

Hydrogen gas is used in rocket.

very less weight of hydrogen. And not save easily.

CHEMISTRY

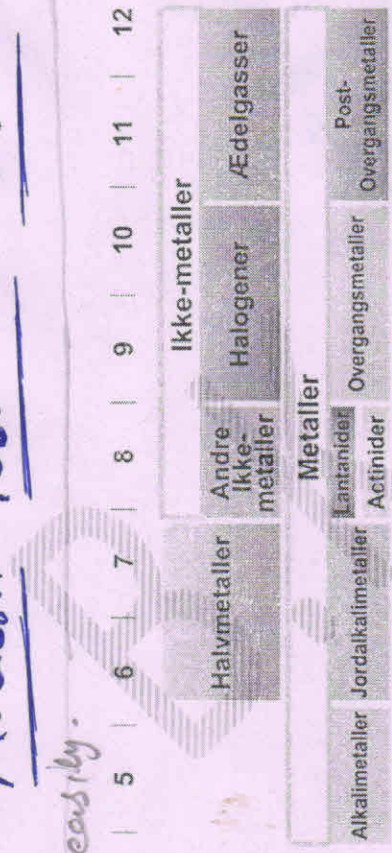
Modern Periodic Table

6 Nobel gas

Vertical

113, 115, 117, 118, digambar in 30-Dec -2015

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 H Hydrogen 1.008	2 He Helium 4.002602	3 Li Lithium 6.94	4 Be Beryllium 9.0121831	5 B Boron 10.81	6 C Carbon 12.011	7 N Nitrogen 14.007	8 O Oxygen 15.999	9 F Fluorine 18.998	10 Ne Neon 20.1797	11 Na Sodium 22.989	12 Mg Magnesium 24.305	13 Al Aluminium 26.981	14 Si Silicon 28.085	15 P Phosphorus 30.973	16 S Sulfur 32.06	17 Cl Chlorine 35.45	18 Ar Argon 39.948
19 K Kalium 39.0983	20 Ca Kalsium 40.078	21 Sc Skandium 44.955	22 Ti Titanium 47.867	23 V Vanadium 50.9415	24 Cr Kromium 51.9961	25 Mn Mangan 54.938	26 Fe Besi 55.845	27 Co Kobalt 58.933	28 Ni Nikel 58.6934	29 Cu Kuprum 63.546	30 Zn Zink 65.38	31 Ga Gallium 69.723	32 Ge Germanium 72.63	33 As Arsen 74.921	34 Se Selen 78.971	35 Br Brom 79.904	36 Kr Krypton 83.798
37 Rb Rubidium 85.4678	38 Sr Strontium 87.62	39 Y Yttrium 88.90584	40 Zr Zirkonium 91.224	41 Nb Niobium 92.90637	42 Mo Molibden 95.95	43 Tc Teknikium (98)	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.90	46 Pd Palladium 106.42	47 Ag Perak 107.8682	48 Cd Kadmium 112.414	49 In Indium 114.818	50 Sn Timah 118.710	51 Sb Antimon 121.760	52 Te Telur 127.60	53 I Jod 126.90	54 Xe Xenon 131.293
55 Cs Cesium 132.90545196	56 Ba Barium 137.327	57-71 Lantanida	72 Hf Hafnium 178.49	73 Ta Tantalum 180.94	74 W Wolfram 183.84	75 Re Rhenium 186.207	76 Os Osmium 190.23	77 Ir Iridium 192.222	78 Pt Platina 195.084	79 Au Emas 196.96657	80 Hg Raksa 200.59	81 Tl Thallium 204.38	82 Pb Timah hitam 207.2	83 Bi Bismut 208.9804	84 Po Polonium (209)	85 At Astatin (210)	86 Rn Radon (222)
87 Fr Francium (223)	88 Ra Radium (226)	89-103 Aktinida	104 Rf Rutherfordium (261)	105 Db Dubnium (263)	106 Sg Seaborgium (263)	107 Bh Bohrium (264)	108 Hs Hassium (270)	109 Mt Meitnerium (276)	110 Ds Darmstadtium (281)	111 Rg Roentgenium (281)	112 Cn Copernicium (285)	113 Nh Nihonium (286)	114 Fl Flerovium (289)	115 Uup Ununpentium (288)	116 Lv Livermorium (293)	117 Uus Ununseptium (294)	118 Uuo Ununoctium (294)

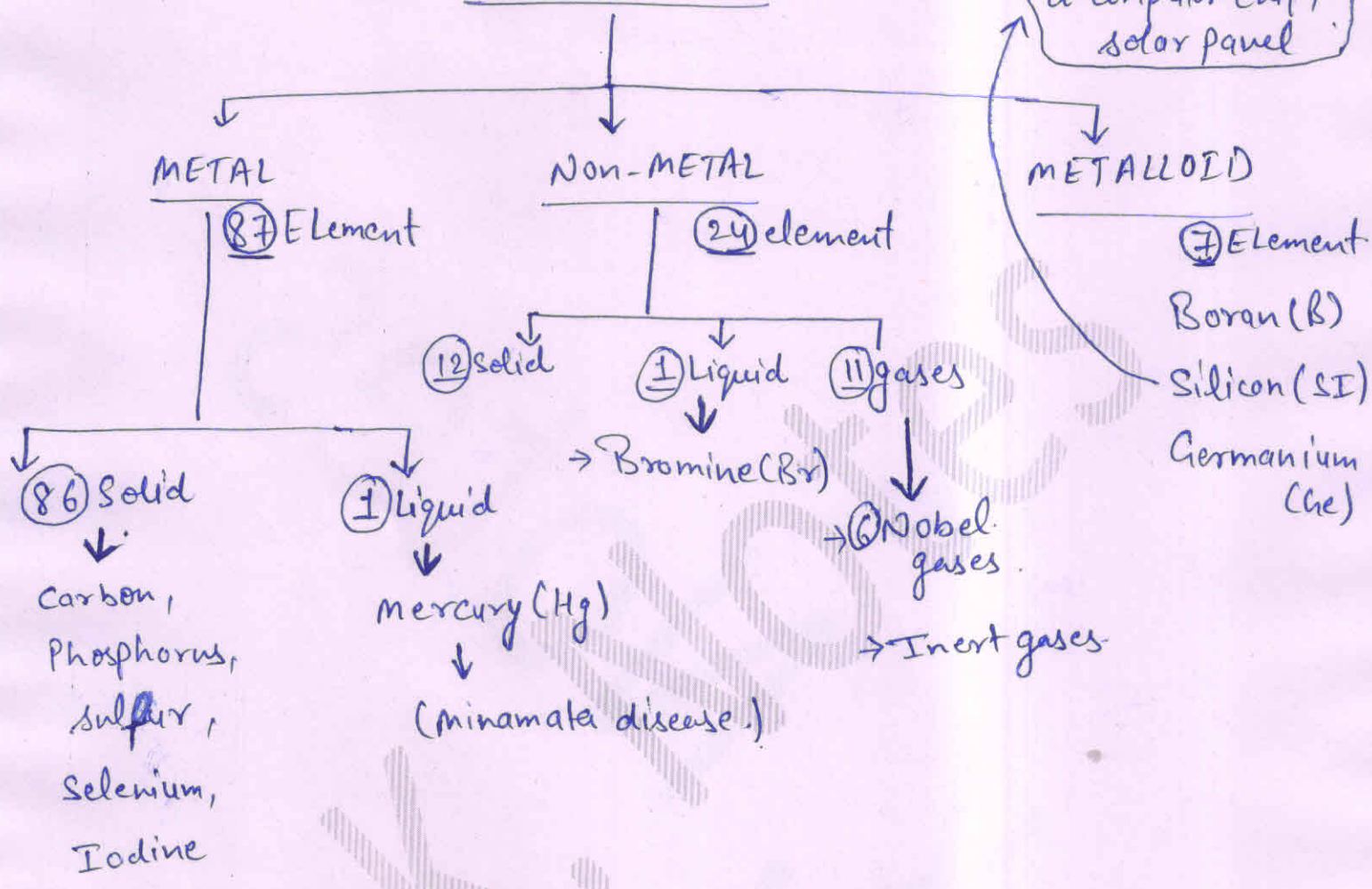


For grundstoffer uden nogen stabile isotope gælder massen for isotopen med den længste halveringstid.

Hydrogen is Non-Pollution fuel

- 'henry moseley' given the name of modern periodic table
- All Element place in table by 'Atomic number'
- In this table 7 Horizontal line and 18 vertical line

118 Elements



METAL

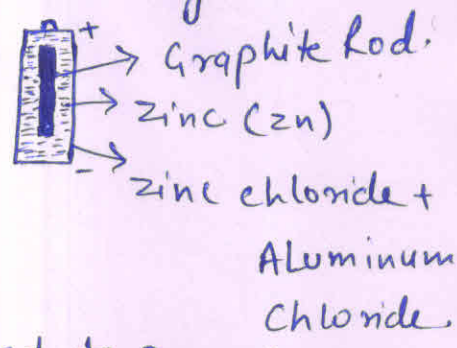
① Good conductor of heat & electricity.

- eg:-
- Silver (Ag)
 - Copper (Cu)
 - Gold (Au)
 - Aluminium (Al)

Non-METAL

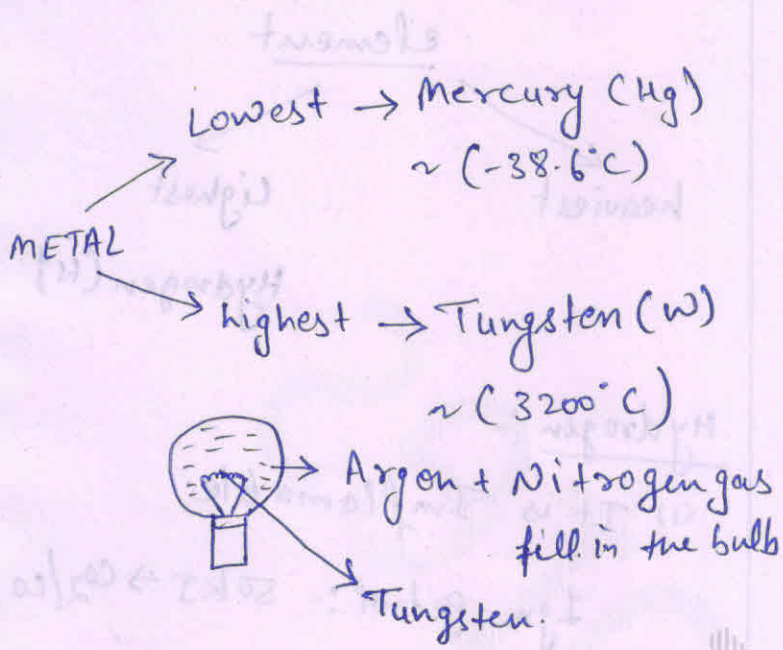
① Bad conductor.

eg:- Graphite
used Dry Cell



zinc:- It's used to prevent wood from Termites.

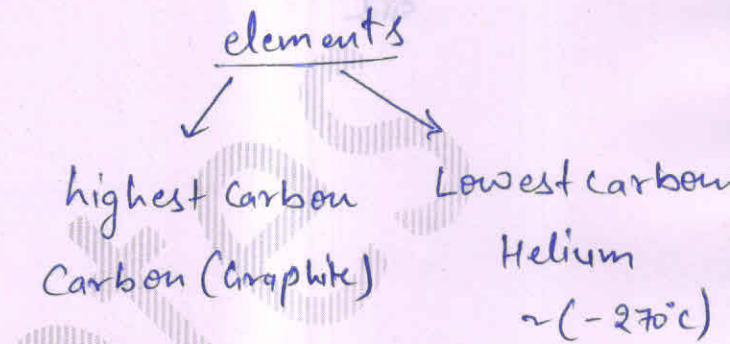
② Have a high melting - Point
(गलनांक बिन्दु उच्च है।)



Gallium (Ga) } 29°C
Cesium (Cs) }

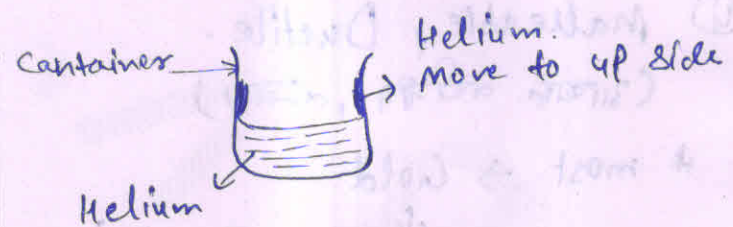
② Have Low melting - Point.
(गलनांक बिन्दु कम होता है।)

Carbon (Graphite)
~ (3800°C)



Note: Helium liquid flow to the low to high.

③ Helium always move to the up side.



③ It is fill in balloon.

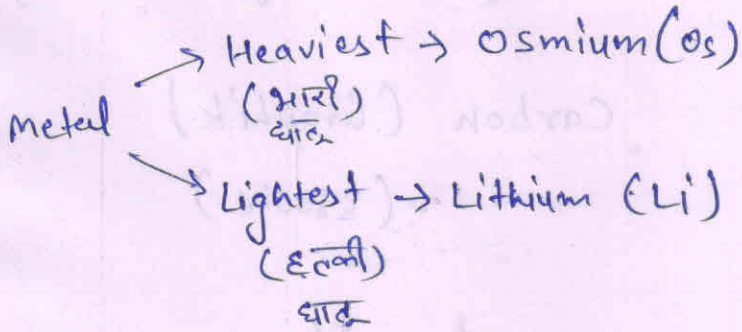
④ Oxygen cylinder :- $O_2(85\%) + N_2(15\%)$

$O_2(85\%) + He(15\%)$

⑤ Helium is not fill in the ^{Airplane} tyre but Nitrogen is fill in the Airplane tyre.

⑥ Helium is not - Inflammable.

③ Heavy Metal & Lightest metal.



④ Malleable, Ductile.

(आकार. वर्धनीय, लचीला)

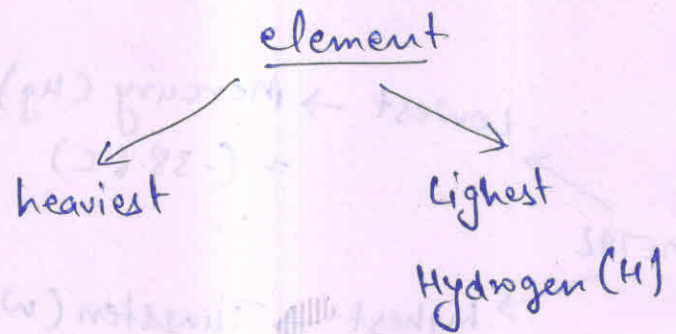
* most → Gold
↓
(king of the metal.)

* Hardest metal (सबसे)
Platinum (Pt)
white gold (सफेद सोना)

⑤ Sonorous (Sound)

⑥ Lustrous (or Shiny)

③ Heavy non-metal & Lightest non-metal.



Hydrogen :-

(i) It is Imflamable.

1gm petrol :- 50KJ → CO₂/CO

1gm H₂ :- 150KJ
↓
H₂ + O₂ = H₂O

(ii) Liquid H₂ used in Rockets.

⑤ Iodine (I)

↳ Shiny

Carbon * (Diamond)

TIR :- Total Internal
Reflection

(एक ही माध्यम में प्रकीर्णन)

⑥ Non Lustrous.