

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-14370-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 24.05.2022

Date of issue: 24.05.2022

Holder of certificate:

Agroisolab GmbH
Prof.-Rehm-Straße 6, 52428 Jülich

Tests in the fields:

determination of isotopes in solids and fluids (for example in food, feedstuffs, water, consumer products and chemical products), and in selected gases (for example in flue gas)

Within the areas of testing marked with **, the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkKS, the modification, development and refinement of testing methods.

The listed testing methods are exemplary. The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of DIN EN ISO 9001.

*The certificate together with the annex reflects the status as indicated by the date of issue.
The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at <https://www.dakks.de/en/content/accredited-bodies-dakks>.*

Abbreviations used: see last page

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This document is a translation. The definitive version is the original German annex to the accreditation certificate.

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1 Isotope Ratio Mass Spectrometry

1.1 Determination of the isotope ratio for the assessment of regional origin / origin / identity in solids and fluids by means of mass spectrometry **

AIL-1.1a ¹⁸O/¹⁶O in alcoholic beverages (<40Vol% alcohol)
2015-02

AIL-1.1b ¹⁸O/¹⁶O and D/H in water/tissue fluid
2015-02

AIL-1.1c ¹⁸O/¹⁶O, D/H, ¹³C/¹²C, ¹⁵N/¹⁴N and ³⁴S/³²S in agricultural commodities and products, water-free biomass, chemicals, foodstuffs, spices, luxury foodstuffs, pesticides, consumer products and wood
2015-02

AIL-1.1d ¹³C/¹²C in agricultural commodities and products for the assessment of the plant species (photosynthesis)
2015-02

1.2 Determination of the isotope ratio for the assessment of nutrition / fertilization in solids and fluids by means of mass spectrometry **

AIL-1.2a ¹⁵N/¹⁴N in agricultural commodities and fertilizer
2015-02

AIL-1.2b ¹³C/¹²C in agricultural commodities for the assessment of greenhouse cultivation
2015-02

AIL-1.2c ¹³C/¹²C und ¹⁵N/¹⁴N in feedstuffs and animal agricultural products
2015-02

1.3 Determination of the isotope ratio for the assessment of tampering in solids and fluids by means of mass spectrometry **

AIL-1.3a ¹³C/¹²C for assessment of added C4 sugars in juices and honey
2015-02

AIL-1.3b ¹³C/¹²C und D/H(I) in the ethanol of alcoholic beverages for assessment of chaptalization/fermentation basis
2015-02

AIL-1.3c ¹³C/¹²C in vanilla products for assessment of the naturalness of vanilla aromas
2015-02

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AIL-1.3d 2015-02	$^{13}\text{C}/^{12}\text{C}$ in carbon dioxide in sparkling wine, semi-sparkling wine and beer
AIL-1.3e 2015-02	$^{13}\text{C}/^{12}\text{C}$, D/H und $^{18}\text{O}/^{16}\text{O}$ in vinegar for the assessment of the fermentation basis

2 Liquid Scintillation Spectrometry

2.1 Determination of C14 activity in solids, fluids, and gases by means of liquid scintillation spectrometry with the low level counter method **

AIL-2.1a 2015-02	^{14}C activity for determination of the recent proportion in consumer products, combustibles, flavourings, flue gas, chemicals, lubricants and synthetic materials
AIL-2.1b 2020-09	^{14}C activity for assessment of CO_2 from carbonic acid
DIN EN 15440 2011-05 Corrigendum 2012-10	Solid recovered fuels – Methods for the determination of biomass content (according to Annex C)
DIN EN ISO 21644 2021-07	Solid recovered fuels – Methods for the determination of biomass content (according to Annex A)

3 Cavity Ring Down Spectroscopy (CRDS)

3.1 Procedures for the analysis of regional origin/origin/identity by means of laser technology

AIL-3.1a 2015-02	D/H-Isotope analysis in water
AIL-3.1b 2021-08	$^{18}\text{O}/^{16}\text{O}$ -Isotope analysis in water

Abbreviations used:

AIL-xx	In-house method of Agroisolab GmbH
DIN	Deutsches Institut für Normung e. V. (<i>German Institute for Standardisation</i>)
EN	European Standard
IEC	International Electrotechnical Commission
ISO	International Organisation for Standardisation

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