

Single Channel Automated Flash Chromatography System AI-580S

State-Of-The-Art User-friendly Software

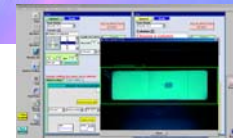


Intelligent & Eco-Friendly!

Fast and Efficient Separation

A target compound will always elute at around 4-column volume, which is equivalent to the Rf0.25 solvent strength, regardless of column size and flow rate, minimizing the run time while achieving a good separation.

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Minimize Solvent Use and Waste Disposal.



“NEW” AI-580S

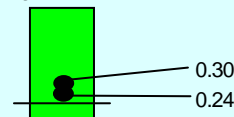
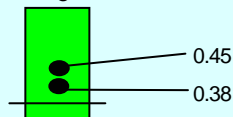
TLC Image Reader will measure the Rf value, and the value will be automatically input as a parameter for the Automatic Method Setting.

Innovative Application Software Based On the True Theory of Chromatography (Rf Gradient)

●Conventional chromatography methodology (TLC → Column chromatography)

When running samples with the solvent mixture ratio (solvent strength) that moves samples at Rf0.2 - 0.3 (0.25 on average) TLC, it is a proven fact that good separations are achieved in the normal phase silica column chromatography. Rf0.2 - 0.3 is equivalent to 3.3 – 5 CV (4 CV on average). Chemists used to run the TLC many times in conventional chromatography to get the solvent mixture ratio that gives Rf0.2 - 0.3. It was a very time-consuming job.

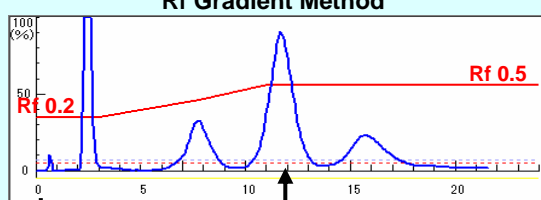
- ① Got the following TLC Rf values at first run. → ② Run TLC again with a smaller ratio of polar solvent.



This solvent mixture ratio is applied to run a column chromatography.

Time-consuming method setting in the conventional chromatography is now fully automated & optimized on Yamazen's automated flash chromatography systems; AI-Series and W-Prep 2XY. (Rf Gradient)

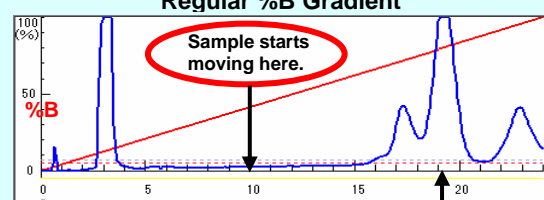
< Yamazen > Rf Gradient Method



All 4 CV contributes to the sample separation.

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An excellent separation with minimal solvent use.
It's Eco-friendly!

< Other brands > Regular %B Gradient



Waste of solvent Only 2.5 CV is used for sample separation.

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Poor separation with a lot of solvent use

System Specifications

Controller	Laptop or Desktop
Application software	<ul style="list-style-type: none"> ●Eluting position controllable "RF Gradient" Method ●4-column volume elution of the target compound minimizes solvent use and waste disposal. Cost is drastically saved and It's Eco-friendly! ●Changes method parameters on the fly. ●Scale up - Transfer method from one size column to another.
Slow gradient to apply for high polar solvents	Slow gradient of 1-7% is possible.
Pumping system, Model No.580S	0-80ml/min, 1.0Mpa (145psi)
Fixed wavelength UV detector, Model prepUV-254	254nm
Variable wavelength UV detector, Model prepUV-10V	190-380nm
UV-VIS detector, Model prepUV/VIS-10V	190-600nm
Fraction collector, Model FR-360	A pair of the rack, X-Y driven, fraction modes of Time, Peak, Peak & Slope & Manual Collect
Floor space (W x D x H) H = height of column stand	50 x 45 x 78cm (19.7x 17.7 x 30.7 inch)
Certifications	JIS and CE
Options	Solvent & waste level monitor, TLC Image reader, Column air purge

Specifications of test tube racks

When ordering the rack please specify the Cat. Number.

Racks for U.S. standard test tube sizes				Racks for Japanese standard test tube sizes			
Cat No.	Pin Code	Fraction Volume (Default)	Test Tube Sizes (mm)	Cat No.	Pin Code	Fraction Volume (Default)	Test Tube Sizes (mm)
AI13100	A	7ml	13x100x75 pieces	AI15150	A	15ml	15x150x75 pieces
AI15125	A	12ml	15x125x75 pieces	AI18180	B	30ml	18x180x75 pieces
AI16125	A	15ml	16x125x75 pieces	AI24180	C	60ml	24x180x30 pieces
AI16150	A	16ml	16x150x75 pieces	AI30180	D	90ml	30x180x27 pieces
AI18150	B	22ml	18x150x75 pieces	AI30200	D	100ml	30x200x27 pieces
AI25150	C	45ml	25x150x30 pieces	AI60180	E	350ml	60x180x10 pieces
AI25200	C	56ml	25x200x30 pieces				

System specifications are subject to change without notice.



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