

CSIR-NATIONAL CHEMICAL LABORATORY
Dr. Homi Bhabha Road, Pune - 411 008

Advertisement No. NCL/01-2022/Scientist (ABSTRACT)

Last Date for Receipt of Online application: 10.03.2022

A unique opportunity for research careers in Science & Technology

The Council of Scientific and Industrial Research (CSIR) is an autonomous organization under the Ministry of Science & Technology, Government of India. It is amongst the foremost scientific and industrial research set-ups in the world, having state-of-the-art infrastructure and scientific and technical manpower second to none, CSIR covers practically the entire spectrum of scientific and industrial R&D of national and international importance. This ranges from aerospace to ocean exploration, micro-electronics to structural and environmental engineering, smart materials to mechatronics, petrochemicals to synthetic biology and from robotics and micro-machines to drugs & pharmaceuticals and agrochemicals.

National Chemical Laboratory, a unit of Council of Scientific and Industrial Research (CSIR), is a premier scientific organization involved in conducting high quality research in the areas of chemical and allied sciences. Applications (online only) are invited from enthusiastic, innovative and young Indian researchers having excellent academic record and proven scientific achievements for filling up the following scientific positions:

Designation	No. of Posts	Pay Matrix (7 th CPC)	*Total Emoluments (per month)	**Upper Age Limit not exceeding (as on last date of online application)
Scientist	10 posts (6-UR, 2-OBC, 1-SC, 1-OBC (Backlog))	Level - 11 (Rs. 67,700 - 2,08,700)	Rs.1,16,398/-	32 years
Sr. Scientist	04 posts (UR)	Level - 12 (Rs. 78,800 - 2,09,200)	Rs.1,33,936/-	37 years
Principal Scientist	06 posts (UR)	Level 13 (Rs. 1,23,100 - 2,15,900)	Rs.2,03,930/-	45 years

*Total Emoluments means approximate total emoluments on minimum of scale including HRA in Class 'X' City.

** Please see age relaxation under Relaxation column.

For further details please visit our website <https://recruit.ncl.res.in> and apply through the online application form available there. The detailed advertisement, terms and conditions and instructions to the candidates are available on the website. For any technical query while applying online, please send e-mail to recruit@ncl.res.in. All further announcements/details pertaining to this recruitment process/corrigendum/addendum etc., shall be published/provided ONLY on <https://recruit.ncl.res.in> form time to time.

Date of commencement of online applications : 31.01.2022
Last date for receipt of online applications : 10.03.2022
Last date for receipt of hard copy applications : 21.03.2022

Sd/-
(Controller of Administration)



CSIR - NATIONAL CHEMICAL LABORATORY
(Council of Scientific & Industrial Research)
Dr. Homi Bhabha Road
Pune - 411008 (INDIA)

Advertisement No. NCL/01-2022/Scientist

Last date for receipt of online applications : 10.03.2022

A unique opportunity for research careers in Science & Technology

CSIR-National Chemical Laboratory (NCL), Pune a premier institute under the Council of Scientific and Industrial Research (CSIR), involved in multidisciplinary R&D programmes of both basic and applied nature across scientific disciplines for economic, environmental and societal benefits for the people of India. It is engaged in the scientific research in chemicals and allied sciences.

In order to meet the incoming demands of research in both basic and allied sciences, applications are invited **ONLINE ONLY** from enthusiastic, young Indian researchers having excellent academic record and proven scientific achievements along with requisite experience and a high degree of motivation and desire to take up research as a career in the field of Biochemical Sciences, Physical & Materials Chemistry, Chemical Engineering & Process Development, Catalysis & Inorganic, Organic Chemistry, Polymer Science & Engineering to fill up the vacancy of following posts of scientists as per the details given below.

Designation	No. of Posts	Pay Matrix (7 th CPC)	*Total Emoluments (per month)	**Upper Age Limit not exceeding (as on last date of online application)
Scientist	10 posts (6-UR, 2-OBC, 1-SC, 1-OBC (Backlog))	Level - 11 (Rs. 67,700 - 2,08,700)	Rs.1,16,398/-	32 years
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Principal Scientist	06 posts (UR)	Level 13 (Rs. 1,23,100 - 2,15,900)	Rs.2,03,930/-	45 years

*Total Emoluments means approximate total emoluments on minimum of scale including House Rent Allowance in Class 'X' City.

**Please see age relaxation under Relaxation column.

Abbreviations used: UR - Unreserved, SC - Scheduled Caste, ST - Scheduled Tribe, OBC - Other Backward Class.

Details of Scientific Positions

Post Code: 01

- **Post : Scientist**
- **Category : Unreserved (UR)**
- **Essential Qualification :** Ph.D. (submitted) in Chemical Engineering/Chemical Technology /Polymer Engineering/Material Science/Material Engineering.
- **Desirable Qualification :** Significant research contributions in fundamental and applied aspects of materials synthesis, characterization, and research in new applications in sensors or energy storage or catalysis, as evident by publications in reputed national/international journals as first author, and/or patents/patent applications in the area. The candidates having experience in Product Development/ Technology Innovation/ Applied Technology etc. will be preferred.
- **Job Specification:** The selected candidate is expected to work on development of chemistry and processes related to synthesis, formulation and characterization of materials for applications in sensors, energy storage and as catalysts. Candidate is expected to interact with industry which may include providing technology support/solutions, organizing hands-on workshops, seminars and training, as per NCL procedures. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives. The candidate is expected to teach basic and advanced courses in polymer chemistry/ materials chemistry/engineering to graduate students. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code : 02

- **Post : Scientist**
- **Category : Unreserved (UR)**
- **Essential Qualification:** Ph.D. (submitted) in Chemical Engineering/Chemical Technology /Polymer Engineering/ Material Science /Material Engineering.
- **Desirable Qualification :** Ph.D., with significant research contributions in fundamental and applied aspects of membrane preparation and analysis, and application to gas separation/ ultrafiltration/ osmosis/ biomedical applications, as evident by publications in reputed national/international journals as first author, and/or patents/patent applications in the

area. The candidates having experience in Product Development/ Technology Innovation/Applied Technology etc. will be preferred.

- **Job Specification:** The selected candidate is expected to work on development of membranes for industrially relevant separation applications, biomedical applications, scale-up of membrane making using continuous casting / spinning. Candidate is expected to interact with industry which may include providing technology support/solutions, organizing hands-on workshops, seminars and training, as per NCL procedures. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives. The candidate is expected to teach basic and advanced courses in polymer chemistry/ materials chemistry/engineering to graduate students. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code: 03

- **Post : Scientist**
- **Category : Other Backward Class (OBC)**
- **Essential Qualification:** Ph.D. (submitted) in Chemical Engineering/ Chemical Technology / Polymer Engineering / Polymer Technology/Plastics Engineering/ Plastics Technology.
- **Desirable Qualification :** Ph.D., with significant research contributions in polymer processing methods such as extrusion, compounding, injection/compression molding, thermoforming, fiber spinning etc. and characterization methods for polymers like melt & solution rheology, melt flow index (MFI), differential scanning calorimetry (DSC), optical microscopy, thermo-gravimetric analysis (TGA), gel permeation chromatography (GPC), mechanical testing including tensile, compression and flexural, as evident by publications in reputed national/international journals as first author, and/or patents/patent applications in the area. The candidates having experience in Product Development/ Technology Innovation/Applied Technology etc. will be preferred.
- **Job Specification :** The selected candidate is expected to plan, develop and execute industrial R&D projects in polymer processing with the highest professional standards. The selected candidate will independently plan and perform polymer processing, melt compounding, melt rheology, thermal and mechanical characterization studies and undertake experiments related to polymer formulation development for various polymer/plastics applications. Candidate is expected to interact with industry which may

include providing technology support/solutions, organizing hands-on workshops, seminars and training, as per NCL procedures. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives. The candidate is expected to teach basic and advanced courses in polymer chemistry/ materials chemistry/engineering to graduate students. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code : 04

- **Post : Scientist**
- **Category : Other Backward Class (OBC) (Backlog)**
- **Essential Qualification:** Ph.D. (submitted) in Microbiology/Biotechnology/ Microbial Sciences.
- **Desirable Qualification:** Ph. D. awarded, and significant research contributions in fundamental and applied aspects of fungal molecular biology/ fungal transformation and genetic engineering/ genome editing technologies/ fermentation technology/ biomass transformation, as evident by publications in reputed national/international journals as first author, and/or patents/patent applications in the area. The candidates having experience in Product Development/ Technology Innovation/ Applied Technology etc. will be preferred.
- **Job Specification:** The selected candidate is expected to conduct independent as well as collaborative research on understanding the molecular basis of fungal diseases, using advanced molecular biology, genome-editing, and transformation-based approaches. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives. The candidate is expected to teach basic and advanced courses in biological sciences to graduate students. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code: 05

- **Post : Scientist**
- **Category : Unreserved (UR)**
- **Essential Qualification:** Ph.D. (submitted) in Chemical Science/Chemical Engineering/Chemical Technology/Biochemical Sciences/ Biochemical Engineering/ Material Science/Material Engineering.

- **Desirable Qualification:** Ph. D. awarded, and significant research contributions in expertise in Big Data Analytics/ Soft computing/ modeling and optimization/ algorithm development/ Artificial Intelligence/Machine Learning/ Deep Learning model development/ database development, as evident by publications in reputed national/international journals as first author, and/or patents/patent applications in the area. The candidates having experience in Product Development/ Technology Innovation/Applied Technology etc. will be preferred.
- **Job Specification:** The selected candidate is expected to define and execute projects in the area of big data analysis of Chemical Engineering/Biochemical Engineering/Life Sciences related problems. Candidate is expected to interact with industry which may include providing technology support/solutions, organizing hands-on workshops, seminars and training, as per NCL procedures. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives. The candidate is expected to teach basic and advanced courses in engineering to graduate students. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code: 06

- **Post : Scientist**
- **Category : Scheduled Caste (SC)**
- **Essential Qualification:** Ph.D. (submitted) in Chemical Engineering/Chemical Technology.
- **Desirable Qualification:** Ph.D. awarded, and significant experience and expertise in carrying out high pressure and high temperature reactions e.g. hydrogenation, hydroformylation, carbonylation, oxidation, ammoxidation, ethoxylation, etc. in autoclaves as well as in fixed bed reactors or analogous batch and continuous systems, measuring reaction kinetics and design of high pressure reactors, as evident by publications in reputed national/international journals as first author, and/or patents/patent applications in the area. The candidates having experience in Product Development/ Technology Innovation/Applied Technology etc. will be preferred.
- **Job Specification:** The selected candidate is expected to carry out research and development activities with a focus on high pressure catalytic and non-catalytic reactions (gas-liquid, liquid-liquid, gas-liquid-solid) in various multiphase reactors. Candidate is expected to interact with industry which may include providing technology

support/solutions, organizing hands-on workshops, seminars and training, as per NCL procedures. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives. The candidate is expected to teach basic and advanced courses in biological sciences to graduate students. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code: 07

- **Post : Scientist**
- **Category : Unreserved (UR)**
- **Essential Qualification:** Ph.D. (submitted) in Chemical Engineering/Chemical Technology.
- **Desirable Qualification:** Ph.D. awarded, and significant experience and expertise in experimental and computational multiphase fluid dynamics relevant to chemical processes, including turbulence modeling, flow visualization, use of commercial flow modeling software, as evident by publications in reputed national/international journals as first author, and/or patents/patent applications in the area. The candidates having experience in Product Development/ Technology Innovation/Applied Technology etc. will be preferred.
- **Job Specification:** The selected candidate is expected to carry out research and development activities with a focus on experiments and modeling of flow in multiphase reactors, including exploring complex fluid dynamics e.g. systems undergoing phase change, transient viscosity variation in reactive flows, microfluidic systems having flow past objects. Candidate is expected to interact with industry which may include providing technology support/solutions, organizing hands-on workshops, seminars and training, as per NCL procedures. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives. The candidate is expected to teach basic and advanced courses in biological sciences to graduate students. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code: 08

- **Post : Scientist**
- **Category : Other Backward Class (OBC)**
- **Essential Qualification:** Ph.D. (submitted) in Chemistry/Chemical Sciences/Chemical Engineering/Chemical Technology.
- **Desirable Qualification:** Ph.D. awarded with significant experience and expertise in material science and technology involving electrocatalytic, electrochemical approaches towards clean energy applications such as electrolysis and fuel cells, as evident by publications in reputed national/international journals as first author, and/or patents/patent applications in the areas. The candidates having experience in Product Development/Technology Innovation/Applied Technology /Industries involved in these areas etc. will be preferred.
- **Job Specification:** The selected candidate will be involved in the research and development activities in materials/component development and device development with focus on various electrolyzer technologies. The candidate will contribute to the institute's thrust research programs on hydrogen mission. The selected candidate is expected to (i) carry out multidisciplinary research in the design, development and functional aspects of materials and components using various characterisation techniques for electrolyser (ii) to teach basic and advanced courses for graduates, post-graduates and research students in the mentioned areas (iii) to write and defend projects in these areas from various funding agencies (iv) to interact with industry towards providing technology support/solutions, and (v) to organise hands-on workshops, seminars and training, as per institute's practises.

Post Code : 09

- **Post : Scientist**
- **Category : Unreserved (UR)**
- **Essential Qualification :** Ph.D. (submitted) in Chemistry/Chemical Sciences/Chemical Engineering/Chemical Technology.
- **Desirable Qualification:** Ph.D. awarded with significant experience and expertise in material science and technology involving electrocatalytic, electrochemical approaches towards clean energy applications such as electrolysis and fuel cells, as evident by publications in reputed national/international journals as first author, and/or patents/patent applications in the areas. The candidates having experience in Product

Development/Technology Innovation/Applied Technology /Industries involved in these areas etc. will be preferred.

- **Job Specification:** The selected candidate will be involved in the research and development activities in materials/component development and device development with focus on various fuel cell technologies. The candidate will contribute to the institute's thrust research programs on hydrogen mission. The selected candidate is expected to (i) carry out multidisciplinary research in the design, development and functional aspects of materials and components using various characterisation techniques for fuel cell (ii) to teach basic and advanced courses for graduates, post-graduates and research students in the mentioned areas (iii) to write and defend projects in these areas from various funding agencies (iv) to interact with industry towards providing technology support/solutions, and (v) to organise hands-on workshops, seminars and training, as per institute's practises.

Post Code : 10

- **Post : Scientist**
- **Category : Unreserved (UR)**
- **Essential Qualification:** Ph.D. (submitted) in Chemical Science / Chemical Engineering / Chemical Technology / Biochemical Sciences / Biochemical Engineering / Material Science / Material Engineering.
- **Desirable Qualification:** Strong academic record as evident by marks/grades/publications as relevant, and significant full-time work experience in product development or technology innovation or technology commercialization or translational research would be preferred. Candidates with experience in or exposure to technology commercialization process, techno-economic assessment, technology marketing, technology strategy, market research, business development of S&T based products and services, technology transfer, technology valuation will be particularly preferred. Strong written and oral English communication skills, and excellent computer skills, including comfort with internet-based research and using online databases are highly desirable. The candidates having experience in Product Development/ Technology Innovation/Applied Technology etc. will be preferred.
- **Job Specification:** The selected candidate would be involved in conducting techno-economic assessment of early stage technologies, conducting primary and secondary market research, engage in marketing technology solutions, identify, liaise and work with

potential partners to commercialize technologies, be involved in the technology transfer process, drafting contracts. The selected candidate would also be involved in tracking emerging technologies, track investment/research and innovation trends, analyze patent landscapes, and be involved in research planning and technology strategy.

Post Code : 11

- **Post : Senior Scientist**
- **Category : Unreserved (UR)**
- **Essential Qualification :** Ph.D. in Chemical Engineering/Chemical Technology / Material Engineering/Polymer Engineering OR Ph.D. in Material Science with two years of post Ph.D. experience in relevant R&D areas.
- **Desirable Qualification:** Significant research and development contributions in the area of soft matter or adhesives or active matter, as evident by first-author publications in reputed national/international journals. Research and development experience in this area in the chemicals/materials/polymer industry. Ability to translate scientific and engineering knowledge into potential products as evident by patents in this area. The candidates having experience in Product Development/Technology Innovation/Applied Technology etc. will be preferred.
- **Job Specification:** The selected candidate is expected to work on experimental and theoretical aspects of research in soft matter and rheology, including materials such as adhesives and active matter. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives. The candidate is expected to teach basic and advanced courses in polymer engineering/ materials engineering/ chemical engineering to graduate students. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code : 12

- **Post : Senior Scientist**
- **Category : Unreserved (UR)**
- **Essential Qualification:** Ph.D. in Chemical Engineering /Chemical Technology.
- **Desirable Qualification:** Significant research contributions in chemical engineering/technology, in particular in the areas of fluid dynamics and/or design of equipment and processes, as evident by first-author publications in reputed

national/international journals and/or patents/patent applications in the area. Research and development experience in the chemicals and ability to translate scientific and engineering knowledge into potential products. Experience with application of fluid dynamics simulations to design of equipment relevant to the chemical/petrochemical industry. The candidates having experience in Product Development/ Technology Innovation/ Applied Technology etc. will be preferred.

- **Job Specification:** The selected candidate is expected to work on development of chemical processes as well as expected to pursue research in the area of process /product development and process optimization area. Candidate is expected to interact with industry which may include providing technology support/solutions, organizing hands-on workshops, seminars and training, as per NCL procedures. The selected candidate is also expected to contribute to CSIR's large multi-disciplinary and multi-institutional research program initiatives. The candidate is expected to teach basic and advanced courses in chemical engineering to graduate students. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code : 13

- **Post : Senior Scientist**
- **Category : Unreserved (UR)**
- **Essential Qualification:** Ph.D. in Chemistry with two years post-Ph.D. experience in relevant R&D area.
- **Desirable Qualification:** Significant research contributions in fundamental aspects of chemistry especially in the area of metal-catalyzed transformations and/or asymmetric synthetic methodologies for multistep synthesis of bioactive products, and/or applications of organometallic reagents, as evident by first-author publications in reputed national/international journals. The candidates having experience in Product Development/Technology Innovation/Applied Technology etc. will be preferred.
- **Job Specification:** The selected candidate will be expected to carry out research in the above specified areas and build a vibrant research group. The candidate is expected to work on depolymerization, industrial projects and teach organic chemistry courses to Ph. D. students. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code : 14

- **Post : Senior Scientist**
- **Category : Unreserved (UR)**
- **Essential Qualification:** Ph.D. in Chemistry with two years post-Ph.D. experience in relevant R&D area.
- **Desirable Qualification :** Significant research contributions in fundamental aspects of chemistry especially in the area of multi-step synthesis using metal-catalysis, electrochemical synthesis, and/or applications of organometallic reagents, as evident by first-author publications in reputed national/international journals, and/or patents/patent applications in the area. The candidates having experience in Product Development/Technology Innovation/Applied Technology etc. will be preferred.
- **Job Specification:** The selected candidate will be expected to carry out research in the above specified areas and build a vibrant research group. The candidate is expected to work on selective halogenation reactions of pharmaceutical interests, electrochemically enabled synthesis, industrial projects and teach organic chemistry courses to Ph.D. students. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code : 15

- **Post : Principal Scientist**
- **Category : Unreserved (UR)**
- **Essential Qualification:** Ph.D. in Chemistry/Biochemistry/Pharmacology/Pharmaceutics with three years post-Ph.D. experience in the relevant R&D areas.
- **Desirable Qualification:** Significant research contributions as evident by publications in reputed national/international journals as first author and some as corresponding author. Research and development experience in the pharmaceutical industry. Experience in leading teams in an academic or industry setting. Ability to translate scientific and engineering knowledge into potential products as evident by patents in the area. The candidates having experience in Product Development/ Technology Innovation/Applied Technology etc. will be preferred.

- **Job Specification:** The selected candidate is expected to work on experimental and theoretical aspects of characterizing drug targets and evaluating candidate inhibitors/activators. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives including in the areas of drug discovery and disease biology. The candidate is expected to teach basic and advanced courses in biochemistry/biology/chemistry to graduate students. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code : 16

- **Post : Principal Scientist**
- **Category : Unreserved (UR)**
- **Essential Qualification :** Ph. D. in Chemistry with three years post-Ph.D. experience in relevant R&D area.
- **Desirable Qualification :** Significant research contributions in the area of application of analytical/spectroscopy methods to the investigation of complex structures and mechanisms, as evident by publications in reputed national/international journals as first author and some as corresponding author. Research and development experience in the area of application of spectroscopy techniques such as NMR. Experience in leading teams in an academic or industry setting. The candidates having experience in Product Development/ Technology Innovation/Applied Technology etc. will be preferred.
- **Job Specification:** The selected candidate will be expected to carry out research in application of advanced spectroscopy methods to investigation of complex structures and reaction mechanisms and build a vibrant research group. The candidate is expected to work on industrial projects and teach chemistry courses to Ph.D. students. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code : 17

- **Post : Principal Scientist**
- **Category : Un Reserved (UR)**
- **Essential Qualification:** Ph.D. in Chemistry with three years post-Ph.D. experience in relevant R&D area.
- **Desirable Qualification:** Significant research contributions in the area of multistep asymmetric synthesis of bioactive molecules, as evident by publications in reputed national/international journals as first author and some as corresponding author. Research and development experience in the area of asymmetric synthesis techniques, application of organometallic reagents, and metal catalysis. Experience in leading teams in an academic or industry setting. The candidates having experience in Product Development/ Technology Innovation/ Applied Technology etc. will be preferred.
- **Job Specification:** The selected candidate will be expected to carry out research in the areas of asymmetric synthesis techniques, application of organometallic reagents, and metal catalysis and build a vibrant research group. The candidate is expected to work on industrial projects and teach chemistry courses to Ph. D. students. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code : 18

- **Post : Principal Scientist**
- **Category : Unreserved (UR)**
- **Essential Qualification:** Ph.D. in Chemical Engineering /Chemical Technology/Biochemical Engineering with three years post-Ph.D. experience in relevant R&D area.
- **Desirable Qualification :** Significant research contributions in the area of biopharmaceutical process development, as evident by publications in reputed national/international journals as first author and some as corresponding author, and/or patents/patent applications in the area. Research and development experience in the area of in upstream and downstream processing and analytical characterization of recombinant proteins, including high cell density fermentations and purification. Experience in leading

teams in an academic or industry setting. The candidates having experience in Product Development/ Technology Innovation/ Applied Technology etc. will be preferred.

- **Job Specification:** The selected candidate will be expected to carry out research in the above specified areas and build a vibrant research group. The candidate is expected to work on industrial projects and teach engineering courses to Ph. D. students. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code : 19

- **Post : Principal Scientist**
- **Category : Unreserved (UR)**
- **Essential Qualification:** Ph.D. in Chemical Engineering/Chemical Technology with three years post-Ph.D. experience in relevant R&D area.
- **Desirable Qualification :** Significant research contributions in the area of chemical process development as evident by publications in reputed national/international journals as first author and some as corresponding author, and/or patents/patent applications in the area, and/or evidence of leading teams in an industry setting. Experience in process development for fine and specialty chemicals, process scale-up, equipment selection, familiarity with P&ID and BEP development, experience in process modeling and simulation with commercial process simulators, fundamental knowledge of thermodynamic models, is desirable. Experience in independent project execution or leading teams in an academic or industry setting is desirable. The candidates having experience in Product Development/ Technology Innovation/ Applied Technology etc. will be preferred.
- **Job Specification:** The selected candidate will be expected to carry out research in the above specified areas and build a vibrant research group. The candidate is expected to work on industrial projects and teach engineering courses to Ph.D. students. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives. The candidate is expected to write and defend research proposals to various funding agencies.

Post Code : 20

- **Post : Principal Scientist**
- **Category : Unreserved (UR)**
- **Essential Qualification :** Ph.D. in Chemistry/Chemical Science/Chemical Engineering/Chemical Technology with three years post-Ph.D. experience in relevant R&D area.
- **Desirable Qualification:** Significant research contributions in the area of green hydrogen by electrolysis and/or fuel cells as evident by publications in reputed national/international journals as first author and some as corresponding author, and/or patents/patent applications in the area, and/or evidence of leading teams in an industry setting. Experience in scale up and techno-economic analysis of electrolyzers and/or fuel cells is desirable. Experience in independent project execution or leading teams in an academic or industry setting is desirable. The candidates having experience in Product Development/ Technology Innovation/Applied Technology etc. will be preferred.
- **Job Specification:** The selected candidate will be expected to carry out research in the above specified areas and build a vibrant research group. The candidate is expected to work on R&D leading to PEM/anion exchange membrane electrolyzer and/or PEM fuel cells and scale up of the devices. Candidate is expected to participate in indigenous development of various components of electrolyzer/PEM fuel cell with other team members within NCL and relevant industry partners. Candidate is expected to participate in industrial projects and teach chemistry/engineering courses to Ph. D. students. The selected candidate is also expected to contribute to CSIR's large multidisciplinary and multi-institutional research program initiatives. The candidate is expected to write and defend research proposals to various funding agencies.

General Information and Conditions:-

1. Benefits under Council service:

- a. These posts carry usual allowances i.e. Dearness Allowance (DA), House Rent Allowance (HRA), Transport Allowance (TA) etc. as admissible to the central government employees and as made applicable to CSIR. Council employees are also eligible for accommodation of their entitled type as per CSIR allotment rules depending on availability in which case HRA will not be admissible.
- b. In addition to the emoluments indicated against each category of posts, benefits such as applicability of New Pension Scheme 2004, reimbursements of Medical Expenses, Leave

Travel Concession, Conveyance advance and House Building Advance are available as per CSIR rules.

- c. Scientists in CSIR are also permitted to undertake consultancy and sponsored R&D project activities. These activities give them scope to earn consultancy fee and honorarium as per CSIR guidelines governing these activities. Opportunities also arise for foreign deputations for training/presentation of papers/specific assignments etc.
- d. CSIR provides excellent opportunities to deserving candidates for career advancement under Assessment Promotion Scheme for Scientists.
- e. The appointees are liable to be posted in any of the Laboratories/Institutes of CSIR situated in the other parts of India as and when need arises.

2. Other conditions :

- a. The applicant must be a citizen of India.
- b. All applicants must fulfill the essential requirements of the post and other conditions stipulated in the advertisement as on the last date of receipt of the online applications. They are advised to satisfy themselves before applying that they possess at least the essential qualifications laid down for various posts as on the last date of receipt of the online applications. No enquiry asking for advice as to eligibility will be entertained.
The prescribed essential qualifications are the minimum and the mere possession of the same does not entitle candidates to be called for interview. The duly constituted Screening Committee will adopt its own criteria for short-listing the candidates. The candidate should therefore, mention in the application all the qualifications and experiences in the relevant area over and above the minimum prescribed qualification, supported with documents. Completion of Ph.D. degree will be reckoned from the date of issue of provisional certificate/notification.
- c. The hard copy of application (i.e. printout of the successfully submitted online application) should be accompanied by self attested copies of the relevant educational qualification, experience, etc. The prescribed qualifications should have been obtained through recognized Universities / Institutions. etc. **Incomplete applications /applications received but not accompanied with the required certificates / documents are liable to be rejected.**
- d. In respect of equivalent clause in Essential Qualifications, if a candidate is claiming a particular qualification as equivalent qualification as per the requirement of advertisement, then the candidate is required to produce order/letter in this regard, indicating the Authority (with number and date) under which it has been so treated otherwise the application is liable to be rejected.
- e. The period of experience rendered by a candidate on part time basis, daily wages, visiting/guest faculty **will not be counted** while calculating the valid experience for short listing the

candidates for interview.

- f. If any document/ certificate furnished is in a language other than Hindi or English, a transcript of the same duly attested by a Gazetted officer or notary is to be submitted.
- g. The date for determining the upper age limit, qualifications and /or experience shall be the closing date prescribed for receipt of online applications.
- h. The period of experience in a discipline / area of work, wherever prescribed, shall be counted after the date of acquiring the minimum prescribed educational qualifications prescribed for that Grade.
- i. Persons with disabilities (PWD) fulfilling the eligibility conditions prescribed under GOI instructions are encouraged to apply.
- j. Only outstation candidates called and found eligible for interview will be paid to and from single second class rail fare from the actual place of undertaking the journey or from the normal place of their residence whichever is nearer to Pune Railway Station on production of Rail Tickets/Rail Ticket Numbers or any other proof of journey.
- k. Any discrepancy found between the information given in application and as evident in original documents will make the candidate ineligible for appearing in interview. Such candidate will not be paid any fare.
- l. The decision of the **Director, CSIR-National Chemical Laboratory (CSIR-NCL), Pune / CSIR** in all matters relating to eligibility, acceptance or rejection of applications, mode of selection and conduct of examination/interview will be final and binding on the candidates.
- m. Canvassing in any form and / or bringing any influence political or otherwise will be treated as a disqualification for the post.
- n. **NO INTERIM ENQUIRY OR CORRESPONDANCE WILL BE ENTERTAINED.**

3. **Relaxations :**

- a. The date for determining the age limit/experience/qualifications shall be the closing date online application i.e.10th of March, 2022
- b. The upper age limit is relaxable upto **five years for SC/ST and three years for OBC** as per Government of India orders in force, **only in those cases where the post are reserved for respective categories**, on production of relevant **Caste/Category Certificate** in the prescribed **Government of India (GOI) format** signed by the specified authority.
- c. Upper age limit is also relaxable upto five years for the regular employees working in CSIR laboratories/institutes, Government Departments, autonomous bodies and public sector undertakings.
- d. As per GOI provisions, age relaxation for Widows, Divorced Women and Women Judicially

separated from Husbands, the upper age limit is relaxable up to the age of 35 years (upto 40 years for members of Scheduled Castes/Scheduled Tribes and upto 38 years for members belonging to the Other Backward Classes in respect of the posts reserved for them) for Widows, divorced Women and Women Judicially separated from their Husbands who are not remarried. The persons claiming age relaxation under this sub-para would be required to produce following documentary evidence:

i) In case of Widow, Death Certificate of her husband together with the Affidavit that she has not remarried since.

ii) In case of divorced Women and Women judicially separated from their husbands, a certified copy of the judgment/decree of the appropriate Court to prove the fact of divorce or the judicial separation, as the case may be, with an Affidavit in respect of divorced Women and they have not remarried since.

- e. Age relaxation to Person with Disabilities (PWD) : Age relaxation of ten years (fifteen years for Scheduled Caste/Scheduled Tribe and thirteen years for Other Backward Classes candidates) in upper age limit shall be allowed to persons suffering from (a) blindness or low vision, (b) deaf and hard of hearing (c) locomotor disability including cerebral palsy, leprosy cured, dwarfism, acid attack victims and muscular dystrophy (d) autism, intellectual disability, specific learning disability and mental illness and (e) multiple disabilities from amongst persons under clauses (a) to (d) including deaf-blindness, in case of direct recruitment to all civil posts/services under the Central Government identified suitable to be held by persons with such disabilities, subject to the condition that maximum age of the applicant on the last date of online application shall not exceed 56 years. The persons claiming age relaxation under this sub-para would be required to produce a certificate in prescribed pro-forma in support of their claims clearly indicating that the degree of physical disability is 40% or more. In any case, the appointment of these candidates will be subject to their being found medically fit in accordance with the standards of medical fitness as prescribed by the Government for each individual Group 'A' posts to be filled by Direct Recruitment by Selection.
- f. SC/ST/OBC/PWD candidates are required to produce a copy of the relevant certificate in the prescribed format of Government of India (GOI) signed by the specified authority along with their hard copy of application form.
- g. Relaxation in age, over and above the stipulated limit, educational qualification and / or experience may be considered in case of exceptionally meritorious candidates or if sufficient number of candidates possessing the requisite qualification and/ or experience are not likely to be available to fill up the posts.

4. Mode of Selection:

Mere fulfilment of educational qualifications and experience does not entitle a candidate to be called for interview. The duly constituted Screening Committee will adopt its own criteria for shortlisting the candidates. The candidate should therefore, mention in the application all the qualifications and experiences in the relevant area over and above the minimum prescribed qualification supported with documents.

In case a candidate is staying abroad, his/her candidature may be considered in absentia by the Selection committee on his/her written request.

Due weightage will be given to the candidates involved in Product Development/Technology Innovation/Applied Technology/Translational Research etc.

5. How to apply:

- a. Eligible candidates are required to apply **ONLINE only** through our website <https://recruit.ncl.res.in>, **followed by sending hard copy of online application form along with self attested copies of all the educational certificates, mark sheets, experience certificates etc. through Registered / Speed post only. The other mode of sending hard copy of application will not be considered. By hand submission of hard copy of application form will not be accepted.**
- b. If the candidate does not have a valid E-mail ID, he/she should create a new valid E-mail ID before applying online.
- c. **Online Application will be available on our website <https://recruit.ncl.res.in> upto 10th of March, 2022 till 5.30 p.m.**
- d. The candidates are required to remit the application fee of Rs. 100/- (for each post) in favour of '**Director, National Chemical Laboratory**' through online payment system i.e. NEFT / Bank Transfer/Net Banking etc., with the following details:
 - **Bank Name: State Bank of India**
 - **Account No.:30267257846**
 - **IFSC Code No: SBIN0003552**
 - **Branch Code: 3552**
 - **Branch Name: NCL Campus Branch, Pune**

The candidates are required to generate acknowledgement of remitted application fee from the online payment system, containing UTR Number/ Transaction Number and Transaction Date and the same is required to be attached along with the hard copy of online application. No other mode of payment will be accepted.

The last date for applying online application and remitting of application fee through online payment system is **10th of March, 2022 by 5.30 PM**. This date will be the same for the candidates belonging to far-flung areas.

The following details must be filled up on back side of printed copy of generated acknowledgement of remitted application fee (i) Candidate's Name, (ii) Application ID (iii) Candidate's Category (iv) Post Code Applied For.

The candidates belonging to SC / ST / PWD / Women / CSIR Employees / Abroad Candidates category are exempted from submission of application fee.

- e. In case of universities/institute awarding CGPA/SGPA/OGPA grades etc., candidates are requested to convert the same into percentage based on the formula as per their university/institute.
- f. First time users need to register themselves by clicking on ' Register' tab. Candidate needs to supply his/her email id which will be used as a login id into the system. The activation link will be sent to that email id. After clicking that activation link, his/her account of NCL Recruitment Portal will be activated. Once it is activated, he/she may login and proceed for applying. Please note that candidate can apply for more than one post using a single login id.
- g. Once candidate logs in, he/she is required to select the post to apply and click 'Fill Application' against the post, he/she wishes to apply for. In case candidate has already logged in on a previous occasion and began the process of application, the top of the page will display the post/s for which he/she has already applied. Then he/she needs to click 'View' link to proceed.
- h. Candidates can then start filling the online application form which is divided into 13 parts., namely Personal Information, Academic Details, Doctoral Work, Paper Publications, Patent Details, Technology Developed, Summary of publications & Patents & Technology, Awards, Other Qualifications, Experience, CSIR Relatives, Application Fee Details and Enclosure. The first part to be filled in is the Basic information followed by the other parts.
- i. Candidates are required to fill up and complete all the columns of the online application form without skipping any field. In case a candidate does not wish to fill up a particular column, he/she should mention 'Nil' against that field.
- j. While filling the online application form, Candidates must fill Personal Information and Academic Details. If these details are not filled, online application form will not submitted.
- k. In case candidate feels that he/she has acquired some additional academic qualification which is relevant to the post advertised, he/she may enter that under 'Other qualification'. Please note that SSC and HSC details needs to be entered under 'Academic details' category and **not** to be entered under 'other qualification' category.

- l. If candidates do not have any relatives who are in service in CSIR, he/she does not need to fill up the part under 'Relatives'.
- m. The candidates are required to fill the details of online generated acknowledgement of remitted application fee viz. UTR / Transaction Number, Candidate's Bank Account Number, UTR /Transaction Date and Amount etc.
- n. After completely filling the online application form, candidates can save and take printout of the filled application in PDF format. Candidates need to note down "Application ID" carefully for future communication. **The candidates must sign on this computer generated printed online application.**
- o. This computer generated application (Print-out) duly signed by the candidate and accompanied by self-attested copies of the certificates, mark sheets, testimonials in support of age, education qualifications, experience, re-prints of publications and caste certificate (if applicable), acknowledgement of remitted application fee (if applicable), along with one recent passport size self-signed photograph affixed, should be sent in an envelope superscribed "**APPLICATION FOR THE POST OF _____ (Post Code _____) Advt. No.....**" **by Registered/Speed Post only** to the following address so that it should reach on or before **21st of March, 2022 by 5.30PM** :-

Controller of Administration
CSIR - National Chemical Laboratory
Dr. Homi Bhabha Road
Pune - 411008 (Maharashtra)

Candidates applying for more than one post must submit separate application forms and along with all essential documents in a separate envelope for each post indicating the name of the post and code number of the post. The hard copy of each application must be accompanied by separate online generated acknowledgement of remitted application fee along with all essential documents.

- p. Application once made will not be allowed to be withdrawn and fees once paid will not be refunded on any count nor can it be held in reserve for any other recruitment or selection process.
- q. Applications from employees of Government Departments will be considered only if forwarded through proper channel, certified by the employer that the applicant, if selected will be relieved within one month of the receipt of the appointment orders. Also, vigilance clearance should be recorded. However, Advance Copy (hard copy) of the application must reach this office before the closing date. Applications routed through proper channel should reach **Director, CSIR-National Chemical Laboratory (CSIR-NCL), Dr. Homi Bhabha**

Road, Pune - 411008 within 15 days after the last date of receipt of application form in hard copy.

- r. Candidates are require to submit No Objection Certificate from his/her present employer in case employed in Government/ Semi Government/ Public Sector Undertaking without No Objection Certificate candidate will not be allowed to appear for the interview.
- s. Candidates should specifically note that the applications received after the closing date (last date for receipt of hard copy applications), for any reason whatsoever (such as envelopes wrongly addressed, delivered elsewhere, postal delay etc.) will not be entertained by Director, CSIR-National Chemical Laboratory, Pune.
- t. **Incomplete applications (i.e. unsigned, without photograph / application fee / applicable certificates / mark sheets etc.) will not be entertained and will be summarily rejected.**
- u. **All further announcements/details pertaining to this recruitment process /corrigendum / addendum etc., shall be published/provided ONLY on <http://recruit.ncl.res.in> in form time to time.**

6. Following documents must be attached along with application form sent by post:

- a. Self-attested Copy of acknowledgement of remitted application fee, wherever applicable.
- b. Coloured photograph pasted on the application form and signed across in full.
- a. Self-attested copy of Aadhar card/ Voter ID card/ PAN card/Passport.
- b. Self-attested copy of Date of Birth Certificate/SSC/SSLC certificate.
- c. Self-attested copies of the SSC, HSC, Diploma, PG Diploma, Degree, Post Graduation Mark-Sheets, Certificates and Experience Certificates.
- d. List of the Publications/Research Papers and attested copies/reprints of such Publications/Research Papers.
- e. Self-attested copy of the Caste/Category certificate (in case of SC/ST/OBC candidates) in the appropriate Pro Forma prescribed by the Government of India from time to time.
- f. Self-attested copy of the Medical certificate (in case of Persons with Disability candidates) from the prescribed authority in the prescribed format.

Date of commencement of online applications	: 31.01.2022
Last date for receipt of online applications	: 10.03.2022
Last date for receipt of hard copy of applications	: 21.03.2022

**Sd/-
(Controller of Administration)**