Estación Biológica Doñana CSIC 50 Años (1964-2014)

EXCELENCIA SEVERO OCHOA

Stable Isotope Courses EBD-2014

LIMS for Light Stable Isotopes

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LIE EBD

Laboratorio de Isótopos Estables
Estación Biológica de Doñana

LIMS for Thermo instrument (ISODAT software)

1) Install LIMS and open
2) Customize LIMS for your laboratory
3) Add new customer: “Periquito Pérez”
4) Add references:

Standard	Origin	G number	Material	$\delta^{13}C$ (‰VPDB)	Mass Fraction C %	$\delta^{15}N$ (‰air N2)	Mass Fraction N %
IAEA-600	IAEA	G-42	Caffeine	-27,771	49.48	1	$C_8H_{10}N_4O_2$
LIE-P-22	internal	G-101	Protein	-26.98	46.5	5.94	13.32
LIE-BB	internal	G-102	Whale baleen	-18,58	46.8	9.95	14.2
LIE-PA	internal	G-103	Feathers of Razorbill	-15,77	46.2	16.55	14.5

5) Create template with the standards previously added
6) Example of Excel template for sample submission. Create new submission to measure $\delta^{13}C$ / $\delta^{15}N$ in 26 samples (S-1 to S-26) with 0.3 mg
7) Import a new project from excel submission
8) Add the project to template in the point 5, create a sample list and put the samples list in the ISODAT software
9) Import data from mass spectrometer
10) Normalize and evaluate results of samples and control
11) Store and report client data.

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