

QUICK PROTOCOL

For analyzing air samples

Mycometer air Allergen (MAA)

The spreadsheet and video guides can be found on www.mycometer.com under Customer Login. Calibrate your fluorometer before proceeding. Turn this page for instructions.

<p>1. Place the samples in a rack. Take the MAA chemistry out of the refrigerator. For each sample place one Activator in the rack in front of the sample filter. Take out one Developer (cuvette with inserted tube) for each sample and place it in the front row of the rack.</p>
<p>2. Remove the lid from the Activator for each sample. Use a sterile one ml syringe to withdraw 1 ml of Substrate from the glass vial and add it to the Activator. Screw the lid on and shake to mix. The Substrate is now activated.</p>
<p>3. Allow all the chemistry to equilibrate to room temperature before proceeding. This typically takes around 20-30 min. Put the chemistry box back in the refrigerator</p>
<p>4. Open the Mycometer Air Allergen spreadsheet. Fill out everything on the “Air Allergen analysis” tab. Set the timer to the calculated reaction time.</p>
<p>5. Remove the lids from each filter(s). The filter(s) should always be kept in an upright position. Attach a pipette tip on the purple one ml pipette and use it to add 1 ml of the activated Substrate to the filter. Use a new tip for each sample. Continue until this has been done to all the sample filters and then start the timer. The reaction has now started. Make sure that all filters are covered by the Substrate solution before gently putting the lids back on the filter.</p>
<p>6. Determine a blank value for each sample. Pour the contents of a Developer tube (clear lid) into the remaining activated Substrate left in the Activator tube. Pour the combined solution (now 3 ml) into a cuvette and measure the fluorescence in the fluorometer. Note the measured value as the blank value in the “Air Allergen data” tab in the spreadsheet. Repeat for all samples. Discard the cuvettes when all blank values are read. Retrieve a new Developer for each sample and place it in the front of the rack. Put the chemistry box back in the refrigerator.</p>
<p>7. As soon as the timer signals, remove the lids from the filters and pour 2 ml Developer into each of the filters. Remove the blue stopper from the lids and put the lids loosely back on the filters.</p>
<p>8. Take the filter out of the rack and press the lid firmly on the filter. Fill a 10 ml syringe* with air. Place the tip of the syringe into the hole of the lid. Remove the red stopper from the bottom of the filter cassette and place the opening into the corresponding cuvette. Slowly press the plunger of the syringe allowing the reaction solution in the filter cassette to be collected in the cuvette. Press and pull the plunger up and down 4-5 times until all the reaction solution has been pushed out of the filter. The liquid should be 4-5 mm (0.157-0.187 inches) above the edge of the rack. Repeat for all samples.</p>
<p>*The 10 ml syringe does not need to be sterile and can be used many times.</p>
<p>9. Read the fluorescence of the cuvette in the fluorometer and note the value as analysis value (AV) in the “Air Allergen data” tab. Check that all information has been filled out in the “Air Allergen results” tab. The results are then ready to print.</p>

Calibration of the fluorometer

1. For calibration, you need the black cuvette and a fluorescence **Standard** (red cap). Remove the cap and pour the fluorescence **Standard** into the cuvette in which it was inserted.
2. Turn ON the instrument. The display should show UV and 0.
3. Press CAL and then ENTER. Insert the black cuvette and press ENTER again.
4. Insert cuvette with the fluorescence **Standard** and press ENTER. The display will say "Calibration" completed push ENTER". Press ENTER. If done too slow the display will say "Abort calibration?" push the DOWN ARROW for no.
5. Verify the calibration by pushing READ, while the fluorescence **Standard** is still inserted in the fluorometer. The measured value should not deviate from the value and limits that can be read on the backside of the instrument. Note the value in the relevant analysis sheet (Fungi, Allergen or FAI), as the measured standard value.