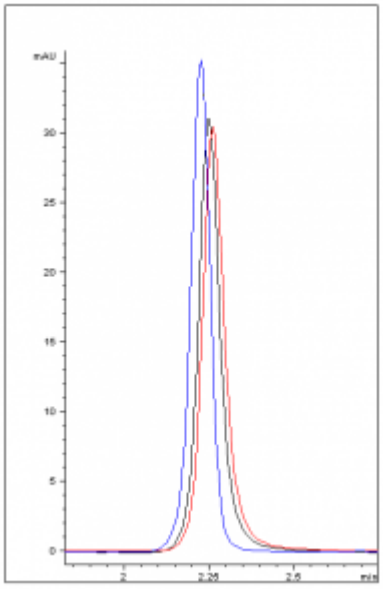
Reasons for using direct adaptive Di-Ad HPLC column connectors - Tips & Suggestions

How to reduce peak broadening due to poor column connections

The spring-loaded "Direct Adaptive" Di-Ad™ HPLC column connectors were designed for speed and convenience when changing between different column brands on your instrument.

In the example below, we demonstrate how this error-free process using DiAd fittings can also reduce peak broadening from common poor connections.



Trace	Fitting Used	Height *(mAU)*	Plates *(N)*
Black	PEEK	31.33	6306
Red	Poorly Inserted PEEK	30.36	6023
Blue	Di-Ad™	35.37	7160

Method Conditions:

Direct Adaptive HPLC column connector: Double end fitting
Catalog No.: 49910-10-DD
Dimensions: 0.010" ID x 1/16th" OD, 100mm long
Column: Cogent Bidentate C8™, 4µm, 100Å.
Catalog No.: 40008-10P
Dimensions: 4.6mm x 100mm
Mobile Phase: 40% acetonitrile / 60% DI water 0.1 % formic acid
Injection vol.: 1µL

Flow rate: 1.0mL / minute
Detection: UV 254nm
Sample Preparation: 0.1mg / mL phenol in mobile phase.

Notes: *Column efficiency: theoretical plates (N) 1/2 Height* $N = 5.54((t_R/W)^2)$

t_R = Retention time of peak

W = Width of peak measured at 1/2 height

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