Shri Shivaji Education Society's
Board for Higher Education Vidyanagar Karad

Yashwantrao Chavan College of Science
KARAD

YASHWANTRAO CHAVAN COLLEGE OF SCIENCE, KARAD

Department of Chemistry

Year 2023-24

Name of activity- "Determination of organic carbon from Soil."

Index

Sr. No.	Name
1.	Swarupa Patil
2.	Aishwarya Shinde
3.	Prachi Patil
4.	Prachi Survase
5.	Pranita Wagh
6.	Vaishnavi Mohite
7.	Shubhangi Shinde
8.	Namrata Patil
9.	Sharya Gaikwad
10.	Rutuja Salunkhe
11.	Shraddha Pujari
12.	Pradnya Nikalje
13.	Gayatri Mandave
14.	Jay Shewale
15.	Aditya Yadav
16.	Suryavanshi Sandesh
17.	Harshavardhan Pawar
18.	Nikhil Panaskar
19.	Shreyash Pawar
20.	Sahil Nikam
21.	Keshar Shah
22.	Shreya Manale
23.	Sandhya Shelkar
24.	Amruta More
25.	Fatima Patel

Head
Department of Chemistry
Yashwantrao Chavan College of Science, Karad

Yashwantrao Chavan College of Science
CHEMISTRY
Karad

Principal
Yashwantrao Chavan College of Science, Karad

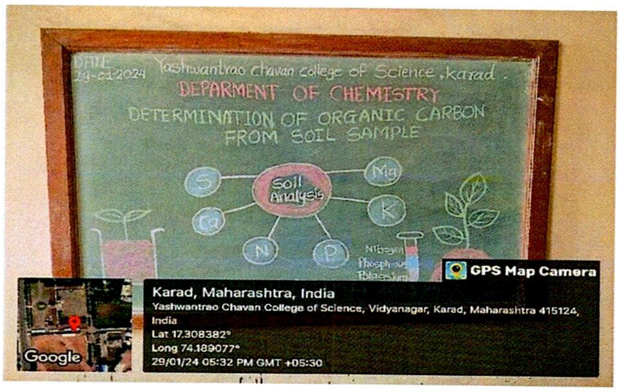
Yashwantrao Chavan College of Science, Karad

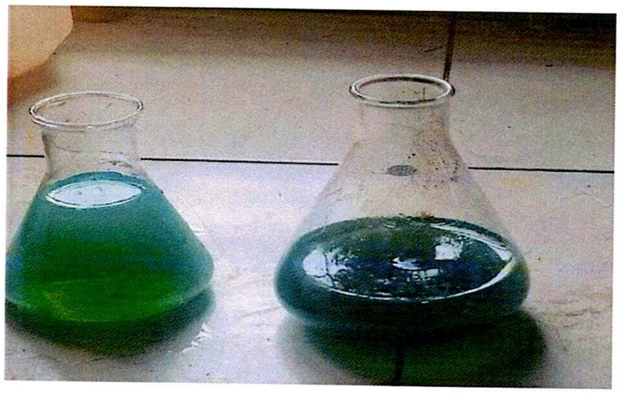
Department of Chemistry

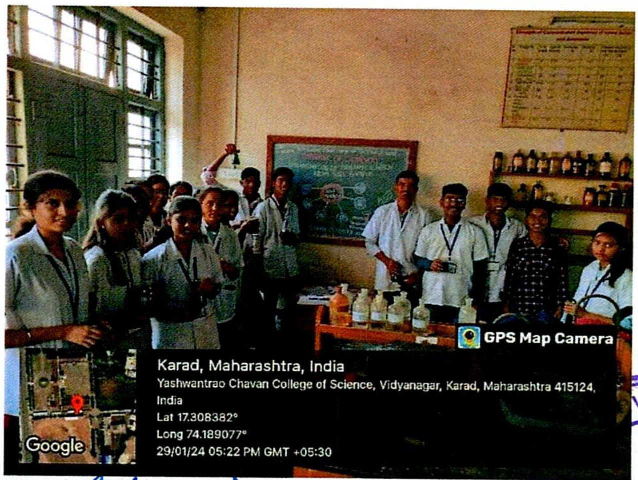
Extension Activity 2023-24

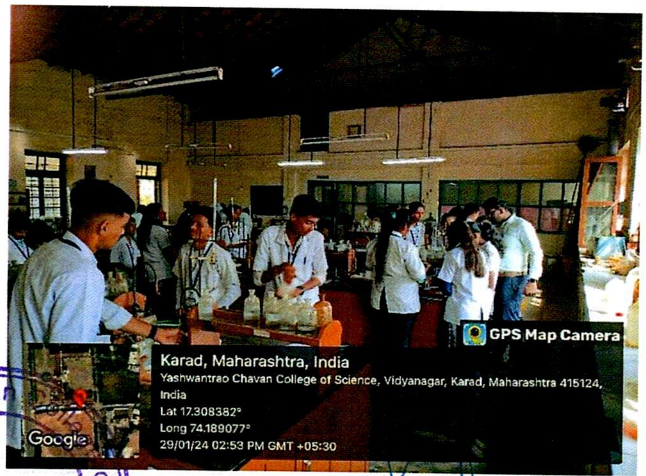
Name of activity- "Determination of Organic Carbon from Soil."

Purpose:	**Environmental Awareness:** Increase awareness about the role of soil carbon in environmental processes, such as carbon sequestration, greenhouse gas mitigation, and soil health. **Agricultural Implications:** Highlight the relevance of soil carbon measurements for agriculture, including its impact on soil fertility, nutrient cycling, and overall crop productivity. **Practical Application:** Illustrate how knowledge of soil carbon can be practically applied in making informed decisions regarding land management, sustainable agriculture, and environmental conservation.
No. of beneficiaries:	25
Outcome/ success achieved:	**Practical Skills:** Proficiency in soil carbon determination techniques, including various methods, sample preparation, and data interpretation. **Theory-to-Practice Connection:** Bridging theoretical knowledge with practical application, demonstrating the application of scientific principles in real-world scenarios. **Carbon Sequestration Benefits:** Awareness of the potential for agriculture to contribute to carbon sequestration, mitigating the effects of climate change through soil carbon management.
Teachers involved in the activity	Prof. Dr. S. H. Burungale Dr. R.S. Patil Dr. U. P. Lad Dr. S. D. Jadhav Mr. M. K. Mahale Prof. Dr. A. V. Mali Mr. B. E. Mahadik Dr. V. S. Patil Dr. K. s. Jagadhane Mr. A. N. Bhingare Mr. G. B. Dhake Mr. S. D. Karande Mr. M. I. Maneri









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Principal,
Yashwantrao Chavan College of Science, Karad

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil

Date : 29/01/2024

Sr. No	Name of Students	Address	Mobile No.	Sign
1	Swarupa Patil	At. Post- Helgaon, Tal-karad Dist- Satara -415106	8261090914	Patil
2	Aishwarya Shinde	At. Post- Padali(He) Tal-karad Dist-satara -415106	8378987315	Aishwarya
3	Prachi Patil	At. Post- wing Tal-karad Dist - Satara - 415122	9921065720	P.Patil
4	Prachi Survase.	At. Post-Umbraj. Tal-Karad Dist - Satara -	8625896041.	P.N.Survase.
5	Wagh pranita	At-vanrasmachi(New) Tal-karad Dist-Satara	9637075287	P.wagh
6	vaishnavi mohite	At-Post- Tondoli. Tal- ~~Kad~~ Kadegaon. Dist-sangli	8830153408	vaishnavi
7	shinde shubhangi	At-post shirawade ta- karad Dist-Satara	8149538857	Shinde
8	Patil Namrata	At-Pos- Babarmachi	9970035715	[illegible]
9	Gaikwad shreya	At post -shere	9834737343	Gaikwad
10	Salunkhe Rutuja	At post kival Tal·karad, dist·satara	8766603255	Rutuja.
11	Pujari shraddha	At·post kival Tal- karad, dist·satara	8766869928	Pujari
12	Pradnya Nikalje	At·post korti. Tal.karad. Dist Satara 415109	9112405688	R.Nikalje.
13	Mandave Gayatri	At. Post :- khodashiwadi. Tal :- karad Dist :- satara	9328143889	[illegible]

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Yashwantrao Chavan College of Science ★ Karad ★ CHEMISTRY

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil

Date- 29/01/2024

Sr. No	Name of Students	Address	Mobile No.	Sign
14	Jay shewale	A/P-shewalewadi mhasoli Tal-Karad Dist. satara	7558309863	JBS
		— // —	9022	
15	Yadav Aditya	A/p chikmahud Tal sangola Dist solapur	8975026117	Yadavm.
16	Suryavanshi Sandesh	Alp Vijaynagar	9172534131	S.M.Surya
17	Pawar Harshavardhan	Alp chaoegaon Tal-Karad	7792854141	[illegible]
18	Panaskar Nikhil	Alp. Bahule. tal. Patan.	8007731181	Nikk
19	Pawar shreyash	A/P. shewalewadi mhasoli Tal. Karad. Dist satara	9022614840	[illegible]
20	Nikam Sahil	A/P. Dudhondi Tal. Palus. Dist. sangali	9028884230	Sahil
21	Shah Keshar	Alp Kiwal. Tal-Karad. Dist - Satara	8623011020	Kshahar
22	Mandale shreya	AlP kharsundi Tal-Atpadi Dist. sangli	7620446751	Smandale
23	shelar Sandhya	At. Post. Vidyanagar Karad.	8551958574	shelar
24	More Amruta	At. Pachupatewadi Po. Tulsan Tal:- Karad Di:- satara	8010075482	A.B.more
25	Patel Fatima	Sumangal nager Karve Naka Karad	8055993008	[illegible]
26				

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Yashwantrao Chavan College of Science CHEMISTRY ★ Karad ★

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29|1|2024

Name of Students- Shinde Shubhangi Ganpat

Address – At. Post shirawade

Blank Titration		Back Titration	
1.	29 ml	1.	27 ml
2.	29 ml	2.	27 ml
3.	28.5 ml	3.	27.5 ml
CBR =	29 ml	CBR =	27 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

Calculation -

% of organic carbon in soil = $\frac{(x-y) \times N \times 0.003}{\text{Amount of soil Sample in gm}} \times 100$

$= \frac{(29-27) \times 0.5 \times 0.003}{} \times 100$

$= 0.3$

Conclusion - This soil Contains 0.3% carbon

Extension Activity 2023-24

Department of Chemistry

Date - 29/01/2024

Aim - Determination of organic carbon from Soil

Name of Students- Shinde Shubhangi Ganpat

Address – At/Post Shirawade

% of Organic Carbon in Soil is : 0.3%

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil

Date - 29/01/2024

Name of Students- Gaikwad Sharyu Sandip

Address – Shere station, tal - karad, Dist - Satara.

Blank Titration

1. 29 ml
2. 29 ml
3. 28 ml

CBR = 29 ml

Back Titration

1. 27 ml
2. 27 ml
3. 27.5 ml

CBR = 27 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

Calculation :-

Percentage of organic carbon :- $\frac{(x-Y)\times N \times 0.003}{weight\ of\ soil\ in\ gm} \times 100$.

$= \frac{(29-27)\times 0.5 \times 0.003}{} \times 100$

$= 0.3\%$

Conclusion - This soil contains 0.3% carbon.

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil Date - 29/01/2024

Name of Students- Gaikwad Sharyu Sandip

Address – At post, Shere Station, tal - Karad, Dist - Satara.

% of Organic Carbon in Soil is : 0.3 %

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil

Date:- 29/01/2024

Name of Students- Patil Namrata Sanjay

Address – A/P- Babarmachi - Tembhu Road.

Blank Titration	Back Titration
1. 29 ml	1. 27 ml
2. 29 ml	2. 27 ml
3. 28.5 ml	3. 27.5 ml
CBR = 29 ml	CBR = 27 ml

% of Organic Carbon in Soil $= \frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

Calculatiom:-

Percentagen of organic carbom $= (x-y) \times N \times 0.003$

% of organic carbon in soil $= \frac{(x-y) \times N \times 0.003}{Amount\ of\ soil\ sample\ gm} \times 100$

$= \frac{(29-27) \times 0.5 \times 0.003}{} \times 100$

$= 0.3\ \%$

Conclusion - This soil contains 0.3% carbon

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil

Date :- 29/01/2024

Name of Students- Patil Namrata Sanjay

Address – A/P- Babarmachi, Tembhu Road

% of Organic Carbon in Soil is : 0·3 %

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil

Date:-29-01-2024.

Name of Students- Salunkhe Rutuja papat

Address – at. post. Kival, tal. Karad. Dist:- Satara.

Blank Titration

1. 29 ml
2. 29 ml
3. 28.5 ml

CBR =

Back Titration

1. 27 ml
2. 27 ml
3. 27.5 ml

CBR =

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

Calculation:-

Percentage of organic carbon:- $(x-y) \times N \times 0.003$

=

% of organic carbon in soil $= \frac{(x-y) \times N \times 0.003}{\text{Amout of Soil sample gm}} \times 100.$

$= \frac{(29-27) \times 0.5 \times 0.003 \times 100}{}$

$= 0.3\ \%$

Conclusion - This soil contains 0.3 % carbon.

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil

Name of Students- Salunkhe Rutuja Popat. Date-29-1-2024.

Address – At. post. Kival, tal-Karad, Dist-Satara.

% of Organic Carbon in Soil is : 0.3 %

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29/01/2024

Name of Students- Shinde Aishwarya Namdev

Address – AT. Post Padali (He) Tal. karad Dist. Satara 415106

Blank Titration	Back Titration
1. 31.2 ml	1. 26.7 ml
2. 31.7 ml	2. 27 ml
3. 32 ml	3. 27.2 ml
CBR = 31.6 ml	CBR = 26.9

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon = $\frac{(x-Y) \cdot N \cdot 0.003}{\text{Amount of Soil Sample in gram}} \times 100$

$= \frac{(31.6-26.9) \times 0.5 \times 0.003}{1} \times 100$

$= \frac{4.7 \times 05 \times 0.003}{1}$

$= \frac{0.070 \times 100}{0.70}$

$= 0.70\%$

Conclusion - This soil contains 0.70% carbon

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil Date :- 29/01/2024

Name of Students- Shinde Aishwarya Namdev

Address – AT. Post Padali (He) Tal. Karad Dist. Satara 415106

% of Organic Carbon in Soil is : 0.70%

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29/02/2024

Name of Students- Patil Swarupa Prakash

Address – At. Post- Helgaon, Tal- karad, Dist- satara, 415106.

Blank Titration	Back Titration
1. 31.2 ml	1. 26.7 ml
2. 31.7 ml	2. 27 ml
3. 32 ml	3. 27.2 ml
CBR = 31.6	CBR = 26.9

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in soil $= \frac{(X-Y) \cdot N \cdot 0.003}{\text{Amount of soil Sample in gm}} \times 100$

$= \frac{(31.6-26.9) \times 0.5 \times 0.003}{1} \times 100$

$= \frac{4.7 \times 0.5 \times 0.003}{1} \times 100$

$= 0.0070 \times 100$

$= \underline{0.70\ \%}$

Chavan College of Science Yashwantrao ★ Karad ★ CHEMISTRY

Conclusion - This soil contains 0.70% carbon.

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil Date- 29/01/2024

Name of Students- Patil Swarupa Prakash

Address – At. Post - Helgaon, Tal-Karad, Dist-Satara, 415106.

% of Organic Carbon in Soil is : 0.70%

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29.01.2024

Name of Students- Patil Prachi Sadashiv.

Address – At. Post. wing. Tal- Karad. Dis - satara.

Blank Titration

1. 31.2 ml
2. 31.7 ml
3. 32 ml.

CBR = 31.6

Back Titration

1. 26.7 ml
2. 27 ml
3. 27.2 ml.

CBR = 26.9

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic Carbon in soil = $\frac{\cancel{(x+}(x-Y) \times N \times 0.003}{\text{Amount of soil sample in gm}} \times 100$

$$= \frac{(31.6-26.9) \times 0.5 \times 0.003}{1} \times 100$$

$$= \frac{4.7 \times 0.5 \times 0.003}{1} \times 100$$

$$= 0.0070 \times 100$$

$$= 0.70$$

$$= 0.70\%$$

Conclusion - This ~~$~~ ~~Or~~ soil Contance 0.70 carbon.

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil Date- 29.01.2024

Name of Students- Patil Prachi Sadashiv

Address – At. Post. wing. Tal - karad. Dist. Satara.

% of Organic Carbon in Soil is : 0.70 %

Limit :

Low	:	< 0.5 %
Medium	:	$\boxed{0.5 – 0.75\ \%}$
High	:	> 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Date : 29/01/2024

Aim - Determination of organic carbon from Soil

Name of Students- Mandave Gayatri Sambhaji

Address –AT/Post :- Khodjaiwadi, Tal :- Karad, Dist :- Satara.

Blank Titration	Back Titration
1. 31.1 ml	1. 27.5 ml
2. 28.4 ml	2. 28.2 ml
3. 31.1 ml	3. 27.5 ml
CBR = 31.1 ml	CBR = 27.5 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% organic Carbon = $\frac{(x-y) \times N \times 0.003}{\text{amount of soil in gm}}$

$\frac{(31.1 - 27.5) \times 0.5 \times 0.003}{1}$

$= \frac{(3.6) \times 0.0054}{1} \times 100$

$= 0.54\%$

Conclusion - This soil contains organic Carbon = 0.54 %

CHEMISTRY Yashwantrao Chavan College of Science ★ Karad ★

Yashwantrao Chavan College of Science, Karad

Extension Activity 2023-24

Department of Chemistry **Date :** 29/01/2024

Aim - Determination of organic carbon from Soil

Name of Students- Mandave Gayatri sambhaji

Address – AT / Post :- khodjaiwadi, Tal :- karad, Dist :- satara

% of Organic Carbon in Soil is : 0.54 %

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

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Yashwantrao Chavan College of Science, Karad

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29|01|2024

Name of Students- Wogh Pranita Shahaji

Address – At -vanvasamachi (New) Tal- Karad, Dist- Satara

Blank Titration	Back Titration
1. 30 ml	1. 26.2
2. 30 ml	2. 25
3. 29 ml	3. 26.2
CBR = 30 ml	CBR = 26.2 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon = $\frac{(x-y) \times N \times 0.003}{\text{weight of soil in gm}}$

$= \frac{(30-26.2) \times 0.5 \times 0.003 \times 100}{1}$

$= \frac{3.8 \times 0.5 \times 0.003 \times 100}{1}$

$= 0.57$

Conclusion - This soil contents 0.57% carbon

Extension Activity 2023-24

Department of Chemistry

Date-29-01-24

Aim - Determination of organic carbon from Soil

Name of Students- Wagh Pranita shahaji

Address – At- vanvasamachi (New) Tal- Karad, Dist - Satara

% of Organic Carbon in Soil is : 0.57 %

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29-01-2024.

Name of Students- Survase Prachi Narayan.

Address – At. Post. Umbraj. Tal.- Karad. Dist- Satara.

Blank Titration	Back Titration
1. 30 ml	1. 26.2
2. 30 ml	2. 25
3. 29 ml.	3. 26.2
CBR = 30 ml	CBR = 26.2 ml

% of Organic Carbon in Soil $= \frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon $= \frac{(x-y) \times N \times 0.003}{\text{weight of soil in gm}}$

$= \frac{(30-26.2) \times 0.5 \times 0.003 \times 100}{1}$

$= \frac{3.8 \times 0.5 \times 0.003}{1}$

$= \underline{\underline{0.57}}$.

Conclusion - This organic Soil contains 0.57 carbon.

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil Date - 29-01-2024.

Name of Students- Survase Prachi Narayan.

Address – At. Post. Umbraj. tal. Karad. Dist- Satara.

% of Organic Carbon in Soil is : 0.57 %

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29-01-2024

Name of Students- mohite vaishnavi popat

Address – A/t. post:-Tondoli, Tal- Kadegaon, Dist- sangli

Blank Titration	Back Titration
1. 30 ml	1. 26.2 ml
2. 30 ml	2. 25 ml
3. 29 ml	3. 26.2 ml
CBR = 30 ml	CBR = 26.2 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon $= \frac{(x-y) \times N \times 0.003}{\text{weight of soil in gm}} \times 100$

$= \frac{(30-26.2) \times 0.5 \times 0.003}{1} \times 100$

$= \frac{3.8 \times 0.5 \times 0.003}{1} \times 100$

$= \underline{0.57}$

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Conclusion - this soil contains 0.57% carbon.

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil Date :- 29-01-24

Name of Students- mohite vaishnavi popat

Address – A/t Post :- Tondoli, Tal- kadegaon, Dis - sangli

% of Organic Carbon in Soil is : 0.57 %

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Date :- 29/01/2024

Aim - Determination of organic carbon from Soil

Name of Students- Pujari shraddha sunil

Address – At.post, Kival, Tal-Karad. dist-satara

Blank Titration

1. 31.1 ml
2. 28.4 ml
3. 31.1 ml

CBR = 31.1 ml

Back Titration

1. 27.5 ml
2. 26.2 ml
3. 27.5 ml

CBR = 27.5 ml

% of Organic Carbon in Soil $= \frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

$$\% \text{ of organic carbon} = \frac{x - y \times N \times 0.003}{\text{amount of soil in gram}}$$

$$= \frac{(31.1 - 27.5) \times 0.5 \times 0.003}{1}$$

$$= \frac{(3.6) \times 0.5 \times 0.0054}{1} \times 100$$

$$= 0.54\ \%$$

Conclusion - This soil contains 0.54% carbon.

Extension Activity 2023-24

Department of Chemistry

Date - 29/01/2024

Aim - Determination of organic carbon from Soil

Name of Students- Pujari shraddha sanil

Address – At. post kival, Tal- karad, dist- satara.

% of Organic Carbon in Soil is : 0.54 %

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil Date- 29 10/1/2024

Name of Students- Nikalje Pradnya krushnat

Address – At/P. Korti. Tal. karad. Dist-satara.

Blank Titration

1. 31.1 ml
2. 28.4 ml
3. 31.1 ml

CBR = 31.1 ml

Back Titration

1. 27.5 ml
2. 26.2 ml
3. 27.5 ml

CBR = 27.5 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in soil $= \frac{(X-Y) \times N \times 0.003}{\text{Amount of soil sample in gm}} \times 100$

$= \frac{(31.1ml - 27.5ml) \times 0.5 \times 0.003}{1} \times 100$

$= \frac{3.6 \times 0.5 \times 0.0054}{1}$

$= \boxed{0.54\%}$

Conclusion - This soil contents 0.54% carbon.

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil Date-29/01/2024

Name of Students- Nikalje Pradnya krushnat

Address – At/P. Korti. Tal.Karad. Dist-Satara..

% of Organic Carbon in Soil is : 0.54%.

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

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Yashwantrao Chavan College of
Science, Karad

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29/01/2024

Name of Students- Shah Keshar Sanjay

Address – At. post - Kiwal, Tal - Karad.

Blank Titration	Back Titration
1. 35ml	1. 26ml
2. 32.5ml	2. 24.5ml
3. 35ml	3. 26ml
CBR = 35ml	CBR = 26ml

% of Organic Carbon in Soil $= \frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

Percentage of organic carbon $= \frac{X-Y \times N \times 0.003}{Amount\ of\ soil\ sample\ in\ gm}$

$= \frac{(35-26) \times 0.5 \times 0.003}{1} \times 100$

$= \frac{9 \times 0.5 \times 0.003}{1} \times 100$

$= 1.35\%$

Conclusion - This soil contains 1.35% carbon.

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil Date:- 29/01/2024

Name of Students- Shah Keshar Sanjay

Address – At-post - Kiwal, Tal -Karad.

% of Organic Carbon in Soil is : 1.35%

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

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CHEMISTRY
★ Karad ★

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Yashwantrao Chavan College of
Science, Karad

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29/01/2024

Name of Students- Sandhya vilas Shelar.

Address – At. Post. vidyanagar, karad.

Blank Titration	Back Titration
1. 35 ml	1. 26 ml
2. 32.5 ml	2. 24.5 ml
3. 35 ml	3. 26 ml
CBR = 35 ml	CBR = 26 ml

% of Organic Carbon in Soil = $\frac{(X-Y) * N * 0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in soil $= \frac{(x-y) \times N \times 0.003}{\text{Amount of Soil Sample in gm}} \times 100$

$= \frac{(35-26) \times 0.003}{1} \times 100$

$= \frac{9 \times 0.003}{1} \times 100$

$= 1.35\%$.

Conclusion - This soil contants 1.35% carbon.

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil Date:- 29/01/2024

Name of Students- Sandhya vilas shelar.

Address – AT. Post vidyanagar, karad.

% of Organic Carbon in Soil is : 1.35 %.

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29-01-2024

Name of Students- Mandale shreya shripal

Address – A/P Kharsundi Tal - Atpadi
Dist . sangli

Blank Titration	Back Titration
1. 35 ml	1. 26 ml
2. 32.5 ml	2. 24.5 ml
3. 35 ml	3. 26 ml
CBR = 35 ml	CBR = 26 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in soil = $\frac{(x-y) \times N \times 0.003}{\text{Amount of soil sample in gm}} \times 100$

$$= \frac{(35-26) \times 0.5 \times 0.003}{1} \times 100$$

$$= \frac{9 \times 0.5 \times 0.003}{1} \times 100$$

$$= 1.35\%$$

Conclusion - This soil contanes 1.35 % carbon

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil Date = 29-01-2024

Name of Students- Mandale Shreya Shripal

Address – A/P - Kharsundi Tal . Atpadi
Dist . Sangli

% of Organic Carbon in Soil is : 1.35%

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29-01-2024

Name of Students- More Amruta Balkrushn

Address – At Pachupatewadi. Po. Tulsan Tal. karad Dist. satara.

Blank Titration		Back Titration	
1.	32. ml	1.	~~32 ml~~ 27 ml
2.	31.8 ml	2.	~~31.8 ml~~ 26.5 ml
3.	~~32~~ 32 ml	3.	~~32~~ 26 ml
CBR =	32. ml	CBR =	26.5 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in soil $\frac{(X-Y).N.0.003}{Amount\ of\ soil\ sample\ in\ gm}$ 100

$X-Y \times N \times 0.003$

$\frac{(32-26.5)\times 0.5 \times 0.003}{1} \times 100$

$\frac{5.5 \times 0.5 \times 0.003}{1} \times 100$

$\boxed{0.82\%}$

Conclusion - This soil contains 0.82 carbon

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil Date :- 29-01-2024

Name of Students- More Amruta Balkrushn.

Address – At. Pachupatewadi . Po. Tulsan
Tal: Karad dist:- satara.

% of Organic Carbon in Soil is : 0.82 %

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29/~~[illegible]~~/2024

Name of Students- Patel Fatima Manjur

Address – Sumangal nager Karve naka Karad.

Blank Titration		Back Titration	
1.	32 ml	1.	27 ml
2.	31.8 ml	2.	26.5 ml
3.	32 ml	3.	26 ml
CBR =	32.ml	CBR =	26.5

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

Percentage of organic carbon = $\frac{X-Y \times N \times 0.003}{\text{Amount Soil sample in gm}}$

= ~~(32-26) × 0.5 ×~~

$\frac{(32-26.5) \times 0.5 \times 0.003}{1} \times 100$

$\frac{5.5 \times 0.85 \times 0.003}{1} \times 100$

$\boxed{0.82\%}$

Conclusion - This Soil contains 0.82 carbon.

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil 29/01/2024

Name of Students- Patel Fatima manjur

Address – Sumangal nager karve naka karad.

% of Organic Carbon in Soil is : 0.82%

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29/01/2024

Name of Students- Panaskar Nikhil Bajirao.

Address – at. post. Bahule. tal. patan. Dist. satara.

Blank Titration	Back Titration
1. = 30.00 Ml	1. = 27.00 Ml
2. = 30.00 Ml	2. = 27.00 Ml
3. = 31.00 Ml	3. = 28.00 Ml
CBR = 30. Ml	CBR = 27. Ml.

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in soil = $\frac{(X-Y)*N*0.003}{\text{Amount of soil sample in gm}} \times 100$

$= \frac{(30-27) \times 0.5 \times 0.003}{1}$

$= \frac{3 \times 0.5 \times 0.003 \times 100}{1}$

= 0.45 %

Conclusion - This soil contains 0.45% carbon.

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil

Date :- 29 : 01 : 2024.

Name of Students- Panaskar Nikhil Bajirao.

Address – at. post. Bahule . tal. Patan. Dist. Satara.

% of Organic Carbon in Soil is : 0.45 %

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29/01/2024

Name of Students- Pawar Harshavardhan Rahul

Address – At/post - Charegaon Tal.- Karad Dist - Satara. Pin - 415109

Blank Titration		Back Titration	
1.	27 ml	1.	18 ml
2.	26.5 ml	2.	17 ml
3.	27 ml	3.	16.5 ml
CBR =	26.83	CBR =	17.16

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in soil = $\frac{[x-y] \times N \times 0.003 \times 100}{\text{Ammount of soil sample in gm.}}$

$x = 26.83$ $y = 17.16$.

$$= \frac{[x-y] \times N \times 0.003 \times 100}{1}$$

$$= \frac{[26.83 - 17.16] \times 0.5 \times 0.003 \times 100}{1}$$

$$= \frac{10.67 \times 0.5 \times 0.003 \times 100}{1} = \boxed{1.6\ \%}$$

Conclusion - This soil contains. 1.6%. carbon.

Yashwantrao Chavan College of Science Karad ★ CHEMISTRY

Extension Activity 2023-24

Department of Chemistry

29/01/2024

Aim - Determination of organic carbon from Soil

Name of Students- Pawar Harshavardhan Rahul

Address – At/post - Charegaon Tal - Karad Dist - Satara Pin - 415109

% of Organic Carbon in Soil is : 1.6 %

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29-01-2024

Name of Students- Shewale Jay Bhimaro

Address – A/P. Shewalewadi, Masoli Tal- Karad, Dist. Satara.

Blank Titration	Back Titration
1. = 30 ml	1. = 30 ml
2. = 30 ml	2. = 27 ml
3. = 31 ml	3. = 28 ml
CBR = 30 ml	CBR = 27 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in soil = $\frac{(x-y) \times N \times 0.003}{Amount\ of\ soil\ sample\ in\ gm} \times 100$

$= \frac{(30ml \times 27ml) \times 0.5 \times 0.003}{1gm} \times 100$

$= \underline{\underline{0.45\%}}$

Conclusion - This soil contains 0.45% carbon.

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil

29-01-2024

Name of Students- Shewale Jay Bhimarao

Address – A/P. Shewalewadi. mhasoli, Tal - Karad, Dist. Satara.

% of Organic Carbon in Soil is : 0.45 %

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29/01/2024

Name of Students- Sohil yogesh nikam

Address – A/P:- dudhondi Tal:- Palus dist:- Sangli

Blank Titration	Back Titration
1. 27 mL	1. 18 mL
2. 26.5 ml	2. 17 ml
3. 27 ml.	3. 16.5 ml
CBR = 26.83	CBR = 17.16

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in Soil = $\frac{(x-y) \times N \times 0.003}{\text{Ammount of Soil Sample in gm}} \times 100$

$x = 26.83 \quad y = 17.16.$

$$= \frac{(x-y) \times N \times 0.003 \times 100}{1}$$

$$= \frac{(26.83 - 17.16) \times 0.5 \times 0.003}{1} \times 100$$

$$= \frac{10.67 \times 0.5 \times 0.003 \times 100}{1} = \boxed{1.6\%}$$

Conclusion - This soil contains 1.6%. carbon.

Extension Activity 2023-24

Department of Chemistry

29/01/24

Aim - Determination of organic carbon from Soil

Name of Students- Nikam Sahil Yogesh

Address – A/P-dudhondi Tal:- Palus dist:-sangli

% of Organic Carbon in Soil is : 1.6 %

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29-01-2024

Name of Students- Pawar Shreyash Janardan

Address – At. Shewalewadi, Post. Mhasoli, Tal. karad, Dist. satar

Blank Titration	Back Titration
1. = 30 ml	1. = 27 ml
2. = 30 ml	2. = 27 ml
3. = 31 ml	3. = 28 ml
CBR = 30 ml	CBR = 27 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in soil = $\frac{(X-Y) \times N \times 0.003}{\text{Amount of soil}} \times 100$

$= \frac{(30\ ml \times 27\ ml) \times 0.5 \times 0.003}{1\ gm} \times 100$

$= \underline{\underline{0.45\ \%}}$

Conclusion -	This soil contains 0.45% carbon.

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil Date :- 29-01-2024

Name of Students- Pawar shreyash Janardan

Address – At. shewalewadi , Post. Mhasoli , Tal. karad
Dist. satara

% of Organic Carbon in Soil is : 0.45 %.

Limit :

Low : < 0.5 %

$\boxed{\text{Medium : 0.5 – 0.75 \%}}$

High : > 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29-01-2024

Name of Students- Yadav Aditya Malhari

Address – A.P. chikmahud Tal sangola Dist solapur

Blank Titration

1. – 30 ml
2. – 30 ml
3. – 31 ml

CBR = 30 ml

Back Titration

1. – 27 ml
2. – 21 ml
3. – 28 ml

CBR = 27 ml

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbon in soil = $\frac{(X-Y) \times N \times 0.003}{Amount\ of\ soil\ sample\ in\ gm} \times 100$

$= \frac{(30ml \times 27ml) \times 0.5 \times 0.003}{1gm} \times 100$

$= \underline{0.45\%}$

Conclusion - This soil contains 0.45% carbon

Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil Date = 29-01-2024

Name of Students- Yadav Aditya Malhari

Address – A.P. Chikmahud Tal Sangola Dist Solapur

% of Organic Carbon in Soil is : 0.45%

Limit :

Low	:	< 0.5 %
Medium	:	0.5 – 0.75 %
High	:	> 0.75 %

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Extension Activity 2023-24

Department of Chemistry

Aim - Determination of organic carbon from Soil **Date :** 29/01/2024.

Name of Students- Suryavanshi Sandesh Mahesh.

Address – A/p :- Vijaynagar karad. Dist :- Satara

Blank Titration	Back Titration
1. 27.ml.	1. 18 ml
2. 26.5ml	2. 17 ml
3. 27 ml	3. 16.5ml
CBR = 26.83	CBR = 17.16

% of Organic Carbon in Soil = $\frac{(X-Y)*N*0.003}{Amount\ of\ soil\ sample\ in\ gm} * 100$

X= Volume of 0.5 N FAS required for reducing 10ml K_2CrO_7 solution (Blank reading)

Y = Volume of 0.5 N FAS required for reducing the excess of 1 N K_2CrO_7 solution (sample reading)

0.003 = 1 ml of 1 N K_2CrO_7 = 3 mg =0.003 g of C

% of organic carbanin soil = $\frac{(X-Y) \times N \times 0.003}{\text{Amount of soil sample in gm}} \times 100$

$X = 26.83 \quad Y = 17.16$

$= \frac{(X-Y) \times N \times 0.003 \times 100}{1}$

$= \frac{(26.83-17.16) \times 0.5 \times 0.003}{1} \times 100$

$= \frac{10.67 \times 0.5 \times 0.003 \times 100}{1} = \boxed{1.6\%}$

Conclusion -	This soil contains 1.6%. carbon

Yashwantrao Chavan College of Science Karad CHEMISTRY

Extension Activity 2023-24

Department of Chemistry

Date :- 29/02/2024.

Aim - Determination of organic carbon from Soil

Name of Students- Sandesh Mahesh Suryavanshi.

Address – A/p Vijaynagar.

% of Organic Carbon in Soil is : 1.6 %

Limit :

Low : < 0.5 %

Medium : 0.5 – 0.75 %

High : > 0.75 %

Yashwantrao Chavan College of Science * Karad * CHEMISTRY

Head Of Department

Head
Department of Chemistry
Yashwantrao Chavan College of
Science, Karad