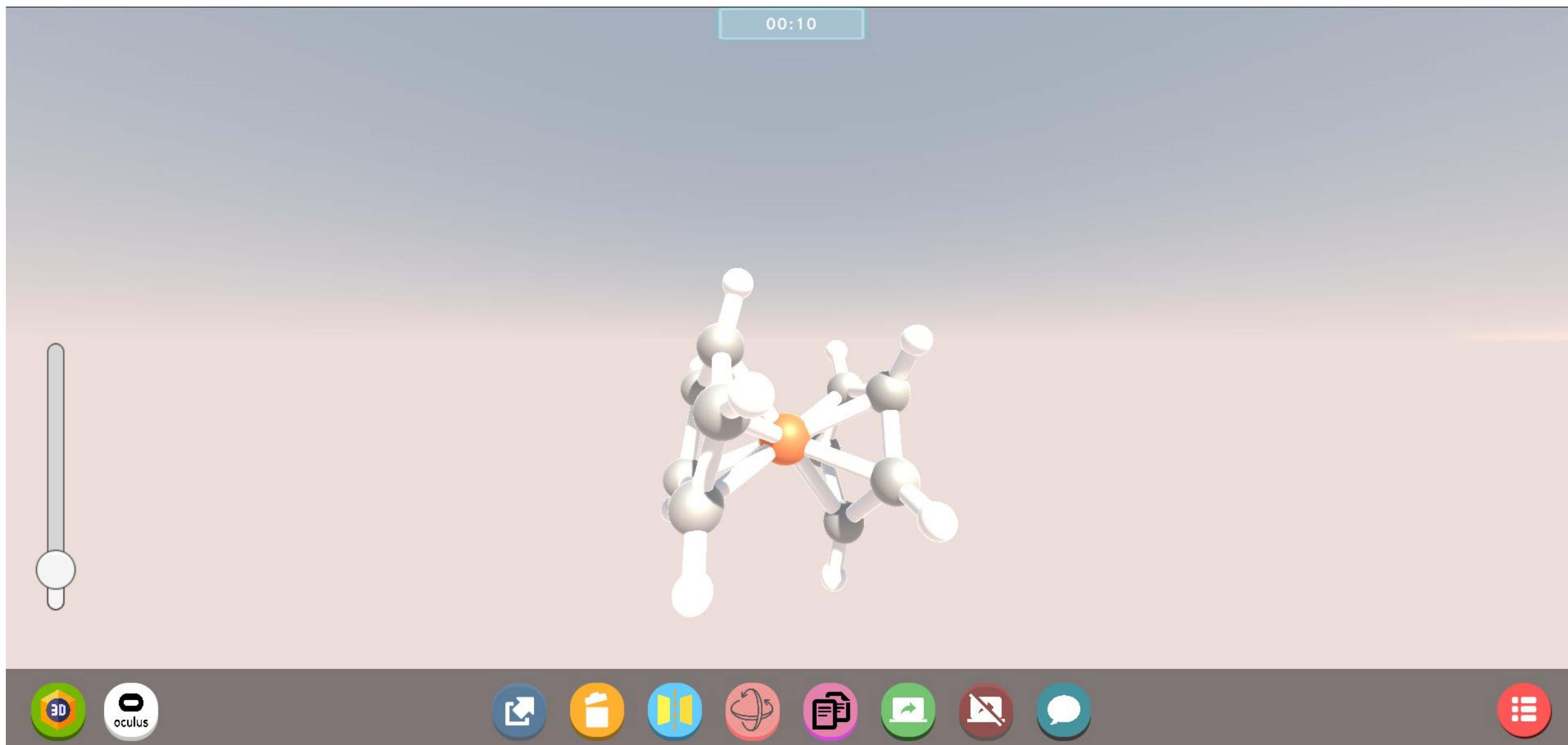# Virtual Reality Classroom (Chemistry)

## To provide an interactive and immersive environment for molecular observation

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### User interface of the Virtual Reality Classroom



## Project Objectives:

The aim of this project is to allow users to load pre-set molecular 3D models and interact and observe them in a three-dimensional virtual reality space, in real time. In the aspect of Chemistry, complex molecules generally have many atoms arranged in a complex structure that makes it difficult for students to observe and study them in a two-dimensional (2D) medium. With the aid of virtual reality, students will be able to better visualise such complicated structures in a three-dimensional (3D) environment, deepening their comprehension on the subject. Students will also be able to interact in various ways in three dimensions, providing them with a fun and immersive learning experience. This project will include an implementation of a three-dimensional environment on the vrclassroom application, along with features that will benefit the educators and students.

## Interacting in the three-dimensional virtual reality space:

Users can upload their molecules created from the nitro symmetry application, and observe the molecule up close in a three-dimensional space. In addition to that, rotation of the molecules, and rotation about the axes of the molecules can be performed. Molecules can also be duplicated once and frozen in place, to allow comparisons after performing different rotations.

With an immersive environment which allows various interactions with the molecules, teaching is made easier and learning is more fun!



### Scan the QR code to watch the demo video