

How Can I Separate Methacrylic Acid and Dodecyl Benzene Sulfonic Acid - Tips & Suggestions

Good retention and peak shapes have been observed for similar compounds.

Methacrylic acid is similar in structure to acrylic acid, which can be well-retained with a mobile phase of DI water + 0.1% formic acid and a Bidentate C18 column.

Dodecyl benzene sulfonic acid has some of the same functional groups as docusate sodium, which also has a sulfonate group. The latter was observed to elute with a good peak shape using a gradient method and the Cogent Bidentate C18™ column. Dodecyl benzene sulfonic acid by itself should be suitable for the Cogent Diamond Hydride column as well, using an ammonium acetate-based mobile phase.

A gradient starting at high water (to retain the methacrylic acid) and ending at significant organic (to elute the dodecyl benzene sulfonic acid) can be used to retain both compounds. Since a Cogent Bidentate C18™ column was used for the two compounds above, it should be suitable for a separation of methacrylic acid and dodecyl benzene sulfonic acid as well. The Cogent Phenyl Hydride™ column would also be suitable.

[Cogent Bidentate C18 ordering information](#)

[Cogent Diamond Hydride ordering information](#)

[Cogent Phenyl Hydride ordering information](#)

