

Periodic table configuration, radii, transition catalyst, oxidation no. catalyst, s-block full, d-block J-M Jst & Race, 116 - catalyst, chromate and dichromate, photography

d-Block SBG STUDY

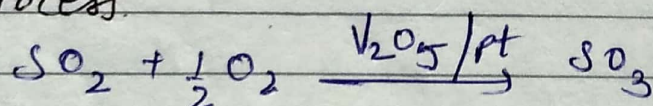
⇒ They are often called 'transition element' because their position in the periodic table is b/w s-block and p-block elements

Typically the transition element have incomplete filled d-level are considered as transition element but they are d-block element. Since Zn group has d^{10} configuration in their ground state as well as in stable oxidation state, they are not considered as transition element but they are d-block element

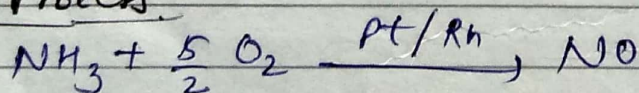
General Electronic Configuration - $(n-1)d^{1-10}ns^{1-2}$

* Catalytic Properties!

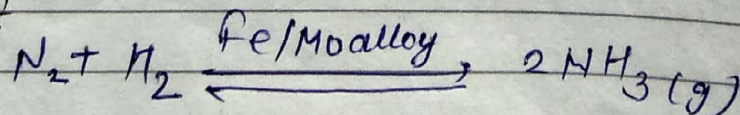
① Contact Process



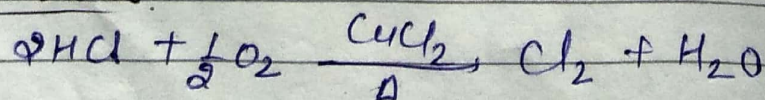
② Ostwald Process:



③ Haber's Process:

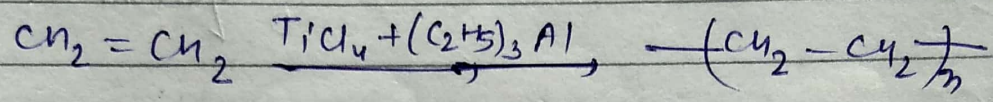


④ Deacon Process:

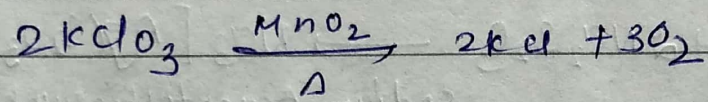


(5) $\text{PdCl}_2 \Rightarrow$ Wacker Process for converting $\text{C}_2\text{H}_4 + \text{H}_2\text{O} + \text{PdCl}_2$ to $\text{CH}_3\text{CHO} + 2\text{HCl} + \text{Pd}$

(6) Ziegler Natta Catalyst $\Rightarrow$

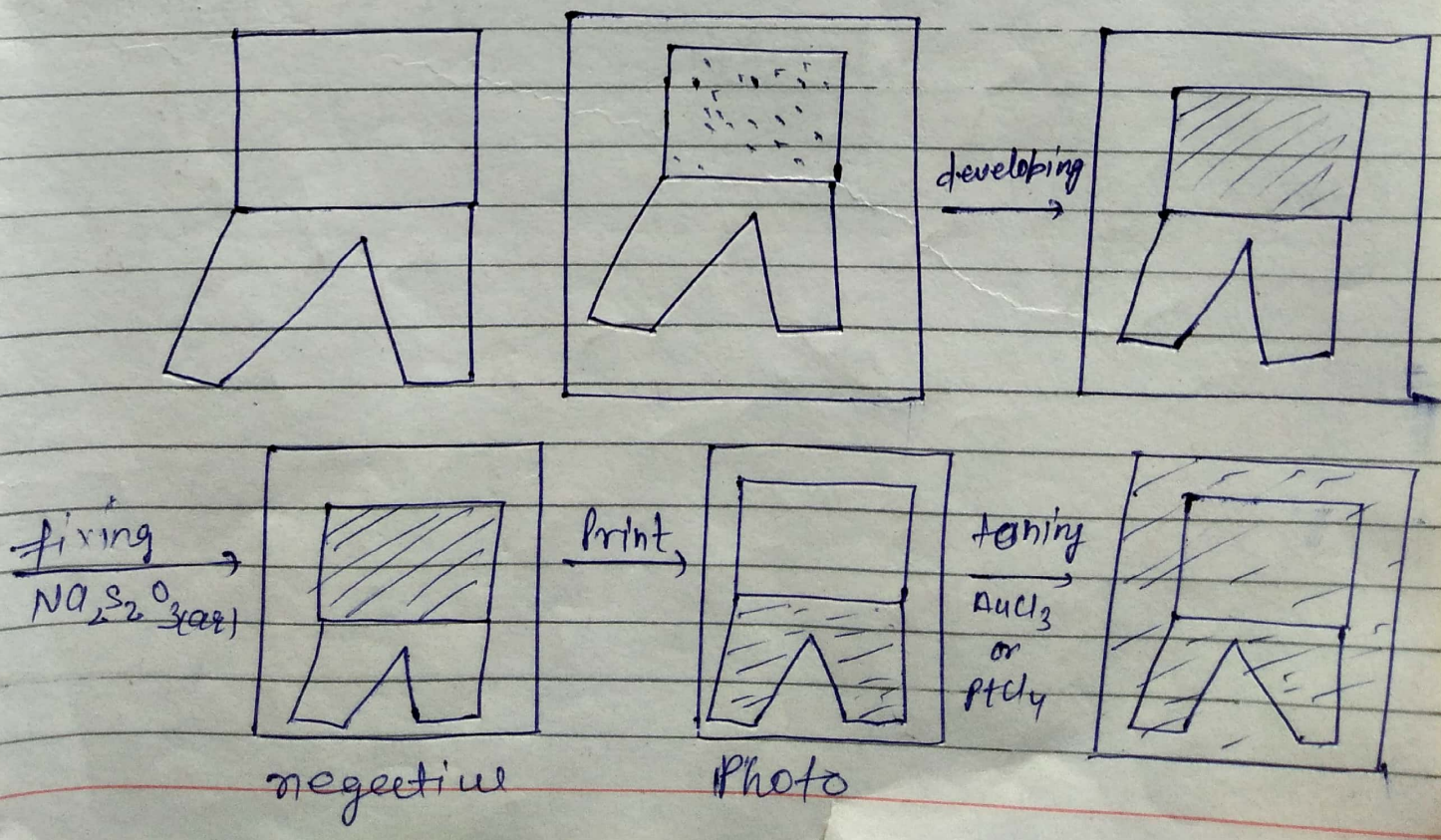


(7) decomposition of KClO_3 !



(8) $\text{FeSO}_4 + \text{H}_2\text{O}_2 \Rightarrow$ used as Fenton's reagent for oxidizing ~~alco~~ alcohol to aldehyde

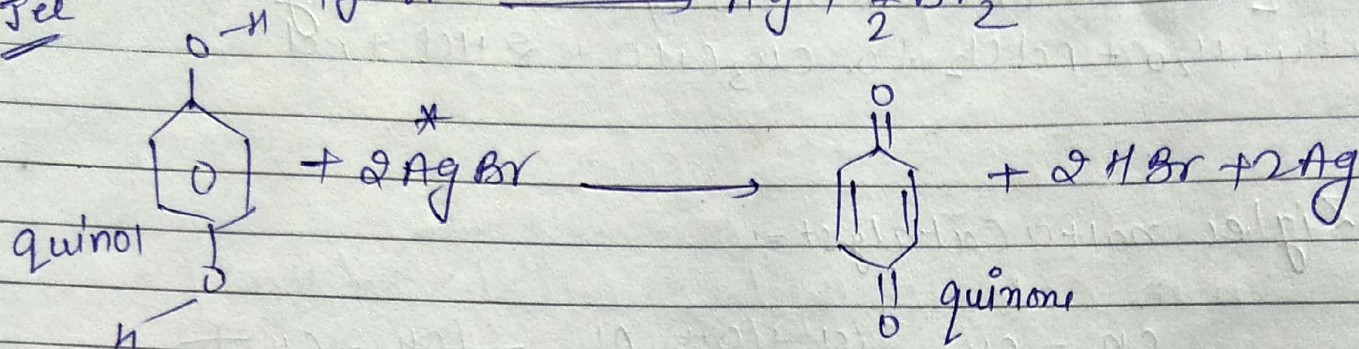
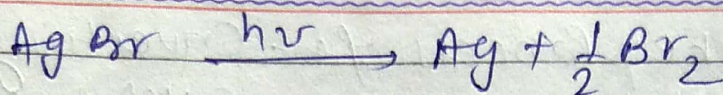
* Black and white Photography :



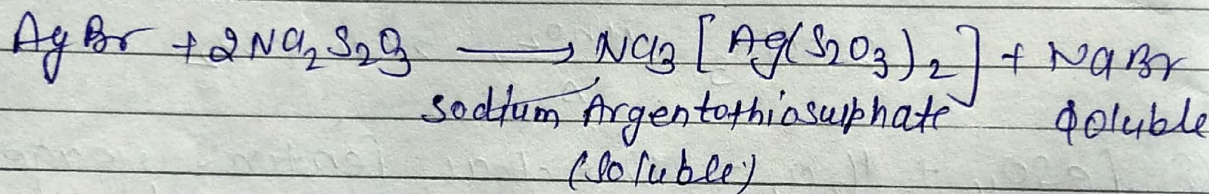
S, P block sheet completed

d. block sheet full

Dev



fixing



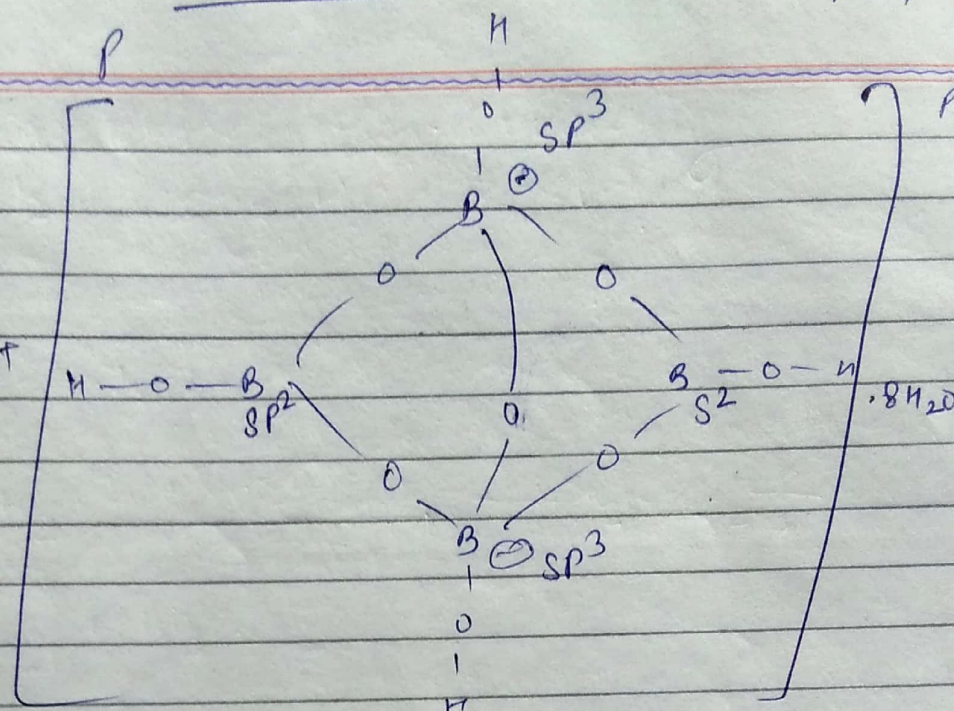
$B_3N_3H_6$
Inorganic Benzene

P-Block

8 Rows = 38, 39.
s-Block full sheet

B = 2.0
Al = 1.5
Ga = 1.6
In = 1.7
Tl = 1.8

$2Na^+$



Borax

Radius and Configuration En
Borax Prep. B_2O_3

Alum formula

Prope. of Boron

14 group

SBG STUDY