

DEPARTMENT OF CHEMISTRY,

NTR GOVT DEGREE COLLEGE, MAHABUBNAGAR

Best practices – 2022-2023 – “Learn chemistry today”

The department of chemistry has made an innovative best practice every year is “Learn chemistry today”. Daily on the department display board new chemistry information is written to create interest among the students. Each one faculty collect new chemistry topic and pass on to the students through the notice board. So that students learn chemistry in an innovative way.



Dt. 06.09.2021

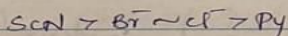
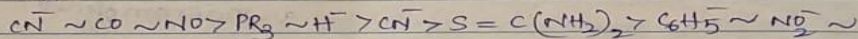
- OMCs are useful as catalysts in the prepⁿ of a wide range of ^{many} organic compds. eg. Triethyl aluminium is a catalyst in the polymerization of ethylene.
- R-Li compds are used in rubber manufacture.
- Some OMC's are used in medicine. Mercurio chromo is an anti-septic. Salvarsan is a medicine for Syphilis.
- OMC's of Sn, Al & B are useful as fungicides.
- OMC's of As, Sb, Hg and Ag are used as war gases and pesticides.

07.09.2021

Trans-position directing Series:-

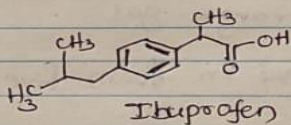
The
A perusal of several reactions involving pt (II) with a series of ligands led to the following qualitative sequence of trans effect-

High end



Low end

The trans-directing ability of π -bonding ligands increases with the increase of their ability to form metal-ligand π bonds.

08.09.2021
Wed

The formula of ibuprofen is 2-(4-isobutylphenyl) propionic acid. It is used to reduce fever and to relieve minor aches and pain from headaches, muscle aches, arthritis - - - etc

09.09.2021

Thu

Forensic scientists rely on four primary chemicals to reveal and collect fingerprints: Iodine, cyanoacrylate, silver nitrate and ninhydrin. These chemicals react to substances within the fingerprint, such as oil and sweat, making the print change color so analysts can see it better.

Applications of HSAB Rule:-

13.09

Stability of compounds (complexes):- The complex AgI_2^- would be more stable, if Ag^+ & I^- are either both hard or both soft. On the other hand the complex would be least stable if Ag^+ is hard & I^- is soft or vice versa.

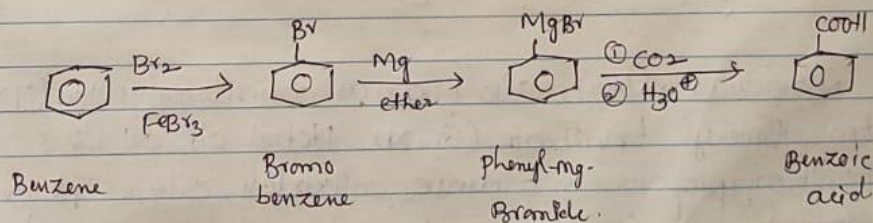
Ex:- AgI_2^- is stable compound but AgF_2^- does not.
 (S-S) (S-H)

Ag^+ is a soft acid & it combines with I^- ion, a soft base to form a stable complex, AgI_2^- (S-S), whereas its combination with F^- ion, a hard base forms an unstable complex AgF_2^- (S-H).

Ex:- CoF_6^{3-} is less stable compound but CoF_6^{2-} is more stable
 (H-H) (H-H)

14.09 Tue

Preparation of Benzoic acid from Benzene:



common name	chemical formula
1) chalk (marble)	$CaCO_3$
2) Bleaching powder	$CaOCl_2$
3) vinegar	CH_3COOH
4) marsh gas	CH_4

31.03.2022

11.04.2022

oil-fat is an ester compound produced by the reaction of Carboxylic acids (High fatty acids) and Glycerol. This process is called "Esterification".

12.04.2022

- The heaviest metal - Os
The lightest metal - Li

=) The most abundant metal - Al
The least " metal - K and Rb

13.04.2022

=) ಹೊಸ ಹೊಸವು ಸಂಶೋಧಿಸಲಾಗಿದೆ - Zr
ಹೊಸವು (ದ್ರವ) ಹೊಸವು - Ga

16.04.2022

"Wax" is an organic material consisting of a long Alky chain. These include simulated Carbon bonds & various functional groups. (1° & 2° Alcohols, Ketones, Aldehydes)

18.04.2022

=) ಹೊಸವು ಅಯುರುಜ್ಞಾನ ಸಂಶೋಧನೆ - Cu
ಅಯುರುಜ್ಞಾನ ಹೊಸವು ಅಯುರುಜ್ಞಾನ - Fe

=) ಹೊಸವು ಕಬ್ಬಿಣ ಅಯುರುಜ್ಞಾನ ಅಯುರುಜ್ಞಾನ - Ca
" " ಅಯುರುಜ್ಞಾನ "

21.04.2022

Analgesics - medicines used to relieve the body aches : Ex:- Aspirin, Ibuprofen.

22.04.2022

- Antipyretics: Reducing fever, Analgesics: Reducing pain
 → Antibiotics: Inhibiting germ-growth.
 → Antiseptics: prevention of germ growth near blisters, cuts & wounds

23.04.2022

⇒ Planet Mars is red in colour due to its surface contains Iron oxide - Fe_2O_3 .

25.04.2022

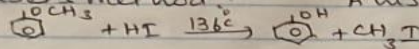
"Soaps" are formed from sodium or potassium salts of high fatty acids dissolved in water.

26.04.2022

Vitamin C is a water soluble vitamin found in citrus and other fruits and vegetables, also sold as a dietary supplement and as a topical "serum" ingredient to treat melasma and wrinkles on the face.

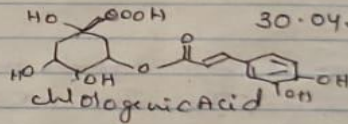
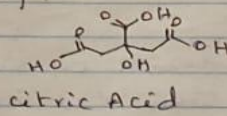
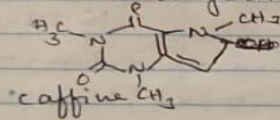
27.04.2022

⇒ Zeisel's method:-

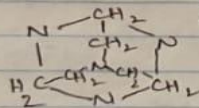
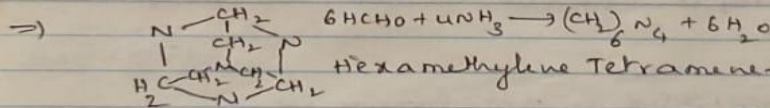


A nitro reacts with HI to produce phenol.

⇒ what is in your cup?



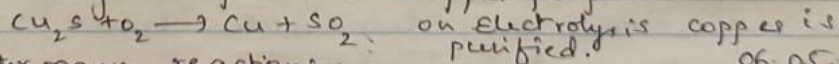
30.04.2022



Hexamethylene Tetramine - Urinary anti-septic

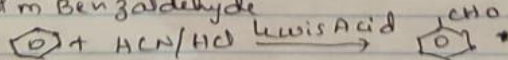
02.05.2022

⇒ Smelting is the process 80% copper prepared.



⇒ Gattermann reaction:-

Benzene treated with HCN and HCl in presence of Lewis acid to form Benzaldehyde



07.05.2022

The compound ZnO is called Philosopher's Wool.