



Susanna Salminen-Paatero¹ and Jussi Paatero²

¹ Department of Chemistry, Radiochemistry, P.O. Box 55, 00014 University of Helsinki, Finland



² Finnish Meteorological Institute, P.O. Box 503, 00101 Helsinki, Finland

Home pages of our group:
<https://www.helsinki.fi/en/researchgroups/radioecology>

Environmental sample archive in Finland

The archived sample collection of FMI (Finnish Meteorological Institute) is available for radioecological studies and ecotoxicological research like heavy metal determinations. The full sample list contains over 800 environmental samples, and this figure doesn't include aerosol samples.

Sample type	Sampling location	Sampling time	No. of samples	Other info
Lichen	Whole Finland	1956-2015	~385	
Reindeer	Finnish and Russian Lapland	1961-1997	~260	Meat, bones, organs
Peat	Southern Finland	1986, after the Chernobyl accident	55	
Vegetation	Whole Finland, Russian Lapland	1962-2005	~45	Grass, hay, birch, water horsetail, etc.
Aerosol sample	Whole Finland	1961 →	~100000	
Human	Southern Finland	1976-1979	~50	Lungs, ribs, lymph nodes, blood



Figure 1. Human ribs where the flesh has been peeled off with a scalpel.



Figure 2. A fairly big human lung, weight 2 kg.

Besides the sample archive, we can offer for a research co-operation

- radiochemical separation methods (ion exchange, extraction chromatography)
- gamma spectrometry
- alpha spectrometry
- LSC (Quantulus 1220 and Hidex)
- ICP-MS (shared Q-ICP-MS, MC-ICP-MS, SF-ICP-MS instruments)
- MP-AES

Please contact us, the Radioecology group, for starting a joint project!



Figure 3. Lichen samples. Most lichens in the sample archive are *Cladonia alpestris* but also *Cl. Stellaris*, beard lichen and other species exist.



Figure 4. Aerosol sample archive of FMI.