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Colloidal dispersions of polymeric particles are used in a wide range of applications, from paints and coatings to pharmaceuticals and food products. The stability of these dispersions is a critical factor in their performance, and understanding the mechanisms of coagulation and flocculation is essential for their formulation and use. This paper presents a comprehensive review of the current state of knowledge in this field, focusing on the physical and chemical factors that influence the stability of polymeric dispersions. The review is organized into three main sections: (1) Fundamentals of Colloidal Stability, (2) Mechanisms of Coagulation and Flocculation, and (3) Applications and Formulation. The first section discusses the basic principles of colloidal stability, including the DLVO theory and the role of surface charge and steric hindrance. The second section examines the various mechanisms of coagulation and flocculation, such as aggregation, bridging, and sedimentation. The third section explores the practical applications of this knowledge in the formulation of stable polymeric dispersions, with a focus on the role of surfactants and stabilizers. The review concludes with a summary of the key findings and a discussion of the challenges and future directions in this field.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that I have this date served the instant document on all participants of record in this proceeding in accordance with Section 12 of the Rules of Practice.

A handwritten signature in black ink, appearing to read 'Irving D. Warden', written over a horizontal line.

Irving D. Warden

January 14, 2002