

CLASS - IX
ATOMIC STRUCTURE & CHEMICAL BONDING

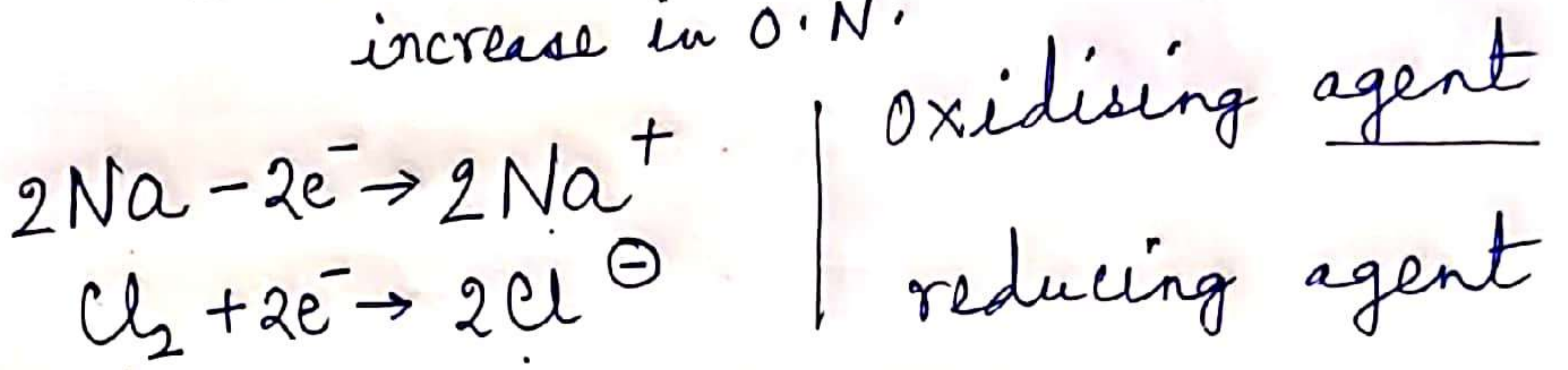
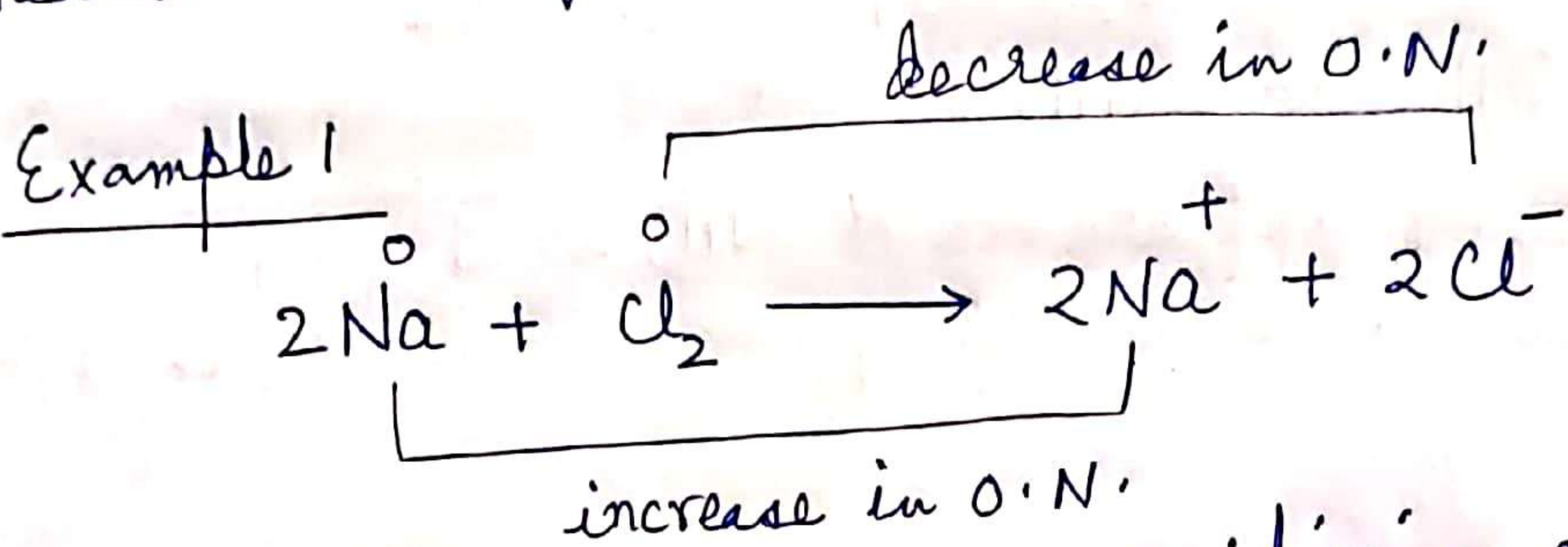
Date - 21.05.20

Redox Reaction

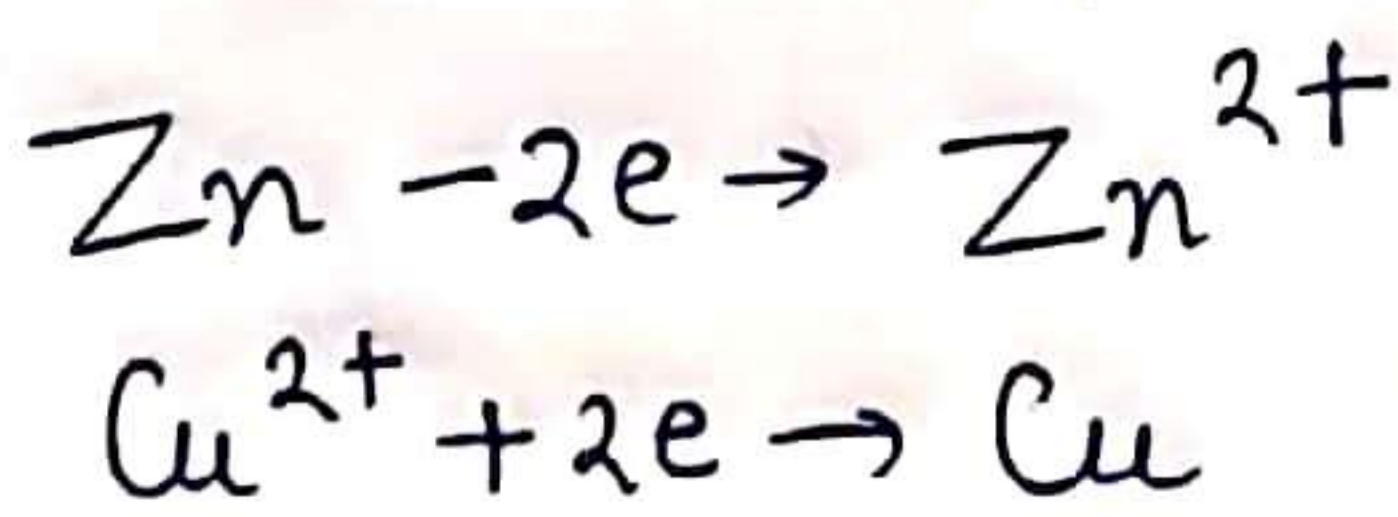
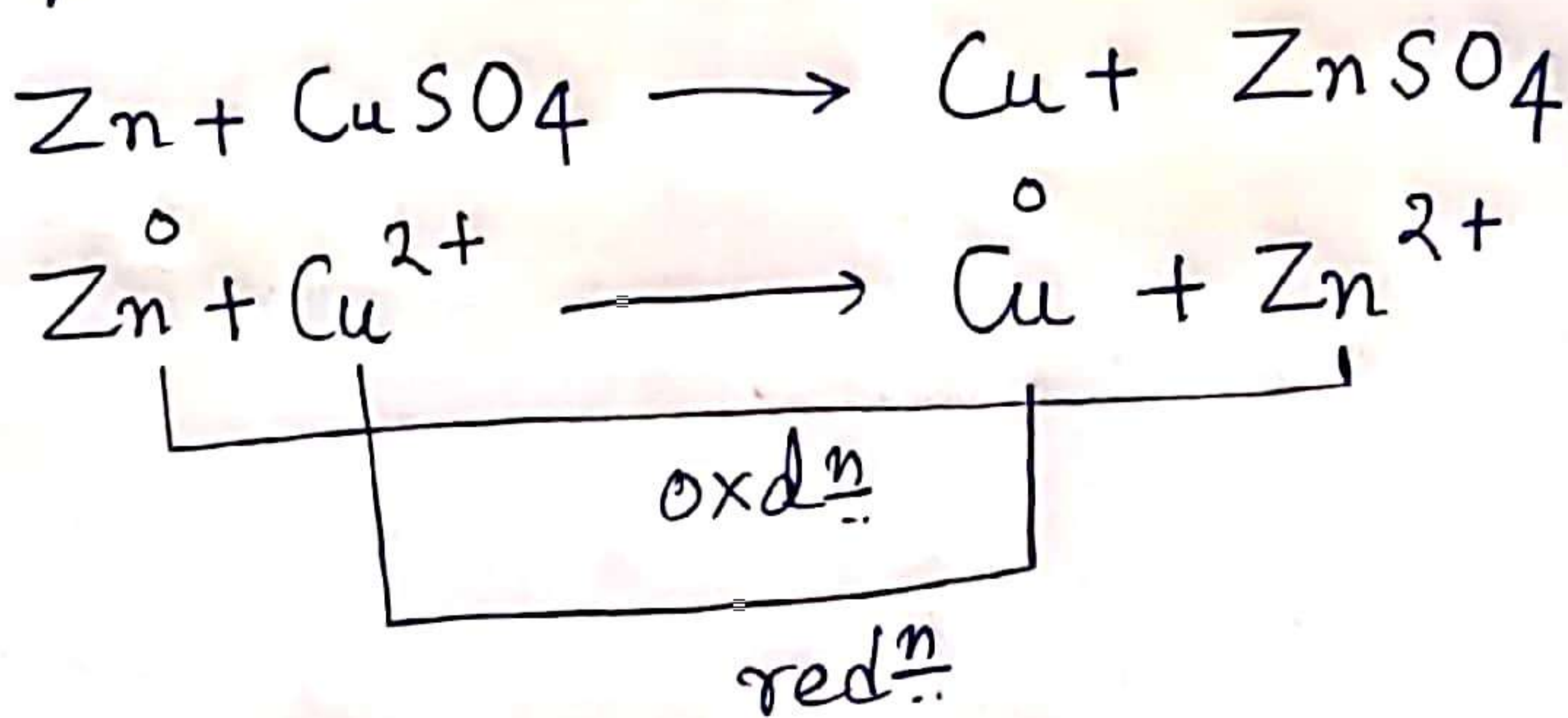
The reaction where oxidation and reduction takes place simultaneously is known as redox reaction.

Oxidation - loss of electron (increase in O.N.)

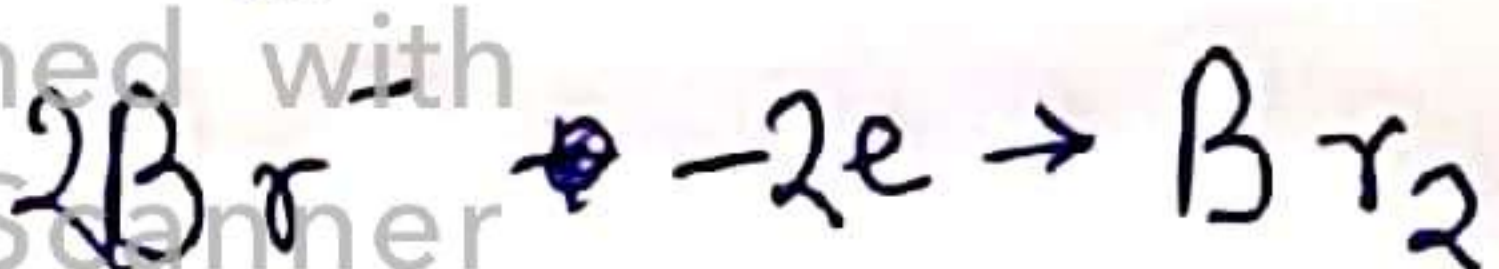
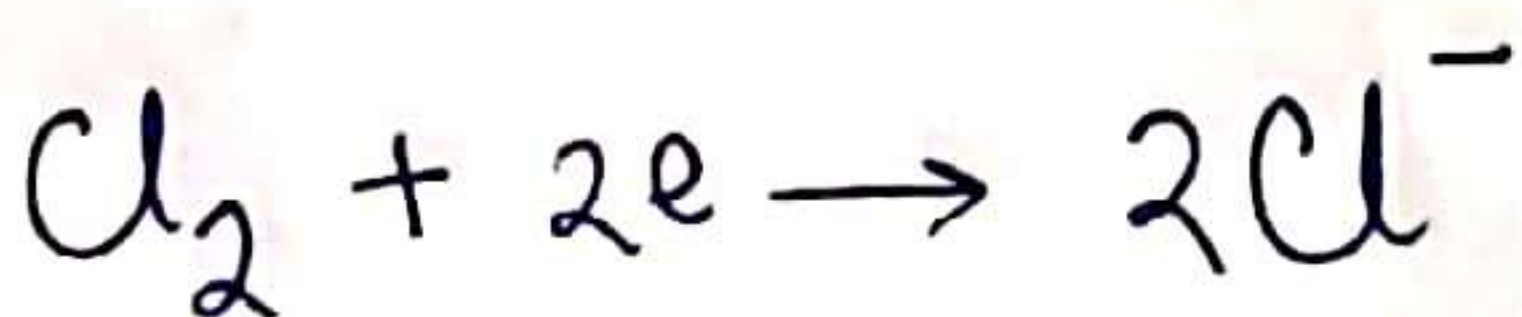
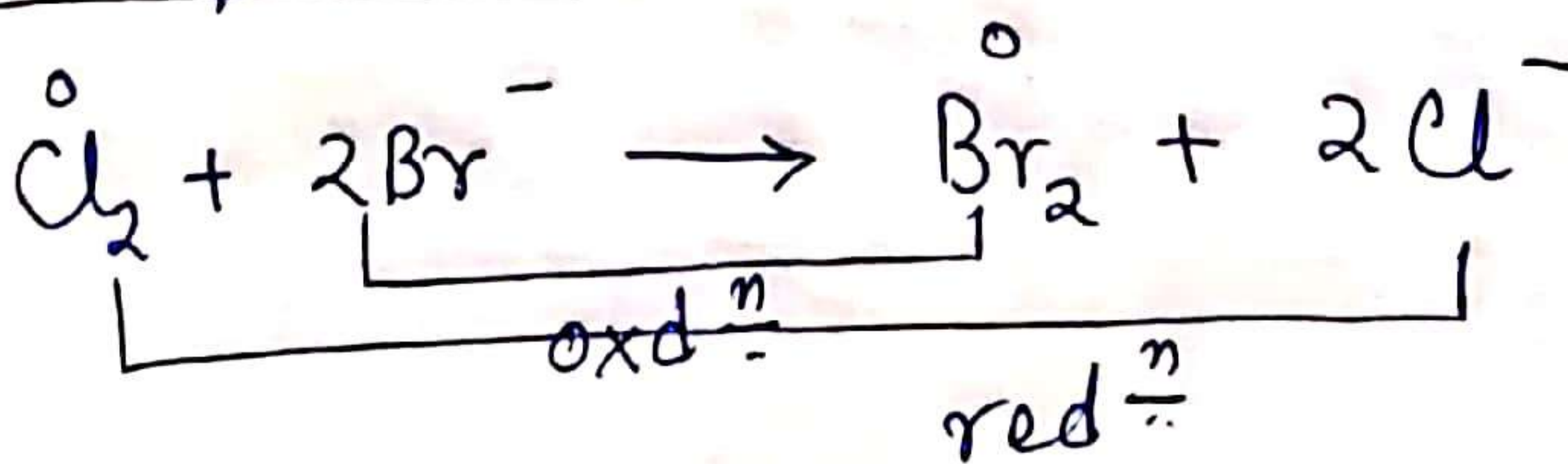
Reduction - gain of electron (decrease in O.N.)



Example 2

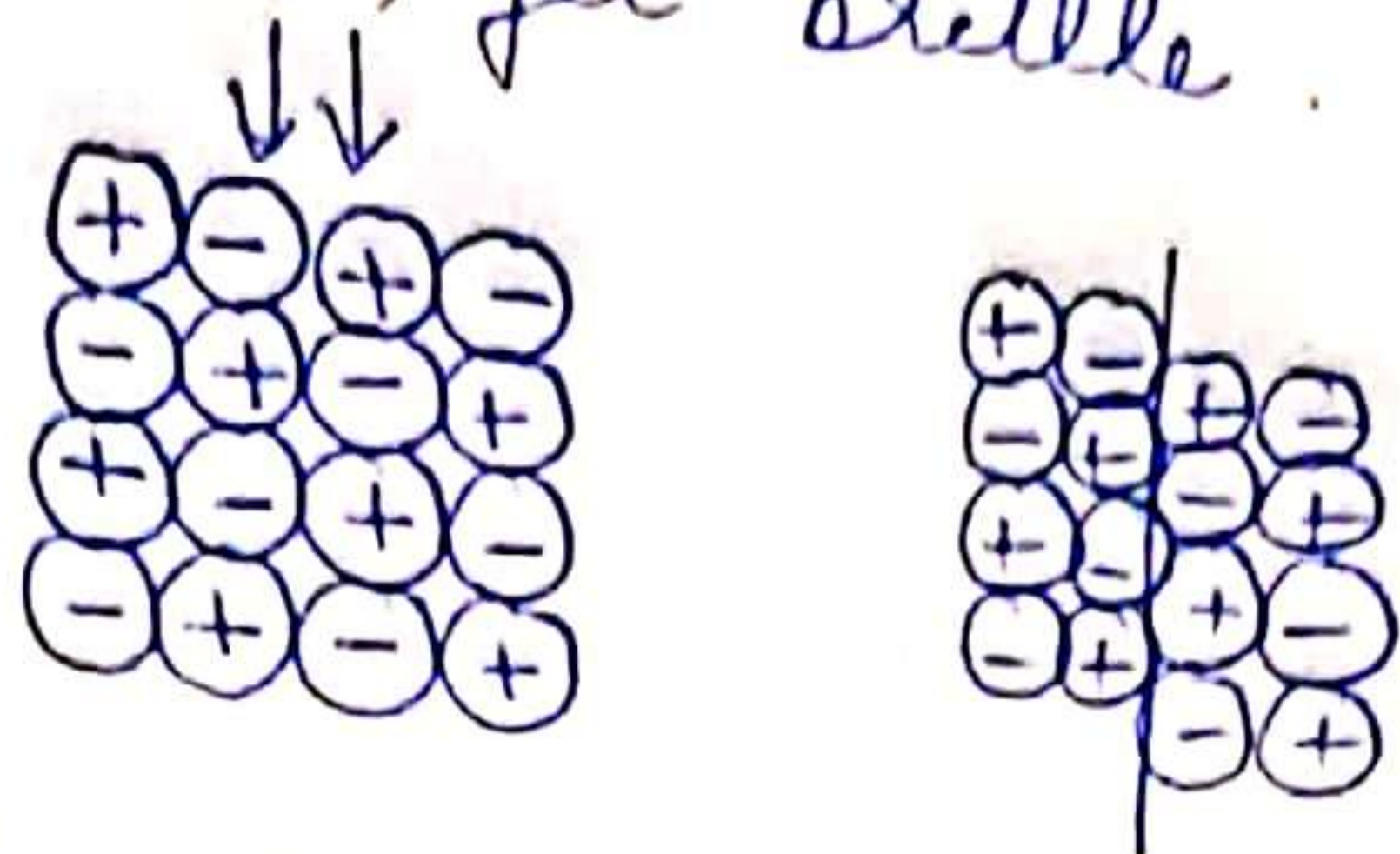


Example 3



Properties of Electrovalent Compounds

i) They are hard, yet brittle.



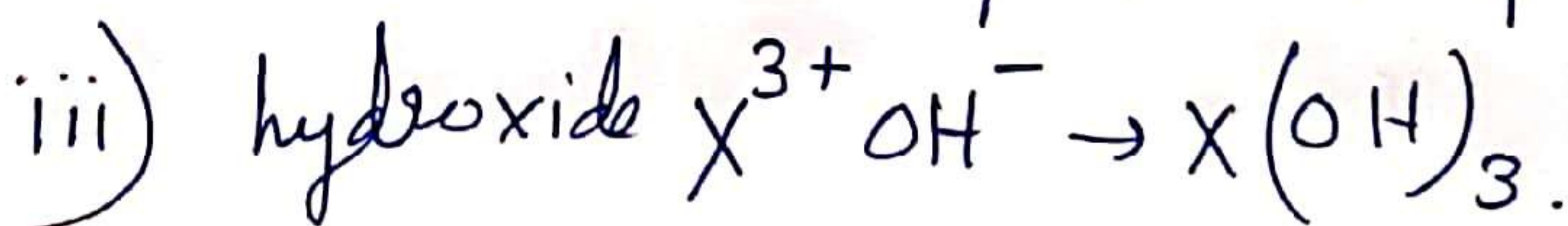
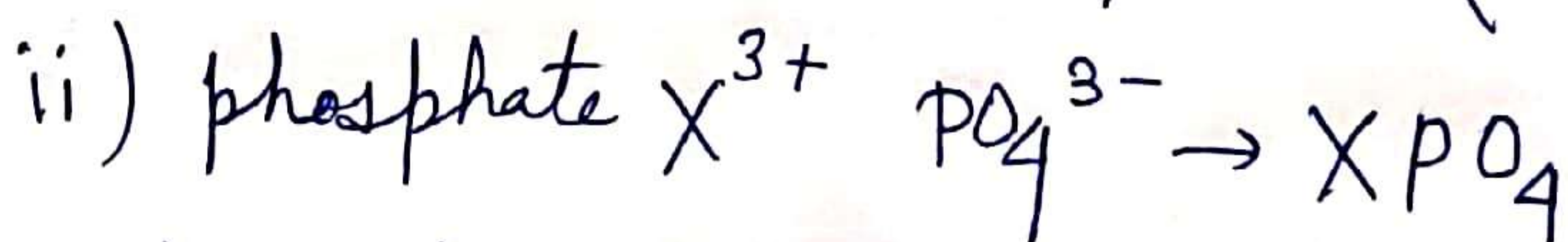
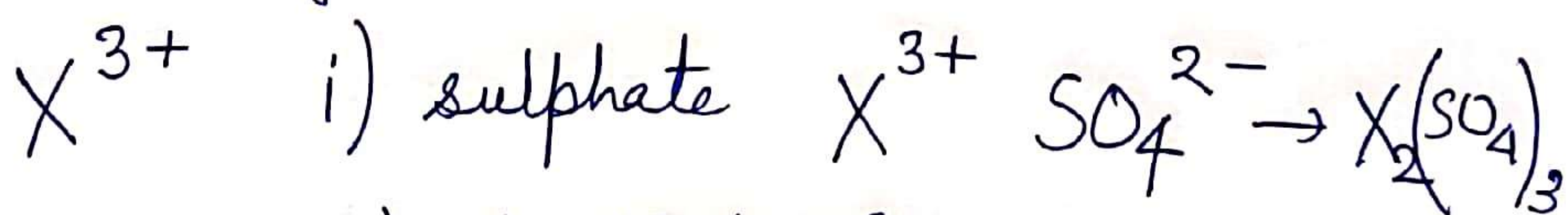
ii) They have high melting and boiling point
due to strong electrostatic force of attraction

iii) They do not conduct electricity in solid state but do so in aqueous or fused state.

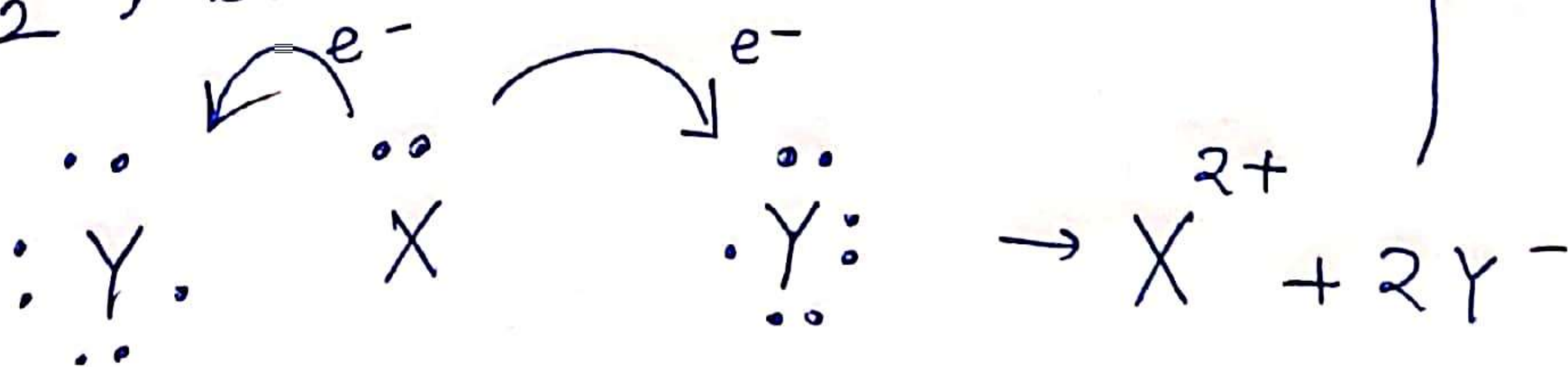
iv) They are soluble in water and insoluble in organic solvent.

- X has 3 e^- more than inert gas configⁿ
Valence $e^-s = 3$

$$\text{Valency} = 3, \text{O.N.} = +3$$

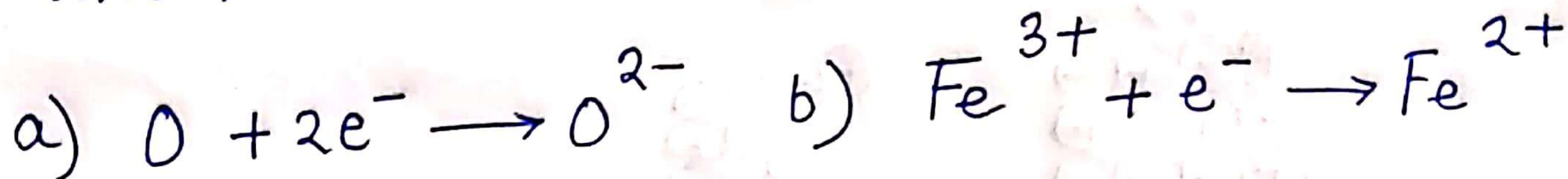


- XY_2 , electrovalent bond.



WORKSHEET

1. Identify the following rxⁿs as either oxidation and reduction :-



2. Explain :-

a) Electrovalent compounds are hard yet brittle

b) Electrovalent compounds conduct electricity in molten or aqueous state

c) Electrovalent compounds have a high melting point and boiling point.

3. An element M burns in oxygen to form ionic compound MO. Write the formula of the compounds formed of this element M with chlorine and sulphur separately.