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Aggregation Characterization of Lectin Interactions with Sugar-Functionalized Dendrimers

The ability to characterize aggregation is significant in developing a mechanistic understanding of the process and in designing strategies to control it. Aggregation is involved in tumor proliferation, amyloid-related diseases (such as Parkinson's and Alzheimer's diseases) and pathogen infection. Of the many diverse methods to study aggregation, fluorescence offers exceptional speed and ease. Steady-state fluorescence is more common than time-resolved fluorescence owing to long acquisition times associated with the latter. Our innovative approach, referred to as direct waveform recording, is capable of acquiring high quality time-resolved data at steady-state speeds. The work presented here demonstrates the applicability of this measurement in the study of complex aggregate formation with glycodendrimers.