

WVU SRF MFCF

J.A. Woollam M-2000 White Light Ellipsometer Troubleshooting Guide

Problem	Possible Causes	Solution
No display on angle micrometer	Micrometer off	Turn on the display by pressing the “mm/in” button
	Battery dies	Contact MFCF staff for battery replacement
No vacuum suction on the stage	Vacuum pump off	Turn on the orange color vacuum pump
	Vacuum switch off	Set the Vent/Vacuum switch at the bottom of the instrument to Vacuum
Extremely low signal intensity during alignment	Stage height too high or too low	Adjust the height adjustment micrometer to maximize the intensity
Light spot far off detector center	Stage misaligned	Adjust the X, Y tilt knobs to center the spot
	Stage height too high or too low	Adjust the height adjustment micrometer to maximize the intensity
Light spot off stage center	Stage off-centered	Reinitialize the stage by selecting <i>Move>Translator</i> in Hardware menu and clicking on <i>Home Stages</i> button.
	Stage height too high or too low	Adjust the height adjustment micrometer to maximize the intensity
Gain value over 10 during alignment	System is misaligned	Contact MFCF staff for help
Cannot decide the proper angle of measurement		Calculate the Brewster’s angle of the sample: $\arctan(n_{\text{sample}}/n_{\text{air}})$. Perform measurement at three angles near the Brewster’s angle.

