

SUPPLEMENTARY INFORMATION I – Sampling site, static magnetic sampler

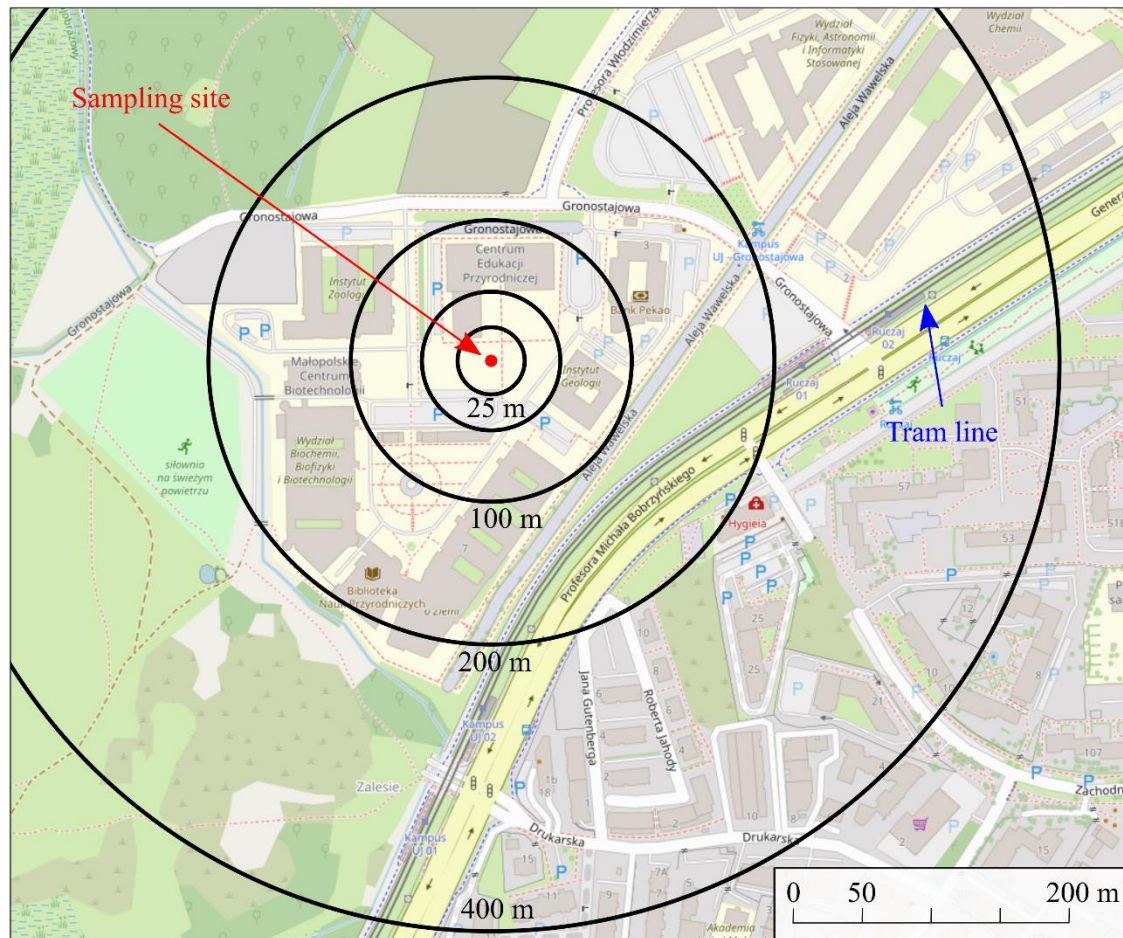


Fig. S1. Sampling site: 50.026916979306854 N, 19.902035577195356 E (on the basis of OpenStreetMap® open data, licensed under the Open Data Commons Open Database License - ODbL by the OpenStreetMap Foundation -OSMF).

According to Google Maps distances (straight lines) to places related to personal/public transport are as follows:

1. 125 m to the nearest tram lane (separated by at least 5 m tall noise barrier and 3 storey buildings with 35 m wide gap between them);
2. 142 m to the nearest two lane street (separated by at least 5 m tall noise barrier and 3 storey buildings with 35 m wide gap between them);
3. 35 m to the car park (12 parking spots approximately);
4. 40 m to the car park (30 parking spots approximately; mostly hidden on the other side of the 1,5 storey building);
5. 60 m to the car park (20 parking spots approximately);
6. 25 to the closest car park (20 parking spots at 25 m distance, 20 parking spots at 35 m, 20 parking spots at 45 m approximately);
7. 50 m to the car park (20 car parking spots and 8 bus parking spots approximately);
8. 50 m to the car park (30 parking spots approximately).



Fig. S2. A: View of the sampler located at about 150-170 centimetres above the ground level in the grassy area at the III Campus of the Jagiellonian University (Gronostajowa Street, Kraków, Poland – exact location in the Figure S1); B: Closer view (area marked with yellow rectangle) of the magnet matrix under the cover placed in order to protect from precipitations.

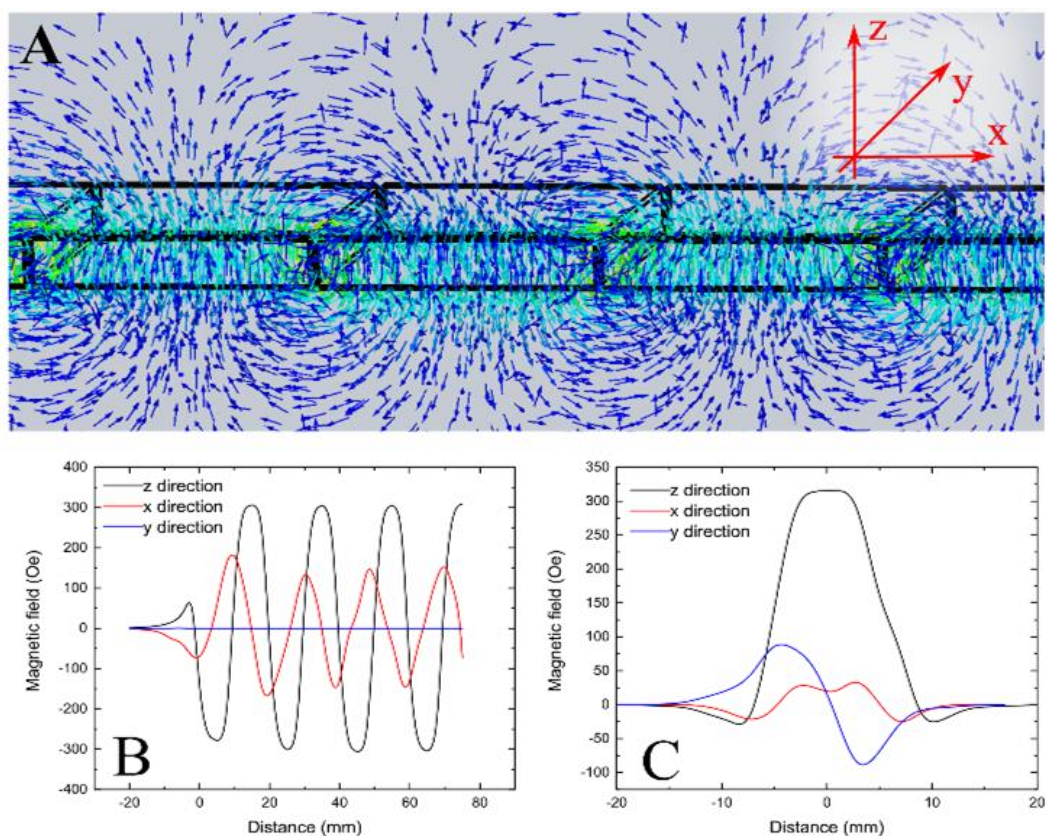


Fig. S3. A: Simulation of magnetic field induction vector direction along a matrix of solid magnets; **B & C:** measured magnetic field intensity along the matrix of magnets (**B**) and in a direction perpendicular to the long axis of magnets – **x, y** and **z** directions of magnetic field as indicated.

To collect the magnetic fraction of atmospheric dust, a static (passive) sampler composed of a matrix of solid magnets arranged to increase gradients and magnetic field strength was used (Fig. S3 A, B, C). It was covered with a 25 μm thick PVC film in order to ease the separation of the collected sample from the sampler itself.

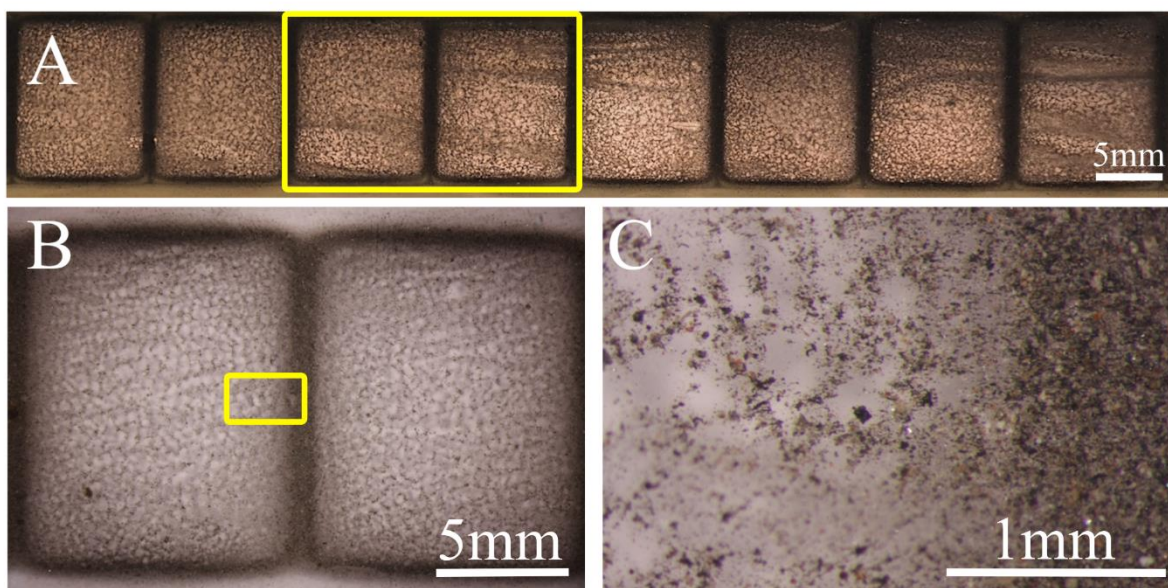


Figure S4. Magnetic fraction on the passive sampler after 9 months of deposition; A, B & C. Sample on the surface of rectangular magnet covered with PVC foil with dust grains of various colour, size and shape on the surface of the sampler. C&B are zoomed areas marked by yellow rectangular areas in A&B respectively.