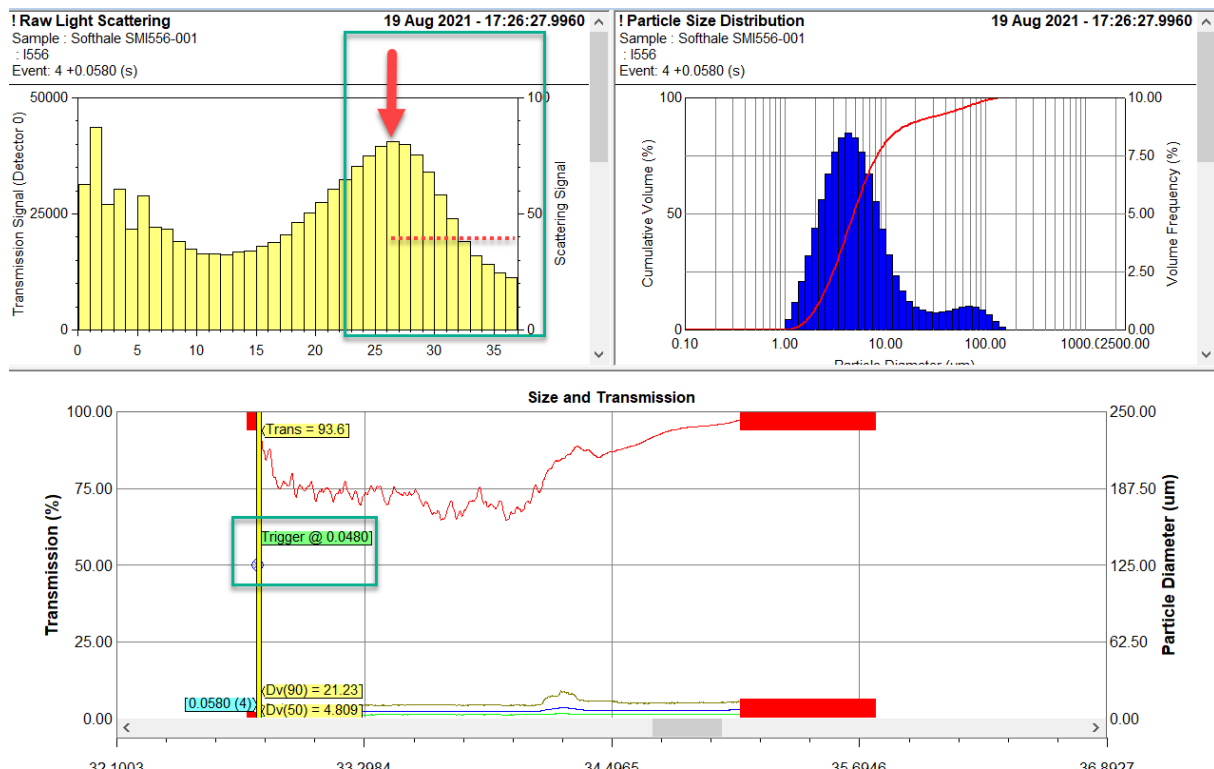


### Set trigger dilute spray

The spray will be passing through the laser and scattering some light, however the measurement is not triggering. This is because the spray is actually quite dilute and the transmission of the laser is not dropping to the level specified for the measurement trigger – set in this part of the SOP below:

The screenshot shows the 'SOP Editor' window. On the left is a tree view with the following items: SOP Type, Documentation, Hardware, Measurement, Rapid (highlighted in blue), Background alarms, Analysis, and Output. The main area contains three sections: 'Events' with 'Number' set to 6 and 'Duration per event' set to 3.0000 s; 'Measurement trigger' (highlighted with a red box) with 'Trigger type' set to 'Transmission drops to level' and 'Transmission' set to 95; and 'Data collection' with 'Start' set to 50.0 ms and 'Before the trigger' selected. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

If a measurement does not trigger with a transmission trigger of 95%, we recommend using a scattering trigger instead, as this is much more robust when working with dilute sprays. To find out what scattering trigger you need to use, first make a measurement with a transmission trigger set over 95% (you can go up to 99%) so that you can trigger the measurement and collect some scattering data. Then refer to the raw scattering data and find the detector that has the highest scattering signal at the trigger point.



You can then set the scattering trigger to work for that detector when a signal of about half the level seen in the data is reached.

The image shows the "SOP Editor -" window, specifically the "Measurement trigger" configuration section. The window has a sidebar on the left with a tree view containing "SOP Type", "Documentation", "Hardware", "Measurement", "Rapid", "Background alarms", "Analysis", and "Output".

The "Measurement trigger" section is highlighted with a green box and contains the following settings:

- Trigger type:** Scattering increases to level on detector (dropdown menu)
- Level:** 40 (spin box)
- Detector:** 26 (spin box)

Below the "Measurement trigger" section is the "Data collection" section, which includes:

- Start:** 50.0 (spin box)
- Unit:** ms (dropdown menu)
- Trigger:** Before the trigger (dropdown menu)

At the bottom of the window are three buttons: "OK", "Cancel", and "Help".

