Allotropes of phosphorous.

The phenomena of existence of elements in more than one form which are physically different but chemically identical is known as allotropy. The elements exhibiting this property is said to be allotropic and these different physical states are called allotropic form or allotropic modification or eimple allotropes. simply allotropes. Phosphorous exists as following allotropes. (a) White or yellow phosphorous

(b) Red Phosphorous (c) Black Phosphorous (d) Scarlet Phosphorous (el Violet Phosphorous # Preparation of Phosphine: In the laboratory, Phosphine is prepared by heating white phosphorous with concentrated solution of alkalis in an inert atmosphere of carbon dioxide. Py+3NaOH+3h20->PH3+3NaH2PO2 Phosphine

_=	# Properties of Phosphine:
	the same of the sa
	1. Basic nature:
	Phosphine is weak base. In aqueous solution,
	it ippings partially to give hydroxide ion.
	1. Basic nature: Phosphine is weak base. In aqueous solution, it ionizes partially to give hydroxide ion.
	PN3+N20 = PN5+ +ON- Phosphonium ion
The live	prosphoning 100
	Since phosphine is basic in nature, it reacts
	Since phosphine is basic in nature, it reacts with halogen acid to form phosphonium salt.
	Dy, MCO -> PM. (1 (Phosphonium chloride)
	PM3+MU->PMq U (Phosphonium chloride) PM3+MBr->PMqBr (Phosphonium bromide)
-	THIST - STORY
T)	The same of the sa
2	Phosphile reduces solution of heavy metal like Cutt Agt Auth Nath, etc into corresponding ppt. A metal phosphide.
-4	Phosphile reduces solution to heavy metal like
	Catt Agt Auth Nata etc into corresponding ppt.
	a motal phosphide.
	The state of the s
k y,	3C4SO4+2PN3->C43P21+3N2SO4
	3C4304 T2713 3C4312 13112304
	copper phosphide
	to one with the state of the st
3.	Action with halogen:
	Action with halogen: Phosphire barns with chloring to give phosphorous pentachloride.
	no to delected
	PM3+4Cl2 -> PCl5+3NCl
	PM3+4Cl2 -> PCls+3MCl
Marie III	

4 Action with oxygen: excess of Phosphire burns with oxygen to form phosphorous pentoxide on Leating. 2PM3+40, - - P205+3M20 Phosphire turns with limited oxygen to form phosphoric acid on heating. PM3+202-3M3PD4 # Uses & Phosphire: (i) It is used in the formation of smoke (ii) It is used in production of Molme's signals.
Mixture of calcium carbide and calcium phosphide is taken in a container which is prerced and thrown into sea out of the Submarine. Calcium phosphide reacts with M20 and liberates PN3 which patches tire and light up acetylene obtained from calcium carbide: Baring gases gives a signal in a sea-journey during energency, cated Nolme's signal.