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## Investigation of the Relation between amino acids molar refractivity and their concentration using laser sheet technique

H.El-Ghandoor, Noha Farag , and A. Ismail Physics Department, Faculty of Science, Ain shams University Fax :+202-24845940 E-mail:helghandoor@hotmail.com

## Abstract

The relation between free branched amino acids concentration and refractive index can be revealed using a new laser interferometry technique. In previous work, glucose level in blood plasma was measured using laser interferometry in a capillary tube and demonstrated that the technique is feasible, affordable, and precise (1). In this study, we had established laser fringes as finger prints for the three branched amino acids: leucine, isoleucine and valin in order to determine their concentrations until values as small as nano-milligram in a solution. branched amino acids in order to determine their concentration within plants. Solutions of the three branched amino acids (leucine, isoleucine and valine) were used as standards at different concentrations to obtain more clear information about the relationship between their concentrations, molar refractivity and refractive index as an initial step in order to measure their concentration in a faster and cheaper way. The relationship between the molar refractivity, refractive index and the amino acid concentration is discussed.