
0
500 K
0
500
1000
1500
2000
2500
Time (years)