TRU Undergraduate Research Conference Abstract

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# Determination of Uric Acid in Human Saliva Using Capillary Electrophoresis

Uric acid is a waste product found in humans. Uric acid is created from the breakdown of purines and dissolves in the blood. Uric acid can crystallize on joints to cause arthritis, particularly gout or on kidneys to form kidney stones. As a result, there is the need for a rapid and simple method to determine uric acid so that fast diagnosis of gout or kidney stones can be achieved. An analytical method to determine the amount of uric acid in human saliva samples using capillary electrophoresis was developed. This method was validated using intraday and interday precision, percent recovery, limits of detection and quantitation, and linearity of the calibration curve. This work was optimized and serves useful in the quantification of analytes for diagnostic purposes in medical research using capillary electrophoresis.