

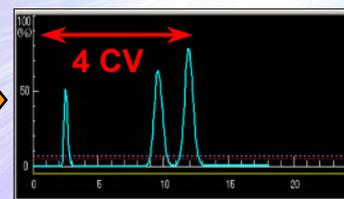
Expert on Flash Chromatography

# Eluting Position Predictable Automated Flash Chromatography System AI-700X

Let's Go GREEN with Yamazen!



- Rf Gradient Method freely controls the eluting position of the target compound.
- Optimized chromatography with 4 column volume elution

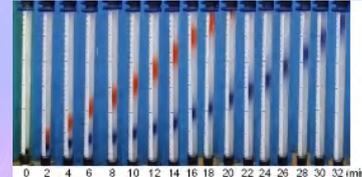


The eluting position of the target compound is automatically decided and indicated by a yellow arrow by gradient optimization based on TLC Rf.

Target elutes at the predicted position.

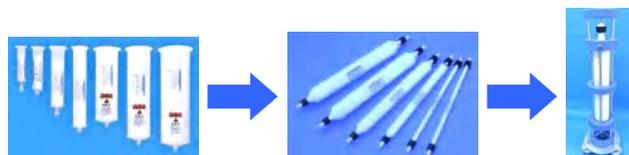
A wide variety of columns are available.

Yamazen's Rf Gradient



- Minimizing solvent use and waste disposal
- Substantial savings on lab expenses
- The user-friendly software allows easy sample purification.
- Both normal phase & reverse phase chromatography can be efficiently carried out.
- Pump: 200ml/min, 217psi; 350 or 400 ml/min, 145psi

From small scale samples to large scale samples

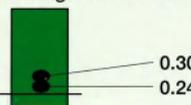
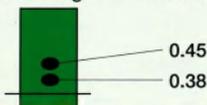


## Innovative Application Software Based On the True Theory of Chromatography ( Rf Gradient )

### •Conventional chromatography methodology ( TLC → Column chromatography )

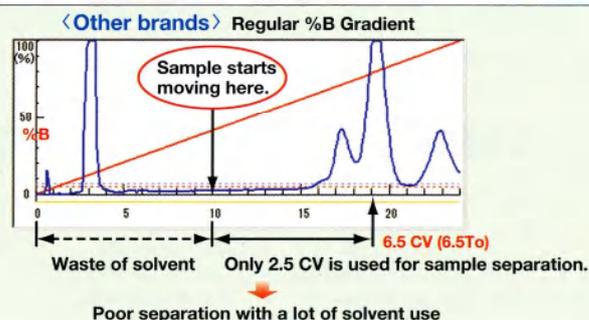
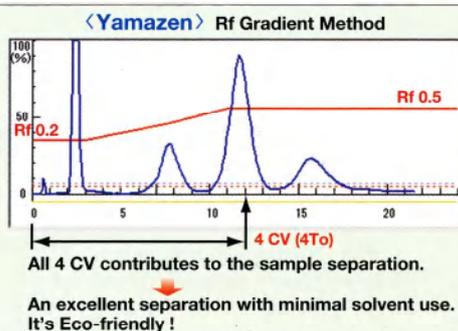
When running samples with the solvent mixture ratio (solvent strength) that moves samples at Rf 0.2 - 0.3 (0.25 on average) TLC, it is a proven fact that good separations are achieved in the normal phase silica column chromatography. Rf 0.2 - 0.3 is equivalent to 3.3 - 5 CV (4 CV on average). Chemists used to run the TLC many times in conventional chromatography to get the solvent mixture ratio that gives Rf 0.2 - 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 )



## System Specifications

|   |   |
|---|---|
| Controller  | Laptop or Desktop   |
| Application software                                  | <ul style="list-style-type: none"> <li>●Eluting position controllable "RF Gradient" Method</li> <li>●4-column volume elution of the target compound minimizes solvent use and waste disposal. Cost is drastically saved and It's Eco-friendly!</li> <li>●Changes method parameters on the fly.</li> <li>●Scale up - Transfer method from one size column to another.</li> </ul> |
| Slow gradient to apply for high polar solvents        | Slow gradient of 1-7% is possible.  |
| Pumping system, Model No.700                          | 3 versions of 200ml/min, 217psi; 350ml/min, 145psi; 400 ml/min, 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)<br>H = height of column stand | 60 x 58 x 79cm (23.6 x 22.8 x 31 inch) with prepUV-254<br>60 x 67 x 79cm (23.6 x 26.4 x 31 inch) with prepUV-10V or prepUV/VIS-10V  |
| 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.



## YAMAZEN CORPORATION

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