# National Accreditation Board for Testing and Calibration Laboratories

## SCOPE OF ACCREDITATION

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|---|---|---|---|
| **Laboratory Name :** | CSIR-NATIONAL BOTANICAL RESEARCH INSTITUTE, RANA PRATAP MARG, LUCKNOW, UTTAR PRADESH, INDIA | | |
| **Accreditation Standard** | ISO/IEC 17025:2017 | | |
| **Certificate Number** | TC-7972 | **Page No** | 1 of 4 |
| **Validity** | 18/01/2022 to 17/01/2024 | **Last Amended on** | - |

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|---|---|---|---|---|
| Permanent Facility | | | | |
| 1 | CHEMICAL- AYUSH PRODUCTS | Characterization by NMR (Confirmation of structure of the structure of medicinal phytochemicals | Characterization by NMR (Confirmation of structure of the structure of medicinal phytochemicals | nbri-SOP-202 (39) |
| 2 | CHEMICAL- AYUSH PRODUCTS | Herbal drugs/ plant extract/herbal products/plant based pharmaceuticals Marker chemicals (by HPTLC analysis). | Major chemical composition by HPTLC | NBRI –SOP-202 (04) |
| 3 | CHEMICAL- AYUSH PRODUCTS | Herbal drugs/ plant extract/herbal products/plant based pharmaceuticals Marker chemicals by (HPLC analysis) | Major chemical composition by HPLC | IP, Vol. 1, 3.3. Page 767 to 882 |
| 4 | CHEMICAL- AYUSH PRODUCTS | Herbal drugs/ plant extract/herbal products/plant based pharmaceuticals Marker chemicals by GCMS | Major chemical composition by GCMS | NBRI –SOP-202 (33) |
| 5 | CHEMICAL- AYUSH PRODUCTS | Herbal drugs/ plant extract/herbal products/plant based pharmaceuticals | Carbon Isotopic mass ratio of plant materials | NBRI –SOP-202 (10) |
| 6 | CHEMICAL- COSMETICS & ESSENTIAL OILS | Essential oils, aroma chemicals, Indian attars and fragrances Estimation of major chemical constituents of oil by GCMS analysis | Major chemical composition by GCMS | NBRI –SOP-202 (33) |
| 7 | CHEMICAL- COSMETICS & ESSENTIAL OILS | Essential oils, aroma chemicals, Indian attars and fragrances Estimation of major chemical constituents of oil by GLC analysis | Major chemical composition by GLC | IS: 326 (Part-19) |
| 8 | CHEMICAL- COSMETICS & ESSENTIAL OILS | Essential oils, aroma chemicals, Indian attars and fragrances | Oil contents (by hydro distillation/solvent extraction) | NBRI-SOP-202 (17A) |
| 9 | CHEMICAL- COSMETICS & ESSENTIAL OILS | Essential oils, aroma chemicals, Indian attars and fragrances | Optical rotation | IS-326 (part-4) |
| 10 | CHEMICAL- COSMETICS & ESSENTIAL OILS | Essential oils, aroma chemicals, Indian attars and fragrances | Refractive index | IS-326 (part-5) |
| 11 | CHEMICAL- COSMETICS & ESSENTIAL OILS | Essential oils, aroma chemicals, Indian attars and fragrances | Specific gravity | IS-326 (part-5) |
| 12 | CHEMICAL- COSMETICS & ESSENTIAL OILS | Identification/Characterization by NMR, Confirmation of structure of aromatic phytochemicals(Proton and 13Carbon) | Characterization by NMR (Confirmation of structure of aromatic phytochemicals) | NBRI-SOP -202 (39) |
| 13 | CHEMICAL- FOOD & AGRICULTURAL PRODUCTS | Vegetable Oils Estimation of fatty acid composition by GCMS | Estimation of fatty acid composition by GCMS | NBRI –SOP-202 (33) |
| 14 | CHEMICAL- FOOD & AGRICULTURAL PRODUCTS | Vegetable Oils Estimation of fatty acid composition by GLC | Estimation of fatty acid composition by GLC | IS:548(Part-III) |
| 15 | CHEMICAL- FOOD & AGRICULTURAL PRODUCTS | Vegetable oils | Color value R: 0.1 to 70, Y: 0.1 to 70, B: 0.1 to 40 and W: 0.1 to 3 | IS -548 (PART 1) |

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| 16 | CHEMICAL- FOOD & AGRICULTURAL PRODUCTS | Vegetable oils | Oil content (soxhlet method) | IS- 3579 |
| 17 | CHEMICAL- FOOD & AGRICULTURAL PRODUCTS | Vegetable oils | Oil content (TD- NMR) | NBRI –SOP-202 (34) |
| 18 | CHEMICAL- FOOD & AGRICULTURAL PRODUCTS | Vegetable oils | Refractive index | IS -548 (PART 1 ) |
| 19 | CHEMICAL- FOOD & AGRICULTURAL PRODUCTS | Vegetable Oils | Specific gravity | IS -548 (PART 1 ) |
| 20 | CHEMICAL- PESTICIDE FORMULATIONS | Identification/Characterization by NMR (Confirmation of structure, Proton and 13Carbon) | Characterization by NMR (Confirmation of structure) | NBRI-SOP-202 (39) |
| 21 | CHEMICAL- POLLUTION & ENVIRONMENT | Soil | Available Nitrogen | IS: 14684 |
| 22 | CHEMICAL- POLLUTION & ENVIRONMENT | Soil | Available Phosphorous | NBRI-SOP-202-30 |
| 23 | CHEMICAL- POLLUTION & ENVIRONMENT | Soil | Available Potassium | IS: 9497 |
| 24 | CHEMICAL- POLLUTION & ENVIRONMENT | Soil | Conductivity | IS: 14767: |
| 25 | CHEMICAL- POLLUTION & ENVIRONMENT | soil | pH | IS:2720 (part 26) |
| 26 | CHEMICAL- POLLUTION & ENVIRONMENT | Soil | Sulphate | IS: 2720 (Part 27) |
| 27 | CHEMICAL- POLLUTION & ENVIRONMENT | Soil | Total Nitrogen | IS:14684 |
| 28 | CHEMICAL- POLLUTION & ENVIRONMENT | Soil | Total organic carbon | IS: 2720 (Part-22) |
| 29 | CHEMICAL- POLLUTION & ENVIRONMENT | Soil | Total Phosphorous | IS: 6361 |
| 30 | CHEMICAL- POLLUTION & ENVIRONMENT | Soil | Total Potassium | IS 9497 |
| 31 | CHEMICAL- RESIDUES IN WATER | Ground water and surface water | Heavy Metal Al by-ICPMS | APHA 3125B,23rd Edn,2017 |
| 32 | CHEMICAL- RESIDUES IN WATER | Ground water and surface water | Heavy Metal As by -ICPMS | APHA 3125 B-23 Edition 2017/ US EPA method 200.7 |

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| 33 | CHEMICAL- RESIDUES IN WATER | Ground water and surface water | Heavy Metal B by-ICPMS | APHA 3125-B-23 rd Edition |
| 34 | CHEMICAL- RESIDUES IN WATER | Ground water and surface water | Heavy Metal Cd by -ICPMS | APHA 3125 B-23 Edition 2017 |
| 35 | CHEMICAL- RESIDUES IN WATER | Ground water and surface water | Heavy Metal Cr by-ICPMS | APHA,3125B ,23rd Edin ,2017 |
| 36 | CHEMICAL- RESIDUES IN WATER | Ground water and surface water | Heavy Metal Cu by ICPMS | APHA,3125B ,23rd Edin ,2017 |
| 37 | CHEMICAL- RESIDUES IN WATER | Ground water and surface water | Heavy Metal Fe by -ICPMS | APHA,3125B ,23rd Edin ,2017 |
| 38 | CHEMICAL- RESIDUES IN WATER | Ground water and surface water | Heavy Metal Mn by ICPMS | APHA,3125B ,23rd Edin ,2017 |
| 39 | CHEMICAL- RESIDUES IN WATER | Ground water and surface water | Heavy Metal Se by HPLC-ICPMS | APHA 3125 B,23rd Edn,2017 |
| 40 | CHEMICAL- RESIDUES IN WATER | Ground water and surface water | Heavy Metal Zn by HPLC-ICPMS | APHA,3125B ,23rd Edin ,2017 |
| 41 | CHEMICAL- WATER | ground water and surface water | Alkalinity | APHA, 23rd Edn, 2320B |
| 42 | CHEMICAL- WATER | Ground water and surface water | Calcium | APHA,23rd Edn,3500-CaB |
| 43 | CHEMICAL- WATER | ground water and surface water | Chlorine (Cl) | APHA 4110-B-23 rd Edition |
| 44 | CHEMICAL- WATER | ground water and surface water | Conductivity | APHA,23rd Edn,2510 A |
| 45 | CHEMICAL- WATER | ground water and surface water | Dissolved oxygen | APHA,23rd Edn,4500-O C |
| 46 | CHEMICAL- WATER | ground water and surface water | Hardness | APHA,23rd Edn,2340 C |
| 47 | CHEMICAL- WATER | ground water and surface water | Nitrogen (Ammonia) | APHA,23rd Edn,4500 NH3-C |
| 48 | CHEMICAL- WATER | ground water and surface water | Nitrogen (Nitrate) (N03) | APHA,4110-B-234500-NO3 B |
| 49 | CHEMICAL- WATER | ground water and surface water | Nitrogen (Nitrite) (N02) | APHA,23rd Edn,4500-NO2 B |
| 50 | CHEMICAL- WATER | ground water and surface water | Oil and Grease | APHA, 23rd edition:2017,5520-B |
| 51 | CHEMICAL- WATER | ground water and surface water | pH value | APHA,23rd Edn,4500 H+B |
| 52 | CHEMICAL- WATER | ground water and surface water | Phenol | APHA, 23rd edition, 5530-C |
| 53 | CHEMICAL- WATER | ground water and surface water | Phosphate (P04)3- | APHA,23rd Edn,4500- P C |
| 54 | CHEMICAL- WATER | ground water and surface water | Potassium (K) | APHA,23rd Edn,3500 K B |
| 55 | CHEMICAL- WATER | ground water and surface water | Residual Chlorine | APHA,23rd Edn,4500 Cl D |
| 56 | CHEMICAL- WATER | ground water and surface water | Sodium | APHA,23rd Edn,3500- Na B |
| 57 | CHEMICAL- WATER | ground water and surface water | Sulphate (S04) | APHA,23rd Edn,4500 SO4 E |

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| 58 | CHEMICAL- WATER | ground water and surface water | Total Dissolved Solids | APHA,23rd Edn,2540 C |
| 59 | CHEMICAL- WATER | Ground water and surface water | Total Solids | APHA,23rd Edn,2540 B |
| 60 | CHEMICAL- WATER | ground water and surface water | Turbidity | APHA,23rd Edn,2130 B |