conferenceseries.com

2nd International Conference on

BIOCHEMISTRY

September 28-29, 2017 Dubai, UAE



Jaleel Kareem Ahmed

University of Babylon, Iraq

Red beet juice and urine system

case study is carried out on urine of a 40 years old man. Two urine samples are taken from the urine system one after drinking concentrated red beet juice (mechanically extracted) and the second one before drinking. Ultraviolet visible absorption spectra measurements done, the results show that with concentrated juice the absorption bands are shifted toward low energy due to the hydrogen bond formation by exchangeable proton from the juice (anthocyanin pigments) to the lone pair of electrons on the oxygen and nitrogen atoms in uric acid and urea and vice versa which shifted the n- π absorption band to the lower energy, while diluting the above sample spectrum shows shifting to the higher energy, this is due to the low hydrogen bond formation with uric acid and urea due to the low concentration of exchangeable proton upon dilution, as water is a good hydrogen bonding competitor. From ultraviolet visible spectra we conclude that absorption band shifted to the lower energy with drinking concentrated juice and to the higher energy with diluted one which reflects the importance of concentration of the juice on hydrogen bonding formation and on the enhancing of detoxification of uric acid and urea from the blood, thus we recommended high concentration juice which can obtain from red beet (highest concentration of anthocyanin than other fruit). Dilution of pure urine sample was not effected its spectrum this is because already water present in urine in a good quantity comparing with uric acid and urea concentrations thus no effect for more water. Results show that with drinking high concentrated red beet juice the viscosity, electrical conductivity and refractive index of exit urine are decreased, this enhance detoxification process the viscosity of urine with juice lower than viscosity of pure water which is 1.00 cP at 20°C makes urine+juice more easy to flow through urine system than water alone. The pP of urine after drinking the juice is increased due to the capture of the proton of uric acid by anthocyanin which is less acidic than former. The increase of pP results in lessens the tension of the human. The density of the urine increases slightly due to the more hydrogen bonding formation with the anthocyanin which results in reducing the volume of the unit weight of the sample.

Biography

Jaleel Kareem Ahmed has expertise in evaluation in iron and steel industry. He has registered 3 patents in USA, UK and Iraq about using water in iron industry and wax for storage and transportation direct reduced iron (DRI) and using wax for carburizing of steel. In 2013, he was awarded Scientific Medal from Iraqi Government. He has been serving as a Reviewer of *Journal of Advances in Polymer Technology*, Thomson Reuters.

Jaleel_karim@yahoo.com

Notes: