

Chapter VII

Generalized hydrodynamics of the cytoskeleton

I) General strategy

II) Choosing the variables

III) Response under a reversible transformation

IV) Irreversible transformation

V) Flux-force relations

VI) Specifying the equilibrium forces

1. Within the Lagrangian volume element
2. Nonlocal couplings

References:

Kruse *et al.*, *Eur. Phys. J. E* **16**, 5 (2005)

[derivation of the active gels equations]

De Groot & Mazur, *Non-equilibrium thermodynamics*, Dover (1984)

[about our general approach]

Landau & Lifschitz, *Statistical Physics Part 1*, Butterworth Heinemann (1980)

[see §120 on the Onsager reciprocity relations]