

Recent Kinetic and Statistical Mechanical Studies on Protein Aggregation

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Protein aggregation is believed to be the cause of neurodegenerative diseases, such as Alzheimer's disease, Parkinson's disease, mad cow disease, diabetes, etc. We will first give a brief review of a statistical mechanical study on the aggregation of amyloid proteins, before discuss a few popular kinetic models used in the field. For this purpose we will introduce Oosawa's model, Knowles' model and our own approaches to the problem and compared them among each other and with experimental data. Other recent experimental and theoretical developments will also be discussed