

pH test of septa by UV-Visible

Experimental goal

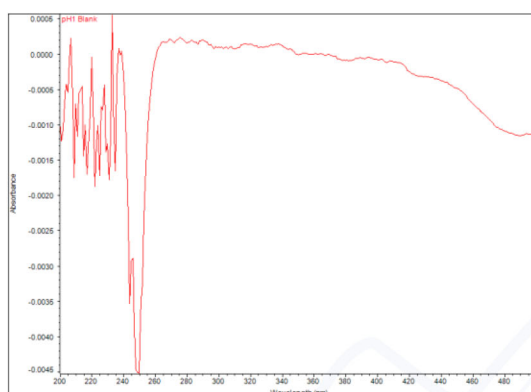
Bleed test of septa at the different pH values by UV-Visible detection.

Experimental Condition	
Instrument	EVOLUTION 220,UV-Visible Spectrophotometer
Wavelength	190 nm-500 nm
Integration time	0.05 sec
Solvent	Phosphate Buffer

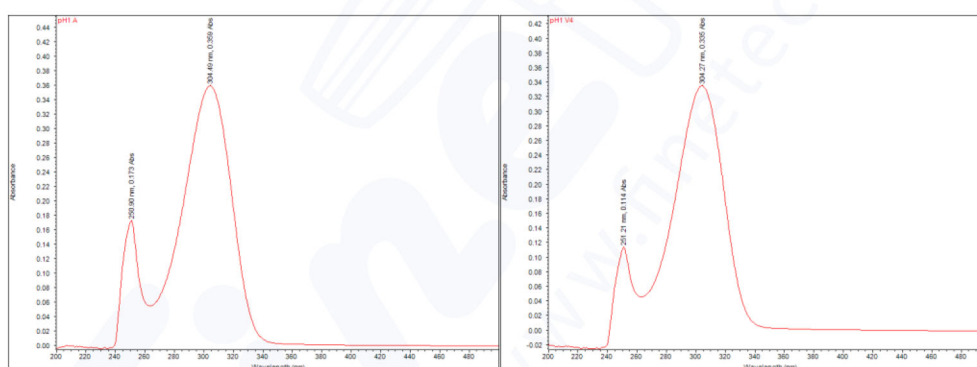
Experimental result

1. pH 1

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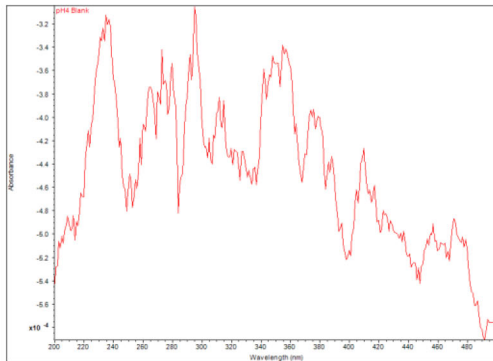
(left: Brand A , right: Finetech)



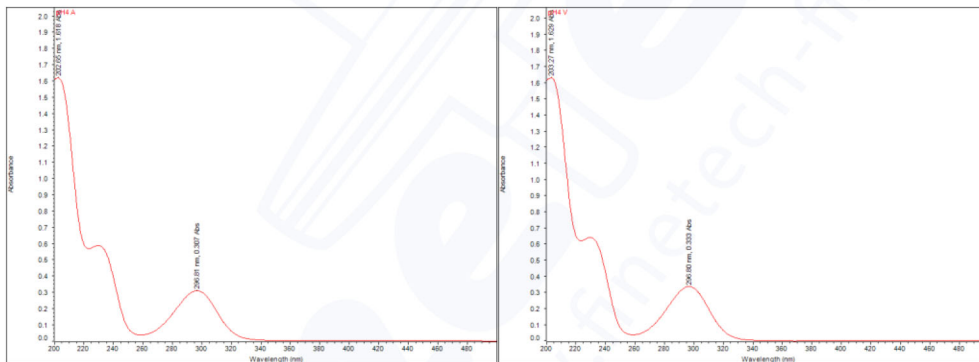
nm(BrandA)	Abs	nm(Finotech) 1	Abs
296.84	0.353	296.78	0.324
210.91	1.159	210.57	1.083
		nm(Finotech) 2	Abs
		296.79	0.323
		210.55	1.077
		nm(Finotech) 3	Abs
		296.78	0.323
		210.54	1.075
		nm(Finotech)	RSD%
		304.2	0.179
		241.2	0.386

2. pH 4

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(left: Brand A , right: Finetech)



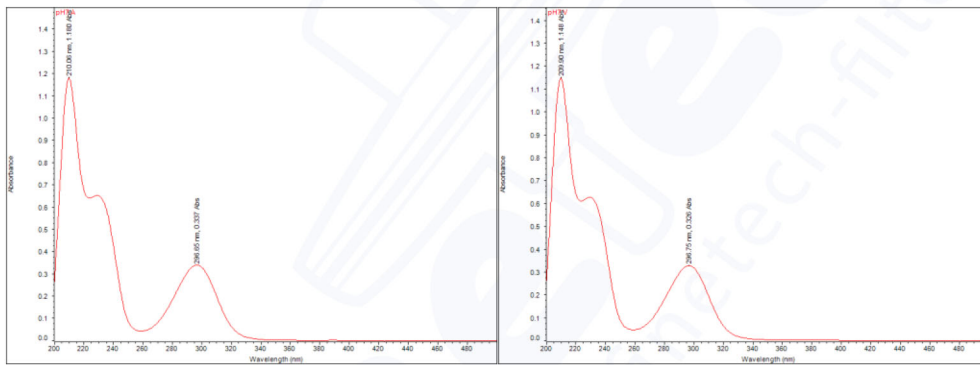
nm(BrandA)	Abs	nm(Finotech) 1	Abs
296.81	0.307	296.80	0.333
202.65	1.618	203.27	1.629
		nm(Finotech) 2	Abs
		296.78	0.330
		203.19	1.628
		nm(Finotech) 3	Abs
		296.79	0.329
		203.21	1.627
		nm(Finotech)	RSD%
		296.7	0.630
		203.2	0.061

3. pH 7

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(left: Brand A , right: Finetech)



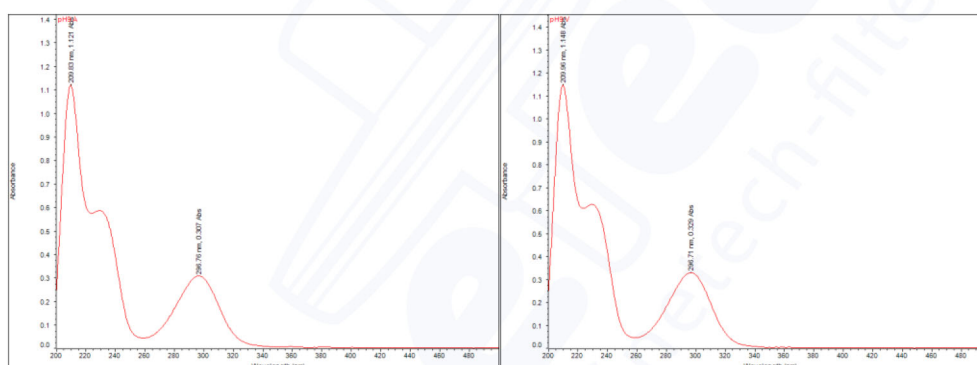
nm(BrandA)	Abs	nm(Finotech) 1	Abs
296.65	0.337	296.75	0.326
210.06	1.180	209.90	1.148
		nm(Finotech) 2	Abs
		296.66	0.322
		209.87	1.142
		nm(Finotech) 3	Abs
		296.63	0.322
		209.89	1.140
		nm(Finotech)	RSD%
		296.6	0.714
		209.8	0.364

4. pH 9

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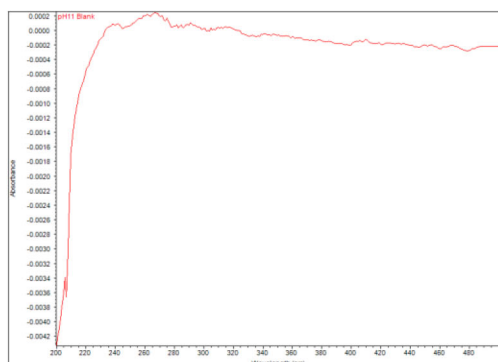
(left: Brand A , right: Finetech)



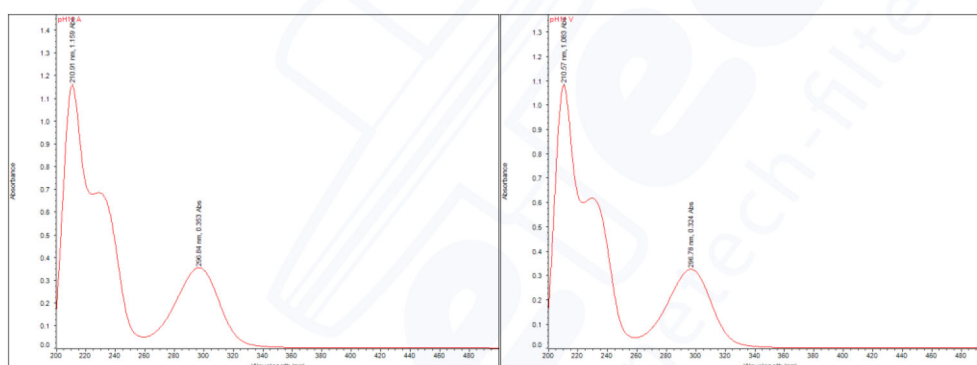
nm(BrandA)	Abs	nm(Finetech) 1	Abs
296.76	0.307	296.71	0.329
209.83	1.121	209.96	1.148
		nm(Finetech) 2	Abs
		296.64	0.327
		209.92	1.139
		nm(Finetech) 3	Abs
		296.69	0.325
		209.92	1.138
		nm(Finetech)	RSD%
		296.7	0.612
		209.9	0.482

5. pH 11

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(left: Brand A , right: Finetech)



nm(BrandA)	Abs	nm(Finetech) 1	Abs
296.84	0.353	296.78	0.324
210.91	1.159	210.57	1.083
		nm(Finetech) 2	Abs
		296.79	0.323
		210.55	1.077
		nm(Finetech) 3	Abs
		296.78	0.323
		210.54	1.057
		nm(Finetech)	RSD%
		296.7	0.179
		210.5	1.270

Summary

After 24 hours, the signal intensity of salicylic acids was not interference by extract from both septa. The RSD% of signal intensity for both septa were less than 1.2%. Use of this lower bleed materials reduces the potential for sample error caused by septa bleed and improve overall reliability in the phosphate buffer solution (pH 1.4-11.0) solvent condition.

pH 1			
nm(BrandA)	Abs	nm(Finetech)	Abs
296.84	0.353	296.78	0.324
210.91	1.159	210.57	1.083
pH 4			
nm(BrandA)	Abs	nm(Finetech)	Abs
296.81	0.307	296.80	0.333
202.65	1.618	203.27	1.629
pH 7			
nm(BrandA)	Abs	nm(Finetech)	Abs
296.65	0.337	296.75	0.326
210.06	1.180	209.90	1.148
pH 9			
nm(BrandA)	Abs	nm(Finetech)	Abs
296.76	0.307	296.71	0.329
209.83	1.121	209.96	1.148
pH 11			
nm(BrandA)	Abs	nm(Finetech)	Abs
296.84	0.353	296.78	0.324
210.91	1.159	210.57	1.083