

The progress of LAB optical purification by Al₂O₃ columns

Boxiang Yu on behalf of JUNO LS Group

2014/7/7

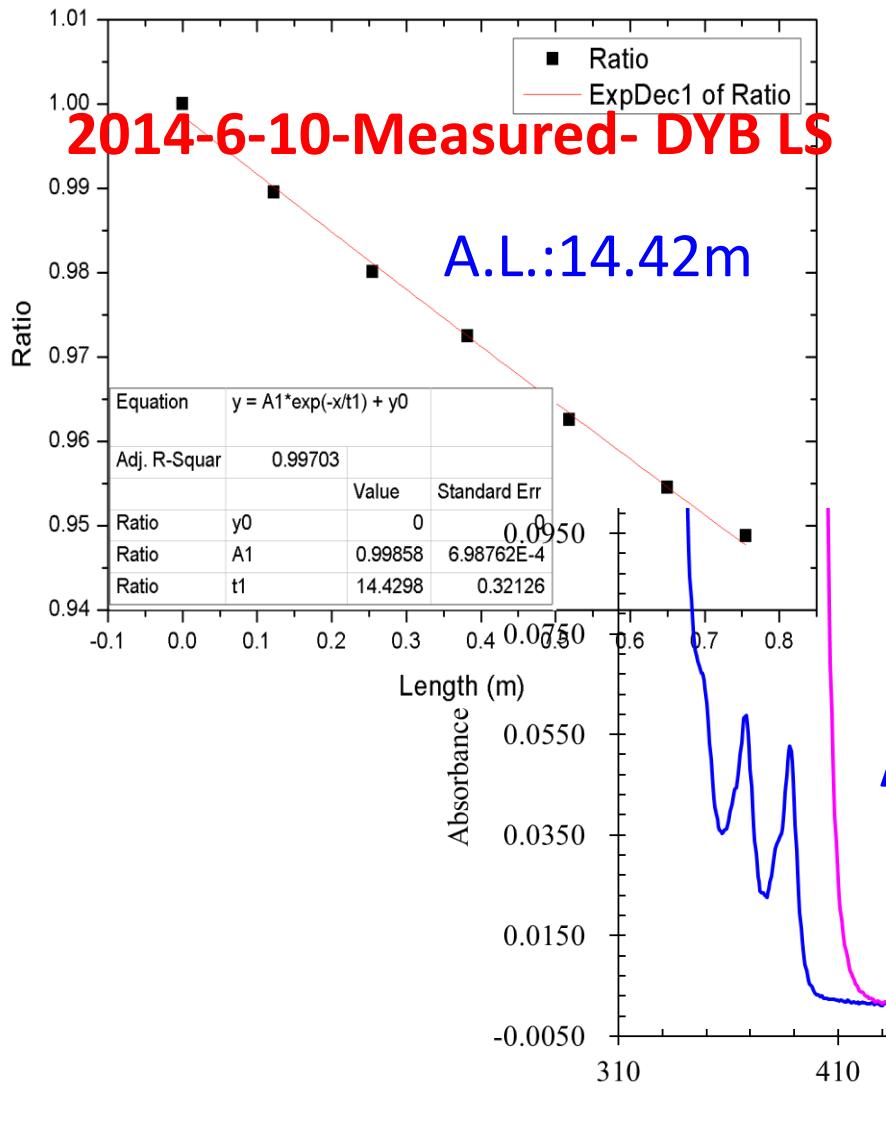
Content

- A new series experiment of LAB optical purification have been done;
- After purification, we measured the A.L. and absorption spectrum of purified LAB;

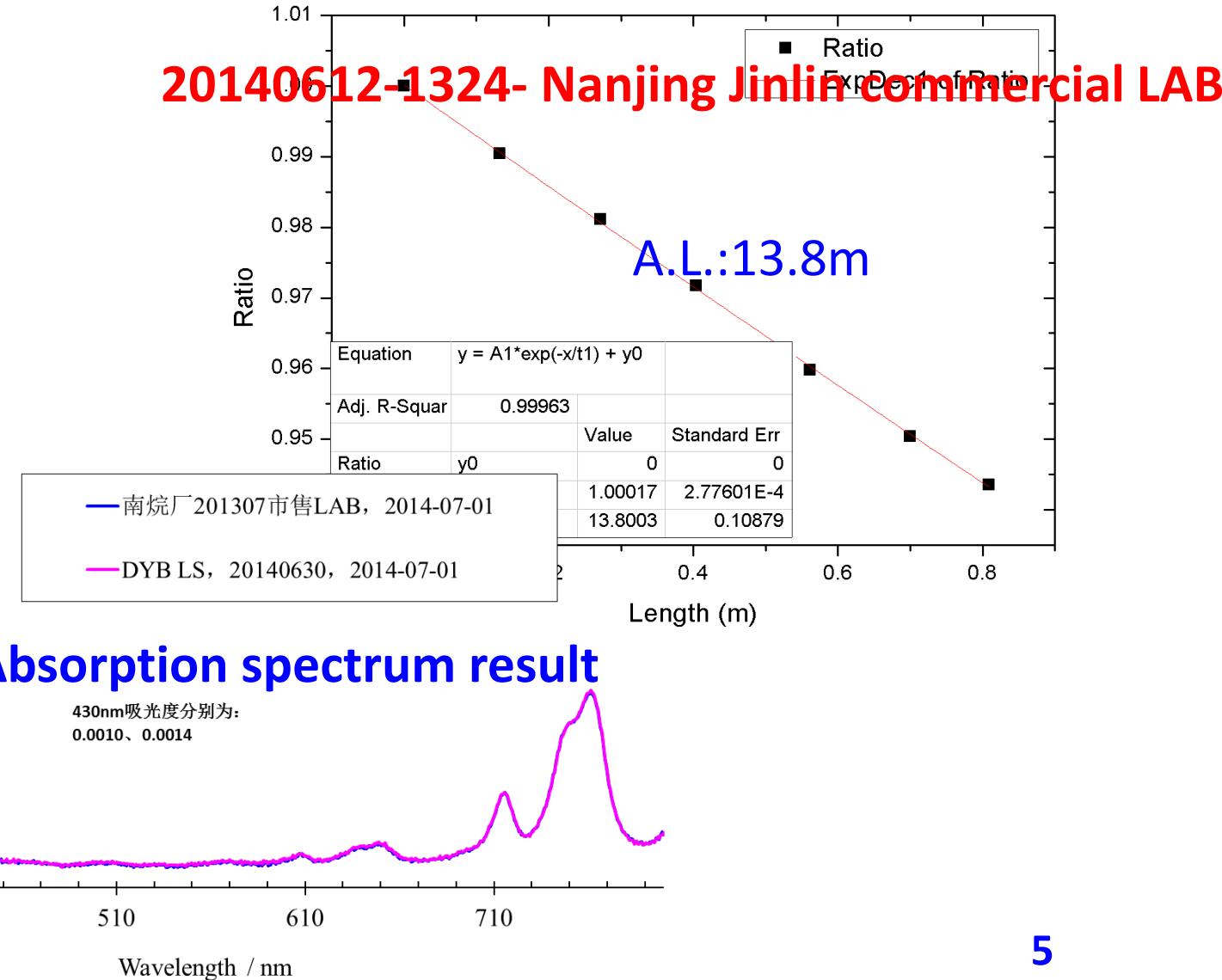
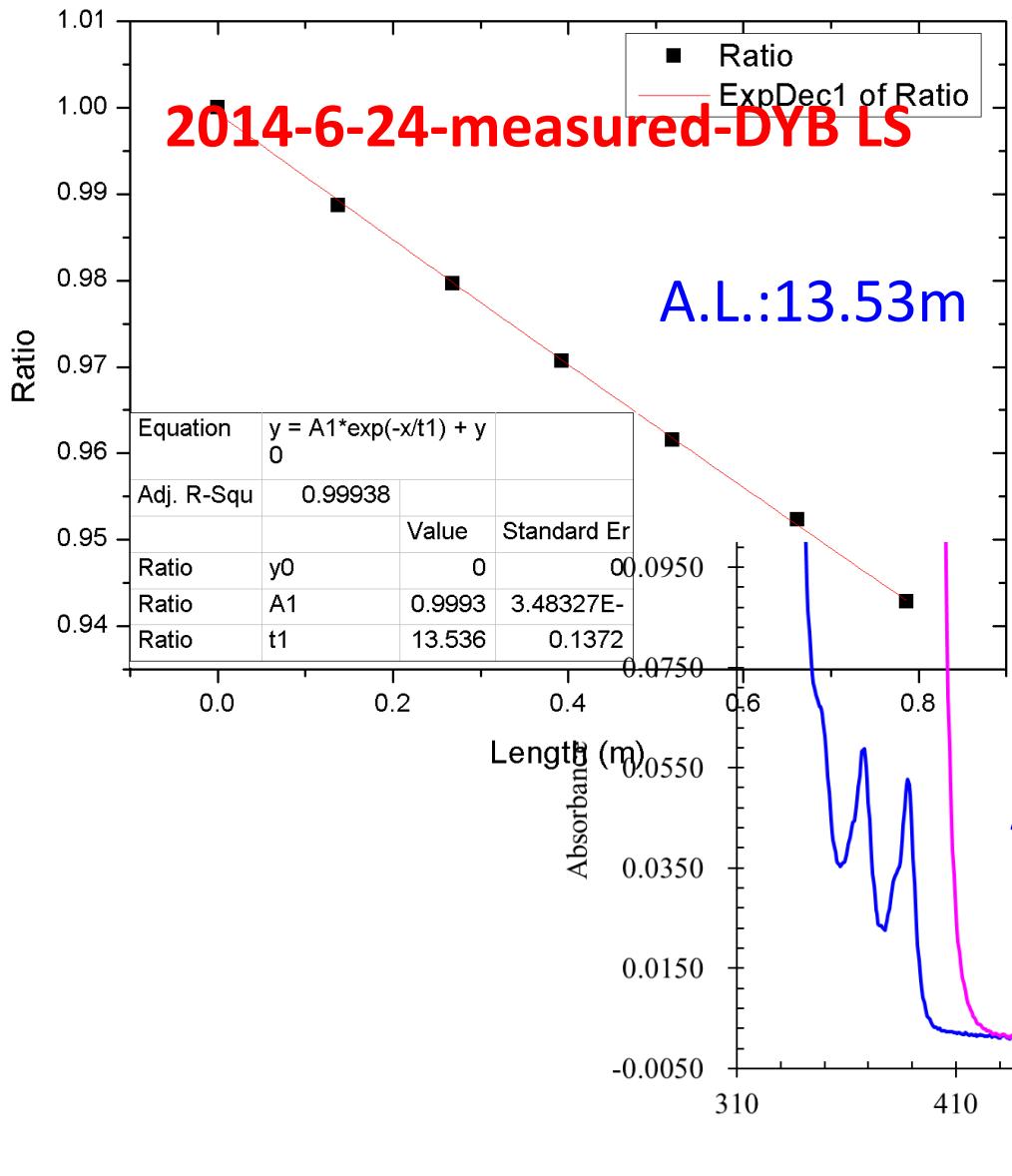


No.	Sample name (A.L.按如下顺序测量)	A.L.@430nm	Abs@430nm
1	Nanjin Jinlin comercial LAB (201307)	13.5 ± 0.2 m	0.0010
2	DYB LS	14.4 ± 0.3 m	0.0014
3	Nanjin Jinlin comercial LAB (201307)	13.8 ± 0.1 m	
4	DYB LS	13.5 ± 0.1 m	
5	Al ₂ O ₃ columns purified LAB (the seventh Batch, last year finished)	20.3 ± 0.4 m	0.0012 (0.0010)
6	Nanjing Jingtong 201406 LAB (低沸点 low boiling)	15.2 ± 0.1 m	0.0007 (0.0015)
7	Sinopharm (国药) Al ₂ O ₃ , 100-200 mesh, 1-8BV; without pressure	22.6 ± 0.4 m	0.0001 (0.0011)
8	Sinopharm (国药) Al ₂ O ₃ , 100-200 mesh, 1-8BV; pressurized column	22.5 ± 0.6 m	0.0001 (0.0011)
9	Zibo Tengfei γ type Al ₂ O ₃ , 200-300 mesh, 1-8BV; without pressure	19.2 ± 0.4 m;	-0.0005 (0.0011)
10	Zibo Tengfei γ type Al ₂ O ₃ , 200-300 mesh, 1-8BV; pressurized column	23.2 ± 0.4 m	-0.0003 (0.0011)
11	Zibo Juteng K-ρ type Al ₂ O ₃ , 200 mesh, 1-8BV; without pressure	21.7 ± 0.4 m	-0.0004 (0.0011)
12	Zibo Juteng K-ρ type Al ₂ O ₃ , 200 mesh, 1-8BV; pressurized column	21.9 ± 0.4 m	-0.0003 (0.0011)
13	silica gel column purified LAB (2014-5-19~6-18)	19.2 ± 0.4 m	0.0008 (0.0013)
14	Vacuum distillation LAB (2014-4-30~6-09)	13.7 ± 0.6 m	0.0014 (0.0013)

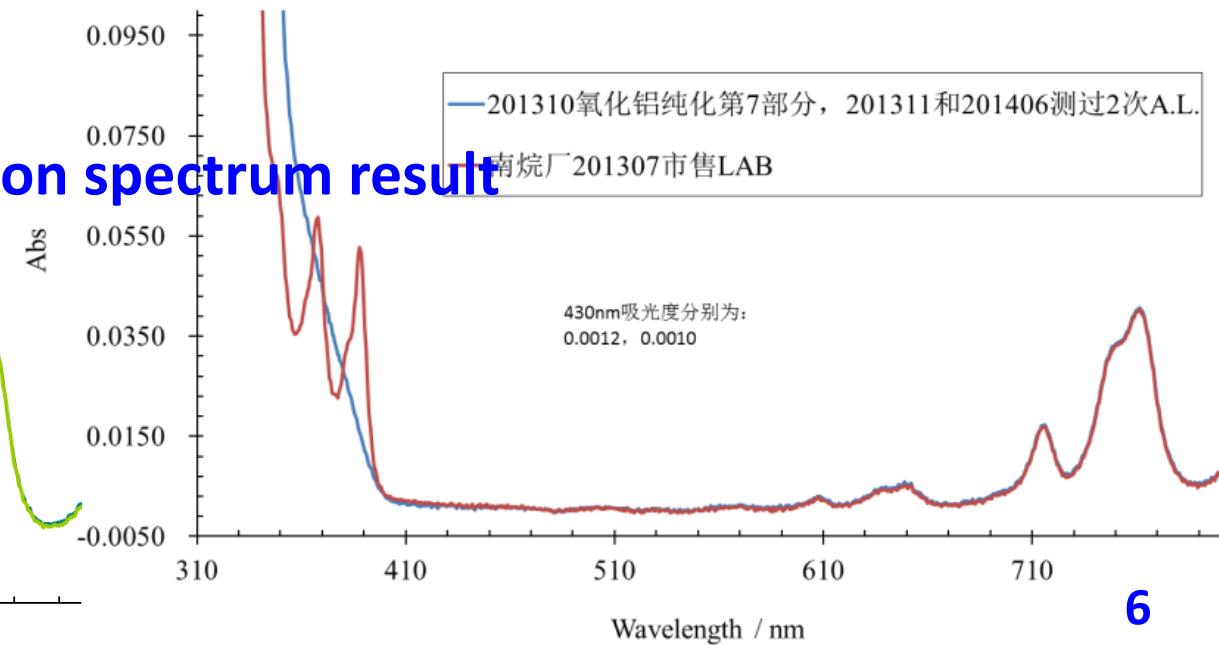
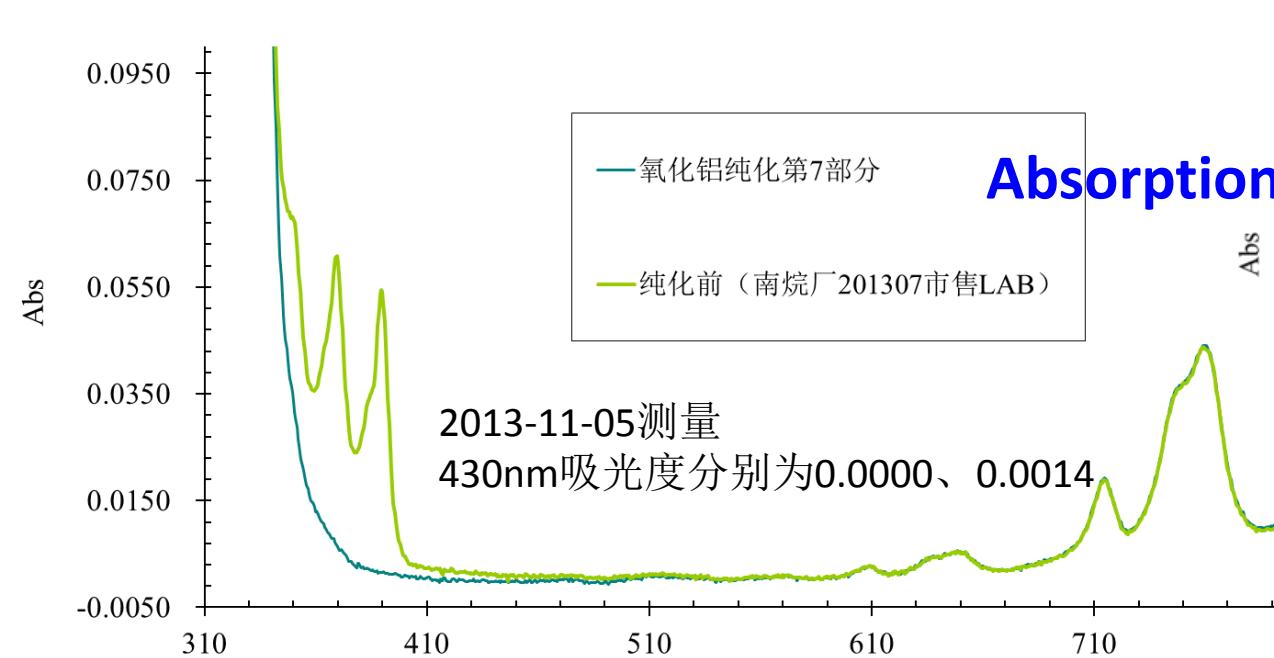
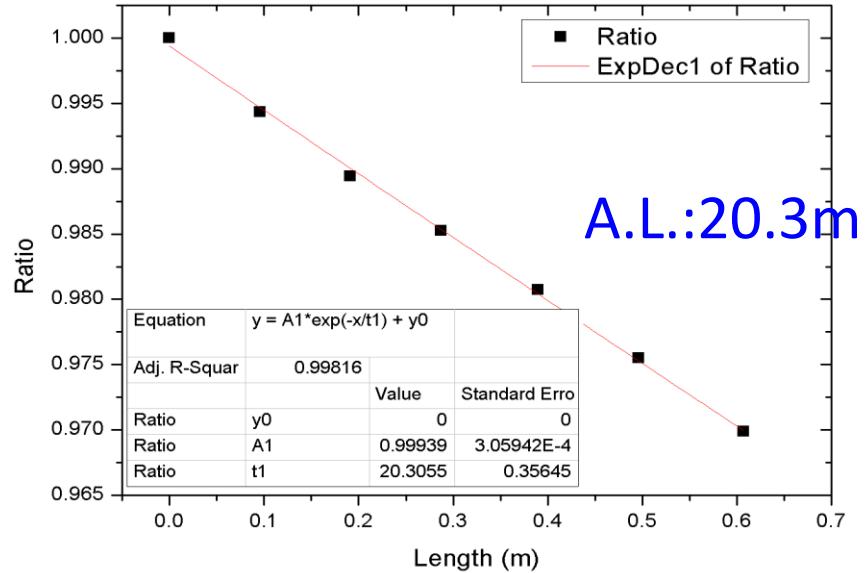
A.L system calibration

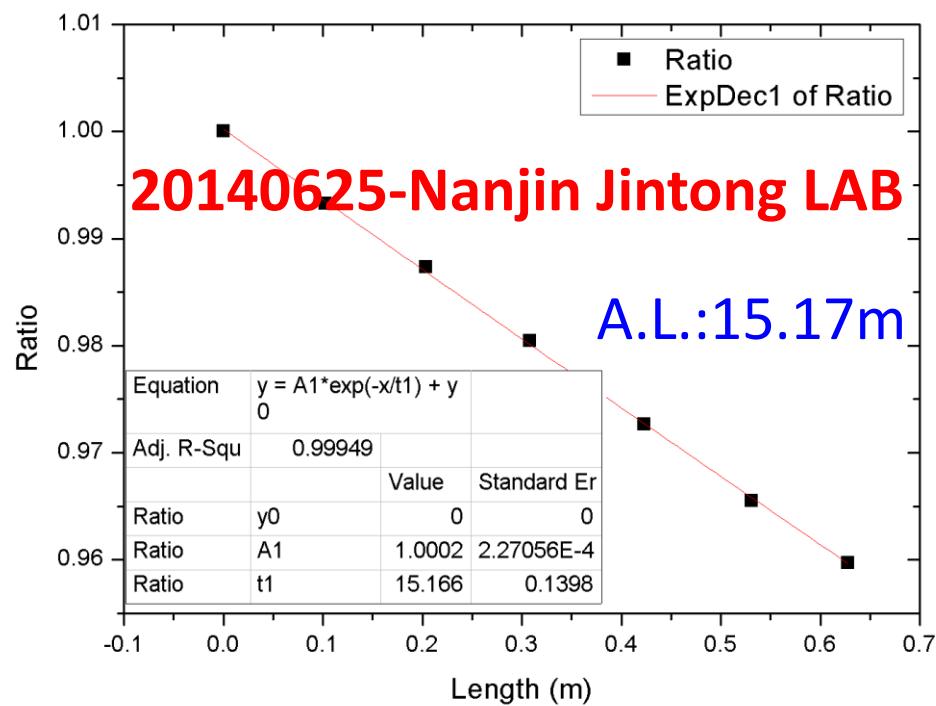


A.L system calibration

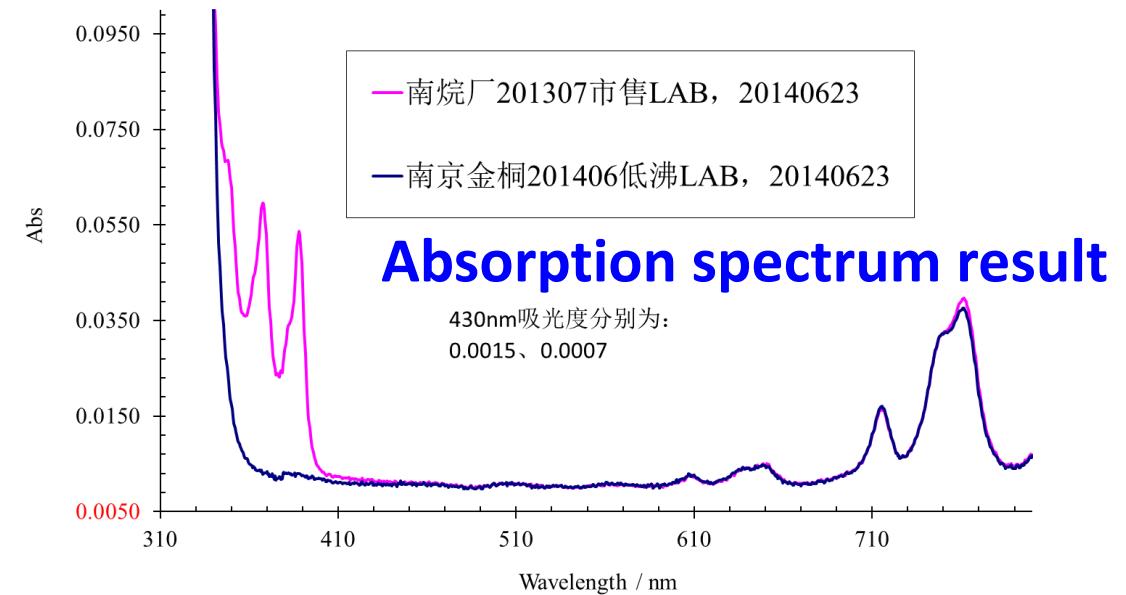


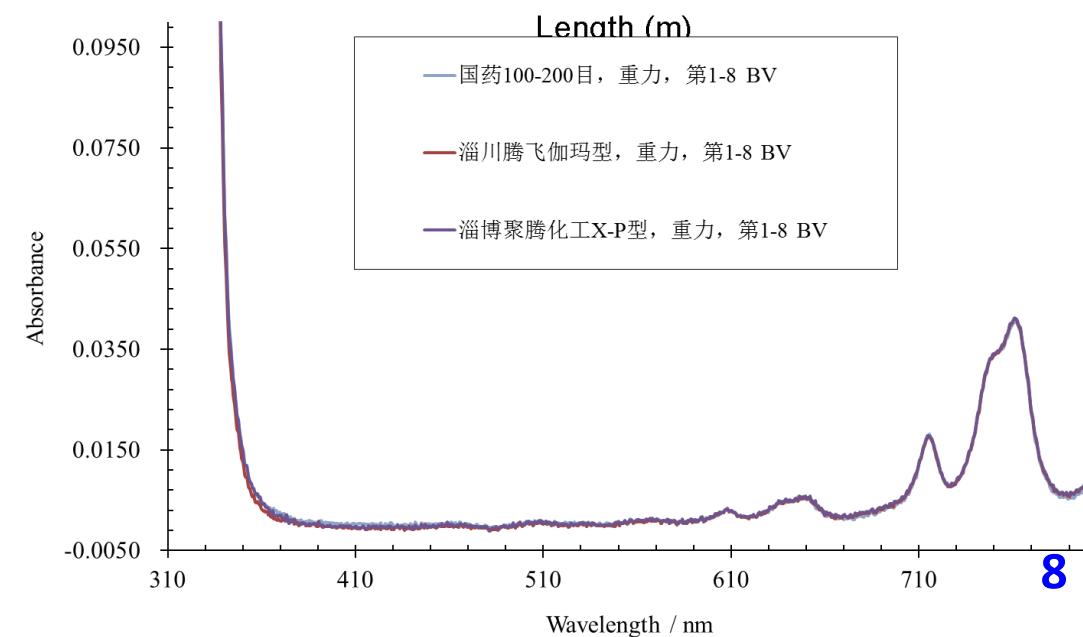
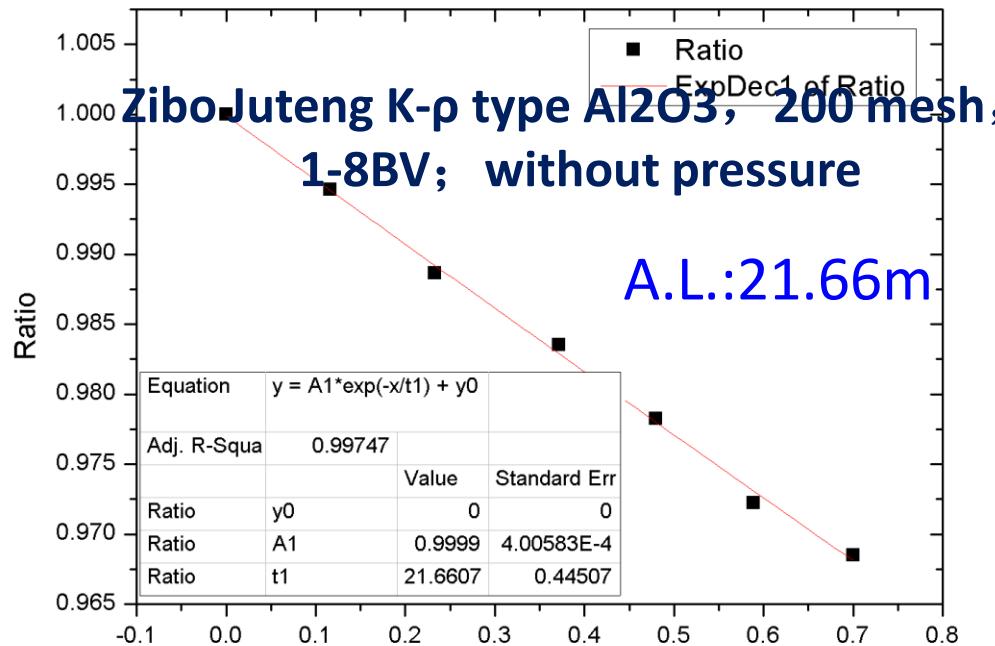
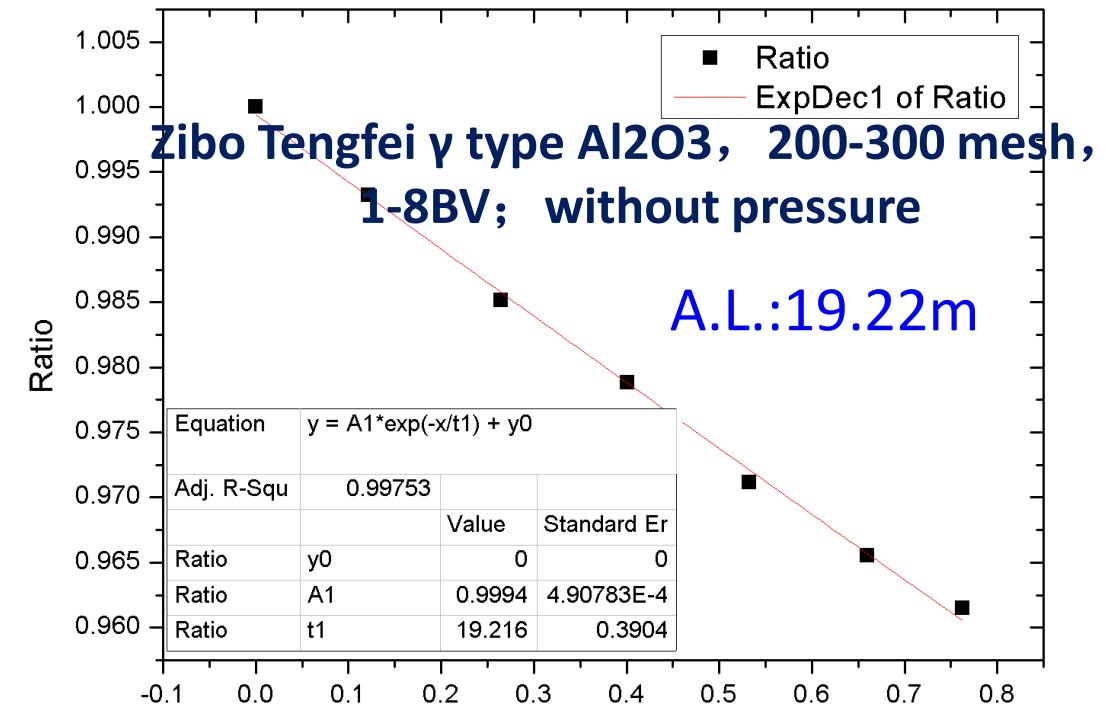
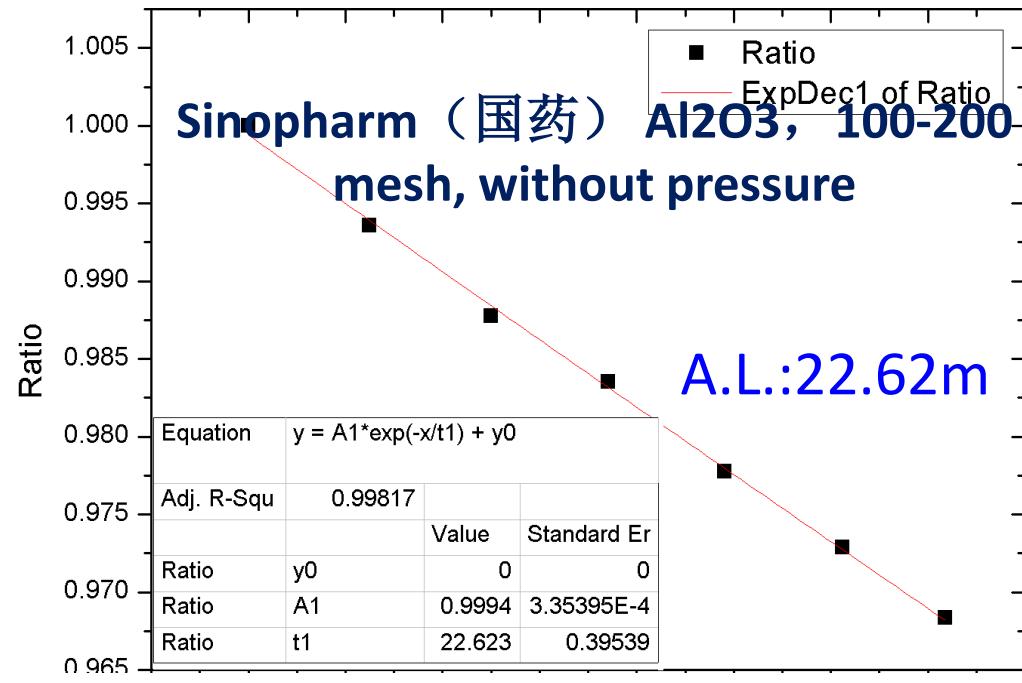
20140624-Al₂O₃ column
purified Nanjin Jinlin LAB
(the seventh Batch)

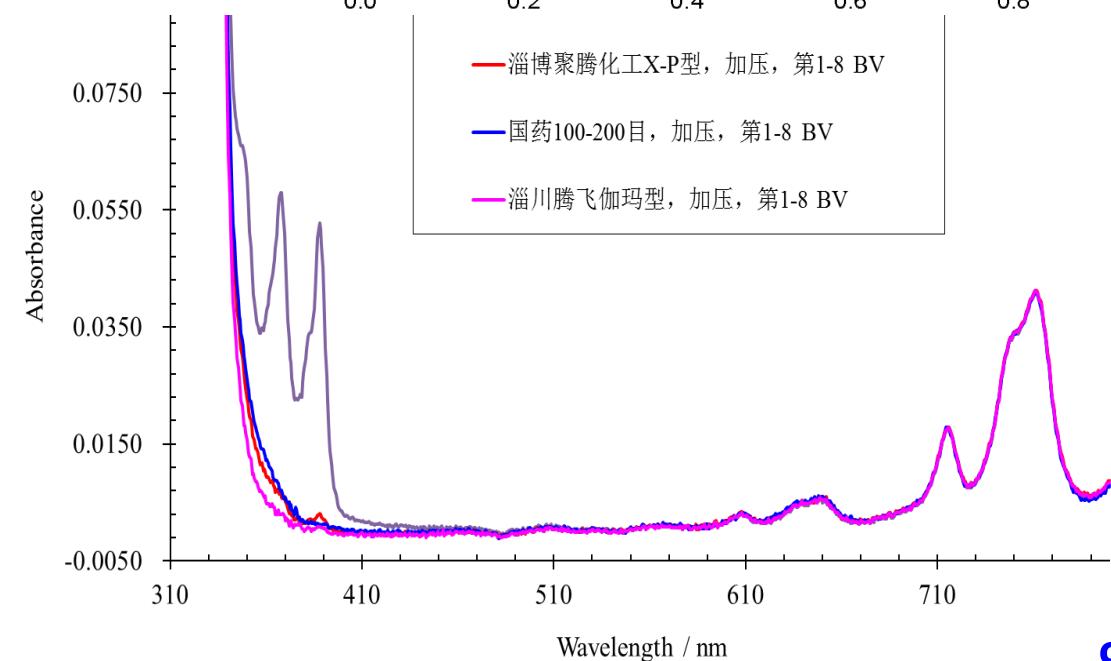
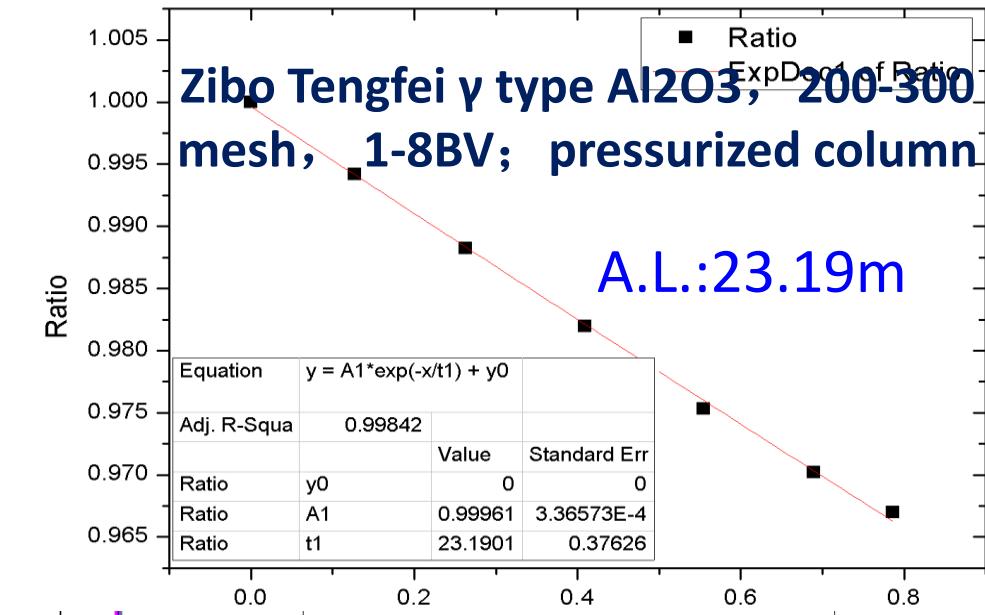
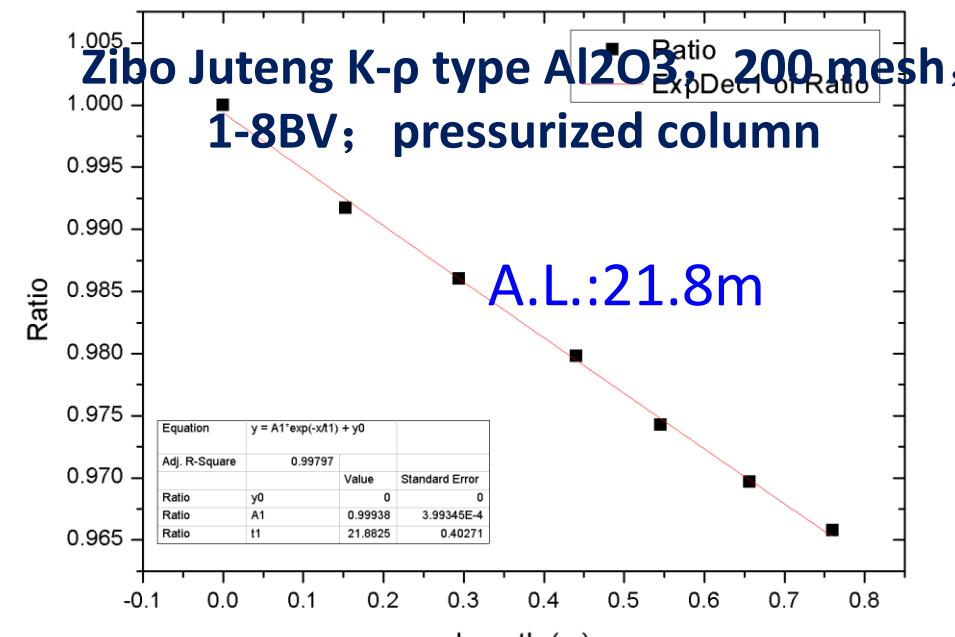
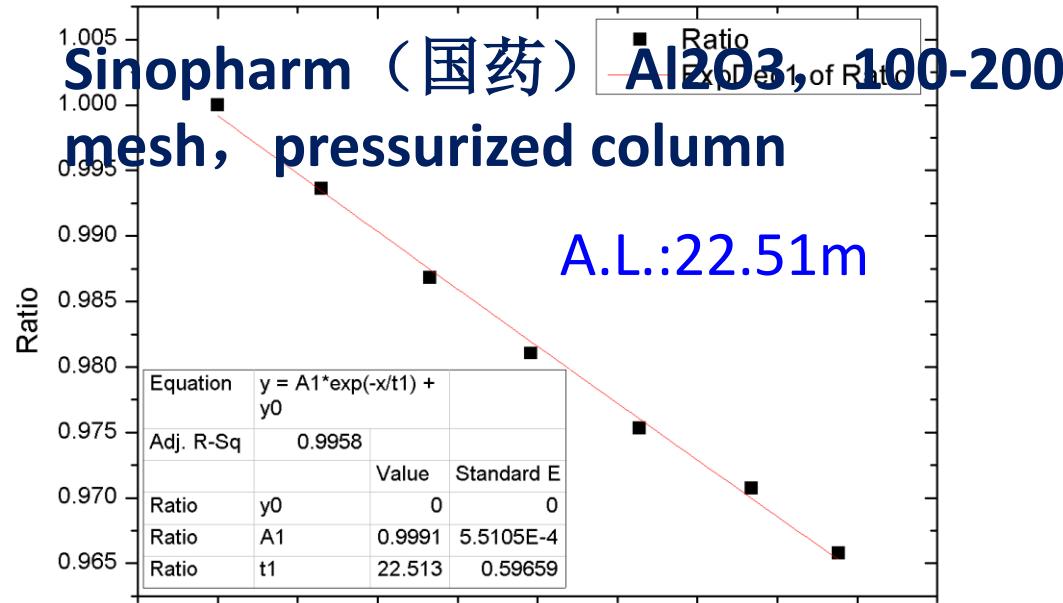


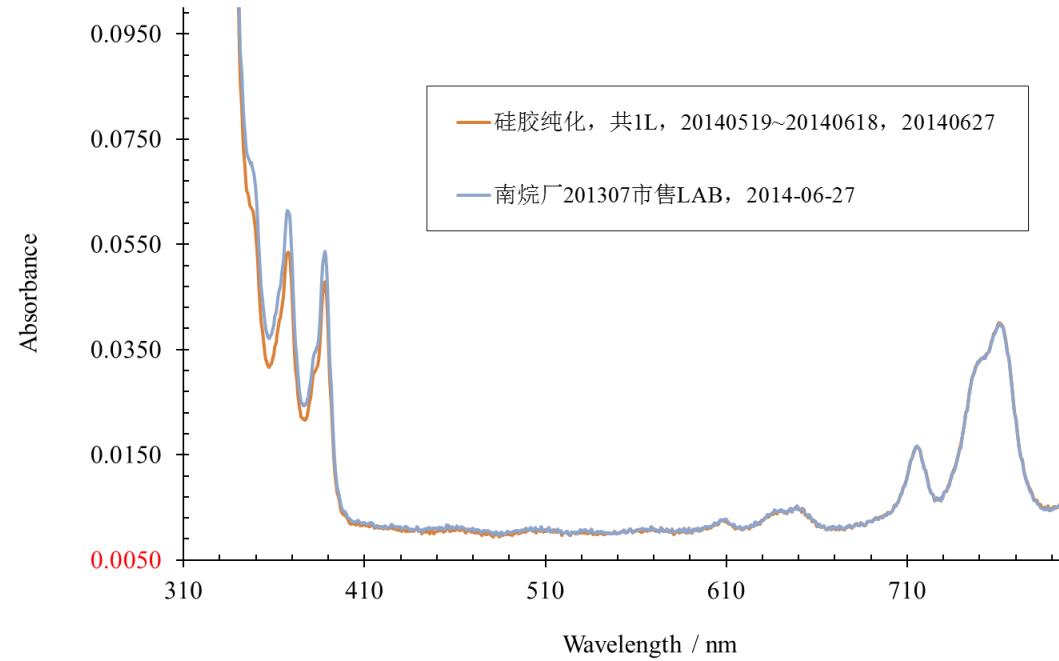
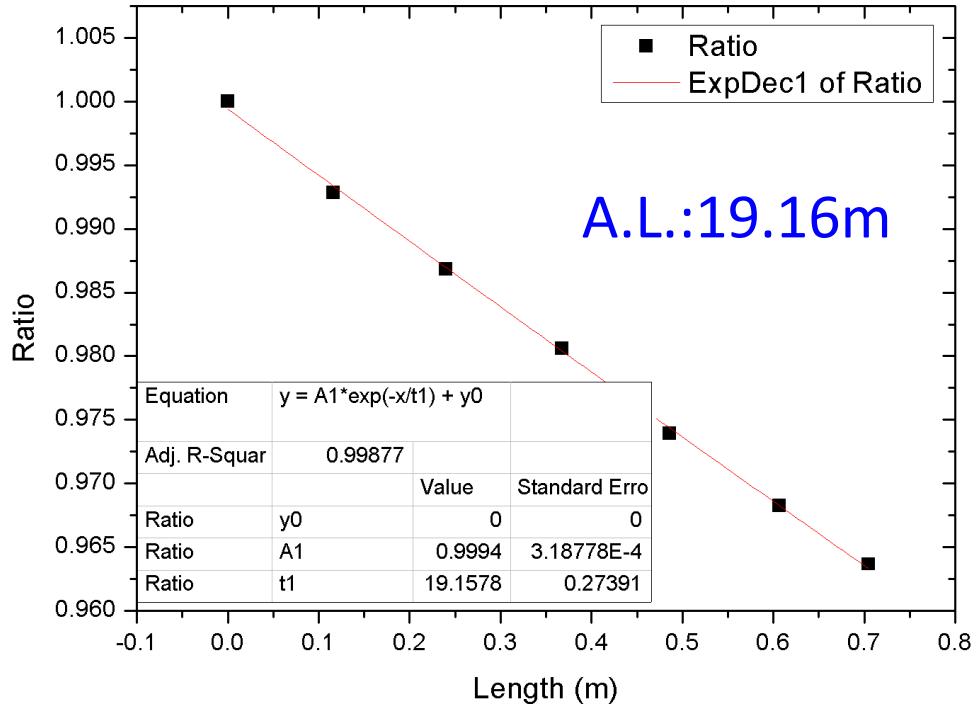


New LAB sample



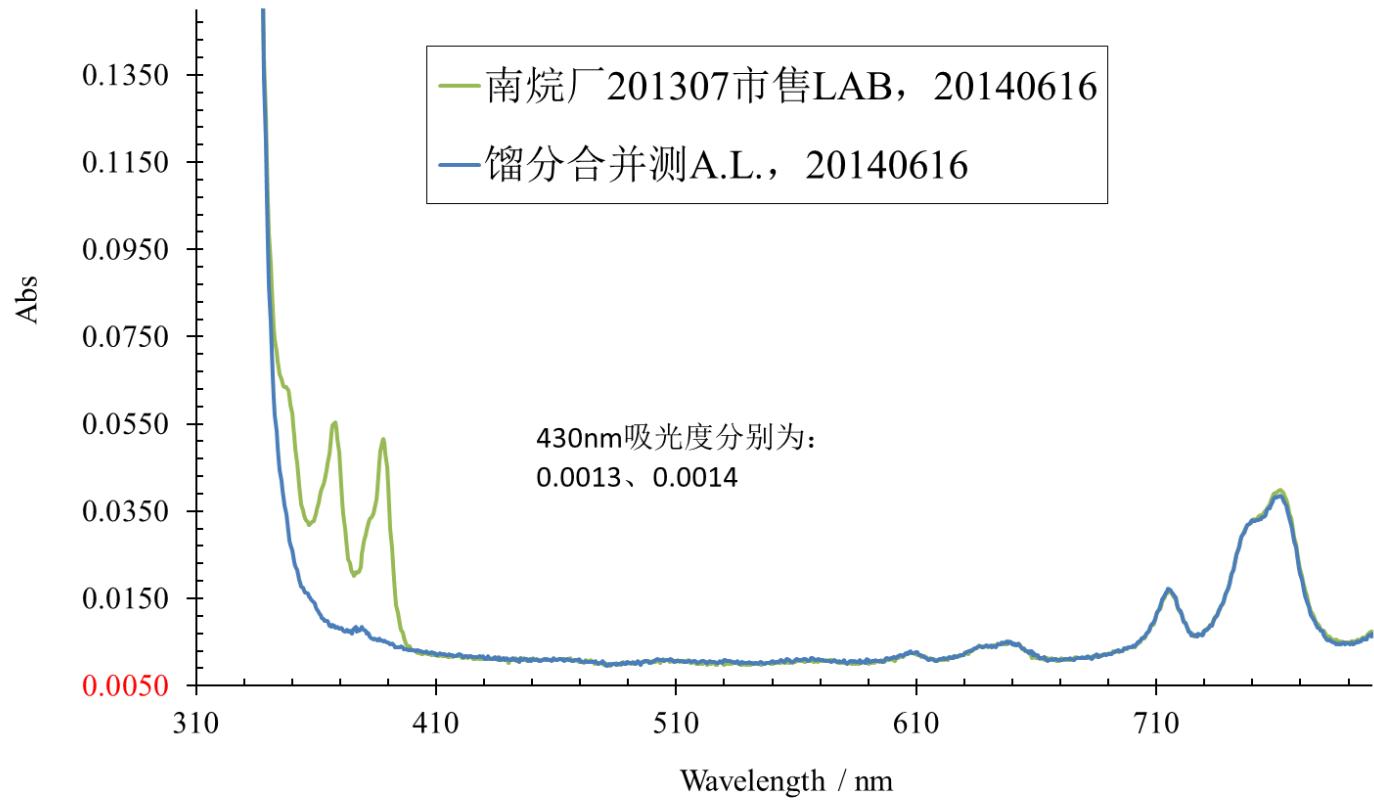
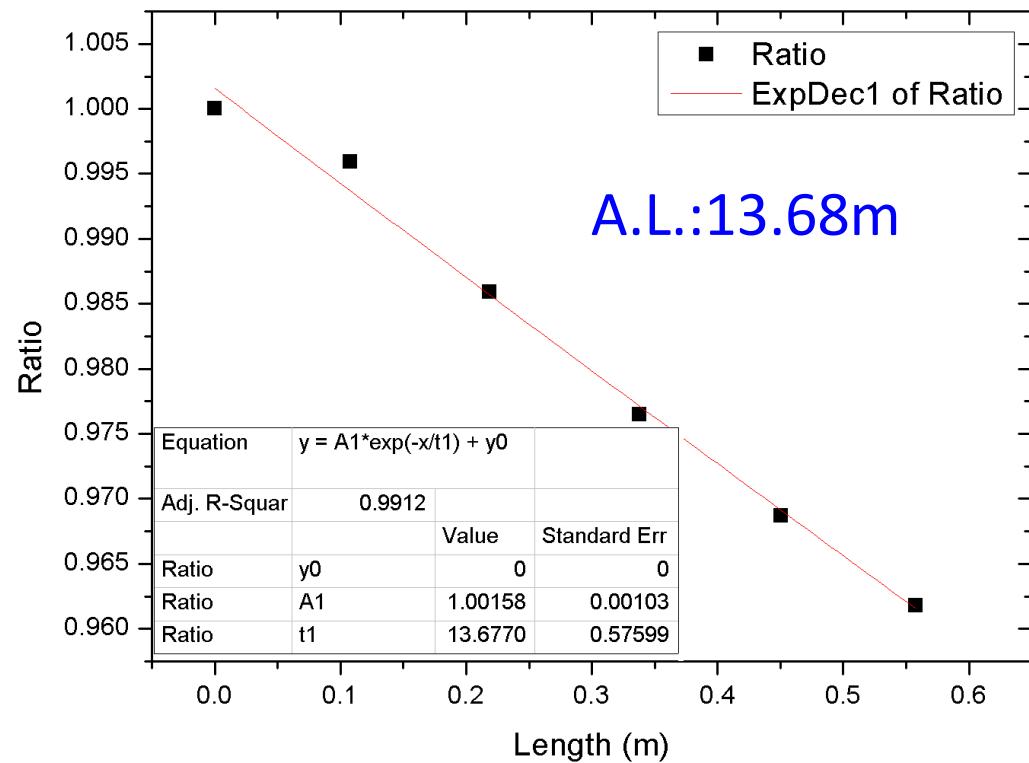






silica gel column purified Nanjing Jinlin commercial LAB

2014-6-28-Vacuum distillation-LAB



Conclusion

- A.L. results of optical purification by AL₂O₃ column show Al₂O₃ column is good at LAB optical purification ;
- A.L. results of optical purification by vacuum distillation show vacuum distillation is not good at LAB optical purification;