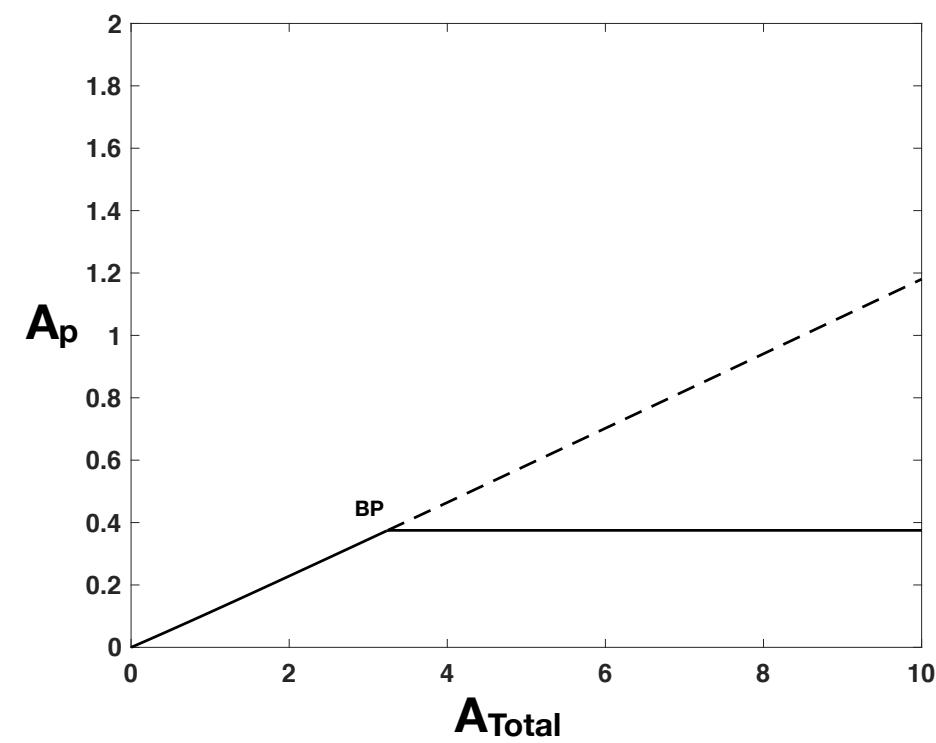
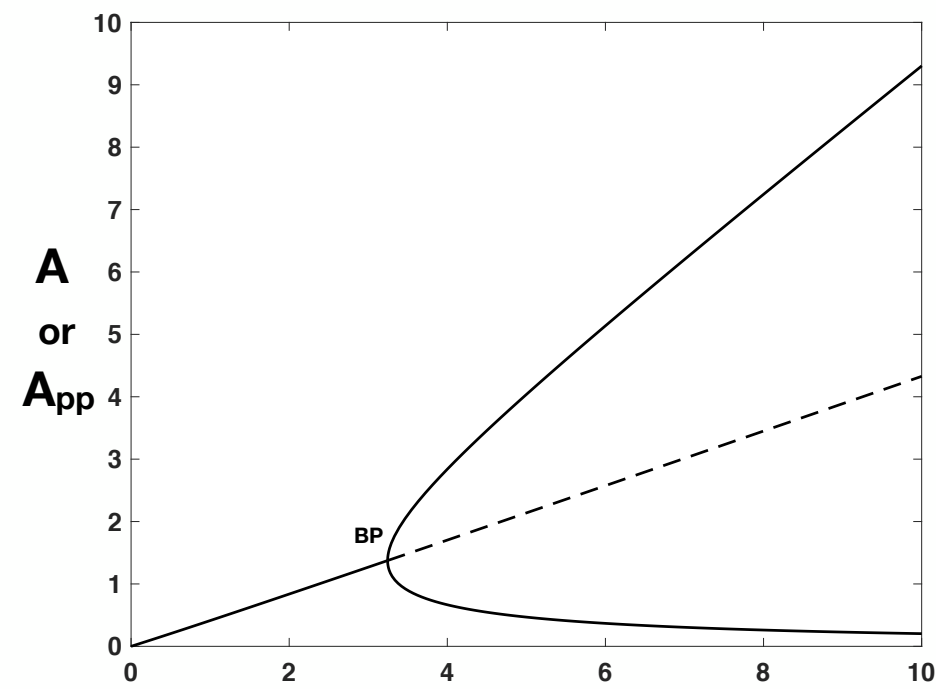
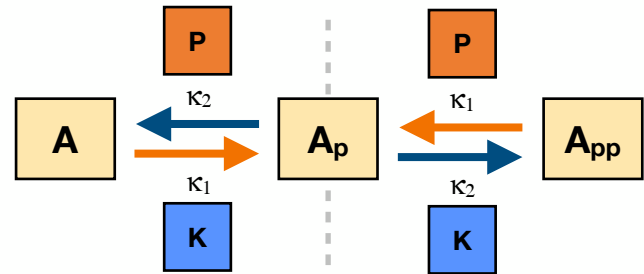
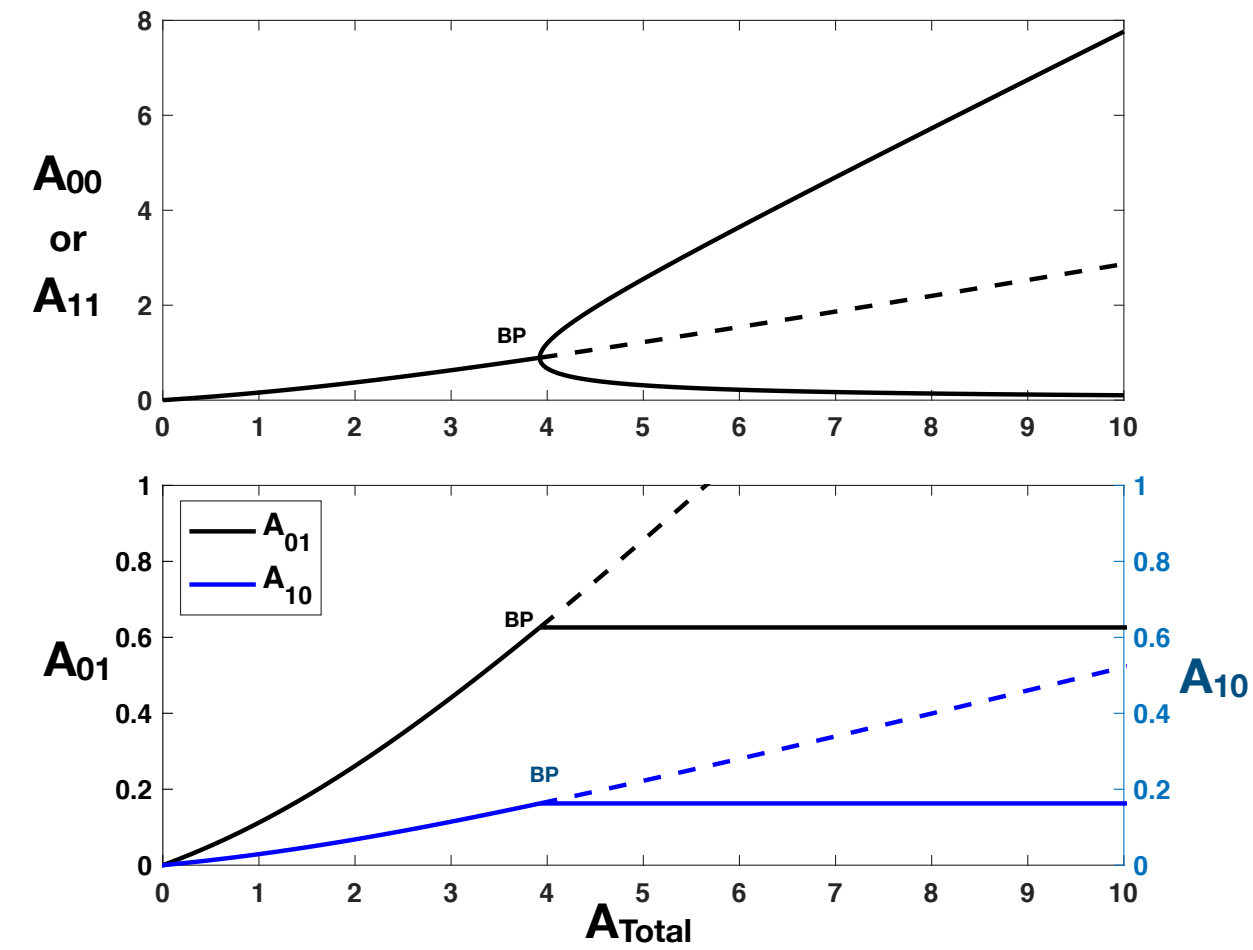
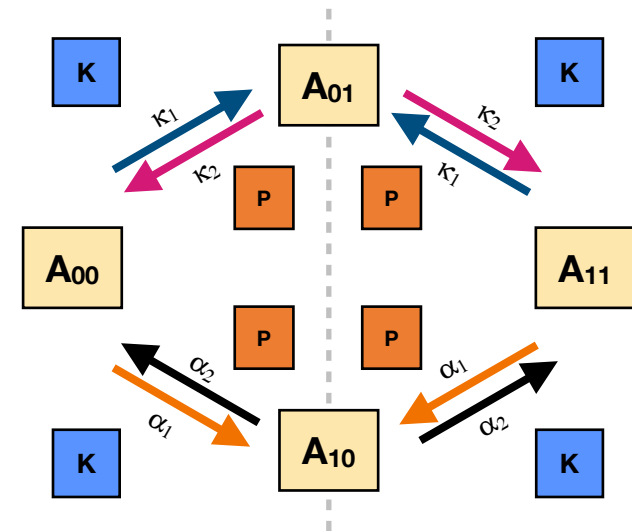


Case 1 Symmetry (Symmetry Between the Fully Modified Substrate and the Unmodified Substrate)

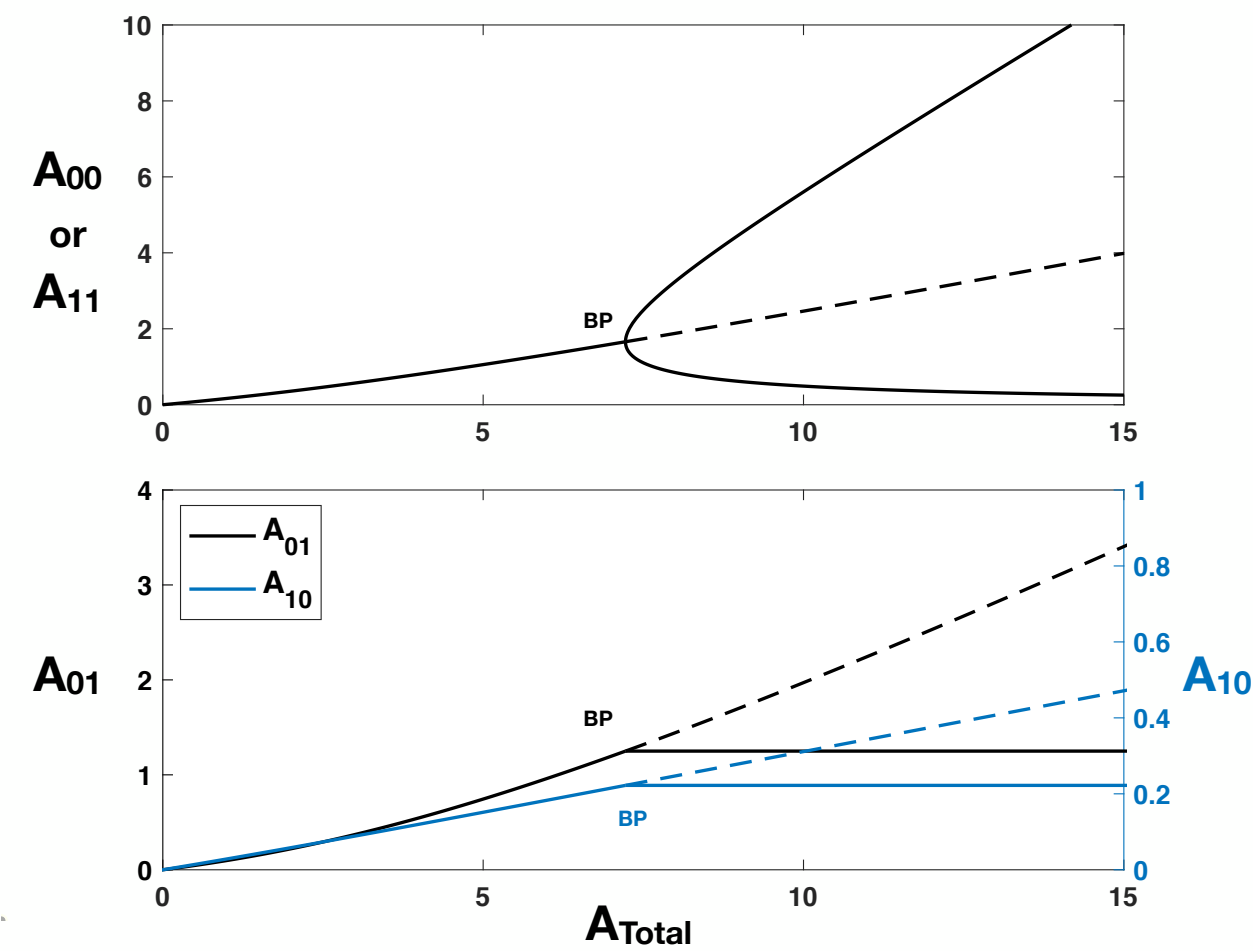
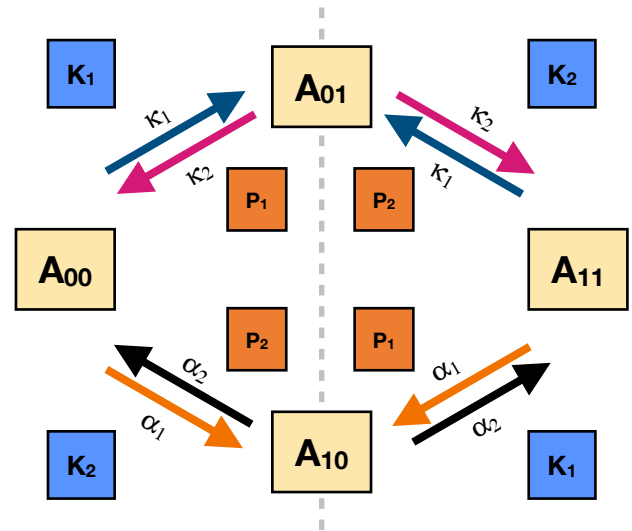
(A) ORDERED DISTRIBUTIVE DSP



(B) RANDOM SYSTEM 1
Common Kinase Common Phosphatase

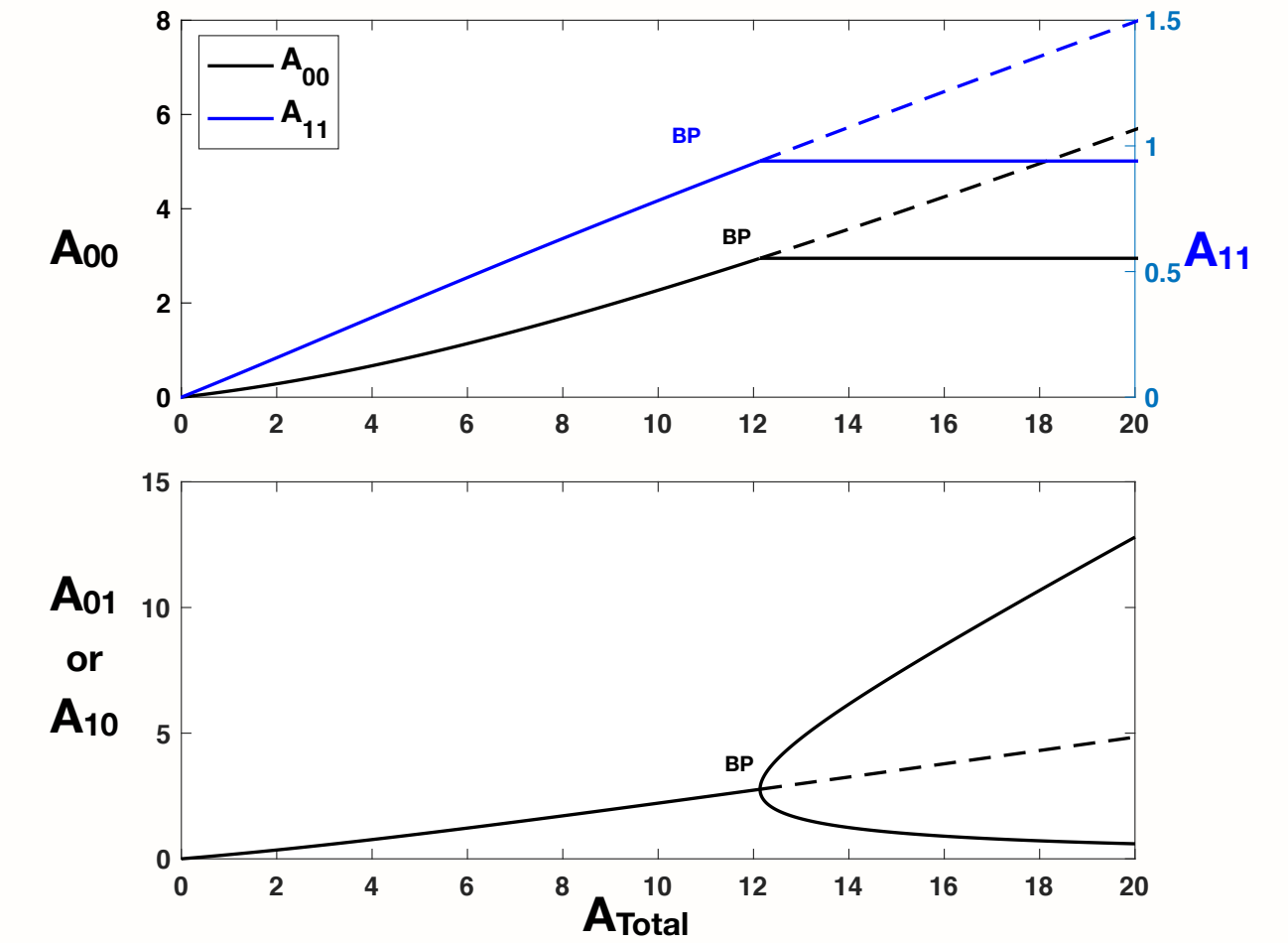
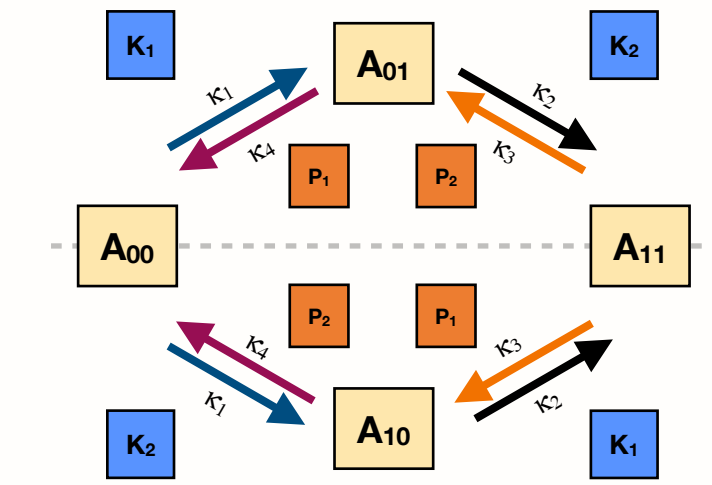


(C) RANDOM SYSTEM 3
Separate Kinase Separate Phosphatase



Case 2 Symmetry (Symmetry Between the Partially Modified Substrates)

(D) RANDOM SYSTEM 3
Separate Kinase Separate Phosphatase



(E) MIXED RANDOM 2
Separate Kinase Common Phosphatase
Distributive Phosphorylation Processive Dephosphorylation

