

# Nanomechanics II

in MCC026 Nanoscience

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2  $\mu\text{m}$



EHT = 5.00 kV

WD = 3.5 mm

Signal A = InLens

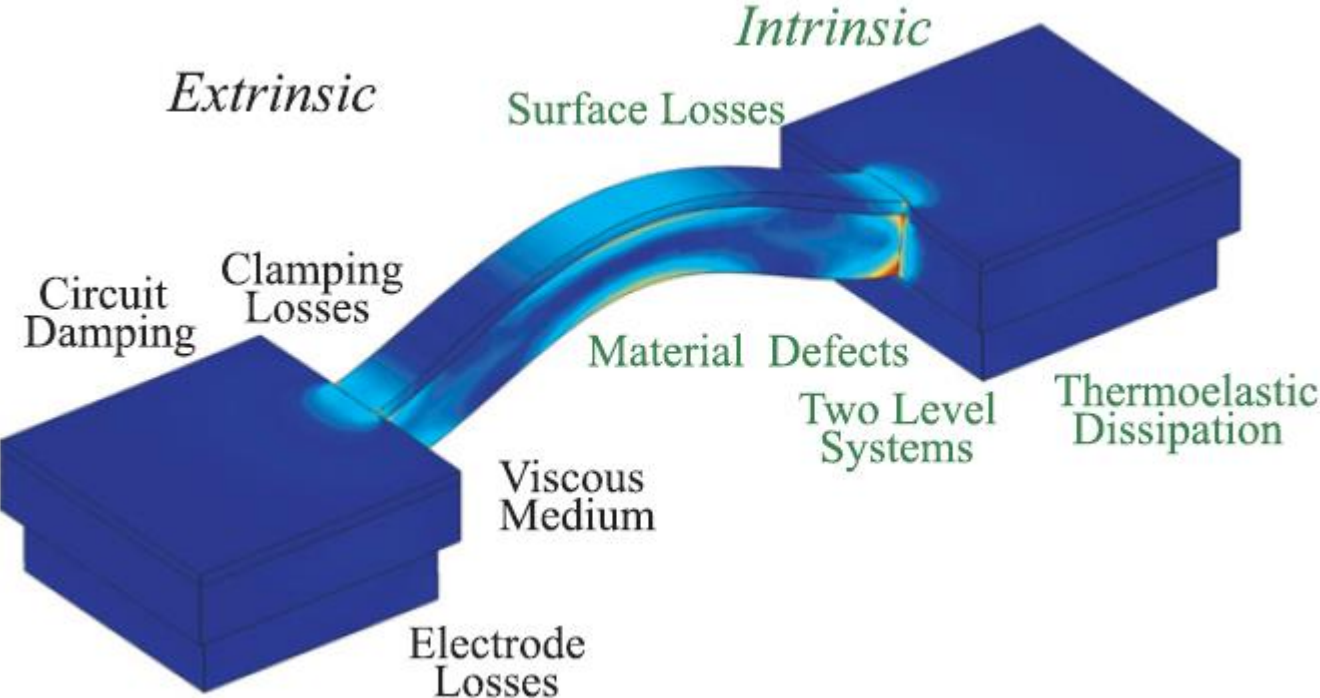
Mag = 6.17 K X

Date :18 Sep 2018

Time :16:41:56

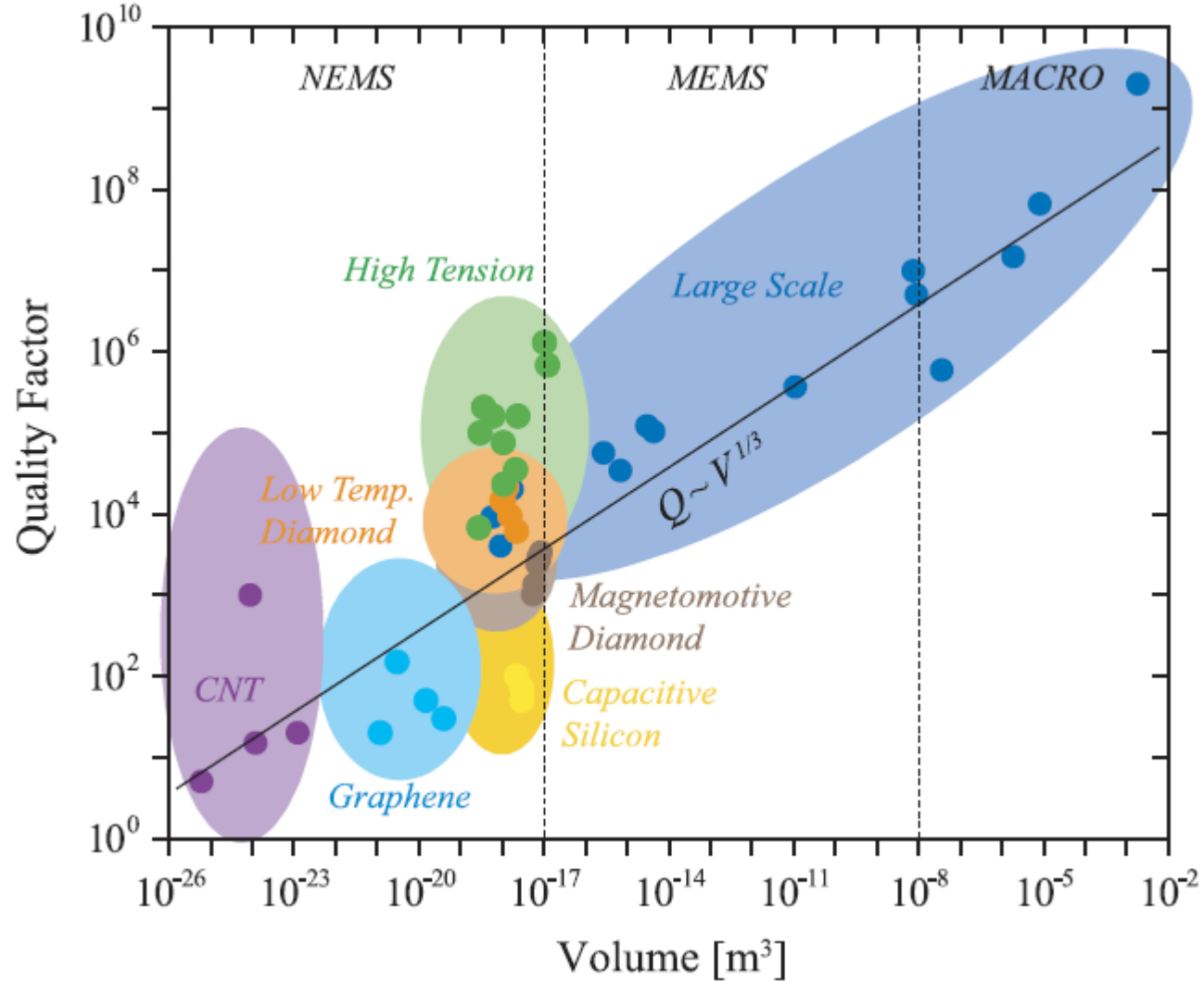
**MCC2**

# Dissipation



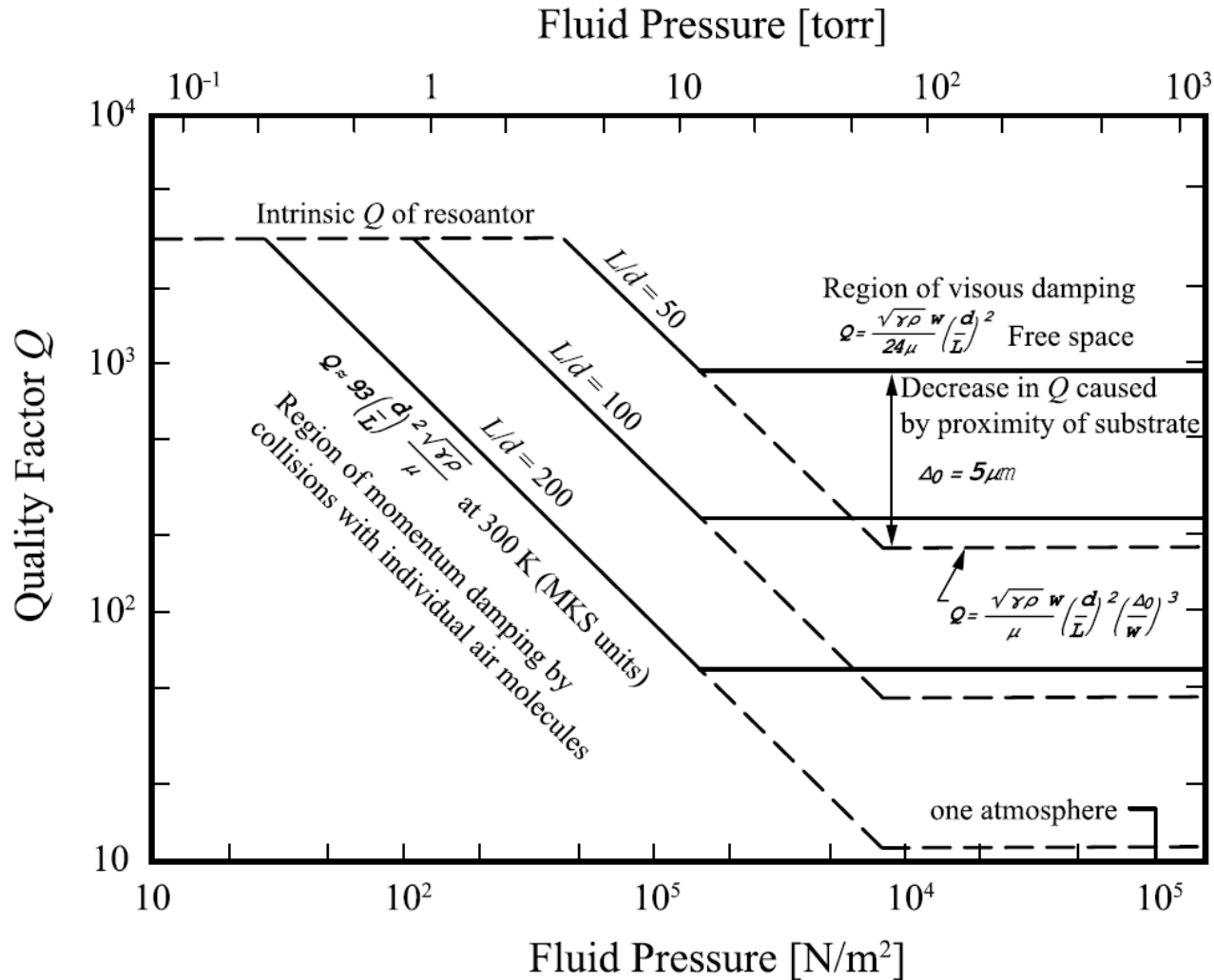
Imboden et al., Phys. Rep. 534 (2014)

# Dissipation



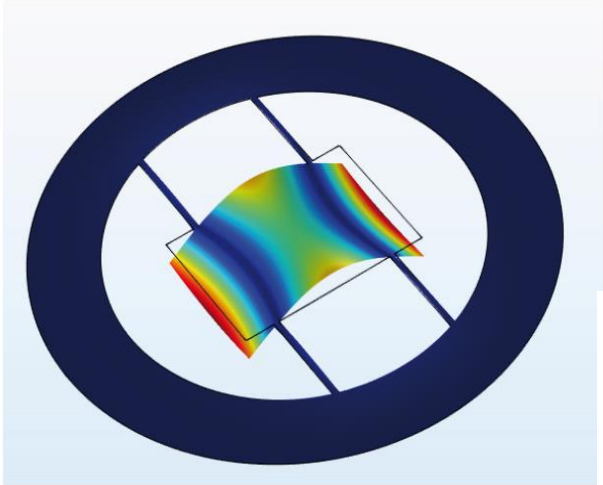
Imboden et al., Phys. Rep. 534 (2014)

# Extrinsic dissipation - gas damping

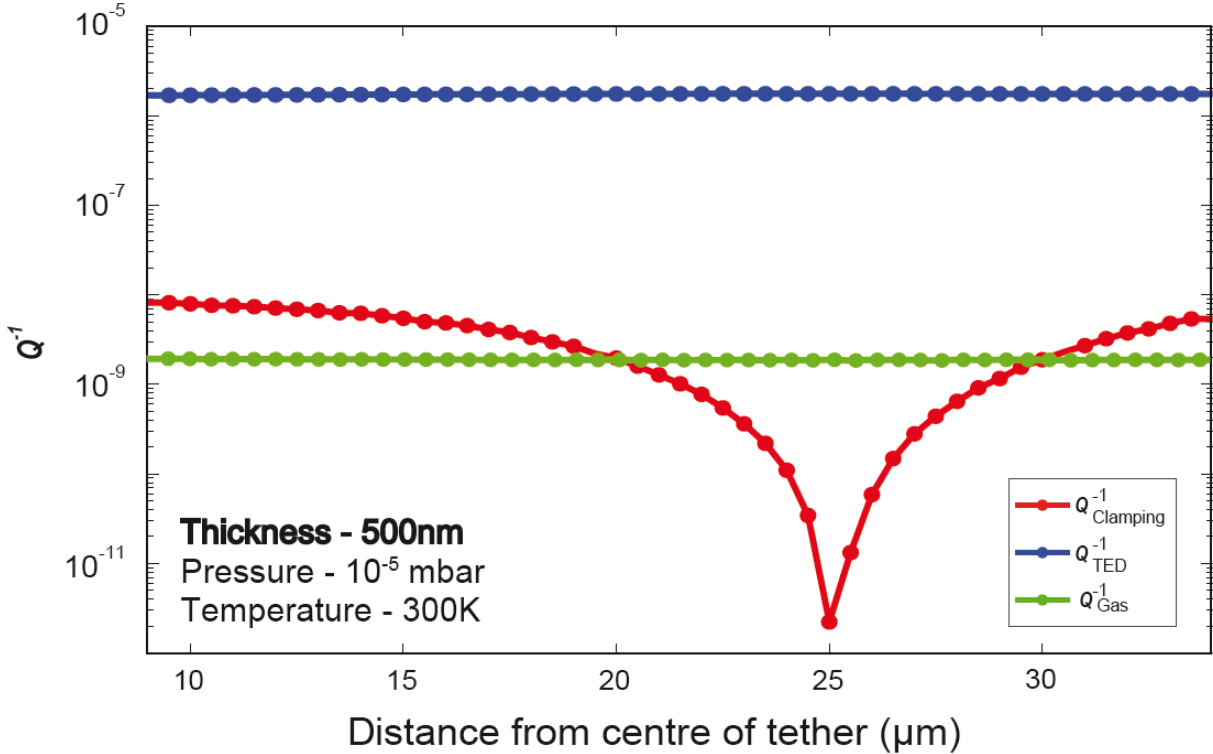
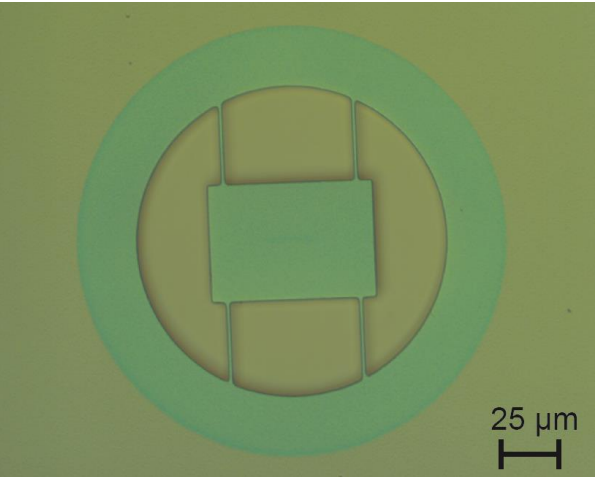


Imboden et al., Phys. Rep. 534 (2014)

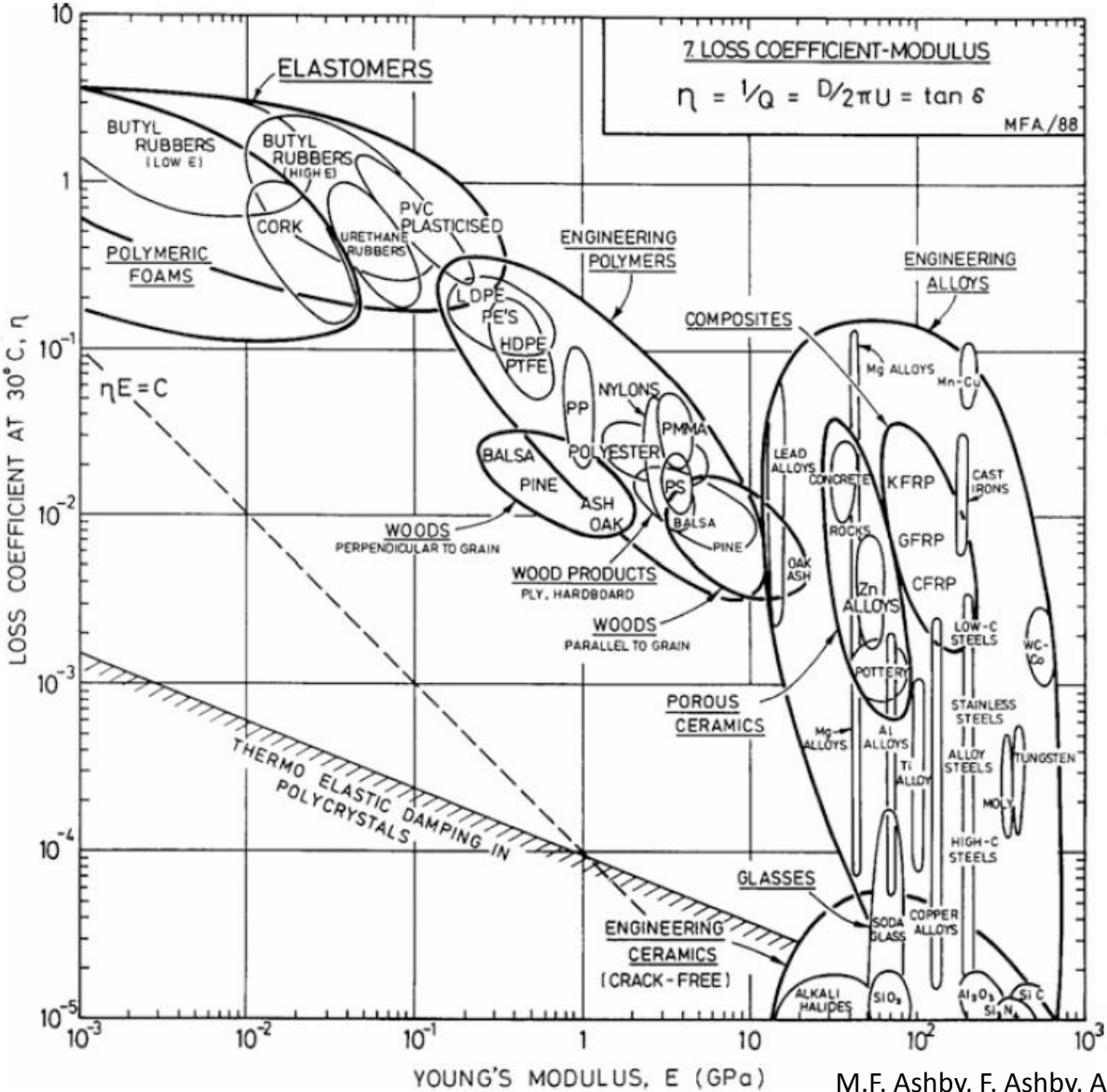
# Extrinsic dissipation - clamping



Free-Free mode



# Intrinsic dissipation - friction losses



M.F. Ashby, F. Ashby, Acta Metallur. **37**, 1273 (1989)