

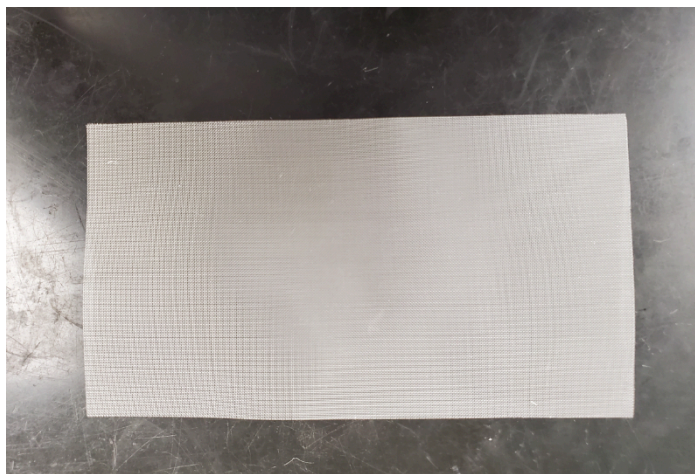
Solid Phase Adsorption Toxin Tracking (SPATT) Bag Construction Protocol

Supplies Required

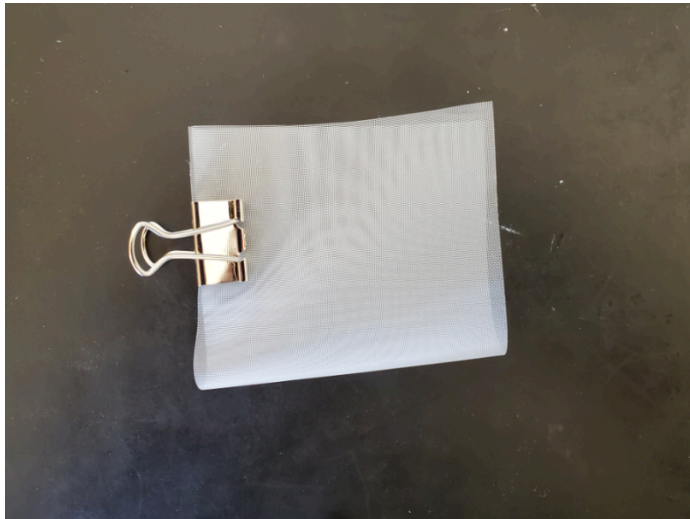
- Nitex mesh bolting cloth (100 μ m pore size)
(e.g., <https://shop.sciencefirst.com/wildco/nitex-bolting-cloth/6412-nitex-bolting-cloth-nitex-100m.html>)
- Diaion Resin (HP20)
- (e.g., <https://www.sigmaaldrich.com/US/en/substance/diaionhp20123459052953>)
- Impulse sealer (5 mm) (e.g., KF-300H)
- Digital weigh scale
- Fabric shears
- Mylar pouches (3" x 5")
- Methanol (80% v/v)
- Deionized water

Protocol

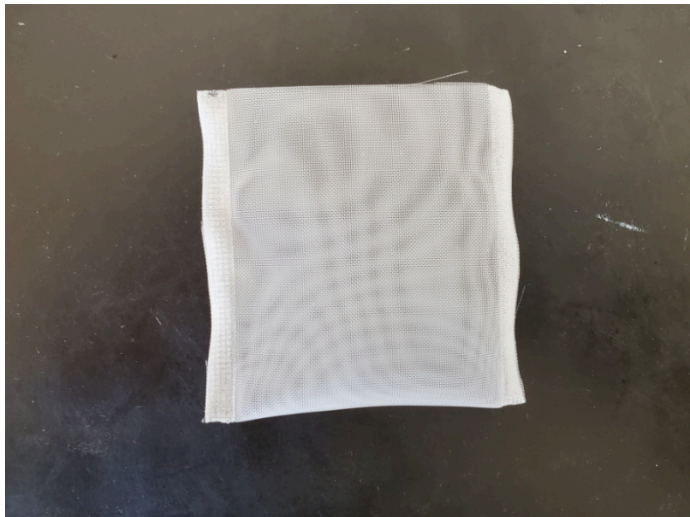
1. Cut the nitex bolting cloth into rectangles measuring approximately 5" L x 3" W.



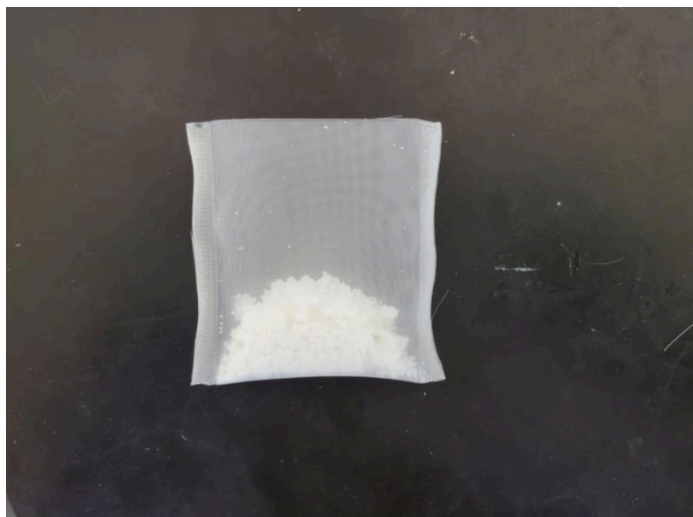
2. Fold the rectangle in half to form a square, then using the impulse sealer fuse the fabric together. Adjust the power settings until a good seal is formed. It may be necessary to press the impulse sealer against each side of the seal. Repeat on the other side of the fabric to create a pouch with the top open.



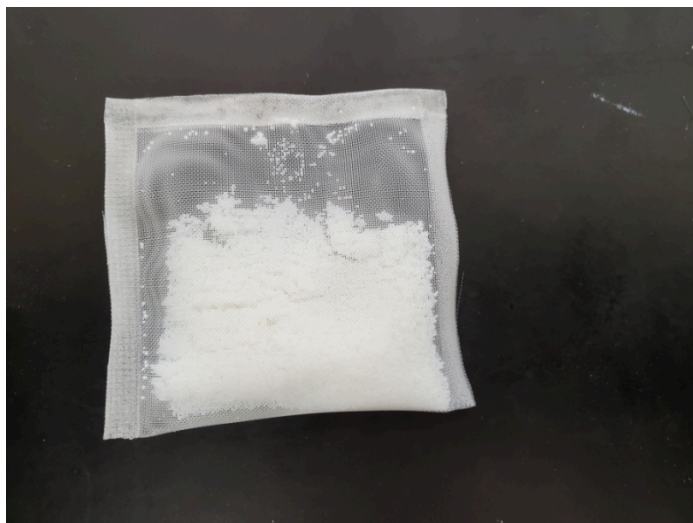
3. Using fabric shears trim off the remaining fabric outside of the seal lines on the bag.



4. Measure out 3 grams of resin and pour it into one of the pouches.



5. Seal the top of the pouch with the impulse sealer and trim the extra fabric.



6. Soak the bag in 80% methanol for 24 hours. This will remove any compounds that may have already adsorbed to the resin.

7. Remove the pouches from the methanol and rinse well in DI water to remove any residual methanol. Inspect the bags closely for any leakage from malformed seals. Leaking bags should be discarded.

8. Place each SPATT bag into mylar pouches and add ~10 mL of DI water. Then close the pouch and heat seal it with the impulse sealer.

9. Store the bags cool (4-10°C) for up to one year.

