Improve Your Chromatographic Efficiency

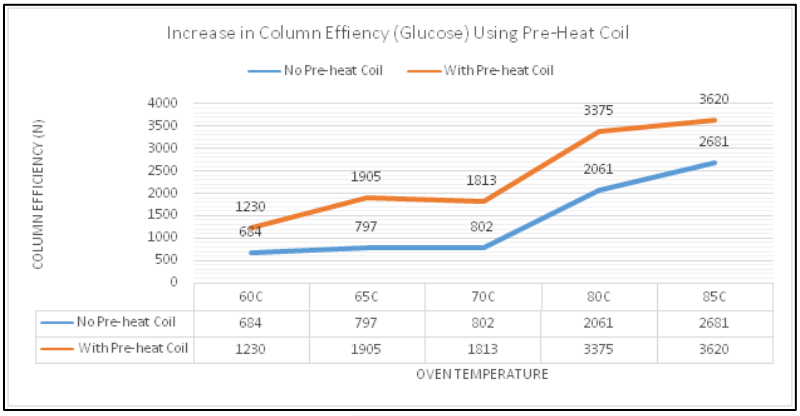
So how do you improve the efficiency of your chromatograms?

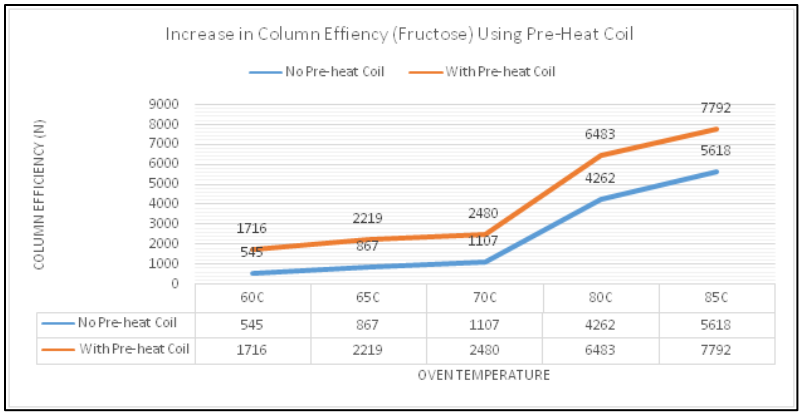
With the Benson Polymeric BP-PH, Pre-Column Heater.

The use of elevated temperatures is a common tool for the analysis of carbohydrates using ligand-exchange chromatography. Sample preheating can further enhance peak efficiency and improve the analysis of carbohydrates. Ligand-exchange chromatography is a common technique for the analysis of carbohydrates using polymeric based columns. Since these types of HPLC columns require only water as the eluent, laboratories that prefer to not introduce solvents into their environment will use this type of "green technology" as a viable alternative for the analysis of many common samples containing carbohydrates. Columns packed with gels (low cross-linked, microporous, polystyrene-divinylbenzene polymer) typically require elevated temperatures for optimal peak efficiency. Peak efficiency can be further enhanced with the use of a column oven equipped with a simple preheat device.

Temperature Effect on Column Efficiency:

Elevated temperatures are required for optimal peak efficiency when using polymeric ligand-exchange HPLC columns. By supplementing elevated temperature with a simple pre-heat device, peak efficiency is further enhanced, sometimes dramatically. The graphs below demonstrate the importance of both elevated temperature and eluent preheating on efficiency. This study was performed on our BP-800 Ca column, 300 x 7.8 mm. Efficiency is enhanced by using higher temperature and also a Benson pre-heat coil, which reduces radial and axial temperature gradients.





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