

## **The study of sugar solution concentration using laser refraction technique.**

Nowadays, the measurement of sugar solution concentration has a big impact in both industrial and medical works. The high cost apparatus of spectrophotometer has been applied to study the sugar solution concentration before. We expect to apply the low cost measurement for this kind of work. Thus in this work, we aim that to use laser refraction technique to study the sugar solution concentration. This experiment was performed by using He-Ne laser emitted perpendicularly to the glass container which contain some amount of water, and then pouring the different concentration of sugar solution into the container and record the bending angle of laser beam. The experimental results show that the bending angle increases when the concentration of sugar solution increases. Finally the calibration ensures the relation between the bending angle and the concentration of sugar solution can be presented.

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**Track Classification:** Optics, Non-linear Optics, Laser Physics, Ultrafast Phenomena