



ROYAL SOCIETY
OF CHEMISTRY

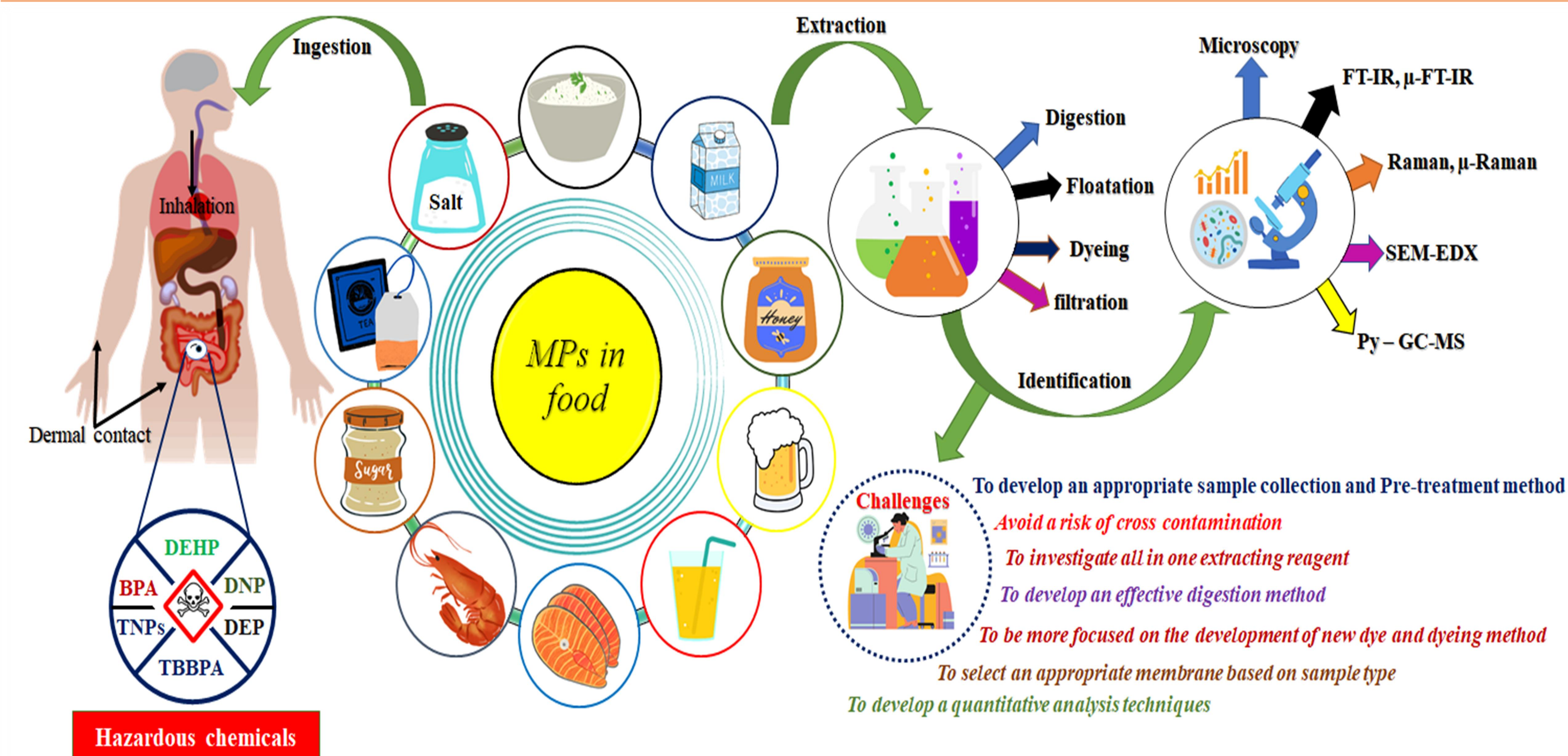


Commonwealth
Chemistry
Federation of Chemical Sciences Societies

A critical review on current challenges in analysis of microplastics (MPs) from food samples

Dhruti B. Patel, Pinal S. Bhavsar and Anil H. Gore*

Tarsadia Institute of chemical science, Uka Tarsadia University, Tarsadi-394350, Gujarat, India



What Are Microplastics?

Extremely small pieces of plastic consumer $p(>5 \text{ mm})$ debris in the environment resulting from the disposal and breakdown of products and industrial waste.

Current challenges

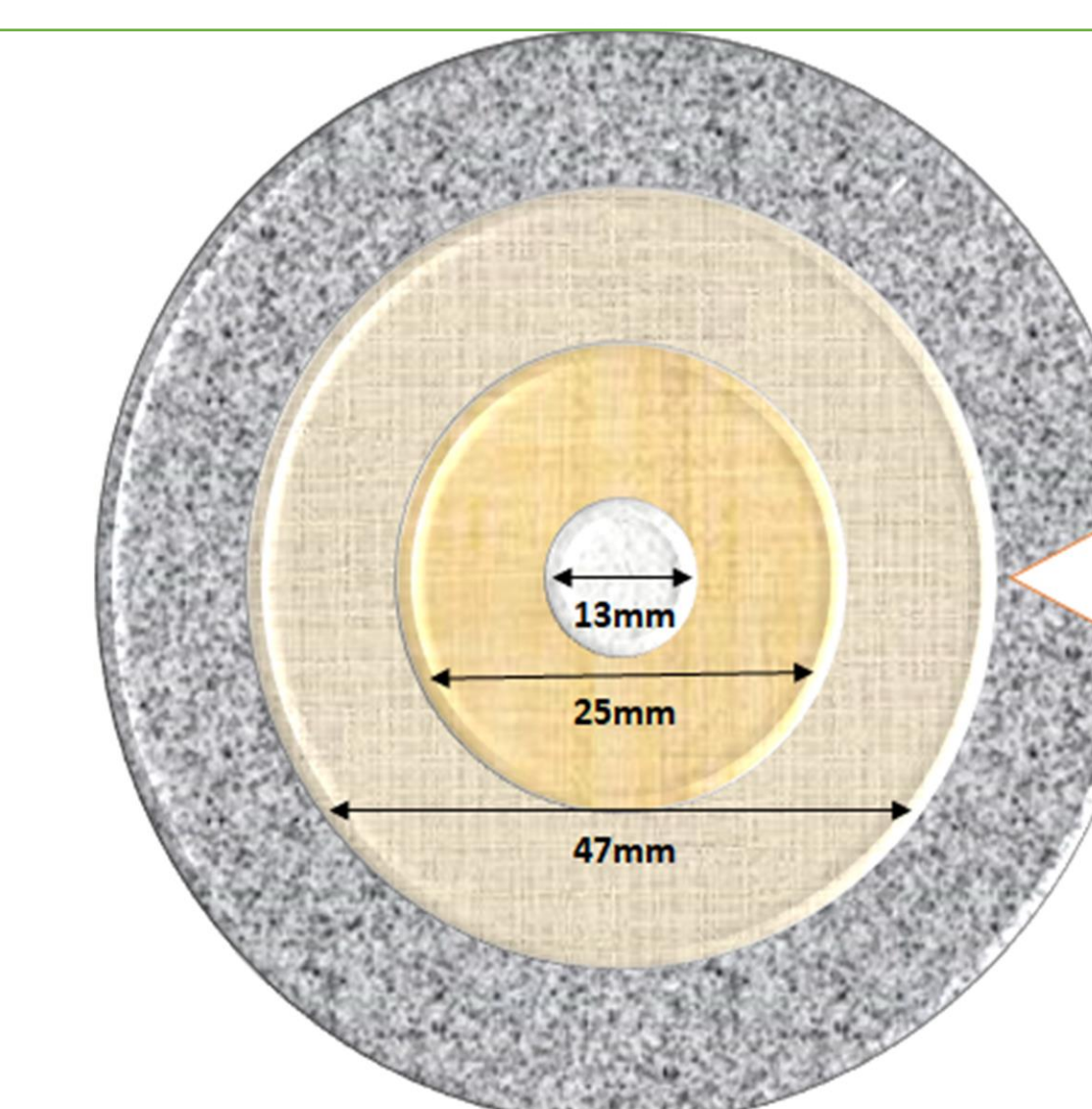
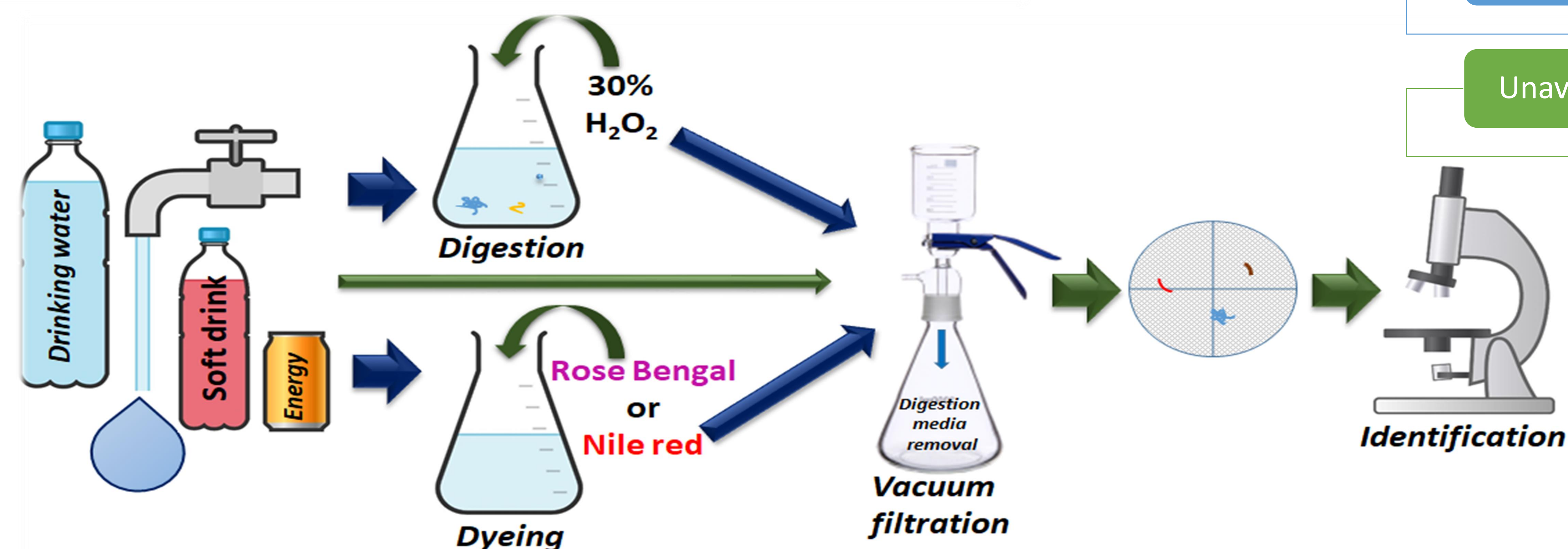
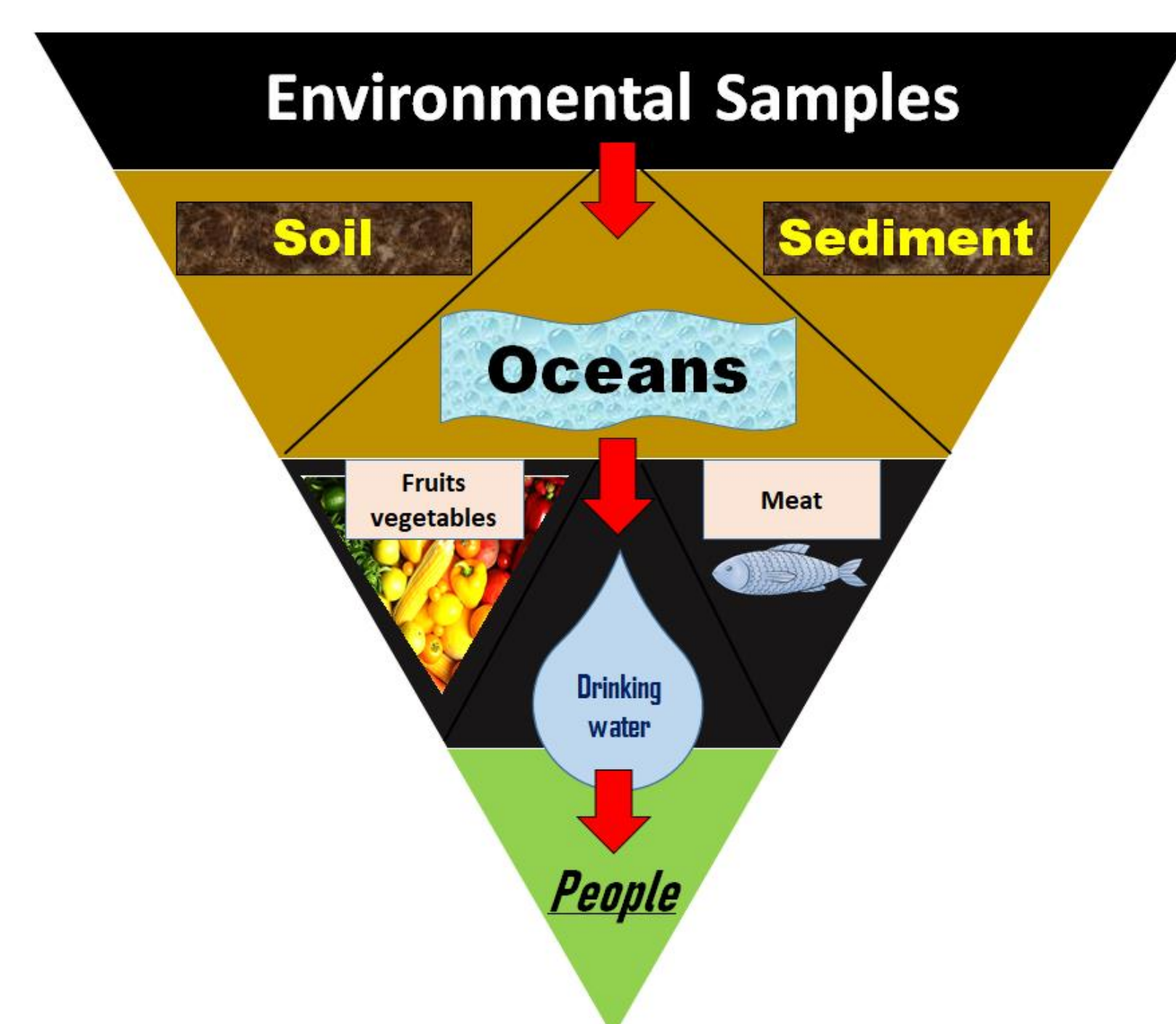
Develop Multi-coloured Polymer Detection

Costly Membrane Filtration

Develop Quantification Techniques

Develop Multi-coloured Polymer Detection

Unavailable Parameter In MPs Validation



Membranes

- PTFE
- Anodisc
- Glass fiber
- Cellulose nitrate
- Cellulose acetate
- Nylon
- Whatmann filter
- Gold coated polycarbonate

Identification

- Microscope
- μ -Raman
- μ -FT-IR
- SEM-EDX