

Bleed test of septa using GC Fixed Syringes

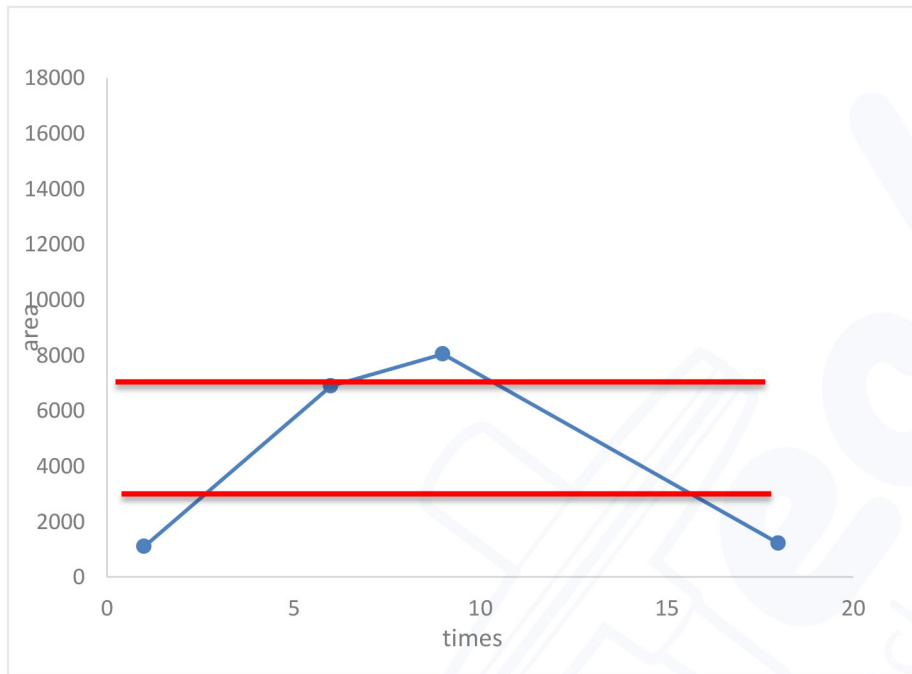
Experimental goal

Bleed test of septa by using GC Fixed Syringes.

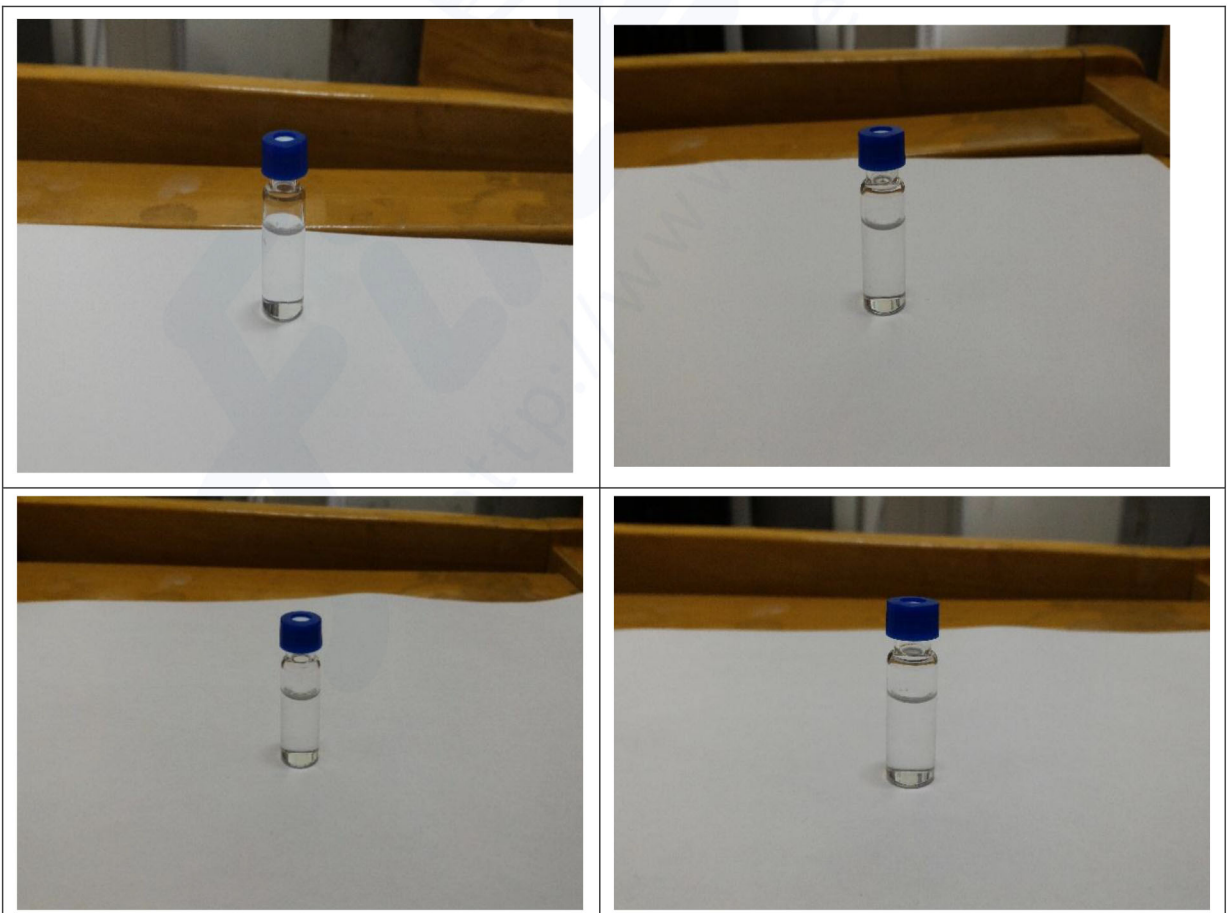
Experimental Condition	
Column	BR-5ms FS 15 m x 0.25 mm ID x 0.25 μ m
Detection	FID
H ₂ flow	30 ml/min
Air flow	400 ml/min
Makeup flow	29 ml/min (He)
Injection size	1.0 μ L
Injection temperature	250°C
Column oven	50°C hold for 3 minutes, 50-100°C@ 25°C/min, 100-300°C@ 10°C/min, , 300-350°C@ 25°C/min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

Experimental results

Finetech experiments (n = 1.6.9.18)

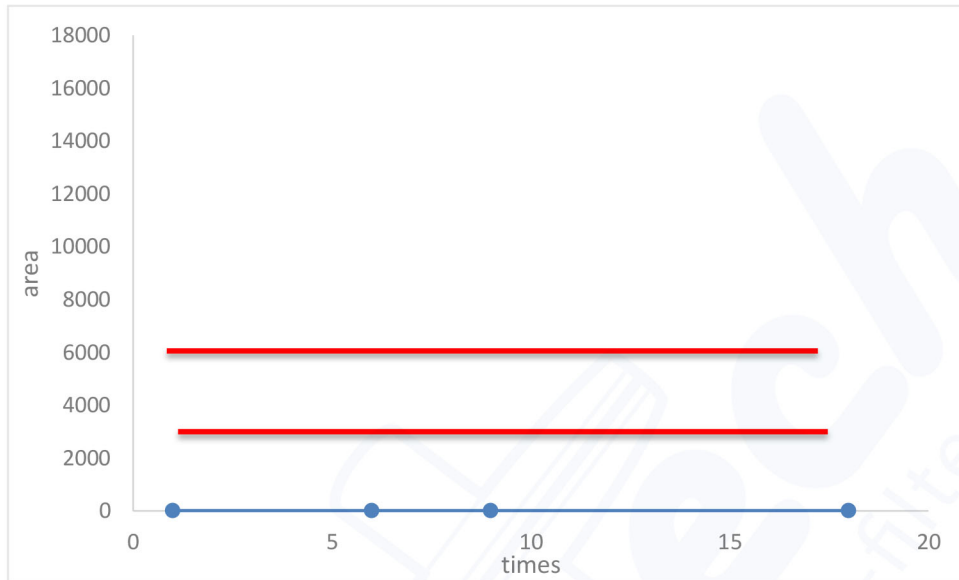


Note :area = total area - Solvent area

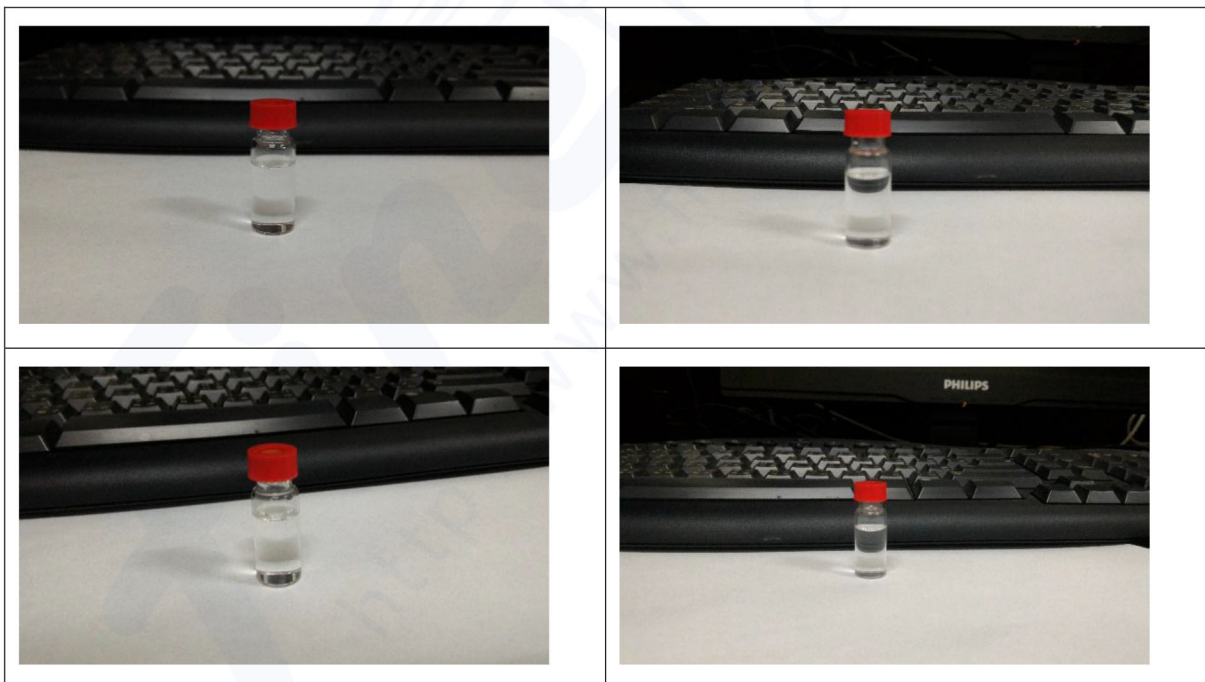


NOTE: Finetech (left upper)n=1, (right upper) n=6, (left down)n=9 (right upper) n=18
No broken cut Dropped ◦

Brand A experiments (n = 1.6.9.18)



Note :area = total area - Solvent area



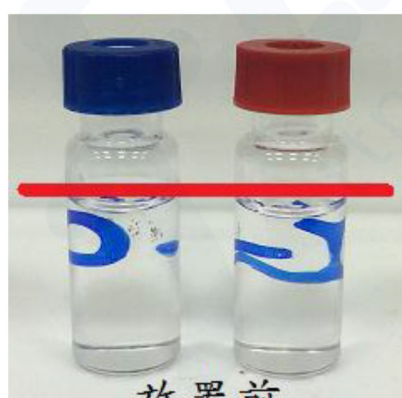
NOTE: Brand A (left upper)n=1, (right upper) n=6, (left down)n=9 (right upper) n=18
No broken cut Dropped ◦

Summary

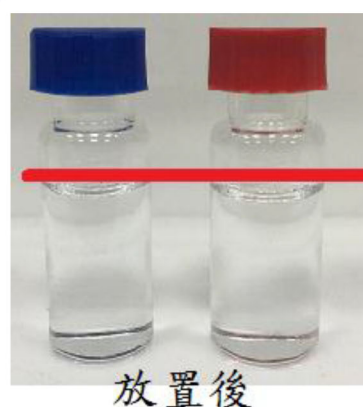
No bits and small pieces were observed after repeatedly used for 18 times. The signal noise for Finetech was also within the acceptable range without affecting the bleed results. After 24 hours, no obvious differences of liquid level in the sample vials by using septa of Finetech and Brand A brand were found, indicating good gas sealed degree for both septa.

Finetech times	1	6	9	18
Solvent area	60308572	56847956	60642896	64874788
total area	60309664	56854833	60650939	64876001
area	1092	6877	8043	1213

Brand A times	1	6	9	18
Solvent area	58001772	62900568	64380420	64436256
total area	58001772	62900568	64380420	64436256
area	0	0	0	0



Before



After

NOTE: Finetech(left) ; Brand A(right) , Pin 18 times the level difference after 24 hours