

# Session P: Modus Operandi

## Preparations

Whiteboard marker

*We'll give you labels to name them.*

Bag

*You get your textbook and study guide too*

Chemistry binder

*There's a few pieces of paper to go in here.*

Headphones

*This is a hint.*

1

## How Classes Work

My Kahoot-mate was

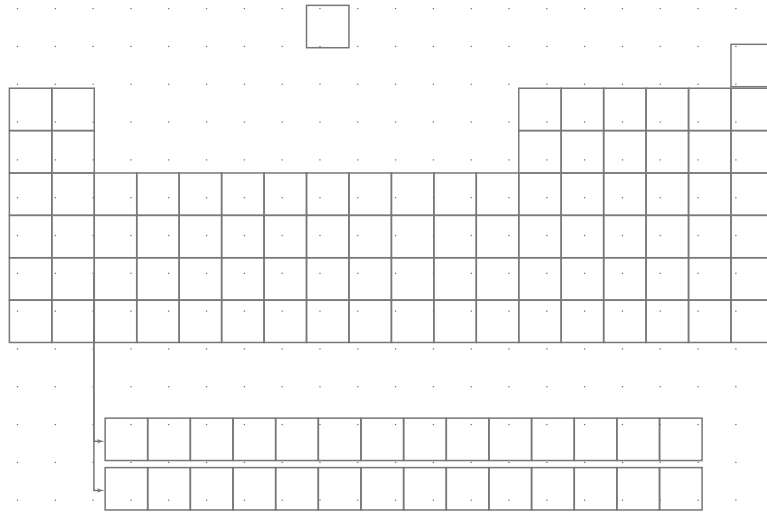
Can

Don't

# 2

## Make-One-of-These

The elements are often shown with these colors:



This color scheme is called the  color scheme.



**Reflections**

# Session D: Volumes

## Preparations

Additional 2-3 sheets A4

*You may wish to do additional calculations.*

Smartphone / calculator

*There are calculations that you cannot do in head*

Computer / tablet

*A touch-screen device makes rotating the molecules more intuitive.*

Post-it notes

*Act as "thought catchers" for questions that come up.*

# 1

## Representing 3D molecules in 2D

# 2

## Molecular Formula

Sketch the structural formulae

*If you have colored pens, use them for the different elements*

Check your answers

Deduce the molecular formula in the small box

*Be careful of the conventional order!*

Check your answers

ethane

isopropanol

benzene

cadaverine

cubane

caffeine

aspirin

sexithiophene

### 3

## Volume Calculations

$$100 \text{ \AA}^3 = \boxed{\phantom{000}} \text{ nm}^3 \quad \boxed{\phantom{000}} \boxed{\phantom{000}} = \boxed{\phantom{000}} \text{ nm}^3$$

$$\boxed{\phantom{000}} \boxed{\phantom{000}} = \boxed{\phantom{000}} \text{ nm}^3 \quad \boxed{\phantom{000}} \boxed{\phantom{000}} = \boxed{\phantom{000}} \text{ nm}^3$$

$$\boxed{\phantom{000}} \boxed{\phantom{000}} = \boxed{\phantom{000}} \text{ dm}^3 \quad \boxed{\phantom{000}} \boxed{\phantom{000}} = \boxed{\phantom{000}} \text{ dm}^3$$

$$\boxed{\phantom{000}} \boxed{\phantom{000}} = \boxed{\phantom{000}} \text{ dm}^3 \quad \boxed{\phantom{000}} \boxed{\phantom{000}} = \boxed{\phantom{000}} \text{ dm}^3$$

If the diameter of a water molecule is  $2.75 \text{ \AA}$ , its volume, in  $\text{\AA}^3$ , would be:

In other words,   $\text{dm}^3$

So at most  could fit in  $1.00 \text{ dm}^3$



## Homework

Keep doing your Anki decks!

*This just need reminding.*

Read Section 3.1 (p98-101)

Exercises in Section 3.1

*p 99, 101*

Catch up, if necessary, on things left from prev. week

## Reflections