

Overview of the interface

The screenshot displays the siMPle v. 1.0.0 software interface, which is used for the systematic identification of microplastics. The interface is divided into several key sections:

- Control panel:** Located at the top left, it contains menu options such as 'About', 'Convert', 'Load', 'Single spectra', 'Export', 'Modify', 'User setup', and 'Noise'. Below the menu is a plot of the 'Map spectrum' showing intensity versus wavenumber (ranging from 3.800 to 2.000 cm⁻¹).
- Spectra map:** A central heatmap showing the distribution of microplastic particles. A blue box highlights a specific region. To the right, a 'Spectra map' window shows a zoomed-in view of the selected region, with a 'Ref. spectrum' plot on the right side.
- Filters:** A panel on the bottom left containing various settings for data processing, including 'Spectra order' (1st derivative, 2nd derivative), 'Reference spectra' (Show highlighted reference spec, Show all checked reference spec), 'Scaling of spectra' (Individual scale, Same scale), and 'Ranges for spectral fitting' (Use whole range for fitting, Use selected intervals for fitting).
- Ranges:** A panel in the bottom center for defining wavenumber ranges. It includes a table for 'Override wavenumber ranges' and 'Pearsons correlation weights (update)'.

High bound	Low bound	Pearson r ²	slope	Pearson r ²	slope	Pearson r ²	slope
3992	402						
1st range							
2nd range							
- Reference library:** A panel on the bottom right containing a list of reference materials for identification, such as '1_2_polybutadiene', 'acrylonitrile_butadiene_styrene', 'polyhydroxybutyric_acid', and 'butyl_methacrylate_isobutyl_methacrylate'. Each entry has a checkbox next to it.