



HANSRAJ MODEL SCHOOL

PUNJABI BAGH, NEW DELHI

CLASS - X

SUBJECT - Chemistry

Topic- Chemical Reactions and Equations
Module 3

#OnlineClassesinCoronalidays@HRMS



DISPLACEMENT REACTIONS

- These are reactions in which a highly reactive metal displaces a less reactive metal from its salt solution.
- NOW CAN YOU LINK THIS TOPIC TO PERIODIC CLASSIFICATION OF ELEMENTS
- I group
- Li
- Na
- K
- Which of these is the most reactive

EXAMPLES OF DISPLACEMENT REACTIONS

- Iron nails in CuSO_4 solution
- Zn granules with CuSO_4 solution
- Cu reacting with AgNO_3
- Lead reacting with CuCl_2
- Now write well balanced equations for all of the above
- In the next slide we will take up these reactions .

REACTION BETWEEN Fe NAILS AND CuSO_4 SOLUTION

- When iron nails are dipped in blue color CuSO_4 solution then we observe the following:
- Blue colour CuSO_4 changes to green colour FeSO_4
- Fe nails get coated with a reddish brown coating of Copper
- The reaction mixture becomes hot so the reaction is EXOTHERMIC
- Fe being more reactive than Cu displaces Cu from CuSO_4 solution.

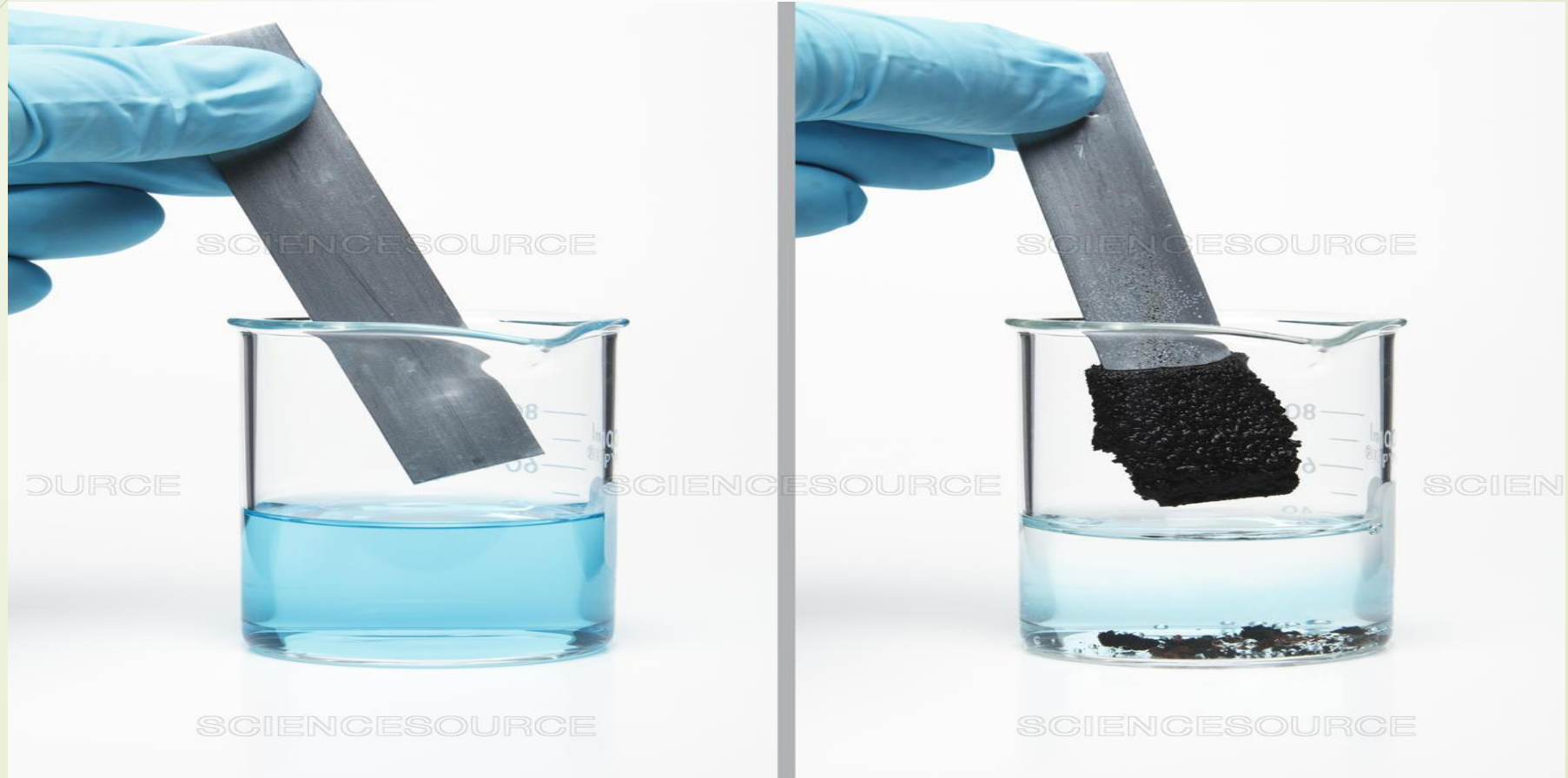
DISPLACEMENT OF COPPER BY IRON





Hansraj Model School, Punjabi Bagh, New Delhi

REACTION BETWEEN ZINC AND CuSO_4





DOUBLE DISPLACEMENT REACTIONS

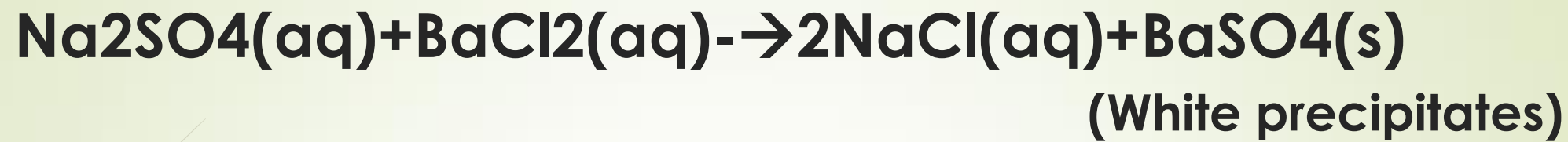
In this type of reaction there is an exchange of ions between two aqueous solutions.

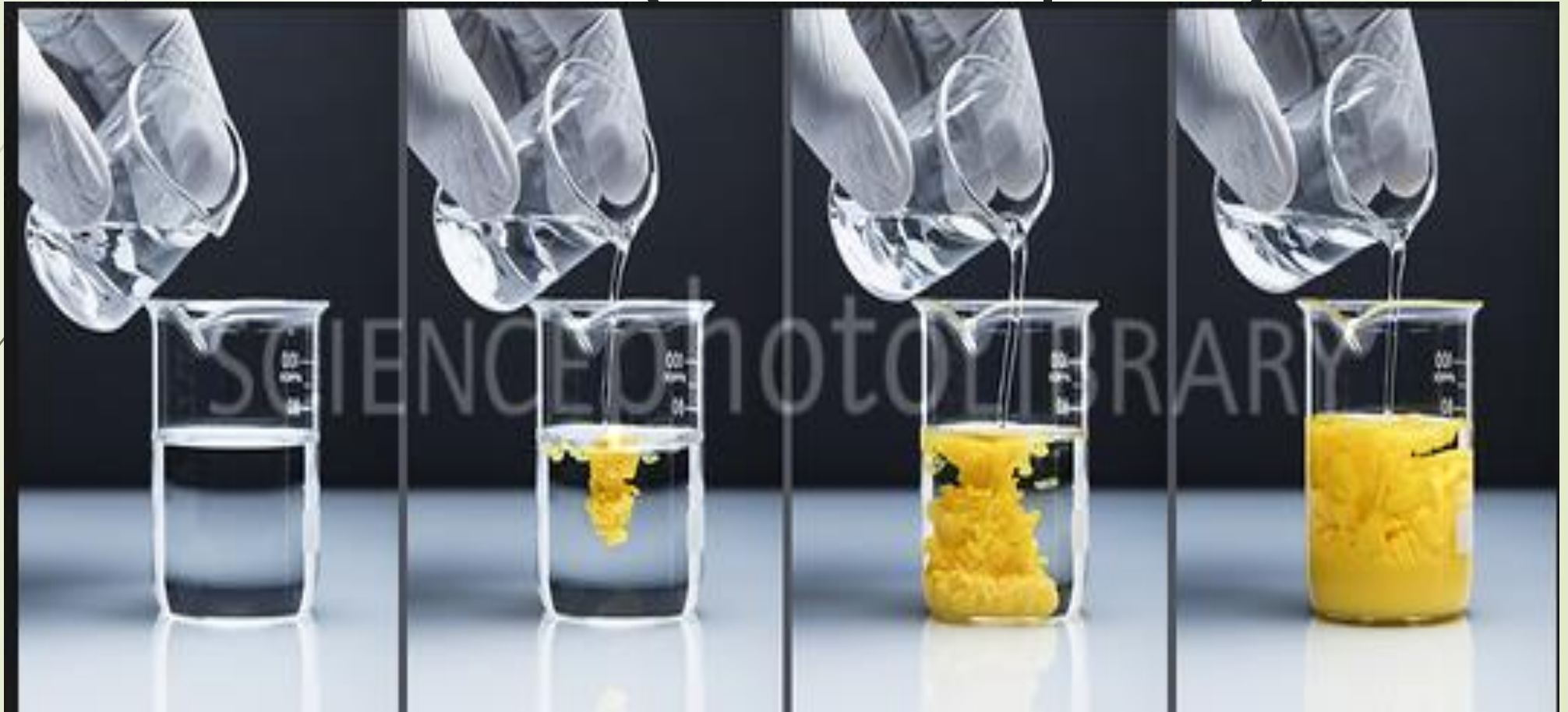
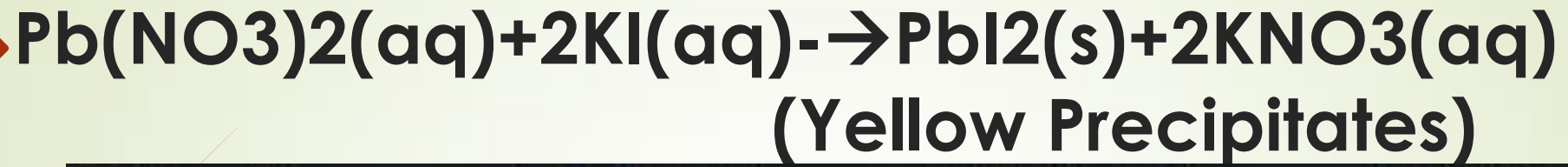
These reactions lead to the formation of an insoluble substance called as a precipitate.

Thus such reactions are also called as PRECIPITATION REACTIONS

We will study two examples of such reactions

1. Reaction between an aqueous solution of Sodium Sulphate and Barium Chloride
2. Reaction between an aqueous solution of Lead Nitrate and Potassium Iodide





ENDOTHERMIC REACTIONS

- These are reactions in which heat is absorbed from the surroundings.
- For example:-
 - Decomposition of ferrous sulphate crystals and
 - Dissolving Ammonium Chloride in water

