# Experiment Report

## EXPERIMENT NUMBER : 4

Experiment Identification: Friday, December 13, 2024, 10:13 AM

Run ID: #20241213\_1013

## 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: 705  
3. Catalyst thickness: 0.883  
4. Catalyst type: Fe, Aluminium Oxide

## Output

1. Lowest growth rate: 0.000003  
2. Highest growth rate: 0.001998  
3. Average growth rate: 0.000997  
4. Final height: 1.197942 micrometers  
5. Height in 10 minutes: 0.594865 micrometers  
6. Time to reach 90% growth: 1083 seconds  
7. 90% of Total growth: 1083 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 0.001998 micrometers/s, with saturation occurring around 1083 seconds. The final height reached 1.197942 micrometers.