# Experiment Report

## EXPERIMENT NUMBER : 1

Experiment Identification: Thursday, December 12, 2024, 11:49 AM

Run ID: #20241212\_1149

## Objective

Observe and predict CNT growth over time based on initial conditions such as temperature and catalyst thickness

## Input Conditions

1. Time of experiment: 20 minutes  
2. Temperature: 604  
3. Catalyst thickness: 0.61  
4. Catalyst type: Fe, Aluminium Oxide

## Output

1. Lowest growth rate: 0.231398  
2. Highest growth rate: 0.231398  
3. Average growth rate: 0.231398  
4. Final height: 277.909180 micrometers  
5. Height in 10 minutes: 138.838891 micrometers  
6. Time to reach 90% growth: 1080 seconds  
7. 90% of Total growth: 1080 seconds

## Observations

Based on this experiment, the growth rate shows an initial increase and appears to stabilize over time. The maximum growth rate was achieved at 0.231398 micrometers/s, with saturation occurring around 1080 seconds. The final height reached 277.909180 micrometers.