

### Price list for laboratory sample processing in the Palaeoecological Laboratory

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I hereby set the following prices for the laboratory sample processing at the Palaeoecological Laboratory of the Institute of Botany, CAS:

Sample preparation	External orders CZK/EUR per sample (incl. VAT)
A: 1) surface sample	290.00/11.60
2) annual pollen trap sample	290.00/11.60
3) recent pollen sample	288.00/11.50
4) pollen concentrate for <sup>14</sup> C dating	278.00/11.10
5) fossil sample	290.00/11.60
6) fossil sample: acetolysis + HCl (glycerine)	306.00/12.30
7) fossil sample: acetolysis + HF (glycerine)	317.00/12.70
8) fossil sample: acetolysis + HCl + HF (glycerine)	331.00/13.30
B: 9) plant macroremains	120.00/4.80
C: 10) diatom permanent slide	120.00/4.80
D: 11) CHAR sample – macrocharcoal concentration (> 125 µm)	288.00/11.50

Expert analyses	External orders CZK/EUR per sample (incl. VAT)
A: 12) microscopic pre-screening – presence/absence of pollen	600.00/24.00
13) microscopic quantitative pollen analysis (identification and counting of min. 300 pollen grains per slide)	3000.00/120.00
B: 14) pre-screening of plant macroremains	600.00/24.00
15) quantitative analysis of plant macroremains	3000.00/120.00
C: 16) microscopic pre-screening of native phytoplankton/phytobenthos sample – estimate of relative representation of dominants	600.00/24.00
17) microscopic quantitative analysis of diatoms (identification and counting of 300 valves in a permanent slide)	3000.00/120.00

D: 18) taxonomic identification of wood charcoal, min. 100 per sample	2400.00/96.00
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If markers are required (e.g., *Lycopodium* spore tablets), they will be provided by the customer. If provided by the Paleoecological Laboratory, they are charged at current prices.

For a specific quote (including possible quantity discounts), please contact us:

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**Notes on methodology:**

- pollen concentrate for  $^{14}\text{C}$  radiometric dating: Schultz solution instead of acetolysis, no glycerine preservation
- diatoms: treated with  $\text{H}_2\text{O}_2$  (if carbonates are present,  $\text{HCl}$  is added), washing out, samples mounted in Naphrax/Pleurax
- CHAR samples: profile sampling, deflocculation, wet sieving,  $\text{NaOCl}$  bleaching, manual separation of organic impurities, microscopic scanning of sample, processing by optical image analysis methods, basic morphometry, quantification by area and number of charcoals, sample archiving
- wood charcoal identification includes floating, wet sieving, and manual separation of charcoal particles

**The processing procedures on offer apply to the following sample types:**

**A) Pollen samples:**

- 1) surface humus (plant/pollen litter)
- 2) annual pollen traps
- 3) recent pollen (from anthers)
- 4) fossil samples for  $^{14}\text{C}$  dating
- 5) fossil samples without mineral component (peat, humolite)
- 6-8) fossil samples with mineral admixture (humolite, peat, lacustrine sediments, archeological cultural layers – sand, gravel, clay, limestone, tufa, etc.)

**B) Plant macroremains:**

- 9) fossil samples (humolite, peat, lacustrine sediment)

**C) Diatoms:**

- 10) sediment, phytoplankton and phytobenthos samples

**D) CHAR samples:**

- 11) fossil peat and lacustrine sediments
- 18) microscopic identification of charcoals >2 mm from archaeological material, soil, peat and lacustrine sediments

	External orders CZK/EUR per hour (incl. VAT)
<b>Use of scanning electron microscope (Phenom ProX)</b>	
observation and photography of uncoated, dry objects on a standard sample holder	960.00/38.40
observation and photography of uncoated objects containing water on a temperature-controlled sample holder – cooling of samples	1020.00/40.80
elemental analysis – energy-dispersive X-ray spectroscopy (EDS)	960.00/38.40

The Phenom ProX benchtop scanning electron microscope with BSE backscattered electron imaging detector can be used to observe uncoated objects magnifications up to 130,000x and resolution of 10 nm. It also allows for elemental X-ray analysis (EDS – energy-dispersive X-ray spectroscopy) with detection of elements ranging from Boron to Americium.

Delivery times will be set by agreement with the customer.

Methodologies described in detail are available on request.

*Note:*

*Internal pricing covers only direct material and laboratory overhead costs, does not include labour costs, margins, or the administrative and operational overhead cost of the Institute, prices are charged exclusive of VAT.*

*External pricing includes all costs, including the Institute's margin, and is subject to VAT.*

Průhonice, July 17, 2024

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