RADIOCHRONOLOGY LAB C.E.N. ULAVAL - PRICE LIST

(for samples received after Jan. 5, 2015)

	Sample Size (dry weights)		Cost ($ CAN)	
			University /	
	Minimum	Best	Educational	Others
^{14}C AMS (Charcoal, wood, peat, organics)				
Wood and charcoal *(clean samples, no pre-treatment) **	1 mg	5 mg	300.00	410.00
Wood and charcoal	10 mg	50 mg	300.00	410.00
Peat, plants, seeds, roots	10 mg	50-100 mg	300.00	410.00
Bulk sediments *(1% of carbon min.) ***	1 g	2 - 3 g	300.00	410.00
Humic acid extraction *(from inorganic sediments)*	200 mg	600 mg	415.00	565.00
Delta ^{13}C measurement by IRMS			30.00	30.00
Modern biobased content testing *(ASTM D6866 method)*	5 mg	20 mg	320.00	440.00
^{14}C AMS (Bone, tooth, antler, ivory)				
Collagen extraction *(includes ^{13}C and ^{15}N measurements)*	800 mg - 1 g	3-5 g	390.00	490.00
^{14}C AMS (Shells, carbonates)				
Standard procedure with acid leaching	20 mg	50-60 mg	265.00	370.00
No leaching *(forams or very small samples)*	10 mg	20 mg	265.00	370.00
^{14}C AMS (Skin, parchment, leather, hide, textiles, other)				
please, contact us for these types of samples	30 mg	500-800 mg	300.00	410.00
C H N analyses				
Dried samples ready to analyze	250 mg	500 mg	15.00	25.00
Humid samples *(needing drying, crushing and homogenization)*	variable	variable	20.00	35.00

			C.E.N. members /	
			ULaval	Others
^{210}Pb & ^{137}Cs analyses ***	1g	5g	30.00	70.00

Comments

** Chemical pre-treatments are very important and must be proceeded with when quantities are adequate. However, for customers who know their sampling sites are clean, skipping pre-treatments will give these very small samples a better chance to be dated.*

*** If carbon content is known from a previous analysis, please write it on the AMS form.*

**** Contact us to get the plastic vials that are used for counting, so weighing and capping can be done by yourself. This can speed up the process, as the required 21-day sitting time (to reach secular equilibrium) can then begin as soon as you're done with the capping and go on during shipping. Otherwise, samples can be weighed and capped here at the lab (a fee can be asked for submission of a large number of samples). A precision of 0,0001 g is best. Report includes activities (Bq/g) for 210Pb, 226Ra, 137Cs and unsupported 210Pb.*

A bigger quantity might be required for samples that are dirty, dusty, sandy or with a high fraction of sediments.

*The **form** that applies to the analysis **is required** (**one per sample** for **^{14}C AMS**, only **one per core** for **^{210}Pb & ^{137}Cs** and only **one per batch** for **C H N**).*

Discounts can be available for large batches of samples (^{14}C AMS)