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STRUCTURAL STUDIES OF THE WINE PROTEINS. II- DETERMINATION OF THE PRIMARY STRUCTURES OF THE PROTEINS.

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A major cause of white wine turbidity is the instability of the grape proteins. They naturally denature which leads to their aggregation and subsequent precipitation, forming an amorphous sediment, or flocculation, producing an unattractive haze.
Combination of electrophoresis and ion exchange chromatography showed that a single grape variety wine, Moscatel, contains a very large number of distinct polypeptides, exhibiting identical molecular masses but different electrical charges. Immunological analysis showed that 24 of the selected Moscatel polypeptides are structurally related. On the other hand, protein sequencing indicates that these polypeptides have similar primary structures.
All these results support the hypothesis on the existence of a common precursor to most or all the Moscatel wine proteins that generates the large number of polypeptides by limited proteolysis.
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