

# **Thermo 5030/5030i Mass Coefficient Calibration**

Under the Foil Calibration section of the Calibration Menu, you are prompted to perform the mass foil calibration procedure. This includes using the Zero foil to set the initial Beta count (just like advancing to a new filter spot). You are then prompted to insert one of the two Span foils, which has a known mass greater than the Zero foil. After stabilization, a new mass coefficient is calculated. It is important to realize that this number should be used as a verification of the factory set coefficient and not changed without careful consideration.

The calculated mass coefficient should be 7000 +/- 2%, or roughly 6850 to 7150. A number outside of this range should be treated with suspicion. If that happens, a repeat of the mass foil calibration is recommended. If a mass coefficient outside the range is calculated again, then a new foil calibration kit should be tried. If a further invalid coefficient is calculated, then CD Nova should be contacted.

There are several factors which could cause the calculation of an invalid mass coefficient. To start with, the instrument should be turned on and allowed to stabilize for 24 hours before the foil calibration. Also, it should be realized that the Zero and Span foils are part of a matched set and should not be interchanged with foils from another kit. Finally, the foils are quite delicate, and care should be made not to touch them or drop them. A tiny scratch or speck of dirt could invalidate the foils.