

# Gas sealed degree test of septa by GC-FID

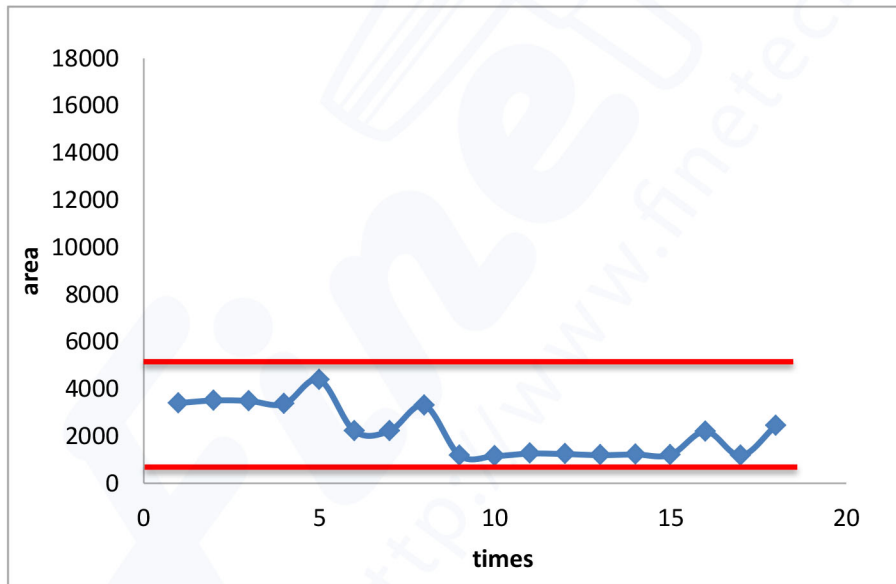
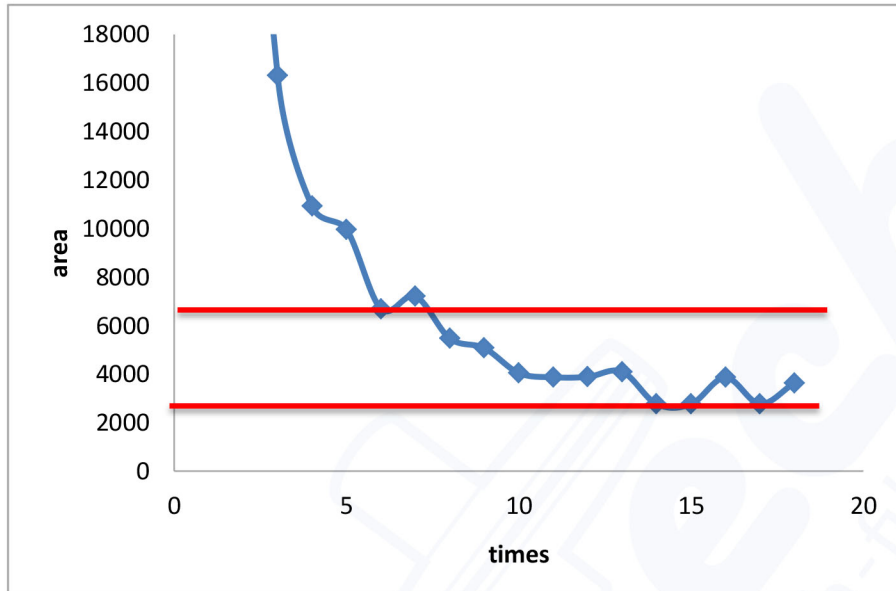
## Experimental goal

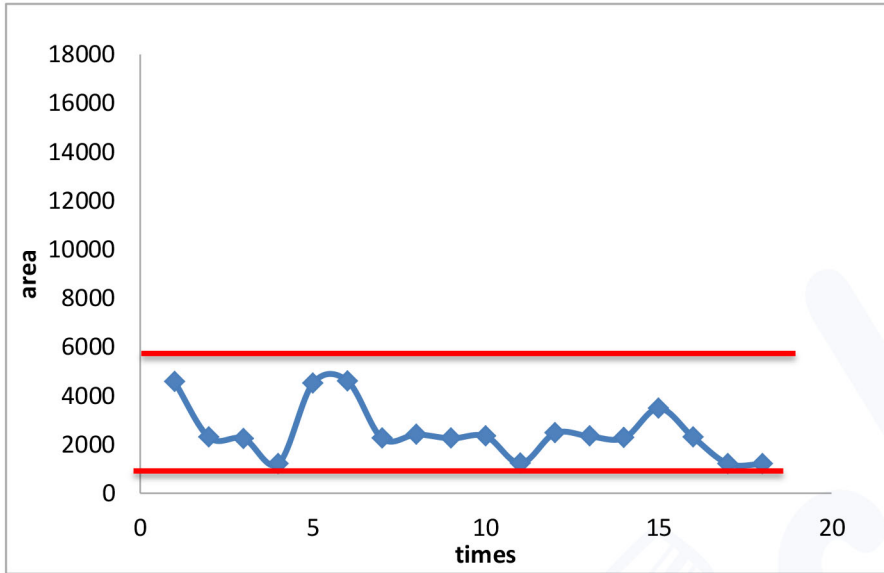
Gas sealed degree test of septa by repeatedly used.

Experimental Condition	
Column	BR-5ms FS 15 m x 0.25 mm ID x 0.25 $\mu$ m
Detection	FID
H <sub>2</sub> flow	30 ml/min
Air flow	400 ml/min
Makeup flow	29 ml/min (He)
Injection size	1.0 $\mu$ L
Injection temperature	250°C
Column oven	50°C hold for 3 minutes, 50-100°C@ 25°C/min, 100-300°C@ 10°C/min, , 300-350°C@ 25°C/min (hold for minutes)
Pressure	25 psi for 27 minutes, 50 psi from 27-31 minutes

## Experimental results

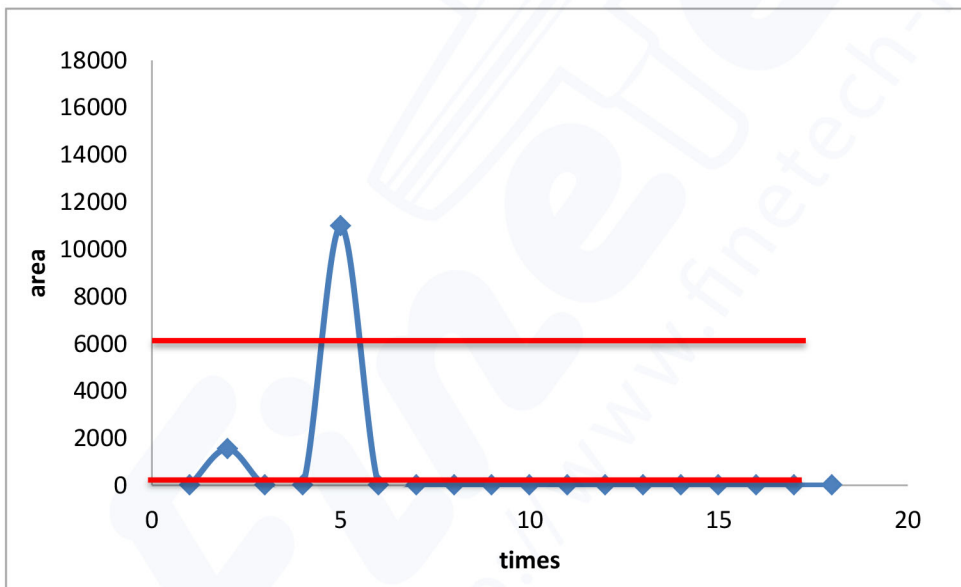
Finetech Triplicate experiments (n = 18)

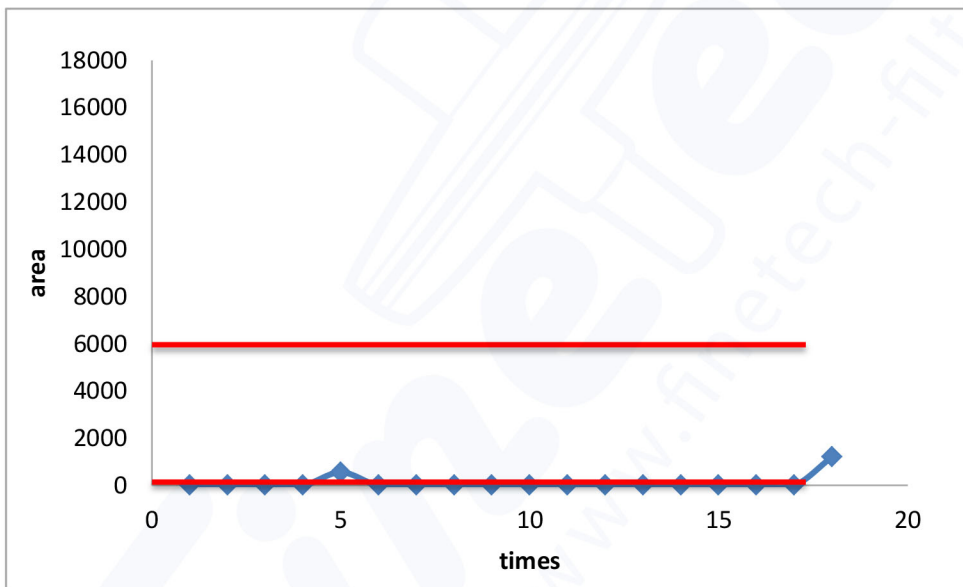
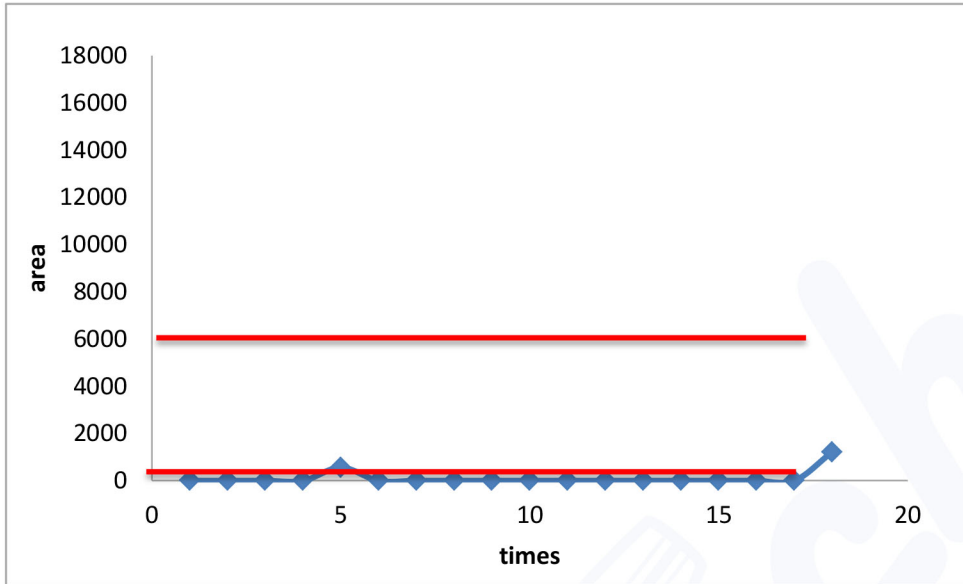




Note :area = total area - Solvent area

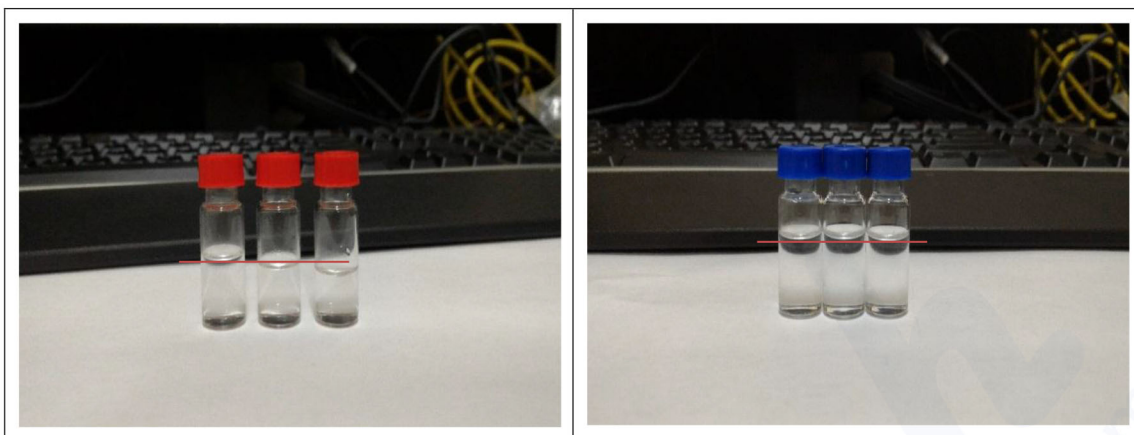
Brand A Triplicate experiments (18 times - the area of the plot))



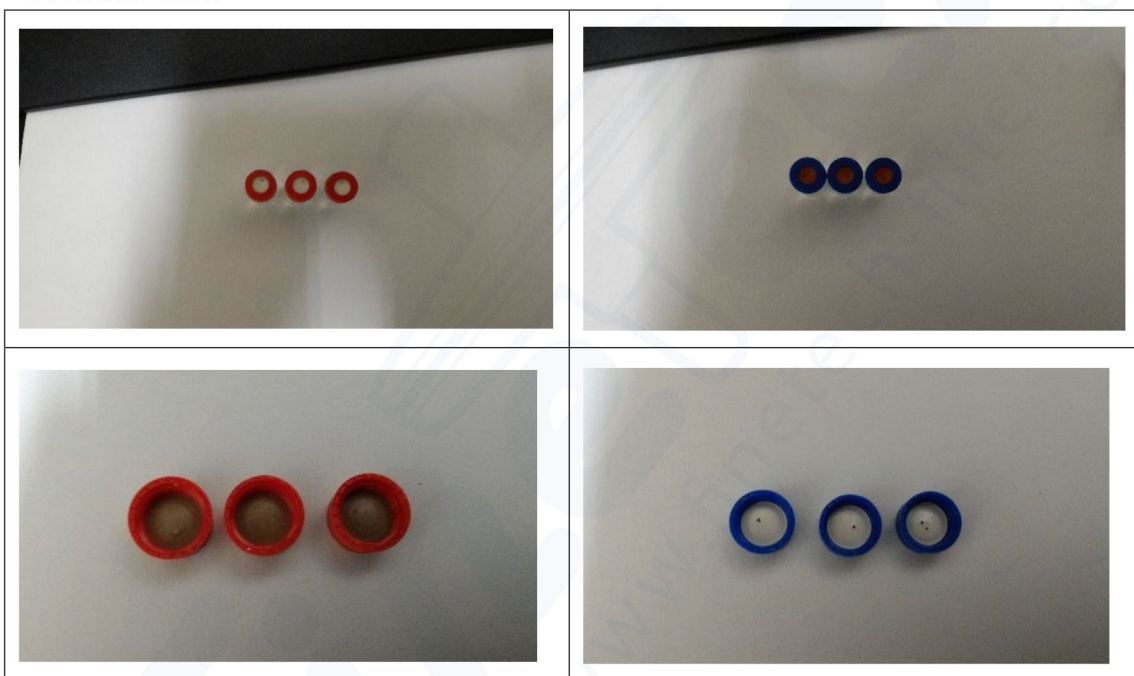


Note :area = total area - Solvent area

### Side view



### Vertical view



NOTE: Blue Brand A (left), Red Finetech (right)

### Summary

The peak area values throughout the test ( $n = 18$ ) showed normal variation and did not illustrate a significant loss which would indicate septum failure (RSD 99.99 - 100%). Overall, testing showed that the gas sealed degree of Finetech septum continued to perform well to 18 injections. This data suggests that the Finetech may last even longer.