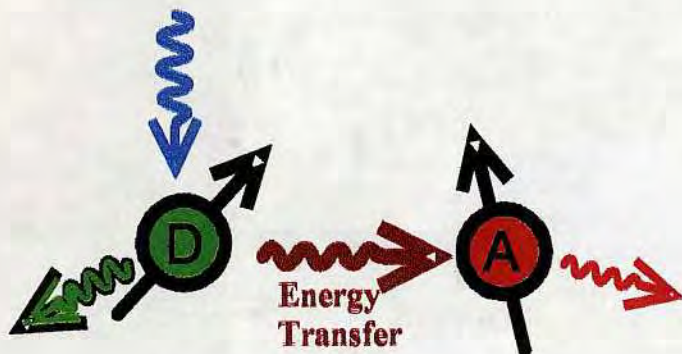


Fluorescence Resonance Energy Transfer (FRET)

Energy transfer efficiency

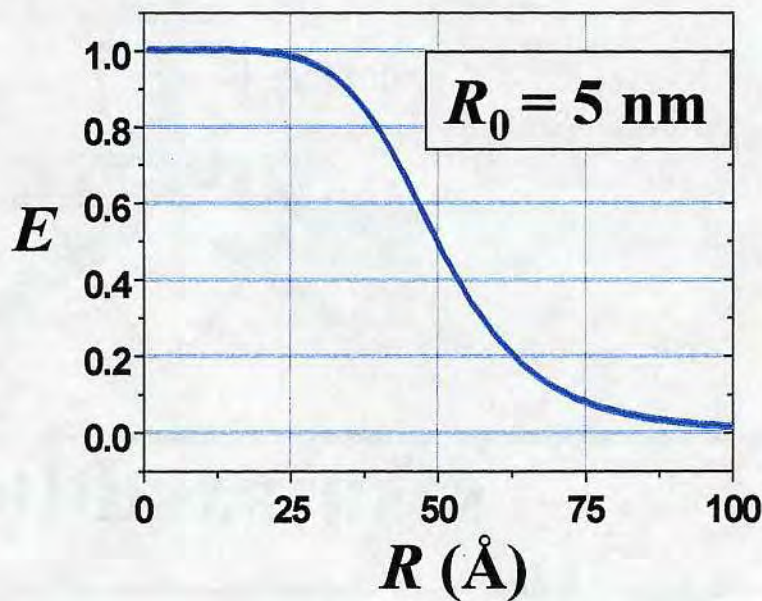
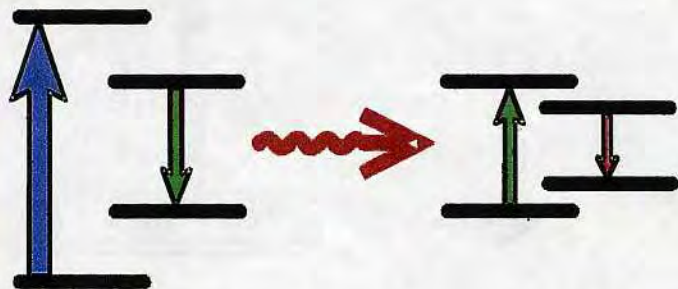
$$E = \frac{1}{1 + (R/R_0)^6}$$

R_0 : Förster energy transfer distance
3nm~7nm

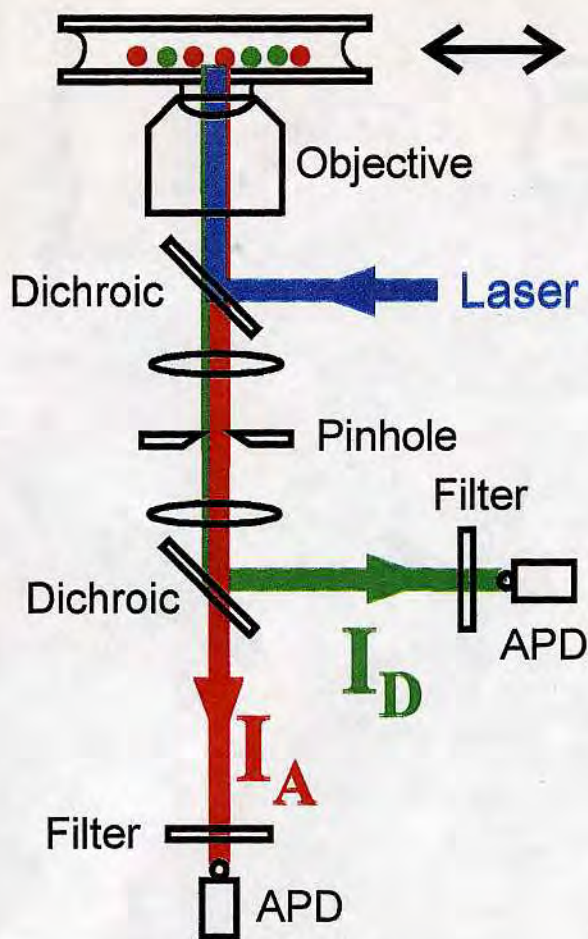


DONOR

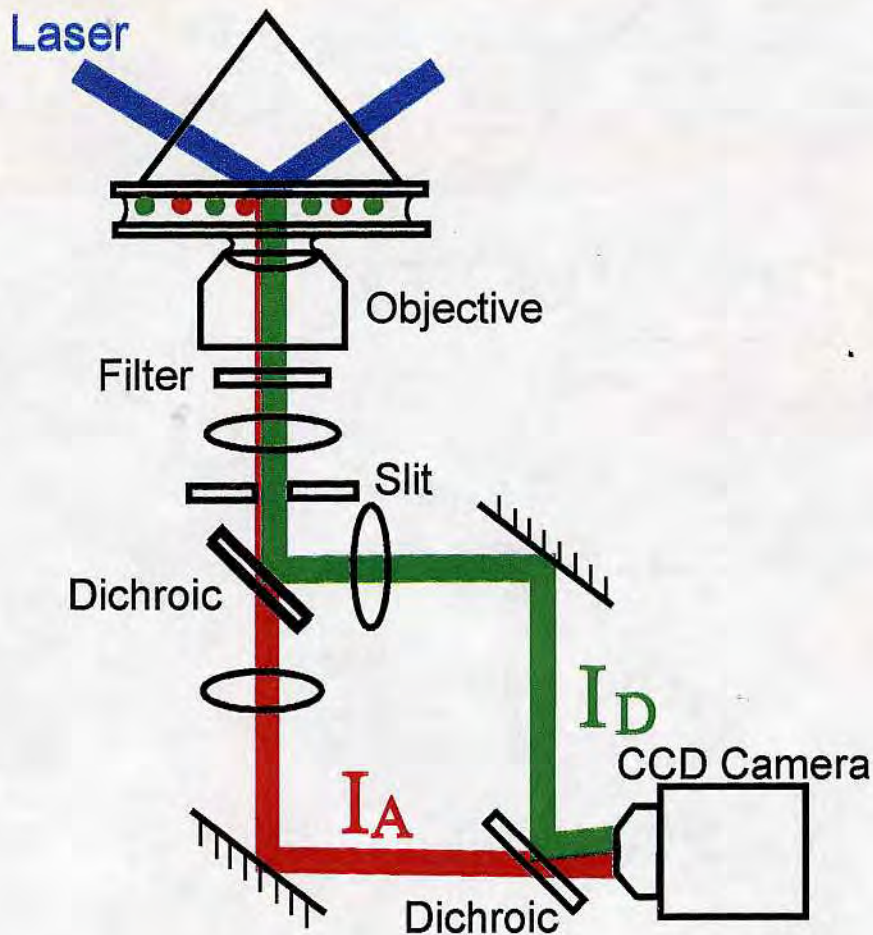
ACCEPTOR



Experimental apparatuses



- 1 molecule at a time
- time resolution: ~ 1 ms



- ~ 300 molecules at a time
- time resolution: ~ 100 ms