# Experiment Report

## EXPERIMENT NUMBER : 1

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: 822  
3. Catalyst thickness: 1.943  
4. Catalyst type: Fe, Aluminium Oxide

## Output

1. Lowest growth rate: 0.000003  
2. Highest growth rate: 0.001996  
3. Average growth rate: 0.001004  
4. Final height: 1.206373 micrometers  
5. Height in 10 minutes: 0.584628 micrometers  
6. Time to reach 90% growth: 1082 seconds  
7. 90% of Total growth: 1082 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 0.001996 micrometers/s, with saturation occurring around 1082 seconds. The final height reached 1.206373 micrometers.