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WK-52
TUESDAYInorganic Chemistry
B.Sc Part - D, Group - B

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Oxyacids of Sulphur
and Selenium
[Continue]

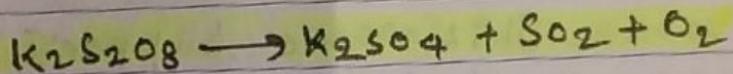
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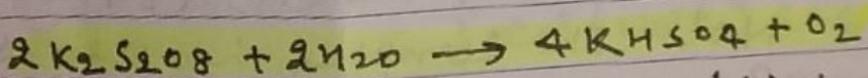
०८ मार्गशीर्ष शुक्ल, मंगलवार, सं २०१३

Dr. Sanjay Kumar Yadav.Lecture Notes Series :- 22Oxyacids of Sulphur [Continue][Properties of Persulphuric acid and Persulphates]

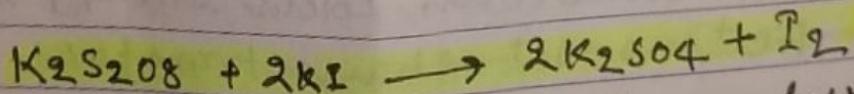
Persulphuric acid is a stable compound. It is a crystalline solid [M.P. (65°C)] and is fairly soluble in water. Its salts, the Persulphates decompose on heating evolving sulphur dioxide and oxygen.



The soln of Persulphates gives oxygen slowly in cold and rapidly on heating.



The Persulphates are powerful oxidising agents. They liberate iodine from Potassium Iodide.



Similarly, they oxidise Ferrous salts to ferric salts. Manganese salts to permanganate and chromic salts to dichromate in the presence of silver nitrate.

Barium Persulphate is soluble in water. This fact helps in distinguishing

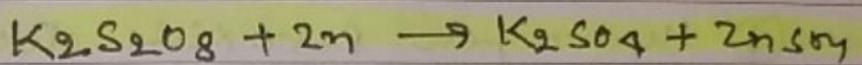
Those who say religion has nothing to do with politics do not know what religion is.

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DECEMBER०९ मार्गशीर्ष शुक्ल, बुधवार, सं २०७७ between a
PersulphatesWK-52
358-008 | WEDNESDAY

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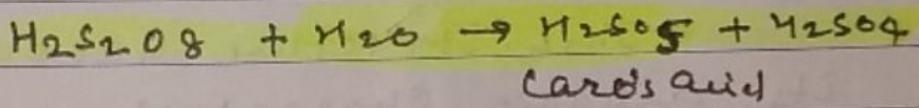
by the addition of barium chloride when a soluble sulphate gives a precipitate of barium sulphate while a Persulphate does not give any precipitate.

Some metals, e.g. zinc, dissolve in an aqueous soln of Persulphate giving sulphates.

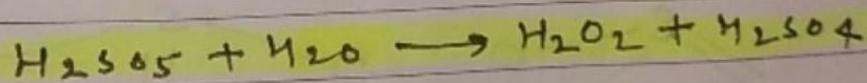


Ammonium Persulphate is used as bleaching and reducing agent.

Persulphuric acid, in aqueous soln, changes gradually into Caro's acid.



Caro's acid is further hydrolysed to give H_2O_2 and H_2SO_4



[Distinction between Caro's acid, Marshall's acid and hydrogen peroxide]

Caro's acid, Marshall's acid and

Hydrogen
Peroxide

S	M	T	W	T	F	S	S	M	T	W	F	S
.	1	2	3	4	5	6	7	8	9	10	11	12
20	21	22	23	24	25	26	27	28	29	30	31	.

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WK-52

THURSDAY | 359-007

Can be dis-

tinguished from one
another by the following tests.

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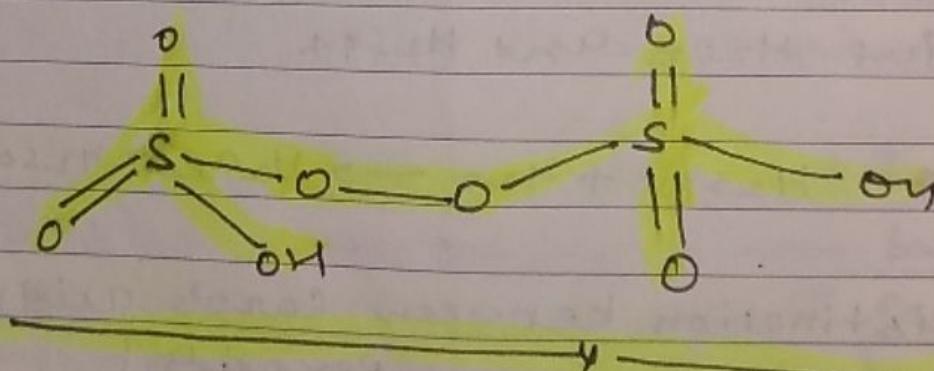
① Caro's acid liberates Iodine almost
instantaneously from Potassium Iodide

② Marshall's acid liberates Iodine slowly
from Potassium Iodide.

③ Hydrogen Peroxide decolorises (re-
duces) Potassium Permanganate which
is not done by either of the two per-
sulphuric acids.

Structure: This acid is assigned the
structure, as shown

→ This structure accounts for
its dibasic character.



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