Contact Angle Goniometer Quick User's Guide

Updated 11/06/2018

Start up

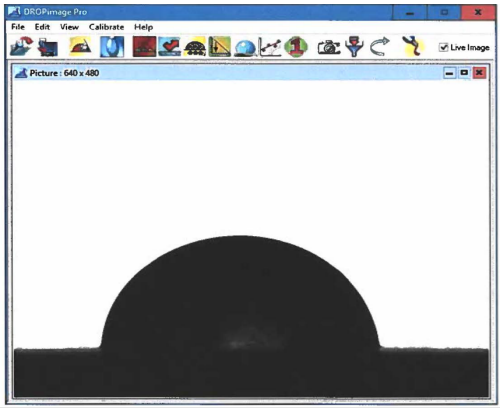

Figure 1 Main DropImage widnow.

1. Sign up in the logbook.
2. Remove the cover on the instrument and start the computer.
3. Make sure the instrument is level.
4. Remove the syringe and needle and clean both carefully in DI water. It is recommended that if you want to use different liquids you purchase your own Gilmont GS-1200 syring.
5. Turn on the fiber optic light for the goniometer to about 12:00 .
6. Start DropImage software, you should see a live image if not check the Live Image box in the top right of the image, Figure 1.
7. Use a level to make the stage level (knobs D), Figure 2.
8. Mark the edge of a glass slide with a marking pen and place it on the platform.
9. Use knob A to adjust the focus so you can see the edge of the slide.
10. If the stage is at the wrong height: Adjust the height either with the Adjustment Ring or if you need to adjust it more than the ring allows hold on to the stage with your hand and loosen screw E and move the stage so that it is in the light path.

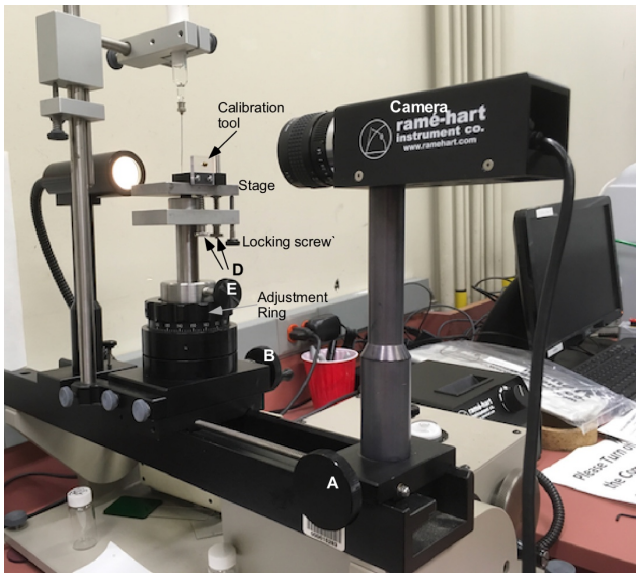

Figure 2 Rame Hart Contact Angle Goniometer

11. Put your solvent in the syringe.
12. Move the syringe so that the needle almost touches the slide.

13. Align the mark on the edge of the glass slide with the syringe needle.
14. Focus the camera with knob A. Turn the light up if you need to.
15. Open the Contact Angle window, if it not already open.
16. Select the liquid and solid phases from the pull-down boxes in the upper part of the window. If the solid or liquid you want to measure is not in the list, new items may be added by pressing the corresponding Add button. They may also be added and edited by the Phase Editor.
17. Enter a Run Name. If you want to use the results in the Solid Liquid Liquid tool, the Run Name box should contain the name of the external phase.
18. Select the Setup menu. The Contact Angle Setup dialog appears. From this dialog you can set the baseline and the black and white intensities that affect the contrast (also available from the View Menu).
19. Select the Options menu. The Contact Angle Options dialog appears. Select the options you want, and close the Options menu. Options will be kept between experiments.
20. Click the Start button. The crosshairs cursor lines appear.
21. If you want to use the Red-line, place the line by Ctrl + Left mouse button.
22. Focus on the drop, and adjust the Left and/or Right vertical cursors by the mouse, holding down the left or right mouse button, respectively.
23. Press Measure. One or more measurements are taken, according to your Options. The result(s) appear in the Stored Results table.
24. Repeat Measure as many times as you wish.
25. When finished, press Stop (same as the Start button). The crosshair cursor lines disappear.
26. You can Start and Stop as many times as you wish.
27. Save the Contact Angle file by selecting Save As on the File menu.
28. You may want to save the data in a text file, by selecting Make Log on the File Menu.

Finish up

1. Exit the software.
2. Remove solvent from the syringe and clean the syringe.
3. Clean the stage.
4. Turn off the illuminator.
5. Shut down the computer.