

Square Root Mode with Scion Instruments Pulsed Flame Photometric Detector (PFPD)

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The Scion Instruments Pulsed Flame Photometric Detector in sulfur mode generates a signal related to concentration by a quadratic relationship. Built into the Varian 3800, Bruker 450, Scion 436/456 and Scion 8300/8500 is a user parameter to execute a square root of the signal. When the signal approaches zero, noise dramatically increases due to the square root computation, as shown in Figure 2. If autozero is disabled, then the baseline noise becomes more appropriate.

Note: The amount the signal is altered by "autozero" is not automatically reset for subsequent runs. "Clear Autozero" must be executed manually prior to the start of a series of runs.

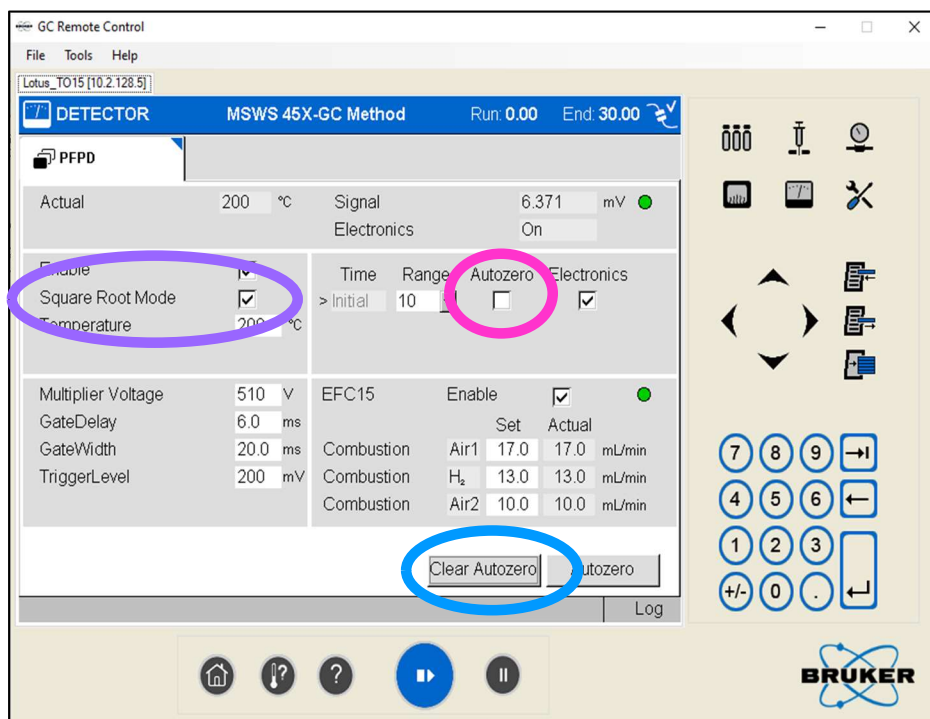


Figure 1. User Interface showing parameters needed for Square Root Mode.

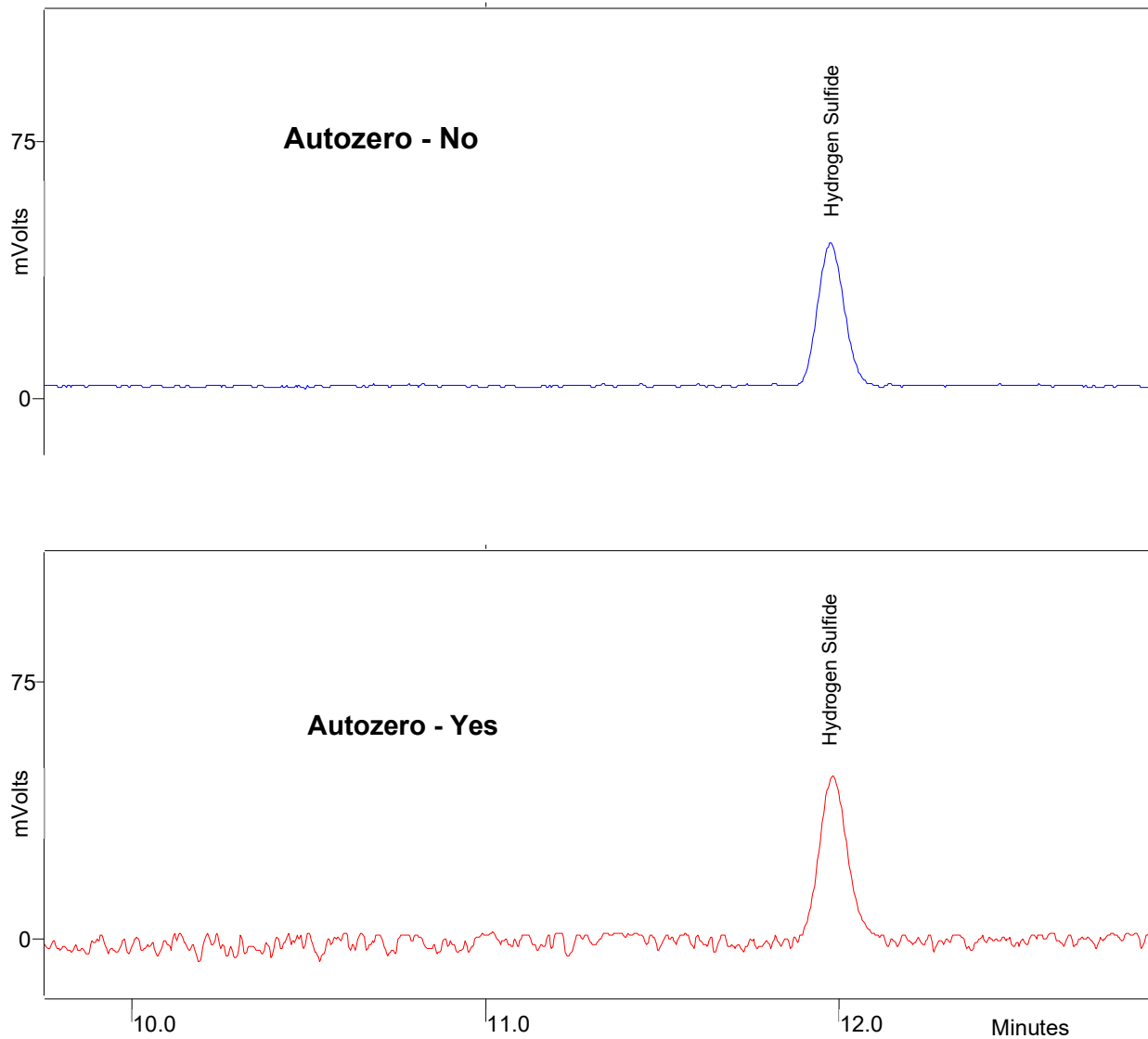


Figure 2. Chromatograms of Hydrogen Sulfide (2ml of 73.6 ppb), with and without autozero.

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