Collagen is one of the most widely distributed proteins in the animal kingdom. It is found in most tissues and is intimately involved in many important disease processes including atherosclerosis, arthritis, cirrhosis, and tumor invasion. It is not surprising, therefore, that there is great interest in the measurement of hydroxyproline, an amino acid which is found almost exclusively in collagen and which provides a direct measure of collagen content. There have been at least five other published methods that, in my estimation, could be considered "Citation Classics."

"At that time, and continuing to the present, it has been my practice to have one or two high school students in the laboratory in the afternoons and summers to become acquainted with scientific research. When I had written the method in such a form that the current students were able to carry through the assay successfully on their own, it was deemed suitable for publication.

"In 1976, while preparing a chapter on hydroxyproline determination, I found that over 60 methods and modifications had appeared in the literature since 1961, with a current rate of 5-7 per year. Although several of these offer advantages over my original method, none has improved on the determination of hydroxyproline in the presence of large amounts of other amino acids. This feature continues to be important for the assay of small amounts of hydroxyproline in serum, culture media, and tissues of low collagen content. However, the continuing outpouring of methods gives eloquent testimony to the fact that the ideal hydroxyproline assay method has yet to be published."

References: