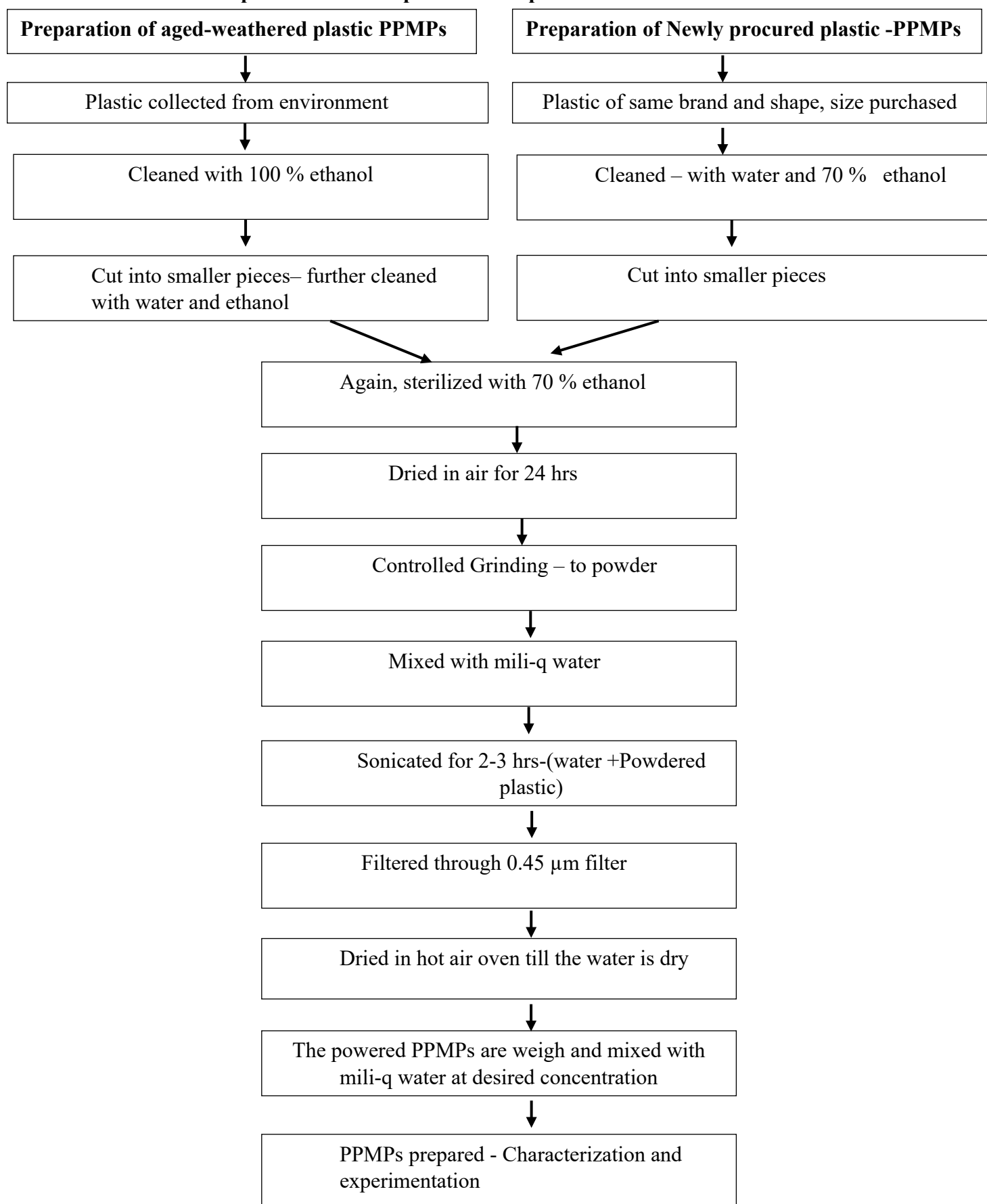


### Supplementary file

#### Flow chart – Preparation of microplastics from plastic material :-



The standard protocol of preparation of microplastics are taken from- A novel and simple method for polyethylene terephthalate (PET) nanoparticle production (Rodríguez-Hernández et al., 2019) and (Cellular response of THP-1 macrophages to polystyrene microplastics exposure, Doi:- <https://doi.org/10.1016/j.tox.2022.153385> ; (Koner et al., 2023) with modifications).

Fig 1. Picture of weathered and aged plastic product versus the newly purchased product

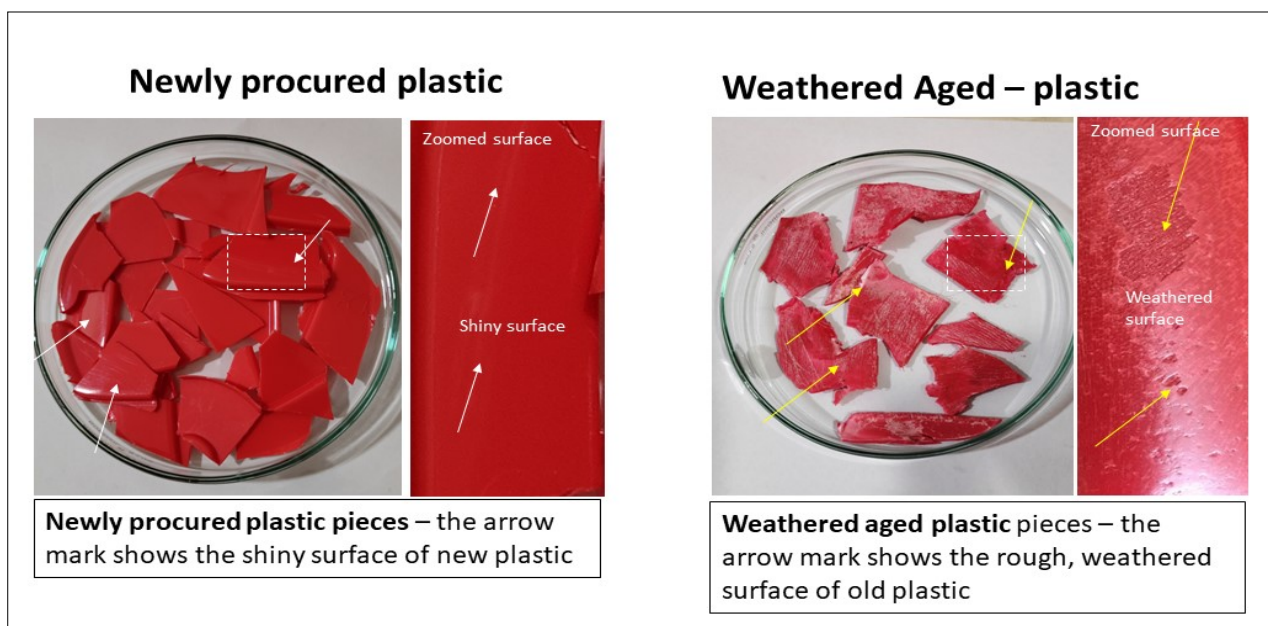


Fig 2:- The FESEM images shows that aged-PPNPs have an average size of **125.63 nm** and naturally weathered aged-NP-PPNPs have an average size of **140.21 nm**.

