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The trigger sequence in the protein folding and dimerization of the Leucine zipper coiled-coil motif PREM CHAPAGAIN, YANXIN LIU, BERNARD GERSTMAN, Department of Physics, Florida International University, University Park, Miami, FL 33199 — The existence of a trigger sequence in the protein folding and dimerization of the Leucine zipper coiled-coil structure is attracting increased interest. Also of interest is the presence of multiple meta-stable states in the folding and unfolding process. Using a computer lattice model, we investigate the effect of the trigger sequence by changing the strength of the propensity of the amino acids in the trigger sequence to form alpha-helix secondary structure. The results show that the trigger sequence is necessary for folding and dimerization. The trigger sequence also creates a folding and dimerization process that includes multiple meta-stable states.

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