

Oct 23, 2019

## Microplastic SEM Sample Prep

 Forked from [SEM Sample Prep](#)

DOI

[dx.doi.org/10.17504/protocols.io.uy8exzw](https://dx.doi.org/10.17504/protocols.io.uy8exzw)

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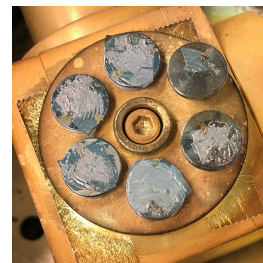
Environmental Microbiol...

1 more workspace



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**Protocol Citation:** Melissa B Duhaime, Rachel Cable 2019. Microplastic SEM Sample Prep. **protocols.io**  
<https://dx.doi.org/10.17504/protocols.io.uy8exzw>

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**Protocol status:** Working

**We use this protocol and it's working**

**Created:** October 24, 2018


**Last Modified:** October 23, 2019

**Protocol Integer ID:** 17152

## Sample Dehydration

1 Fill a petri dish with enough PBS to submerge your microplastic sample. Rinse the plastic in the PBS bath to remove loosely associated debris.

2 Next, create similar baths of ethanol or HMDS, as indicated below.

Submerge each piece of plastic in the bath, let incubate in solution for  00:15:00

Washes:

1. 25% ETOH
2. 50% ETOH
3. 70% ETOH
4. 95% ETOH
5. 100% ETOH
6. 100% ETOH
7. 2 ETOH: 1 HMDS
8. 1 ETOH: 1 HMDS
9. 1 HMDS

## Drying

3 Air-dry the dehydrated samples overnight in desiccator underneath a fume hood.

 12:00:00 overnight

## Affix

4 Affix plastic to double-side carbon tape on aluminum stud.

Draw a strap of carbon paint from stud base to top of plastic. Dry overnight in desiccator.

 12:00:00 overnight

## Microscopy

5 The next day, sputter-coat plastic sample with heavy metal.

6 Image sample under scanning electron microscope as soon as possible following sputter-coating.



Note

Samples keep for a maximum of 2 weeks after prep.