Abstract

Keratin is a biomaterial derived from biological sources and can be used in a variety of medical applications. This study focuses on keratin derived from human hair. Unfortunately, there is not a lot of information in the literature describing how keratin reacts to subtle changes in an aqueous solution such as differences in pH, keratin concentration, buffer concentration, salt concentration, and temperature. To have a better understanding of this effect, dynamic light scattering was used to test the size ranges and volume percentages in each range. Dynamic light scattering shows the size of the keratin in each environment and its consistency with time. The results showed that there is a difference in keratin behavior between water and buffer solutions, but very subtle differences between each buffer, buffer concentration, keratin concentration, pH, and temperature.

Bio Sketch

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