



Central University of Himachal Pradesh

(ESTABLISHED UNDER CENTRAL UNIVERSITIES ACT 2009)

Dharamshala, Himachal Pradesh-176215



NAAC Criterion-I

Key Indicator – 1.3.4

Completion certificates of research projects by students in the last academic year

1.3.4 Evidences



Department of Chemistry and Chemical Science
Central University of Himachal Pradesh, Dharamshala,
Kangra



Central University of Himachal Pradesh

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Dharamshala, Himachal Pradesh-176215



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Department of Chemistry and Chemical Science

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हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
Central University of Himachal Pradesh
(Established under Central Universities Act 2009)
Dharamshala (HP)-176215

Department of Chemistry & Chemical Sciences
School of Material and Physical Sciences

CERTIFICATE

Dated: 11.7.2022

This is to certify that **KAJAL (CUHP20CCS13)**, student of M.Sc. Chemistry (Sem IV), Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed her project work (CCS 565) entitled “**Studies on Iron binding proteins of *Chlamydia pneumoniae***” for the award of the degree of Master of Science in Chemistry & Chemical Science under my supervision.

Kajal
Student Signature

Manish

Dr. Manish Kumar
Supervisor

[Signature]
External Examiner

[Signature]
Head of the Department
11-7-22



हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
Central University of Himachal Pradesh
(Established under Central Universities Act 2009)
Dharamshala (HP)-176215

Department of Chemistry & Chemical Science
School of Physical and Material Sciences
CERTIFICATE

Dated: 11-07-2022

This is to certify that **Ankush**, student of M.Sc. Chemistry (Sem. IV), Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed his project work (CCS 565) entitled “**Synthesis of $\text{Ca}_{0.90}\text{Ti}_{0.10}\text{O}_3$ and its Application in the Solid Oxide Fuel Cell**” for the award of the degree of Master of Science in Chemistry & Chemical Science under my supervision.

Student Name

Ankush

(CUHP20CCS05)

Supervisor Name

Dr. Vivek Sheel

External Examiner

Head of the Department

गाध्यक्ष, रसायन एवं रसायनिक विज्ञान विभाग
Head, Dept. of Chemistry & Chemical Sciences

हिमाचल प्रदेश केंद्रीय विश्वविद्यालय

Central University of Himachal Pradesh

Dharamshala (HP)-176215

Phone: 0197-2611111, 2611112, 2611113, 2611114, 2611115, 2611116, 2611117, 2611118, 2611119, 2611120, 2611121, 2611122, 2611123, 2611124, 2611125, 2611126, 2611127, 2611128, 2611129, 2611130, 2611131, 2611132, 2611133, 2611134, 2611135, 2611136, 2611137, 2611138, 2611139, 2611140, 2611141, 2611142, 2611143, 2611144, 2611145, 2611146, 2611147, 2611148, 2611149, 2611150, 2611151, 2611152, 2611153, 2611154, 2611155, 2611156, 2611157, 2611158, 2611159, 2611160, 2611161, 2611162, 2611163, 2611164, 2611165, 2611166, 2611167, 2611168, 2611169, 2611170, 2611171, 2611172, 2611173, 2611174, 2611175, 2611176, 2611177, 2611178, 2611179, 2611180, 2611181, 2611182, 2611183, 2611184, 2611185, 2611186, 2611187, 2611188, 2611189, 2611190, 2611191, 2611192, 2611193, 2611194, 2611195, 2611196, 2611197, 2611198, 2611199, 2611200



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Department of Chemistry & Chemical Science
School of Physical and Material Sciences
CERTIFICATE

Dated: 11-07-2022

This is to certify that Nancy Kumari, student of M.Sc. Chemistry (Sem. IV), Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed his project work (CCS 565) entitled "Synthesis and Characterization of Cadmium Oxide Nanoparticles" for the award of the degree of Master of Science in Chemistry & Chemical Science under my supervision.

Nancy Kumari
Student Name

Nancy Kumari
(CUHP20CCS21)

Vivek Sheel
11.07.22
Supervisor Name

Dr. Vivek Sheel

[Signature]
External Examiner

[Signature]
Head of the Department

विभागाध्यक्ष, रसायन एवं रसायनिक विज्ञान विभाग
Head, Dept. of Chemistry & Chemical Sciences

हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
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अस्थायी शैक्षणिक ब्लॉक / Temporary Academic Block
शाहपुर, कांगड़ा (हि.प्र.) / Shahpur, Kangra (H.P.)-176206



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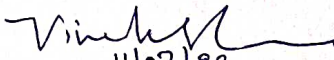
Department of Chemistry & Chemical Science
School of Physical and Material Sciences
CERTIFICATE

Dated: 11-07-2022

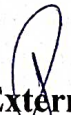
This is to certify that **Akanksha Sharma**, student of **M.Sc. Chemistry (Sem. IV)**, Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed his project work (CCS 565) entitled "**Iron Oxide Nanostructures of Lithium Ion Batteries**" for the award of the degree of **Master of Science in Chemistry & Chemical Science** under my supervision.

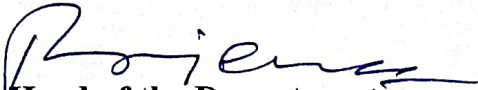

Student Name

Akanksha Sharma
(CUHP20CCS02)


11/07/22
Supervisor Name

Dr. Vivek Sheel


External Examiner


Head of the Department 11-7-22

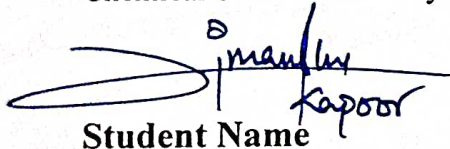


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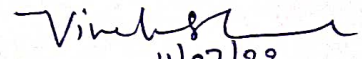
Department of Chemistry & Chemical Science
School of Physical and Material Sciences
CERTIFICATE

Dated: 11-07-2022

This is to certify that **Himanshu**, student of M.Sc. Chemistry (Sem. IV), Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed his project work (CCS 565) entitled “**Synthesis of $\text{Ca}_{0.70}\text{Ti}_{0.30}\text{O}_3$ and its Application in the Solid Oxide Fuel Cell**” for the award of the degree of Master of Science in Chemistry & Chemical Science under my supervision.


Student Name

Himanshu
(CUHP20CCS11)


11/07/22
Supervisor Name

Dr. Vivek Sheel


External Examiner


Head of the Department

सहायक, रसायन एवं रसायनिक विज्ञान विभाग
Head, Dept. of Chemistry & Chemical Sciences
हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
Central University of Himachal Pradesh
अस्थायी शैक्षणिक ब्लॉक / Temporary Academic Block
शाहपुर, कांगड़ा (हि.प्र.) / Shahpur, Kangra (H.P.)-176221



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Central University of Himachal Pradesh
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Dharamshala (HP)-176215

Department of Chemistry & Chemical Science
School of Physical and Material Science
CERTIFICATE

Dated: 11-07-2022

This is to certify that **Aditi Koundal**, student of M.Sc. Chemistry (Sem. IV), Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed her project work (CCS 565) entitled “Green Synthesis of iron oxide nanoparticles from Seabuckthorn” for the award of the degree of Master of Science in Chemistry & Chemical Science under my supervision.

Aditi Koundal
Student Name

Aditi Koundal
(CUHP20CCS01)

Manish
Supervisor Name

Dr. Manish Kumar

[Signature]
External Examiner

[Signature]
Head of the Department 11-7-22

विभागाध्यक्ष, रसायन एवं रसायनिक विज्ञान विभाग
Head, Dept. of Chemistry & Chemical Sciences
हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
Central University of Himachal Pradesh
अस्थायी शैक्षणिक खंड / Temporary Academic Block
शाहपुर कांगड़ा (हि.प्र.) / Shahpur, Kangra (H.P.)-176206



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Dharamshala (HP)-176215

Department of Chemistry & Chemical Science
School of Physical and Material Science
CERTIFICATE

Dated: 11/07/2022

This is to certify that Aman Jamwal, student of M.Sc. Chemistry (Sem. IV), Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed his project work (CCS 565) entitled "Synthesis of ORMOSIL Nano Particles and its applications in drug delivery" for the award of the degree of Master of Science in Chemistry & Chemical Science under my supervision.

Aman Jamwal

Student Name

Aman Jamwal

(CUHP20CCS03)

Pramod Kumar

Supervisor Name

Dr. Pramod Kumar

External Examiner

[Signature]
11-7-22
Head of the Department



Central University of Himachal Pradesh

(Established under Central Universities Act 2009) Dharamshala, District Kangra,

Himachal Pradesh-176215

Department of Chemistry and Chemical Science

School of Material and Physical Science

CERTIFICATE

This is to certify that the work embodied in this project entitled “(A REVIEW: IRON BASED HYBRID NANOMATERIAL: CHALLENGES IN OVARY CANCER TREATMENT)” submitted for the award of degree of **Masters of Science** to Central University of Himachal Pradesh,– Shahpur, Distt. – Kangra, Himachal Pradesh – 176215, was carried out by **Mrs. Anita Choudhary (CUHP20CCS04)** under my guidance and supervision. This work is original and has not been submitted for any other degree or diploma of any other university or institute.

ANITA CHOUDHARY
(Student)

Dr. PRAMOD KUMAR
(Research Supervisor)

Dr. RAJENDER KUMAR 11-7-22
(Head of Department)
Department of Chemistry and Chemical Science

EXAMINER



CENTRAL UNIVERSITY OF HIMACHAL PRADESH ACADEMIC
BLOCK SHAHPUR, DISTT.-KANGRA, HIMACHAL PRADESH –
176215, INDIA

DEPARTMENT OF CHEMISTRY AND CHEMICAL SCIENCE
SCHOOL OF PHYSICAL AND MATERIAL SCIENCE

CERTIFICATE

This is to certify that the work embodied in this thesis entitled “Nanopesticides for sustainable agriculture development” submitted for the award of the degree of Masters of Science to Central University of Himachal Pradesh, Academic Block – Shahpur, Distt – Kangra, Himachal Pradesh –176215, India was carried out by Mr. Ankush Kumar(CUHP20CCS06) under my guidance and supervision. This work is original and has not been submitted for any other degree or diploma of any other university or institute. The assistance and help received during the course of investigation have been duly acknowledged.

Ankush
Ankush Kumar
(CUHP20CCS06)

Date: 11/07/2022

Supervisor
Rajender
Dr. Rajender Kumar 11-7-22

External Examiner

विभागाध्यक्ष, रसायन एवं रसायनिक विज्ञान विभाग
Head, Dept. of Chemistry & Chemical Science
हिमाचल प्रदेश Head of Department 11-7-22
Central University of Himachal Pradesh
Dr. Rajender Kumar
अस्थायी शैक्षणिक खंड / Temporary Academic Block
शाहपुर, कांगड़ा (हि.प्र.) / Shahpur, Kangra (H.P.)



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Central University of Himachal Pradesh
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Dharamshala (HP)-176215

Department of Chemistry & Chemical Science
School of Physical and Material Science
CERTIFICATE

Dated: 11/7/22

This is to certify that ARPIT, student of M.Sc. Chemistry (Sem. IV), Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed his project work (CCS 565) entitled "SYNTHESIS AND CHARACTERIZATION OF ACTIVATED CHARCOAL PREPARED FROM *LANTANA CAMARA STEM*" for the award of the degree of Master of Science in Chemistry & Chemical Science under my supervision.

Student Name

ARPIT

(CUHP20CCS07)

Supervisor Name

Dr. Neeraj Gupta

External Examiner

Head of the Department
11-7-22

Central University of Himachal Pradesh

(Established under Central Universities Act 2009)
Shahpur Campus, Distt Kangra, Himachal Pradesh



SCHOOL OF PHYSICAL AND MATERIAL SCIENCES

Certificate

It is certified that Arti Devi, M.Sc. Chemistry student of Department of Chemistry and Chemical Science, Central University of Himachal Pradesh completed her project work entitled “ **A Review on the Green Synthesis of Xanthene Derivatives using Iron Oxide Nanoparticle As an efficient and magnetically re-usable heterogeneous Nanocatalyst** ” under my supervision. Her work is authentic and is not published anywhere.

Arti Devi

(Student)

Dr. Shiwani Berry
(Assistant Professor)

Department of chemistry & chemical science

Central university of Himachal Pradesh

Dr. Rajender Kumar
(Head of Department)

Department of chemistry & chemical science

Central university of Himachal Pradesh

Central University of Himachal Pradesh

(Established under Central Universities Act 2009) Dharamshala, District Kangra,

Himachal Pradesh-176215



CERTIFICATE

This is to certify that the work embodied in this project entitled "*A Review on the encapsulated folic acid using casein nanoparticles for the oral delivery of folic acid*" submitted for the award of degree of **Masters of Science** to Central University of Himachal Pradesh,– Shahpur, Distt. – Kangra, Himachal Pradesh – 176215, was carried out by **Gurmeet Singh (CUHP20CCS10)** under my guidance and supervision. This work is original and has not been submitted for any other degree or diploma of any other university or institute.

Place:

Dr. PRAMOD KUMAR
(Assistant professor)
(Research Supervisor)

Gurmeet Singh
(Student)

Dr. RAJENDER KUMAR 11-7-22
(Head of Department)
Department of Chemistry and
Chemical Science

External Examiner



CENTRAL UNIVERSITY OF HIMACHAL PRADESH

SHAHPUR, DISTT. – KANGRA,
HIMACHAL PRADESH – 176215, INDIA
DEPARTMENT OF CHEMISTRY AND CHEMICAL SCIENCES
SCHOOL OF PHYSICAL AND MATERIAL SCIENCE

CERTIFICATE

This is to certify that the work embodied in this thesis entitled “SYNTHEIS AND CHARACTERIZATION OF **DNP LEUCINE** submitted for the award of degree of **Masters of Science** to Central University of Himachal Pradesh, Academic Block – Shahpur, Distt. – Kangra, Himachal Pradesh – 176215, India was carried out by **ISHA SHARMA (CUHP20CCS12)** under my guidance and supervision. This work is original and has not been submitted for any other degree or diploma of any other university or institute. The assistance and help received during the course of investigation has been duly acknowledged.

Sharma

ISHA SHARMA
(CUHP20CCS12)

DATE : 11 /07 / 2022

Rajender
SUPERVISOR
DR. RAJENDER KUMAR
11-7-22

Rajender
EXTERNAL EXAMINER

Rajender
HEAD OF DEPARTMENT
Head, Dept. of Chemistry & Chemical Sciences
11-7-22



हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
Central University of Himachal Pradesh
(Established under Central Universities Act 2009)
Dharamshala (HP)-176215

Department of Chemistry & Chemical Science
School of Physical and Material Science
CERTIFICATE

Dated:

This is to certify that **Kalpna Devi**, student of M.Sc. Chemistry (Sem. IV), Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed her Review work (CCS 565) entitled "Targeted drug delivery applications of Dendrimers : A Review" for the award of the degree of Master of Science in Chemistry & Chemical Science under my supervision.

Kalpna Devi

Student Name

Kalpna Devi

(CUHP20CCS14)

Pramod Kumar

Supervisor Name

Dr. Pramod Kumar

[Signature]
External Examiner

[Signature]
Head of the Department 11-7-22



हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
Central University of Himachal Pradesh
(Established under Central Universities Act 2009)
Dharamshala (HP)-176215

Department of Chemistry & Chemical Science
School of Physical and Material Science

CERTIFICATE

Dated: 11/07/2022

This is to certify that KAMINI KAUSHAL, student of M.Sc. Chemistry (Sem. IV), Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed his project work (CCS 565) entitled "Studying the crystallinity and composition of activated carbon derived from pine needles" for the award of the degree of Master of Science in Chemistry & Chemical Science under my supervision.

Kamini Kaushal

Student Name

Kamini Kaushal

(CUHP20CCS15)

Neeraj Gupta

Supervisor Name

Dr. Neeraj Gupta

External Examiner

Praveen
Head of the Department | 11-7-22

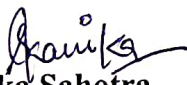


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SCHOOL OF PHYSICAL AND MATERIAL SCIENCES

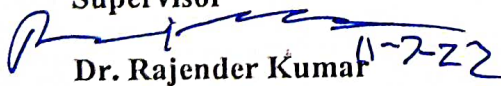
CERTIFICATE

This is to certify that the work embodied in this thesis entitled “SYNTHESIS OF 2, 4-DINITROPHENYL ARGININE AND ITS CHARACTERIZATION” submitted for the award of the degree of Masters of Science to Central University of Himachal Pradesh, Academic Block – Shahpur, Distt – Kangra, Himachal Pradesh –176215, India was carried out by Miss. Kanika Sahotra (CUHP20CCS16) under my guidance and supervision. This work is original and has not been submitted for any other degree or diploma of any other university or institute. The assistance and help received during the course of investigation have been duly acknowledged.


Kanika Sahotra
(CUHP20CCS16)

Date: 11/07/2022

Supervisor


Dr. Rajender Kumar 11-7-22

External Examiner


Head of Department 11-7-22

विभागाध्यक्ष, रसायन विभाग
Head, Dept. of Chemistry & Chemical Sciences
हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
Central University of Himachal Pradesh
अकादमिक ब्लॉक, कांगड़ा/ Academic Block
शाहपुर, कांगड़ा (हि.प्र.)/ Shahpur, Kangra (H.P.)-176206



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Central University of Himachal Pradesh

(Established under Central Universities Act 2009)

Shahpur, Distt. Kangra, Himachal Pradesh- 176206

SCHOOL OF PHYSICAL AND MATERIAL SCIENCES

Certificate

It is certified that Karan Kumar Rana, M.Sc. student of Department of Chemistry and Chemical sciences, Central University of Himachal Pradesh completed his project work entitled "A Review on Recent Advancement in the Medicinal Applications of Bio-based Polymers" under my supervision. His work is authentic and is not published anywhere.

Karan Kumar Rana
(Student)

Dr. Shiwani Berry

(Project Supervisor)

Assistant professor

Department of Chemistry and
Sciences

Central University of Himachal Pradesh

~~Temporary Academic Block~~, Shahpur

Dr. Rajender Kumar 11-7-22

(Head of Department,

Department of Chemistry and Chemical

विभागाध्यक्ष रसायन एवं रसायनिक विज्ञान विभाग
Chemical Sciences

Head, Dept. of Chemistry & Chemical Sciences

Central University of Himachal Pradesh

हिमाचल प्रदेश विश्वविद्यालय, शाहपुर
~~Temporary Academic Block~~, Shahpur)

Central University of Himachal Pradesh

अस्थायी शैक्षणिक ब्लॉक / Temporary Academic Block

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Central University of Himachal Pradesh
(Established under Central Universities Act 2009)
Dharamshala (HP)-176215

Department of Chemistry & Chemical Science
School of Physical and Material Sciences
CERTIFICATE

Dated: 11-07-2022

This is to certify that **Minakshi Mishra**, student of M.Sc. Chemistry (Sem. IV), Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed his project work (CCS 565) entitled “**Synthesis and Characterization of Cadmium Oxide Nanoparticles by Precipitation Method**” for the award of the degree of Master of Science in Chemistry & Chemical Science under my supervision.

Student Name

Minakshi Mishra

(CUHP20CCS18)

Minakshi

Vivek Sheel

Supervisor Name

Dr. Vivek Sheel

External Examiner

विभागाध्यक्ष, रसायन एवं रसायनिक विज्ञान विभाग
Head, Department of Chemistry & Chemical Sciences
हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
Central University of Himachal Pradesh
अस्थायी शैक्षणिक ब्लॉक, Temporary Academic Block
शाहपुर, काँगड़ा (हि.प्र.) / Shahpur, Kangra (H.P.) - 176206



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Dharamshala (HP)-176215

Department of Chemistry & Chemical Sciences
School of Material and Physical Sciences

CERTIFICATE

Dated: 11.7.2022

This is to certify that NEHA DEVI (CUHP20CCS19), student of M.Sc. Chemistry (Sem IV), Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed her project work (CCS 565) entitled "Studies on Zinc binding proteins of *Chlamydia pneumoniae*" for the award of the degree of Master of Science in Chemistry & Chemical Science under my supervision.

Neha Devi^o
Student Signature

Manish

Dr. Manish Kumar
Supervisor

External Examiner

Head of the Department 11-7-22

विभागाध्यक्ष, रसायन एवं रसायनिक विज्ञान विभाग
Head, Dept. of Chemistry & Chemical Sciences
हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
Central University of Himachal Pradesh
अस्थायी शैक्षणिक खंड / Temporary Academic Block
शहपुर, कांगड़ा (हि.प्र.) / Shahpur, Kangra (H.P.)-176201



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Central University of Himachal Pradesh

(Established under Central Universities Act 2009)
Shahpur Campus, Distt Kangra, Himachal Pradesh

CERTIFICATE

Department of Chemistry and Chemical Science

School of Physical and Material sciences

It is certified that Mohit Rangra, M.Sc. Chemistry student of Department of Chemistry and Chemical Science, Central University of Himachal Pradesh completed his project work entitled "A Review on Green synthesis of Chromene derivatives using biodegradable waste as catalyst" under my supervision. His work is authentic and is not published anywhere.

Place: CUHP, Shahpur Campus.

Date: 11.1.7.1.....

Mohit

Mohit Rangra

(Student)

Shiwani

Dr. SHIWANI BERRY

(Assistant professor)

(Project Supervisor)

Rajender Kumar
Dr. RAJENDER KUMAR 11-722

विभागाध्यक्ष, रसायन एवं रसायनिक विज्ञान विभाग
Head, Dept. of (Head of Department) Sciences

Department of Chemistry and Chemical Science

Central University of Himachal Pradesh

अस्थायी शैक्षणिक क्षेत्र, हिमाचल प्रदेश
शाहपुर कांगड़ा (हि.प्र.) / Shahpur, Kangra (H.P.)



CENTRAL UNIVERSITY OF HIMACHAL PRADESH

SHAHPUR, DISTT. – KANGRA,
HIMACHAL PRADESH – 176215, INDIA
DEPARTMENT OF CHEMISTRY AND CHEMICAL SCIENCES
SCHOOL OF PHYSICAL AND MATERIAL SCIENCE

CERTIFICATE

This is to certify that the work embodied in this thesis entitled “SYNTHESIS AND CHARACTERIZATION OF Di-DNP-lysine” submitted for the award of degree of Masters of Science to Central University of Himachal Pradesh, Academic Block – Shahpur, Distt. – Kangra, Himachal Pradesh – 176215, India was carried out by NIRBHAY THAKUR (CUHP20CCS22) under my guidance and supervision. This work is original and has not been submitted for any other degree or diploma of any other university or institute. The assistance and help received during the course of investigation has been duly acknowledged.

NIRBHAY THAKUR
(CUHP20CCS22)

DATE : 11 / 07 / 2022

SUPERVISOR 11-7-22
DR. RAJENDER KUMAR

EXTERNAL EXAMINER

11-7-22
विभागाध्यक्ष, HEAD OF DEPARTMENT विभाग
Head, Dept. of Chemistry & Chemical Sciences
हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
Central University of Himachal Pradesh
अस्थायी शैक्षणिक ब्लॉक / Temporary Academic Block
शाहपुर, कांगड़ा (हि.प्र.) / Shahpur, Kangra (H.P.)-176208



CENTRAL UNIVERSITY OF HIMACHAL PRADESH ACADEMIC
BLOCK SHAHPUR, DISTT.-KANGRA, HIMACHAL PRADESH –
176215, INDIA

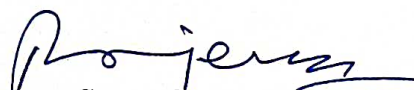
DEPARTMENT OF CHEMISTRY AND CHEMICAL SCIENCE
SCHOOL OF PHYSICAL AND MATERIAL SCIENCES

CERTIFICATE

This is to certify that the work embodied in this thesis entitled "SYNTHESIS OF 2, 4-DINITROPHENYL CYSTEINE AND ITS CHARACTERIZATION" submitted for the award of the degree of Masters of Science to Central University of Himachal Pradesh, Academic Block – Shahpur, Distt – Kangra, Himachal Pradesh –176215, India was carried out by Miss. Samriti Sharma (CUHP20CCS23) under my guidance and supervision. This work is original and has not been submitted for any other degree or diploma of any other university or institute. The assistance and help received during the course of investigation have been duly acknowledged.

Samriti
Samriti Sharma
(CUHP20CCS23)


Date: 11/07/2022


Supervisor 11-7-22

Dr. Rajender Kumar


External Examiner

Head of Department


Dr. Rajender Kumar 11-7-22
विभागाध्यक्ष, विज्ञान विभाग
Head, Dept. of Chemistry & Chemical Sciences
हिमाचल प्रदेश
Central University of Himachal Pradesh
Academic Block
Shahpur, Kangra (H.P.)
Shahpur, Kangra (H.P.)



हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
Central University of Himachal Pradesh
(Established under Central Universities Act 2009)
Dharamshala (HP)-176215

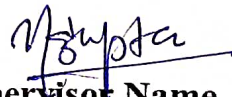
Department of Chemistry & Chemical Science
School of Physical and Material Science
CERTIFICATE


Dated: 11-07-2022

This is to certify that **SANJEEV KUMAR**, student of **M.Sc. Chemistry (Sem. IV)**, Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed his project work (CCS 565) entitled “ **Analysing the Crystallinity and Surface Composition of Activated Carbon Prepared From *Lantana camara* stem**” for the award of the degree of **Master of Science** in Chemistry & Chemical Science under my supervision.


Student Name

SANJEEV KUMAR
(CUHP20CCS24)


Supervisor Name
Dr. Neeraj Gupta


External Examiner


Head of the Department 11-7-22



हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
Central University of Himachal Pradesh
(Established under Central Universities Act 2009)
Dharamshala (HP)-176215

Department of Chemistry & Chemical Science
School of Physical and Material Science
CERTIFICATE

Dated:

This is to certify that **Miss Shivani Bharti**, student of **M.Sc. Chemistry (Sem. IV)**, Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed her project work (CCS 565) entitled “(A Review) Prussian Blue Nanoparticle and Its Application in Wastewater Treatment and Dye Degradation” for the award of the degree of **Master of Science in Chemistry & Chemical Science** under my supervision.

Shivani Bharti
Student Name
Shivani Bharti
(CUHP20CCS25)

Pramod Kumar
Supervisor Name
Dr. Pramod Kumar

[Signature]
Head of the Department 11-7-22

[Signature]
External Examiner



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Central University of Himachal Pradesh
(Established under Central Universities Act 2009)
Dharamshala (HP)-176215

CERTIFICATE

Dated: 11-07-2022

Department of Chemistry & Chemical Sciences
School of Material and Physical Sciences
Central University of Himachal Pradesh, Dharamshala
[Established under the Central Universities Act 2009]
Dharamshala, District Kangra,
Himachal Pradesh [India]-176215

This is to certify that the dissertation entitled “**Studies on Copper Binding Proteins of *Chlamydia pneumoniae***” submitted by **Shivani Thakur CUHP20CCS26** D/O Mr. **Ajit Singh Thakur** to the Central University of Himachal Pradesh, Dharamshala in partial fulfillment of the requirements for the award of the degree of Master of Science in Chemistry and Chemical Sciences has been approved by the committee after an oral examination of the student in collaboration with an External Examiner.

Dr. Manish Kumar
Supervisor

(Shivani Thakur)
Dr.
External Examiner

विभागाध्यक्ष, रसायन विज्ञान विभाग
Head, Dept. of Chemistry & Chemical Sciences
हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
Central University of Himachal Pradesh
अस्थायी शैक्षणिक ब्लॉक / Temporary Academic Block
शाहपुर कौंगड़ा (हि.प्र.) / Shahpur, Kangra (H.P.)-176206

Central University of Himachal Pradesh

(Established under Central Universities Act 2009) Dharamshala, District Kangra,
Himachal Pradesh-176215



CERTIFICATE

This is to certify that the work embodied in this project entitled “(A BRIEF STUDY OF FULLERENES AND ITS MODERN APPLICATIONS)” submitted for the award of degree of **Masters of Science** to Central University of Himachal Pradesh,– Shahpur, Distt. – Kangra, Himachal Pradesh – 176215, was carried out by **Mr. Shubham Rana (CUHP20CCS27)** under my guidance and supervision. This work is original and has not been submitted for anyother degree or diploma of any other university or institute.

Place:

Date: /.... /.....

Shubham Rana

SHUBHAM RANA

(Student)

Shiwani Berry

Dr. SHIWANI BERRY

(Assistant professor)

(Research Supervisor)

Rajender Kumar
Dr. RAJENDER KUMAR 11-7-22

902921-(P.H) (Head of Department)

विभागाध्यक्ष, रसायन एवं रसायनिक विज्ञान विभाग
Department of Chemistry and
Head, Department of Chemistry & Chemical Sciences
Chemical Science

हिमाचल प्रदेश
Central University of Himachal Pradesh
Head, Dept. of Chemistry & Chemical Sciences

स्थायी भवन
Academic Block
902921-(P.H) / Shahpur, Kangra (H.P.)-176206

CERTIFICATE

This is to certify that the work embodied in this thesis entitled "SYNTHESIS AND CHARACTERIZATION OF CYANURIC CHLORIDE DERIVATIVE USING L-CYSTEINE" submitted for the award of the degree of Masters of Science to the Central University of Himachal Pradesh, Shahpur Campus, Distt. – Kangra, Himachal Pradesh – 176206, India was carried out by Miss TANU SHARMA (CUHP20CCS29) under my guidance and supervision. This work is original and has not been submitted for any other degree or diploma of any other university or institute. The assistance and help received during the investigation have been duly acknowledged.

Tanu Sharma

TANU SHARMA

(CUHP20CCS29)

Date:- 11/7/2022

Rajender
SUPERVISOR 11-7-22
DR. RAJENDER KUMAR

Rajender
EXTERNAL EXAMINER

Rajender
Dr. Rajender Kumar 11-7-22
विभागाध्यक्ष, रसायन एवं रसायनिक विज्ञान विभाग
(Head, Department of Chemistry)
Head, Dept. of Chemistry & Chemical Sciences
हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय
Central University of Himachal Pradesh
अस्थायी शैक्षणिक खंड / Temporary Academic Block
शाहपुर, काँगड़ा (हि.प्र.) / Shahpur, Kangra (H.P.)-176206



हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय
Central University of Himachal Pradesh
(Established under Central Universities Act 2009)
शाहपुर परिसर, जिला काँगड़ा, हिमाचल प्रदेश - 176206
Shahpur Campus, Distt. Kangra (HP) - 176206
Website: www.cuhimachal.ac.in.




School of Physical and Material Sciences, Department of Chemistry & Chemical Science

CERTIFICATE

This is to certify that **Vaishali**, student of M.Sc. Chemistry (Sem. IV), Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed her project work (CCS 565) entitled “Analysis of crystallinity and elemental composition of Activated Charcoal prepared from seeds of *phoenix dactylifera*” for the award of the degree of Master of Science in Chemistry & Chemical Science under my supervision.

Vaishali
Student Name
Vaishali
(CUHP20CCS30)

External Examiner


Supervisor Name
Dr. Neeraj Gupta


Head,

Department of Chemistry & Chemical Science



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Central University of Himachal Pradesh

(Established under Central Universities Act 2009)
Shahpur Campus, Distt Kangra, Himachal Pradesh

CERTIFICATE

Department of Chemistry and Chemical Science

School of Physical and material sciences

It is certified that Vijay Kumar, M.Sc. Chemistry student of Department of Chemistry and Chemical Science, Central University of Himachal Pradesh completed his project work entitled "A Review on structural and optical analysis of CdO and some metals doped-CdO Nanoparticles" under my supervision. His work is authentic and is not published anywhere.

Place: CUHP, Shahpur Campus.

Date: 11.10.2022

Vijay Kumar

VIJAY KUMAR

(Student)

Shiwani Berry

Dr. SHIWANI BERRY

(Assistant professor)

(Project Supervisor)

Rajender Kumar
Dr. RAJENDER KUMAR 11-7-22

(Head of Department)

Department of Chemistry and Chemical Science
विभागाध्यक्ष, रसायन एवं रसायनिक विज्ञान विभाग
Head. Dept. of Chemistry & Chemical Sciences
हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
Central University of Himachal Pradesh
अस्थायी/स्थायी/Temporary Academic Block
शाहपुर, कांगड़ा (H.P.)-176208



Central University of Himachal Pradesh

(Established under Central Universities Act 2009)
, Shahpur, Distt. Kangra, Himachal Pradesh- 176206

SCHOOL OF PHYSICAL AND MATERIAL SCIENCES

Certificate

It is certified that Vinay Sharma, M.Sc. student of Department of Chemistry and Chemical science, Central University of Himachal Pradesh completed his project work entitled “**A Brief Study on Biological and Catalytic Activities of Schiff's Base Complexes: A Review**” under my supervision. His work is authentic and is not published anywhere.

Vinay Sharma
(Student)

Dr. Shiwani Berry
(Project Supervisor)

Assistant professor

Department of Chemistry and
Science

Central University of Himachal Pradesh
Shahpur

Dr. Rajender Kumar 11-7-22

Head of Department,

Department of Chemistry and Chemical
विभागाध्यक्ष, रसायन एवं रसायनिक विज्ञान विभाग
Chemical Science
Head, Dept. of Chemistry & Chemical Sciences
Central University of Himachal Pradesh,
हिमाचल प्रदेश Shahpur

Central University of Himachal Pradesh

अस्थायी शैक्षणिक ब्लॉक / Temporary Academic Block
शाहपुर, कांगड़ा (हि.प्र.) / Shahpur, Kangra (H.P.)-176206



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Central University of Himachal Pradesh
(Established under Central Universities Act 2009)
Dharamshala (HP)-176215

Department of Chemistry & Chemical Science
School of Physical and Material Science
CERTIFICATE

Dated: 11.7.2022

This is to certify that **Vishal Thakur**, student of M.Sc. Chemistry (Sem. IV), Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed his project work (CCS 565) entitled "Green Synthesis of copper oxide nanoparticles from Seabuckthorn" for the award of the degree of Master of Science in Chemistry & Chemical Science under my supervision.

Vishal Thakur

Student Name

**Vishal Thakur
(CUHP20CCS33)**

Manish Kumar

Supervisor Name

Dr. Manish Kumar

[Signature]
External Examiner

[Signature]
विभागाध्यक्ष, रसायन एवं रसायन विज्ञान विभाग
Head of the Dept. of Chemistry & Chemical Sciences
हिमाचल प्रदेश केंद्रीय विश्वविद्यालय
Central University of Himachal Pradesh
अस्थायी शैक्षणिक खंड / Temporary Academic Block
शाहपुर, कांगड़ा (हि.प्र.) / Shahpur, Kangra (H.P.)-176206



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Central University of Himachal Pradesh

(Established under Central Universities Act 2009)

Dharamshala (HP)-176215

Department of Chemistry & Chemical Science

School of Physical and Material Science

CERTIFICATE

Dated: 11-07-22

This is to certify that **SUSHEEL**, student of **M.Sc. Chemistry (Sem. IV)**, Department of Chemistry and Chemical Science, Central University of Himachal Pradesh has completed his project work (**CCS 565**) entitled "Probing the surface of Activated Carbon derived from Pine Needles through HR-TEM & FT-IR Analysis" for the award of the degree of **Master of Science in Chemistry & Chemical Science** under my supervision.

Student Name

SUSHEEL

(CUHP20CCS28)

Supervisor Name

Dr. Neeraj Gupta

External Examiner

Head of the Department 11-7-22