Energy Distribution of Cluster Assemble with Isomers SONGBAI YE, LOUIS BLOOMFIELD, BLOOMFIELD LAB TEAM — The internal energy of cluster assemble without isomers will be a single-peak distribution in thermal equilibrium. However, if it has several isomers and each isomer has different state density distribution, the internal energy distribution will be structured in certain circumstance. By destroying the equilibrium of isomer populations and observing the building-up of the new equilibrium, we can gain information of the internal energy of the cluster assemble. We can also study the change of the internal energy of the cluster assemble by selectively burning some isomers before we proceed the deplete-probe method. This presentation is based upon work supported by the National Science Foundation under Grant No. DMR-0405203.