



centenary celebrated Sharanabasveshwar Vidya Vardhak Sangha's

SHARANBASVESHWAR

College of Science, Kalaburgi 585103

one day webinar by student on,

MANUFACTURE OF WHITE LEAD BY DUTCH PROCESS

CONDUCTED BY: DEPARTMENT OF CHEMISTRY

Date: 08-04-2020

TIME : 10:30

Through: ZOOM APP

link: <https://us04web.zoom.us/j/9852816643>

NAME: NIKHITA S A

REG. NO.: 91866322 ROLL NO.: 290

MOBILE NO.: 9482111963

E-mail: nikhitasallapur@gmail.com

CLASS: B SC 6TH SEM (CBZ)

GUIDED BY:
R. RANOJI SHIKKARIGOL
R. SWROOPARANI

Head of the Department:

DR. RANOJI SHIKKARIGOL
Head

Department of Chemistry
Sharanabasveshwar College of Science
KALABURGI

Close

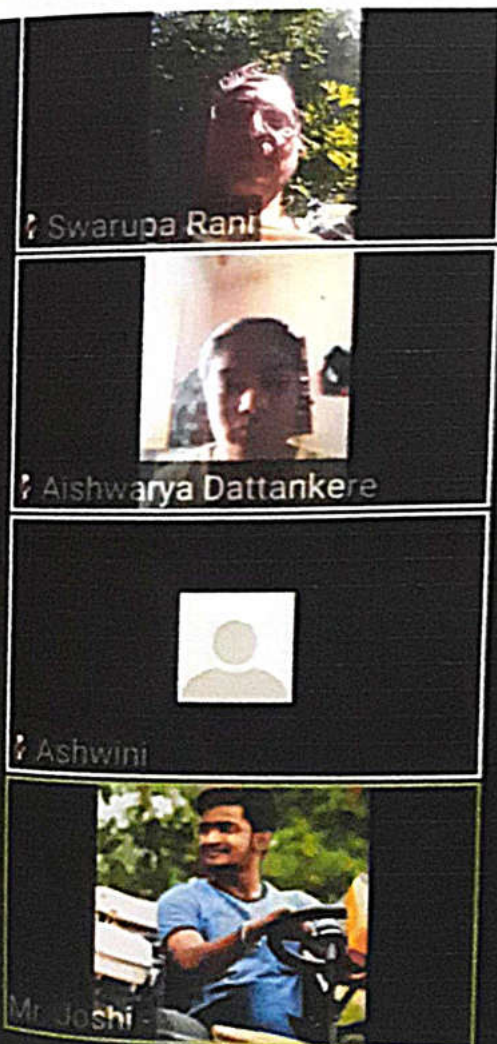
Participants (11)

Search

-  Swarupa Rani (me) 
-  Mr. Joshi - (host) 
-  Aishwarya Dattankere 
-  ranoji Shikkargol 
-  Santosh Bhimshetty 
-  Mangalambika Patil 
-  Megha 
-  Mr. Kavali 
-  nilamma Kodle 

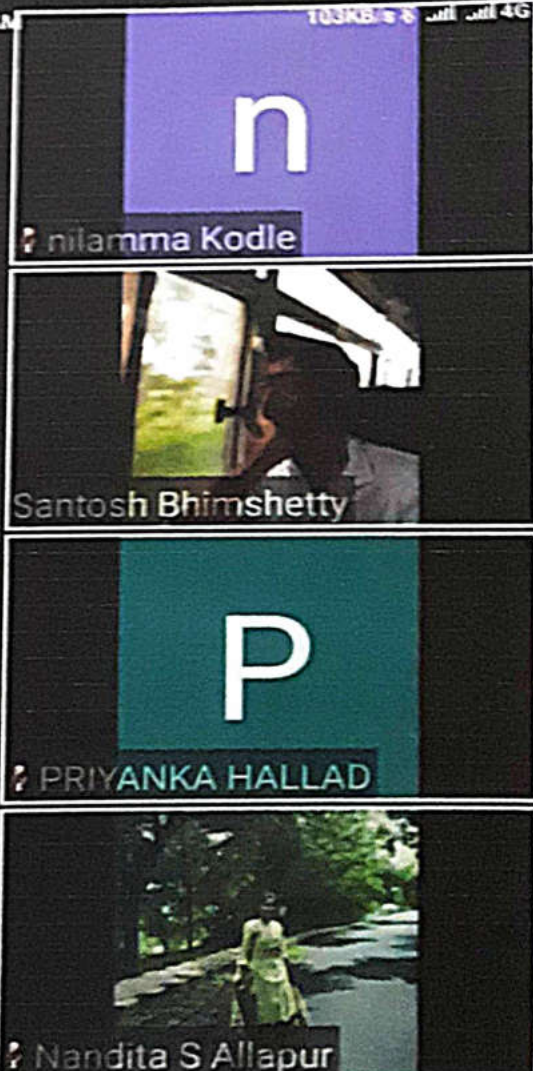
Chats

Invite



10:09 AM

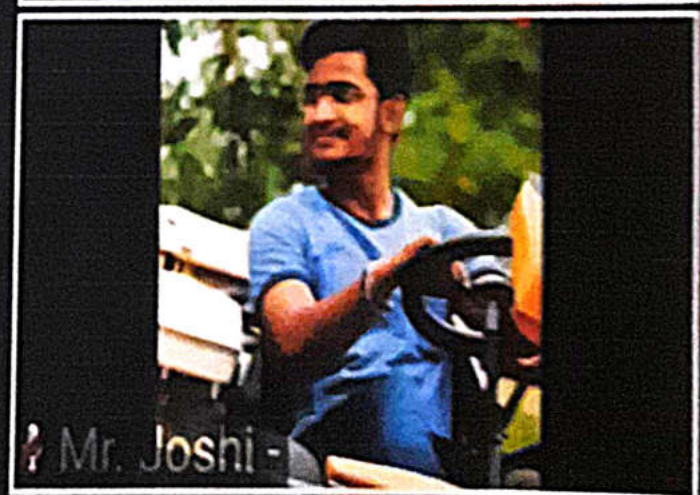
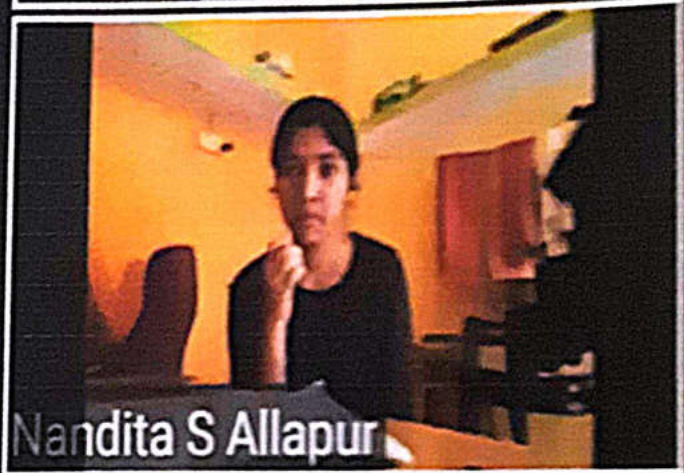
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se **Participants (25)**

- Mangalambika Patil  
- Megha  
- Mr. Kavali  
- nilamma Kotle  
- Pooja  
- PRIYANKA HALLAD  
- Ratna patil  
- Redmi  
- Reshma Malibiradar  
- Soubhagya Sajjan  

ats
 Invite

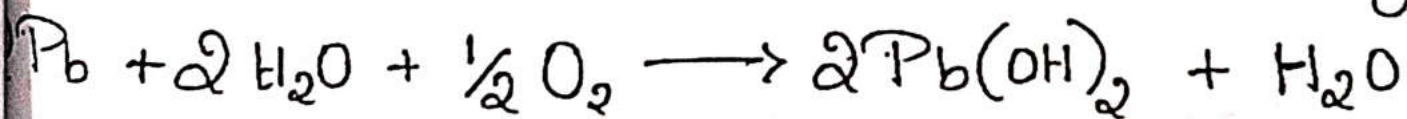


Manufacture of White lead by Dutch Process

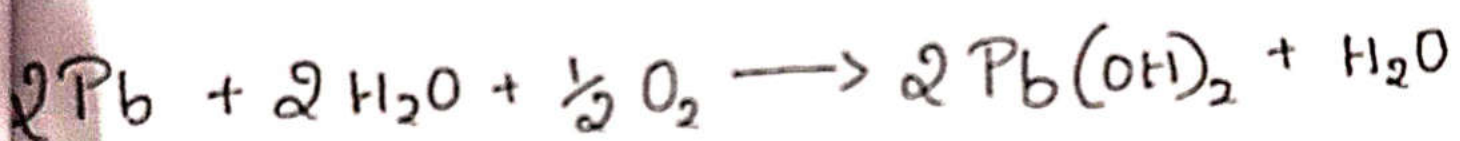
Dutch process is the oldest method of manufacture of white lead and is based on the action of acetic acid on metallic lead in presence of CO_2 and moist air. As a result metallic lead is slowly converted into basic lead carbonate.

The reaction takes place in a special chamber called stack house which contains number of compartments. Stack house containing acetic acid and lead lead in presence of CO_2 and moisture is kept closed for about 100 days with closed ventilation. As a result of the fermentation a large amount of CO_2 is produced with the liberation of heat. The heat is maintained at 89.2°C throughout the operation.

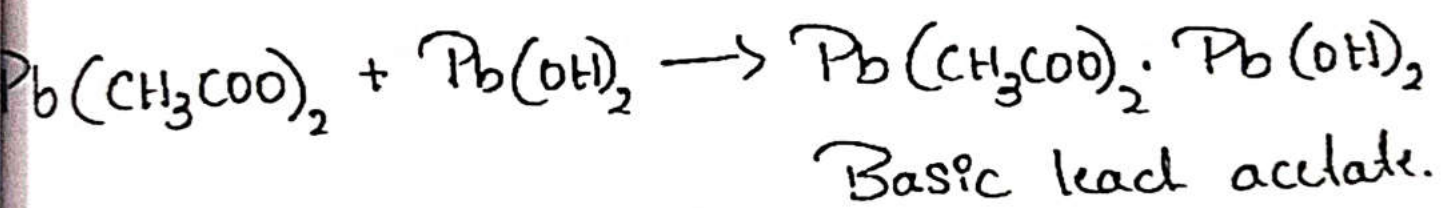
Here acetic acid solution undergoes vapourisation into vapours of acetic acid and water vapours. Lead is converted into lead hydroxide by water vapour and oxygen.



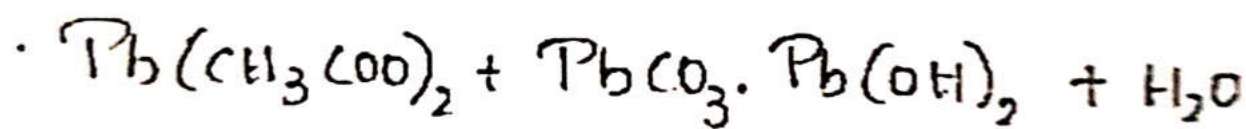
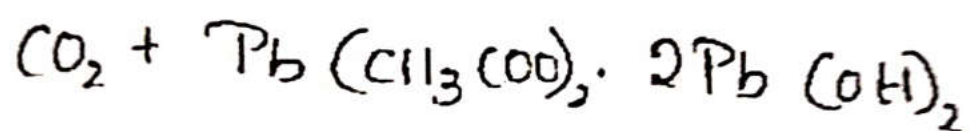
Lead is converted into lead hydroxide by water vapour and oxygen.



The lead hydroxide formed is dissolved in acetic acid giving lead acetate which is next converted into Basic lead acetate by combining with more lead hydroxide as,



Basic lead acetate is converted into Basic lead carbonate and Acetate by the liberated CO_2



white lead

Fig. 1.

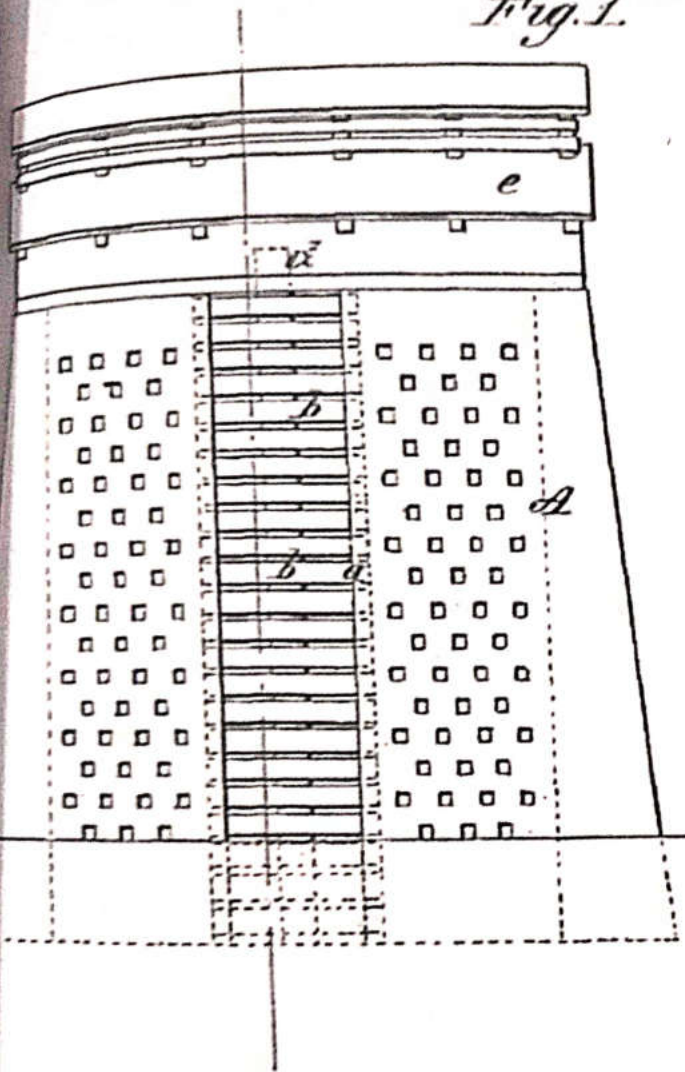
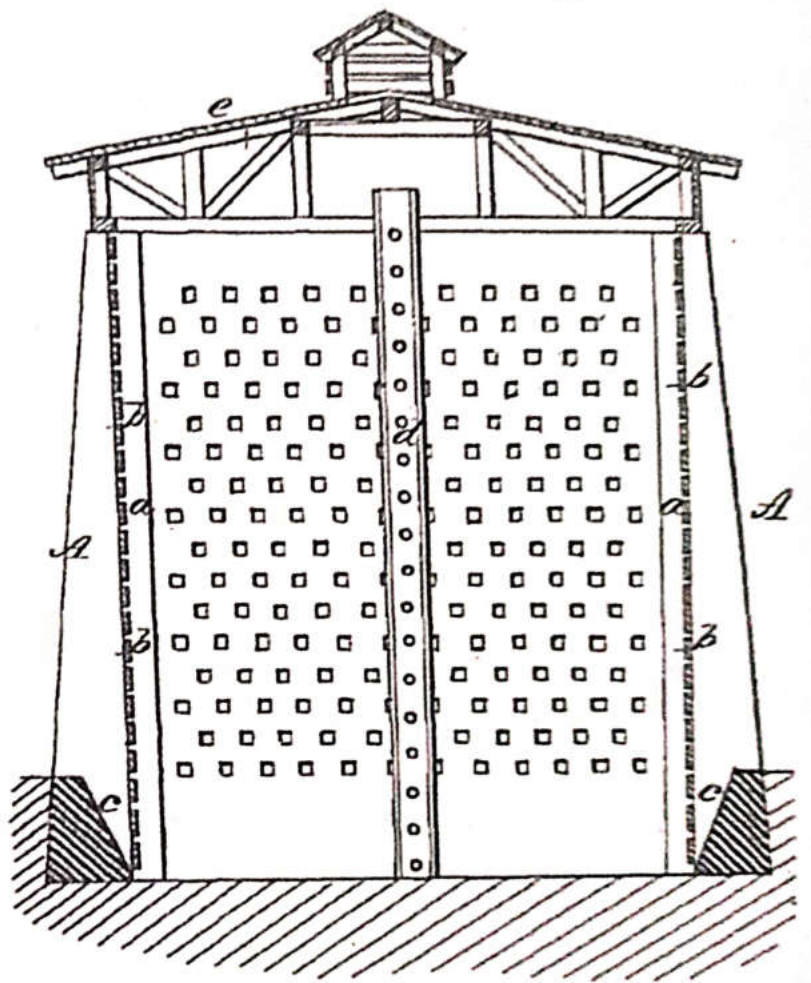


Fig. 2.



Report on ONE DAY WEBINAR

The webinar was conducted on the topic 'Manufacture of Whitelead by Dutch Process'. The webinar was well organised by the authorities of the department of Chemistry.

In this webinar the 4 points conveyed are the importance of Dutch Process, Procedure of manufacture, raw materials required for the manufacture of white lead, reactions taking place during white lead manufacture and also condition maintained during the reaction.

This reaction takes place in a chamber called Stack house based on the action of acetic acid on metallic lead in presence of CO_2 and moist air. As a result metallic lead is slowly converted into basic lead carbonate.

The Stack house with reactants is kept closed for about 100 days with closed ventilation and the heat is maintained of 82.2°C throughout the operation. Here a large amount of lead may be converted into whitelead with small initial amount of acetic acid.

Feedback of Webinar

The webinar was well organised and very informative. I got to learn so many things from this webinar. This was a new experience to give seminar in live online session, this experience improved my confidence. I have got cleared all my doubts from teachers and they also corrected few of my mistakes in the seminar. I learnt more information about the topic by this interactive session.

I thank Head of department of Chemistry Dr. Ranajit Shikraborty sir for their encourage and guidance. I also thank to Dr. Swarnaparna ma'am for their support throughout the webinar. I also thank all the participants for their active participation and making this webinar successful. Thank you all.



Thank You