**Experiment Project Documentation**

**Introduction**

This document captures the technical details related to the experiment development.

**Project**

**Domain Name: Computer Science & Engineering**

**Lab Name: Colloid and Surface Chemistry**

**Experiment Name: Study of the Catalytic Effects of Finely Divided Particles**

Most of the products that we use today have involved catalysts at some stages of their production. Metals and metal oxides are highly desirable as catalysts in the chemical industry, fuel cells, waste reduction, bioprocessing, and so on. Finely divided particles have been used as catalysts for years due to their large surface areas. We are familiar with the catalytic properties of finely divided particles of transition metals like platinum, palladium, etc. Though colloidal gold particles have been used for centuries in medicines, coloring ceramics, and glasses, etc., gold was not used as a catalyst until recently due to its inert nature. In the following, we study the use of different sized gold particles as catalysts for the reduction of an organic dye, eosin. The progress of the reaction can be followed spectrophotometrically.

**Purpose of the project**

The purpose of the project is to convert the 2D experiment simulation from **flash** to **Javascript**.

**Project Developers Details**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.NO** | **Names** | **Year of Study** | **Role** | **Email-ID** | **GitHub handles** |
| 1. | Ratnesh Dubey | 2nd | Lead Developer | blazerd18@gmail.com | CODENEON |

**Technologies and Libraries**

**Technologies :**

1. HTML
2. CSS
3. Javascript

**Libraries :**

1. [**JQuery**](https://jquery.com/)

**Development Environment**

**OS :** <<Windows, LINUX so on...>>

**Bandwidth:** <<100Mbps>>

**Documents :**

|  |  |  |
| --- | --- | --- |
| **S.NO** | **Link to Document** | **Role** |
| 1. | Procedure | This document captures the instructions to run the simulations |
| 2. | Test Cases | This document captures the functional test cases of the experiment simulation |
| 3. | Code Documentation | This document captures the details related to code |

**Process Followed to convert the experiment**

1. Understand the assigned experiment flash simulation
2. Understanding the experiment concept
3. Re-implement the same in javascript

**Value Added by our Project**

1. It would be beneficial for engineering students
2. Highly beneficial for tier 2 and tier 3 college students who can use this to learn and understand the concept of Computer Graphics.

**Risks and Challenges**

1. Making the whole process dynamic.
2. Syncing the multiple event listeners with each other.

**Issues :**

1. Not much responsive on browsers except chrome.
2. Might start to disfunction if you click again and again before a certain click event complete.
3. Sometimes starts to hang when clicking excessively.