



INTERPROJECT LTD

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PROGRAMME THE PROVIDER at "INTERPROJECT" LTD **FOR THE CONDUCT OF NATIONAL AND INTERNATIONAL TECHNICAL** **PROJECTS INTERLABORATORY COMPATISONS AND** **PROFICIENCY TESTING IN THE PERIOD 2015 - 2019**

Accredited PROVIDER at "INTERPROJECT" Ltd. (Certificate of Accreditation № T-007/10.11.2015, valid until 10.11.2020) by Slovak National Accreditation Service (SNAS) conduct technical projects (TPs) for interlaboratory comparisons according to the requirements of EN ISO/IEC 17025:2005 (t.5.9.1.b) and EN ISO /IEC 17043:2010. In the attached tables present the planned technical projects objects, features, timing and prices.

Objective: To be made competent and responsible assessment of the actual measurement capabilities of laboratories by performing interlaboratory comparisons, the conclusion be realized with the participation of laboratories in measurements of various physicochemical and microbiological characteristics. Thus, a Laboratory is estimated sufficiently representative on its measurement capabilities.

Expected result: Report with an analysis of results and evaluation of actual measurement capabilities of participating laboratories.

Opportunities for comparative studies are offered in the following areas:

1. Natural waters (drinking, mineral, surface water, underground, bathing, sea, water from swimming pools, water for fish, irrigation)
2. Waste waters
3. Food of plant origin – grain and grain products, sugar and confectionery, fruits, vegetables, vegetables and animal oils and fats
4. Food of animal origin – meat and meat products; canned meat; fish, fish products and canned; eggs and eggs products; milk and milk products; honey bee; sterilized canned food-meat, dairy, and other prepared products of animal origin; oils and fats
5. Wines, spirits, beer, soft drinks and energy drinks
6. Solid fuels (coal, limestone, ash, gupsum)
7. Liquid fuels (petroleum products, lubricants) – aviation fuel and car fuel; aviation fuel; anti-icing fluid; anti-icing fluid about surface treatment aircraft; oils; lubricants; special liquids
8. Textile and textile products

Organization: The control laboratories analyzed prior to testing sites (homogeneous enough source material) for compliance with current regulations. The organizer sends the test object to the participants, the test laboratories send the results of analyzes carried out in advance provided their form to report. The reports contain descriptions of objects to test, its characteristics ascribed values (measured indicators), mathematical and statistical analysis of results.

Confidentiality: The policy of conducting interlaboratory comparisons include controlled confidentiality of the participants. All testing laboratories provide confidential results by a coded number.

Participation: Each participating laboratory performs a number of measurements selected from her site characteristics test by applying the best method utilized in the laboratory or in the methods according to the instructions provided by the Organizer. **Participants are awarded certificates for participation in this Technical Project.**

1. STARTING AND PLANNED TECHNICAL PROJECTS

Table 1

| № | OBJECTS OF COMPARISON (PRODUCT) | CHARACTERISTICS (INDICATORS) | PERIOD | TECHNICAL PROJECT № ... | IMPLEMENTATION price (euro) |
|-----|----------------------------------|---|--------|---|-----------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1. | Water for drinking supply* | Sulphates, Chlorides, Total hardness, Fluorides, Hydrocarbons, Ca, K, Na, pH, Specific conductivity | 2015 | IP-61/2015 <i>finished</i> | 160 |
| 2. | Underground water (spring water) | Total water hardness, Chlorides, Sulphates, Ammonium ion, Nitrite, Nitrates, pH, Elemental composition (further specification), microbiological characteristics (further specification) | 2016 | IP-98/2016 <i>Invitation (deadline 30.06.2016)</i> | 200 |
| 3. | Mineral water* | Sulphates, Chlorides, Fluorides, Carbonates, Hydrogencarbonate, Na, K, Ca, Copper, Arsenic, pH, Specific conductivity | 2016 | IP-79/2016 <i>Invitation (deadline 30.04.2016)</i> | 200 |
| 4. | Irrigation water | Total water hardness, Chlorides, Sulphates, Nitrate nitrogen, Nitrite nitrogen, Ammonium nitrogen, Phosphates, Specific conductivity, Heavy metals (further specification) | 2017 | IP-49/2017 | 200 |
| 5. | Water for fish | Suspended solids, Total phosphorus (as phosphates), Ammonium ion, Nitrite, Organophosphorus pesticides, Organochlorine pesticides, Heavy metals (further specification) | 2017 | IP-50/2017 | 190 |
| 6. | Sea water | Ammonium nitrogen, Nitrite nitrogen, Nitrate nitrogen, Phosphates, Elemental composition, pH | 2018 | IP-99/2018 | 210 |
| 7. | Drinking water* | Sulphates, chlorides, fluorides, COD, Organic nitrogen, dissolved iron Cu, Mn, Zn, Pb, Specific conductivity (at T = 20°C) | 2018 | IP-122/2018 | 210 |
| 8. | Surface flowing water | Specific conductivity, sulphates Chlorides, COD, phenols, cyanides, Cu, dissolved iron, Zn, Pb, microbiological characteristics (further specification) | 2019 | IP-109/2019 | 210 |
| 9. | Underground water (spring) | Total hardness, chlorides, sulfates, ammonium ion, pH, Specific conductivity (at T = 20°C), Elemental composition | 2019 | IP-123/2019 | 210 |
| 10. | Waste water | COD, sulfates, chlorides, total nitrogen, Phosphates (such as phosphorus), Fe | 2015 | IP-127/2015 <i>canceled</i> | 150 |

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| 11. | Waste water | COD, chlorides, phosphates (such as phosphorus) Ammonium, nitrite, (CrVI), petroleum products, Mn, Pb, Cd | 2016 | IP-101/2016 <i>Invitation (deadline 20.02.2016)</i> | 220 |
| 12. | Waste water | Suspended solids, COD, Sulphates, Phenols, cyanides, pesticides, Heavy metals (further specification) | 2016 | IP-110/2016 | 230 |
| 13. | Waste water | Suspended solids, COD, Sulphates, Anionic synthetic surfactants, petroleum products, Heavy metals (further specification) | 2017 | IP-102/2017 | 240 |
| 14. | Waste water | Suspended solids, COD, Sulphates, Phosphates, phenols, Heavy metals (further specification) | 2018 | IP-81/2018 | 240 |
| 15. | Waste water | Suspended solids, COD, Sulphates, Phosphates, pesticides, Heavy metals (further specification) | 2019 | IP-125/2019 | 240 |
| 16. | Flour „Dobrudzha” (type 700) | Moisture, Total ash, Wet gluten yield (mechanical washing), Slack of gluten, Number of collapse, Acidity Neumann | 2015 - 2016 | IP-70/2015 <i>finished</i> | 180 |
| 17. | Natural wine vinegar | Total acidity (as acetic acid), Total extract, Total sulfur dioxide, Fe | 2015 - 2016 | IP-126/2015 <i>finished</i> | 160 |
| 18. | Apple vinegar, natural* | Total acidity (as acetic acid), Total extract, Total sulfur dioxide, Cu, Fe | 2015 - 2016 | IP-13/2015 <i>Invitation (deadline 30.03.2016)</i> | 150 |
| 19. | Chutney* | Dry soluble residue, Dry matter content/ water content, pH, chlorides, fat content, acidity, content of volatile acids, reducing sugars, protein content | 2016 | IP-27/2016 <i>Invitation (deadline 30.03.2016)</i> | 250 |
| 20. | Sugar* | Moisture/dry content, total sugar (invert sugar), ash content, pH | 2017 | IP-10/2017 | 160 |
| 21. | Pepper red ground* | Fats, Cellulose, dry content, Sulphates, Ash content, Protein, Nitrates | 2017 | IP-22/2017 | 180 |
| 22. | Cocoa* | Moisture, Fat, Total ash, Ash insoluble in 10% hydrochloric acid | 2017 | IP-48/2017 | 170 |
| 23. | Grain cereal | Hectolitre mass, Moisture, Wet gluten yield, Sedimentation number, Number of baking force, Others (further specification) | 2018 | IP-11/2018 | 180 |
| 24. | Children fruit puree* | Dry content, Total acidity, Zn, Cu, inorganic Sn, moisture, pH, sugar, Vitamin C, Starch | 2018 | IP-12/2018 | 190 |
| 25. | Oilseeds* | Impurities, Moisture, Fat, Fibers, Acidity, total protein content, Ash, Jodine value, Peroxide value | 2018 | IP-04/2018 | 230 |

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| 26. | Chocolate (confectionery) products | Moisture / dry matter Fat content, Reducing sugars (invert sugar), Peroxide value, Protein content, ash | 2019 | IP-26/2019 | 190 |
| 27. | Edible salt (table salt)* | Sodium chloride, Potassium iodate, Water-insoluble substances, Sulphate, Moisture, Ca, Mg, pH | 2019 | IP-21/2019 | 170 |
| 28. | Tomato paste - sterilized vegetable can* | Dry soluble residue (by refractometer), Dry matter content (by weight), moisture, pH, sugar, titratable acidity, chlorides | 2019 r | IP-112/2019 | 240 |
| 29. | Animal fat (butter) | Fat content in the total mass, Fat in dry matter, Moisture/dry content, Sodium chloride, Acidity | 2015 - 2016 | IP-72/2015 <i>finished</i> | 210 |
| 30. | Beef sausages | Water content, Fat, Ash content, Sodium chloride, Protein (Kjeldahl nitrogen), Starch content | 2016 | IP-31/2016 | 240 |
| 31. | Bee Honey* | Sucrose, reducing sugars, water content, specific electroconductivity, total acidity, diastatic activity Hydroxymethylfurfural (HMF) | 2016 | IP-90/2016 <i>Invitation (deadline 30.04.2016)</i> | 250 |
| 32. | Pate in can (poultry meat)* | Water content, Fat content in the total mass, Sodium chloride, Protein (Kjeldahl nitrogen), Danofloxacin, Enrofloxacin | 2017 | IP-121/2017 | 225 |
| 33. | Pasteurized cow milk* | Fat, dry matter / water content, acidity / °K, Acidity / °T, Ash content, Protein, Lactose, Starch content | 2017 | IP-82/2017 | 225 |
| 34. | Egg product* | Fat, water content, fat content, free fatty acids, sodium chloride, free fatty acids, pH, ash | 2017 | IP-51/2017 | 240 |
| 35. | Melted smoked cheese* | Fat content in the total weight, fat in dry matter, Sodium chloride (table salt), protein, dry matter / water content | 2018 | IP-111/2018 | 240 |
| 36. | Mayonnaise* | Ash, moisture and volatile substances, Fat, Acidity, protein, Dry substance, pH, | 2018 | IP-52/2018 | 220 |
| 37. | Minced beef | Water content, fat, chlorides, Protein, Starch, Ash content, Peroxide value, acidity, pH, microbiological characteristics (further specification) | 2018 | IP-63/2018 | 240 |
| 38. | Cow cheese* | Fat, sodium chloride (table salt), protein, dry matter / water content, Dry fatless residue, Acidity / °K, Acidity / °T, Ash content, microbiological characteristics (further specification) | 2019 | IP-73/2019 | 250 |
| 39. | Caviar fish* | Water content / dry matter, Fats salt content, pH, titratable acidity, protein content / volatile basic compounds | 2019 | IP-75/2019 | 250 |

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| 40. | Meat finely minced boiled* | Water content, fat content in total weight, Sodium chloride, protein content, fat, starch, titratable acidity, pH, Ash, Nitrites | 2019 | IP-77/2019 | 240 |
| 41. | White wine dry* "Chardonnay" | Relative density, Alcohol content, Total dry extract, Sugars (as reducing sugars), Total acidity (as tartaric acid), Volatile acidity (as acetic acid) | 2015 – 2016 | IP-24/2015 <i>finished</i> | 260 |
| 42. | Grappa* | Alcohol content, density, Aldehydes (as acetaldehyde), Higher alcohols, Esters (such as ethylacetate), Total acidity (as acetic acid) | 2015 – 2016 | IP-15/2015 <i>finished</i> | 260 |
| 43. | Lager beer* | Alcohol content (vol %), Extract content (degree Plato) | 2016 | IP-103/2016 <i>Invitation (deadline 30.04.2016)</i> | 120 |
| 44. | Dry red wine "Cabernet Sauvignon"* | Relative density, Alcohol content, Total dry extract, Sugars (as reducing sugars), Total acidity (as tartaric acid), Volatile acidity (as acetic acid), Total sulfur dioxide, Free sulfur dioxide, Citric acid, Cu, Fe, pH | 2016 | IP-100/2016 <i>Invitation (deadline 30.04.2016)</i> | 260 |
| 45. | Distillate wine* | Alcoholic strength, density, Aldehydes (such as acetaldehyde), Esters (such as ethyl acetate), Total acidity (as acetic acid), methanol; Higher alcohols - 2-butanol, 1-propanol, 2-methyl-1-propanol, 1-butanol, 3-methyl-1-butanol | 2016 | IP-104/2016 <i>Invitation (deadline 30.04.2016)</i> | 260 |
| 46. | Soft-drink* | sugars, Acidity (as Citric acid), Carbon dioxide, Ash, pH, Dry matter on refractometer at 20°C | 2016 | IP-09/2016 <i>Invitation (deadline 30.04.2016)</i> | 175 |
| 47. | Dry red wine "Merlot"* | Relative density, Alcohol content, Total dry extract, sugars (such as reducing sugars), Total acidity (as tartaric acid), Volatile acidity (as acetic acid), Total sulfur dioxide, Free sulfur dioxide, Citric acid, Cu, Fe, pH | 2017 | IP-47/2017 | 260 |
| 48. | Brandy wine* | Alcoholic strength, density, aldehydes (such as acetaldehyde), esters (such as ethyl acetate) Total acidity (as acetic acid), methanol; Higher alcohols - 2-butanol, 1-propanol, 2-methyl-1-propanol, 1-butanol, 3-methyl-1-butanol | 2017 | IP-80/2017 | 260 |
| 49. | Fruit nectar drink* | Sugars, acidity (as citric acid), Carbon dioxide, ash, pH, dry matter by refractometer at 20°C | 2017 | IP-83/2017 | 180 |
| 50. | dry white wine "Dimyat"* | Relative density (specific gravity), Alcoholic strength, Total dry extract, Sugars (such as reducing sugars), Total acidity (as tartaric acid), Volatile acidity (as acetic acid), Total sulfur dioxide, Free sulfur dioxide, Citric acid, Cu, Fe, pH | 2018 | IP-132/2018 | 260 |

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| 51. | Fruit Grappa* | Alcoholic strength, density, aldehydes (such as acetaldehyde), esters (such as ethyl acetate), Total acidity (as acetic acid), methanol; Higher alcohols - 2-butanol, 1-propanol, 2-methyl-1-propanol, 1-butanol, 3-methyl-1-butanol | 2018 | IP-84/2018 | 250 |
| 52. | Boza | Benzoic acid, dry content, Sorbic acid, Zinet acesulfame-K, sugars, Aspartame, Ash pH | 2018 | IP-85/2018 | 190 |
| 53. | Dry rose wine* | Relative density (specific gravity), Alcoholic strength, Total dry extract, Sugars (such as reducing sugars), Total acidity (as tartaric acid), Volatile acidity (as acetic acid), Total sulfur dioxide, Free sulfur dioxide, Citric acid, Cu, Fe, pH | 2019 | IP-108/2019 | 260 |
| 54. | Grappa* | Alcoholic strength, density, aldehydes (such as acetaldehyde), esters (such as ethyl acetate), Total acidity (as acetic acid), methanol; Higher alcohols - 2-butanol, 1-propanol, 2-methyl-1-propanol, 1-butanol, 3-methyl-1-butanol | 2019 | IP-131/2019 | 260 |
| 55. | Soft-drink* | sugars, Acidity (as Citric acid), Carbon dioxide, Ash, pH, Dry matter on refractometer at 20°C | 2019 | IP-133/2019 | 175 |
| 56. | Brown coal* | Total moisture, Ash in dry mass, Volatile matter on a dry ash-free basis, Total sulfur by dry weight, calorific dry mass | 2015 - 2016 | IP-97/2015 <i>Invitation (deadline 20.02.2016)</i> | 240 |
| 57. | Gypsum | Calcium sulfate dihydrate, calcium carbonate, magnesium carbonate, silica, water of crystallisation | 2015 | IP-128/2015 <i>finished</i> | 200 |
| 58. | Limestone (calcium carbonate) | Calcium carbonate, magnesium carbonate, volatile substances, diiron trioxide, Silica | 2016 | IP-20/2016 <i>Invitation (deadline 30.04.2016)</i> | 225 |
| 59. | Lignite coal* | Analytical moisture, Ash on dry weight, Total sulfur on dry weight, Total sulfur by dry weight, Carbon dry weight, Calorific value | 2016 - 2017 | IP-113/2016 | 225 |
| 60. | Black coal* | Ash on dry weight, Volatiles of dry ash-free basis, Total sulfur on dry weight, Carbon dry weight, Calorific | 2017 | IP-95/2017 | 225 |
| 61. | Ash | SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , CaO, MgO, P ₂ O ₅ , SO ₃ | 2017 | IP-05/2017 | 225 |
| 62. | Brown coal* | Total moisture, Ash in dry mass, Volatile matter on a dry ash-free basis, Total sulfur on dry weight, Carbon dry mass, Calorific value | 2018 | IP-87/2018 | 210 |

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| 63. | Gypsum | CaSO ₄ ·2H ₂ O, CaSO ₄ , CaSO ₄ hemihydrate, NaCl, CaCO ₃ , MgCO ₃ , Fe ₂ O ₃ , Al ₂ O ₃ , SiO ₂ , water of crystallization | 2018 | IP-86/2018 | 225 |
| 64. | Lignite coal* | Analytical moisture, Ash on dry weight, Total sulfur on dry weight, Carbon dry mass, Calorific value | 2019 | IP-124/2019 | 210 |
| 65. | Limestone (calcium carbonate) | CaCO ₃ , MgCO ₃ , volatiles, pH, Fe ₂ O ₃ , Al ₂ O ₃ , SiO ₂ | 2019 | IP-08/2019 | 225 |
| 66. | Diesel fuel* | Density, Fractional composition, Acid value, actually resins | 2015 | IP-130/2015 <i>finished</i> | 210 |
| 67. | Diesel fuel* | Density, Fractional composition, Kinematic viscosity, Acid value, Limit temperature of filterability through a cold filter, Freezing temperature, Temperature of turbidity, Sulfur, Flash point in closed cup | 2015 - 2016 | IP-67/2015 <i>Invitation (deadline 30.06.2016)</i> | 270 |
| 68. | Motor oil* | Kinematic viscosity, Viscosity index, Density, Acid value, sulfate ash, Mechanical impurities | 2016 | IP-53/2016 <i>Invitation (deadline 30.04.2016)</i> | 260 |
| 69. | Jet fuel* | Acid value, Flash point, Kinematic viscosity at minus 20 °C, Net heat of combustion, Fractional composition, Density at 15 °C, Temperature of initial crystallization, Modified index of waters separometer | 2016 | IP-120/2016 <i>Invitation (deadline 30.04.2016)</i> | 280 |
| 70. | Gasoline* | Net calorific, Density at 15 °C, Fractional composition, octane, Interaction with water - volume change | 2017 | IP-115/2017 | 290 |
| 71. | Transformer oil* | Acid value, Water content, Flash point (in closed cup), Breakdown voltage, Permittivity at 90 °C (tg Δ), Density, Kinematic viscosity, Pour Point | 2017 | IP-69/2017 | 300 |
| 72. | Anti-icing fluid for surface treatment of BC | Refractive index at 20 °C, Dynamic viscosity in Brookfield at 20 °C, pH at 20 °C | 2017 | IP-117/2017 | 210 |
| 73. | Gas oil for industrial and utilities purposes* | Water content, Fractional composition, Ash, Kinematic viscosity at 40 °C, Sulfur, Flash point in closed cup, Specific heat of combustion | 2018 | IP-96/2018 | 300 |
| 74. | Transmission oil* | Density, Kinematic viscosity, Viscosity index, Viscosity at low temperatures – Brookfield, Water content, Flash point (in open cup), Pour Point, Antiseizure properties, Foaming | 2018 | IP-78/2018 | 290 |

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| 75. | Aviation gasoline* | Temperature of initial crystallization, Test for corrosion of a copper plate, 2h at 100 °C, Interaction with water - a change in volume, Net heat of combustion, Density at 15 °C, Distillation: - 10 vol% distillation temperature, °C - 40 vol% distillation temperature, °C - 50 vol% distillation temperature, °C - 90 vol% distillation temperature, °C - Near boiling temperature, °C - Amount of 10 vol % plus 50% vol distils at a temperature of, °C - Residue, vol% - Losses, vol% | 2018 | IP-118/2018 | 260 |
| 76. | Diesel fuel* | Density, Fractional composition, Kinematic viscosity, Acid value, Limit temperature of filterability, Freezing temperature, Cocks residue, Sulfur, Flash point in closed cup | 2019 | IP-114/2019 | 190 |
| 77. | Boiler fuel (mazut)* | Water content, Mechanical impurities, Ash, Sulfur, Density at 20 °C, Flash point in open cup, Kinematic viscosity at 80 °C, Specific heat of combustion | 2019 | IP-64/2019 | 190 |
| 78. | Jet fuel* | Acid value, Flash point, Kinematic viscosity at minus 20 °C, Net heat of combustion, Fractional composition, Density at 15 °C, Temperature of initial crystallization, Modified index of waters separometar | 2019 | IP-92/2019 | 210 |
| 79. | Cotton textiles* | Resistance to water penetration, Determining the pH of water extract, Maximum tensile strength, Elongation at maximum tensile force | 2015 - 2016 | IP-105/2015 <i>finished</i> | 200 |
| 80. | Textile item – textile toy | Resistance to water penetration, Content of free and hydrolysed formaldehyde, The pH of the aqueous extract (pH units) | 2015 - 2016 | IP-129/2015 <i>canceled</i> | 230 |
| 81. | Impregnated textiles* | Air permeability, Resistance steam passage at steady speeds, Resistance to water penetration | 2016 | IP-106/2016 <i>Invitation (deadline 30.08.2016)</i> | 220 |
| 82. | Textiles military purposes* | Maximum force to rupture using STRIP method, pH of water extract, Free and hydrolyzed formaldehyde | 2017 | IP-107/2017 | 210 |
| 83. | Textile item* | Mass per unit area, shrinkage (dimensional change when washing), The pH of the aqueous extract (pH units) | 2018 | IP-116/2018 | 230 |

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| 84. | Cotton blend fabrics / synthetics | The pH of the aqueous extract - EN ISO 3071, Maximum force to rupture using STRIP method - base / weft - EN ISO 13934-1 | 2019 | IP-119/2019 | 230 |
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****Note – such technical projects interlaboratory comparisons have completed development and approval of a comparative matrix material/CMM (homogeneity tested, proven stability period) for the control accuracy of the results and validation and / or verification of test methods. That type CMM is a free bonus for participants.***

Other sites:

Based on proposals by accredited / recognized laboratories are or control bodies and upcoming studies will be offered other technical projects. Objects of comparison, their characteristics (indicators) and the corresponding period of the technical projects shall be subject to the Applicant. Technical Projects and above the period of implementation to be updated and adjustments depending on the relevance of the normative and normative-technical documents. (The fee for participation in the announced projects not included VAT. The amount is net and subject to VAT.)

Note: In the process of implementing the above technical projects are created matrix reference materials (CM), based on the legal requirements with the respective analysis certificate. They are submitted together with the report of interlaboratory comparison and certificate of participation, appear bonus for each participant in this technical project. Matrix reference materials may be used to control the accuracy of the measurement results and validation (verification) of the test methods. Since our information, only one package of this type cost more than € 250, we have a metrology and economic benefit from participation in a technical project. Based on the established types of matrix CM, provides in perspective Accreditation as a manufacturer of matrix certified reference materials procedures "by calibration" and "Between-laboratory certification".