

# **CONCEPTS IN ADSORPTION OF PROTEINS TO BIOMATERIALS**

- 1. Very fast kinetics**
- 2. Concentration dependence: steep initially, reaches a plateau**
- 3. Depends on surface and protein**
- 4. Multipoint attachment**
- 5. Low temperature dependence**
- 6. Irreversibility**

**THESE APPLY TO BOTH SINGLE PROTEIN SOLUTIONS AND COMPLEX MIXTURES OF PROTEINS**

# **CONCEPTS IN ADSORPTION OF PROTEINS TO BIOMATERIALS, continued**

**7. Non-specific type of binding**

**8. Changes in conformation**

**9. Variable affinity of proteins for surfaces**

**10. Strong pH effects: isoelectric, ion exchange**

**THESE APPLY TO BOTH SINGLE PROTEIN SOLUTIONS AND  
COMPLEX MIXTURES OF PROTEINS**