

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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