



Feb 25, 2022

# Setting up a new algal chemostat protocol

Rebecca Bilich<sup>1</sup>, Meghan Duffy<sup>1</sup><sup>1</sup>University of Michigan - Ann Arbor

1



document .

Duffy Lab, EEB, University of Michigan



kmonell

This is a protocol used to set up a new algal chemostat.

Rebecca Bilich, Meghan Duffy 2022. Setting up a new algal chemostat protocol.

**protocols.io**<https://protocols.io/view/setting-up-a-new-algal-chemostat-protocol-b5mzq476>

document ,

Feb 25, 2022

Feb 25, 2022

58777

This is a protocol used to set up a new algal chemostat.

## Setting up a new algal chemostat protocol

By Rebecca Bilich 3/2/21

Assemble the chemostat:

1 5 L capacity glass bottle with spigot for egress and tubing attached, 1 silicon stopper with two drill holes for 2 glass tubes, one longer and one shorter, stir bar inside.

Put tin foil over the three tubes that are open to the air, attach autoclave tape to the bottle and place it in an autoclavable container.

Autoclave at 122 degrees C for at least 20 minutes at the high temperature – the 'gravity' settings on the autoclaves are good for this. Check that black lines have appeared on tape.

Attach short glass tube to Caceres Media, long glass tube to air pump. Let about 1500 mL of media flow in to chemostat and add 1.5 mL of vitamins via syringe into the tube that the media flows through, while it is flowing. Add 50-100 mL of algae (depending on the density) from another chemostat to a beaker – quickly remove the stopper for a moment and pour into chemostat, replace stopper.

Get the stir bar going at 400 rpm, turn on the aquarium lights, expect to see growth in 3-4 days