



**KERONE**



A CRISIL-NSIC RATED COMPANY  
ISO 9001: 2008 COMPANY  
AFFILIATED TO THE UNIVERSITY OF NOTTINGHAM  
MEMBER OF AMICAL

**DATE:08/03/2017**

**PROCESS:** Dehydration of onions.

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1. For this trial, onions are chopped in very thin slices and initial weight taken before going for the dehydration process.
2. Then drying is done in dehydrator with side draft at temperature of 65°C.
3. During the process, observations are made after every 60 minutes by checking the moisture loss on drying in onions, by taking weight and by capturing pictures.

**TRIAL SETUP:**



**TRIAL READINGS AND PICTURES:**

<p>Before De-hydration Process Initial Weight: 625 grams</p>	<p>After 60 minutes Weight taken: 152 grams</p>

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After 120 minutes

Weight taken: 114 grams



After 180 minutes

Weight taken: 106 grams



After 240 minutes

Weight taken: 102 grams

**OBSERVATIONS:**

1. The process of dehydration is completed at 65°C for 240 minutes as there is so less weight loss after 180 minutes.
2. After dehydration, the colour of onions become light brownish and also becomes too crispy to powder it by just crushing with hands.
3. The total weight loss in onions is 523 grams, i.e., out off 625 grams only 102 grams remain.
4. It shows approximately 83% weight loss of onions in 240 minutes, i.e., in 4 hours at 65°C.
5. Following are the before and after pictures of dehydration process.

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Before Dehydration



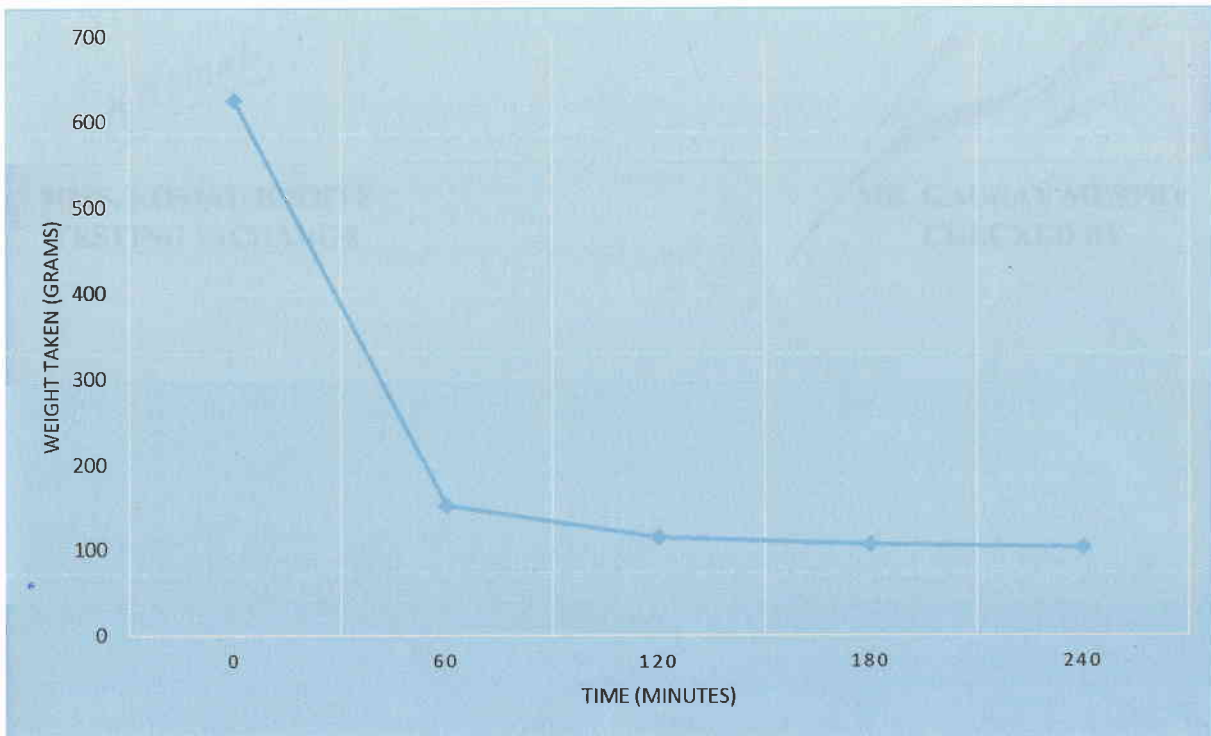
After Dehydration

### LINE GRAPH AND BAR DIAGRAM SHOWING MOISTURE LOSS ON DRYING:

Following presentation of line graph and bar diagram illustrates the moisture loss on drying in onions by showing weight taken against different intervals of time.

The line graph shows the weight of onions decreases over the period of time interval and in bar diagram, the numbers on bar indicates the weight of onions taken at that time interval.

#### 1. Line Graph:



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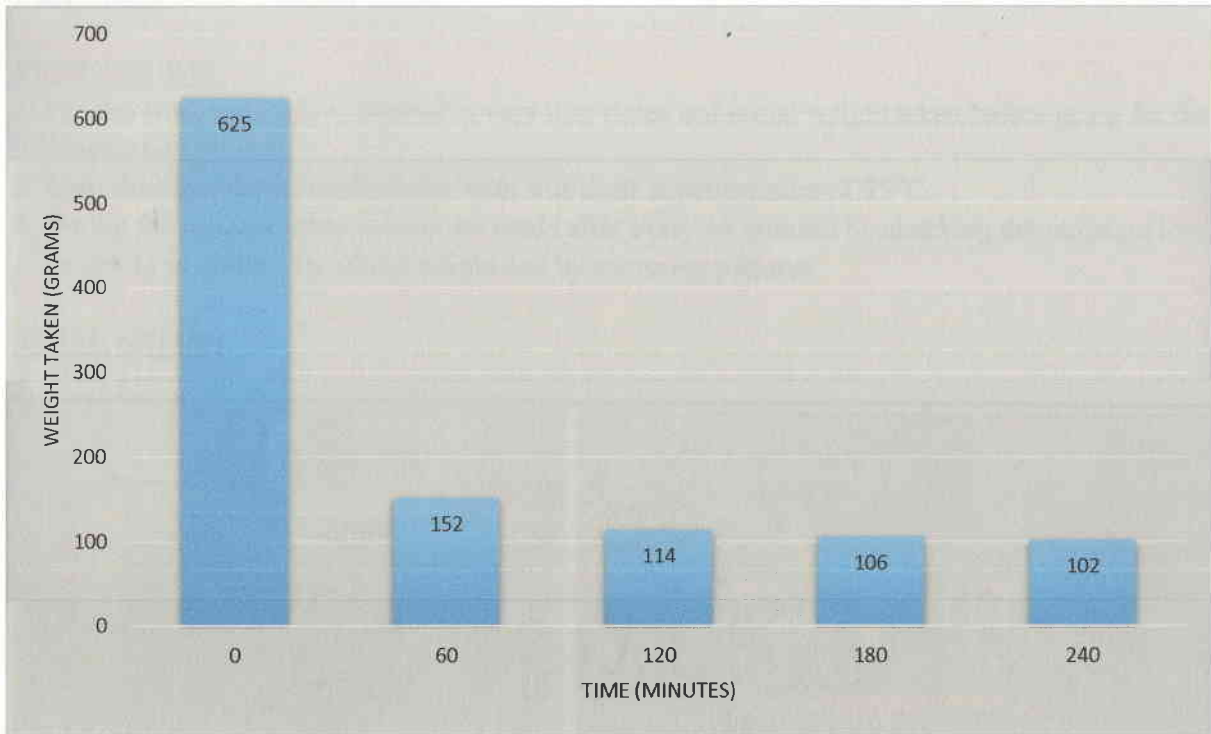


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2. Bar Diagram:



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**CHECKED BY**