

AppliChrom SugarSep-Oligo Columns

AppliChrom
Excellent results are our aim

For HPLC-Analyses of:

- Sugars/Carbohydrates
- Sugar Alcohols/Alcohols
- Carboxylic Acids

supplied and supported by:

mmac
meinhard missbach analytical consulting

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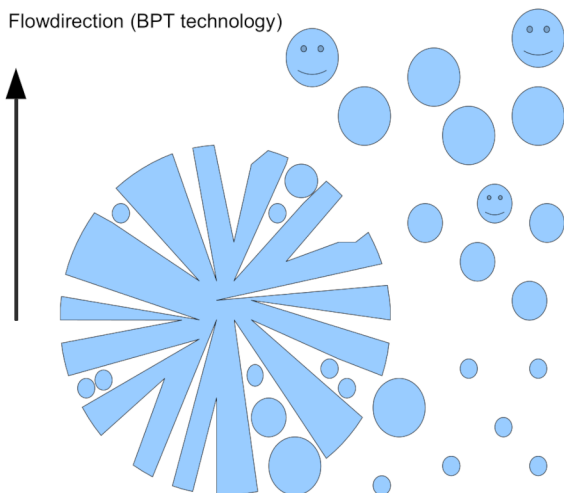
Advantages:

- Low cost for eluent supply. Eluent = water.
- Environmental friendly because: Eluent = water.
- Low cost for used eluent waste: Eluent = water.
- Easy to handle analysis. Direct analysis from aqueous sample!
- Low invest: Measurement possible with standard HPLC-system if connected with RI or ELSD (evaporative lightscattering detector).

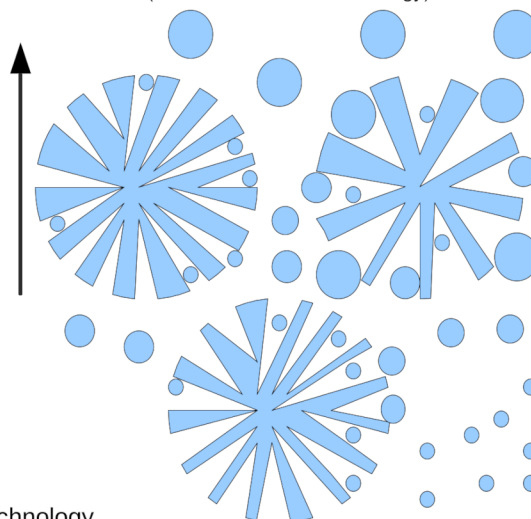
AppliChrom BPT Technology: a combination of small, medium and large pores in each particle ensures an increase of calibration range. No matching porosities effects – respective artificial shoulders in chromatogrammes known from many column combinations are significant reduced – for improving your GPC Chromatography.

Conventional GPC technology: combining columns of various poresize or by combining different poresizes in one column enlarges the calibration range – but it can lead to artefacts in the exact calibration of the GPC system that reduces molecular size accuracy determination

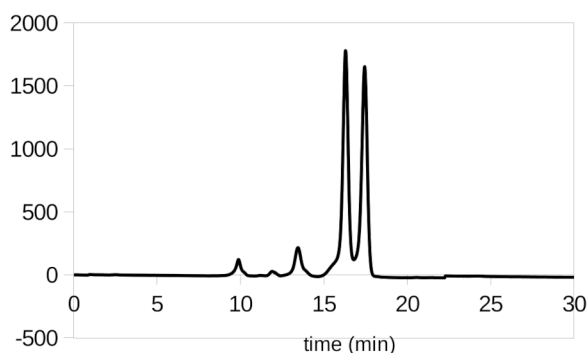
Flowdirection (BPT technology)



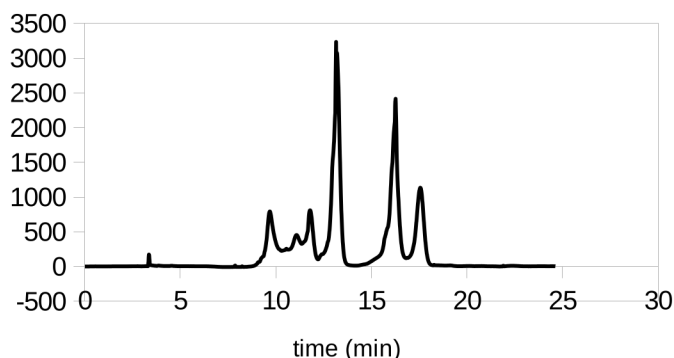
Flowdirection (conventional mixed technology)



BPT – Broad Pore Technology



Analyte: Honey Mobile Phase: water at 0.5ml/min
Temperature: 80 deg C
Detection: RI

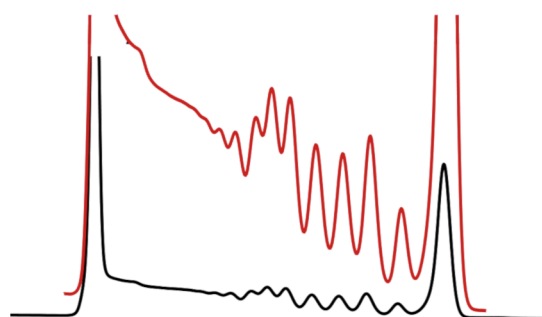


Analyte: Malt Beer Mobile Phase: water at 0.5ml/min
Temperature: 80 deg C
Detection: RI

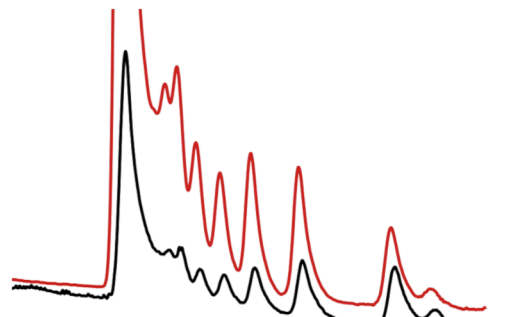
AppliChrom SugarSep-Oligo Columns

Oligosaccharide analysis in water

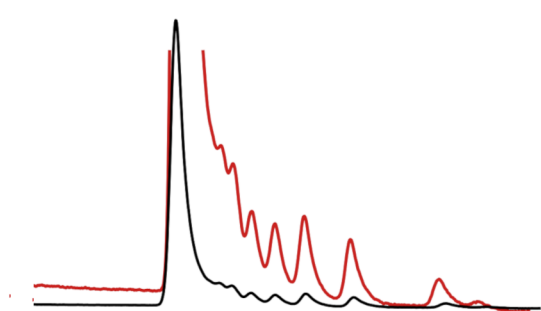
■ Chromatogramm - ■ Detailed view - RI detection



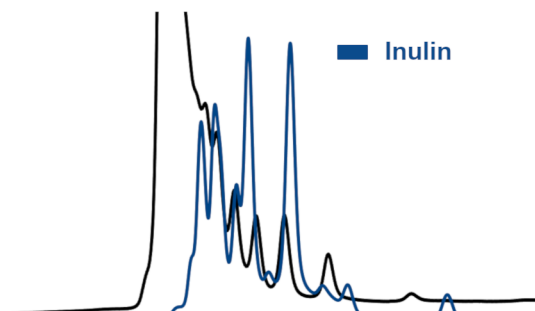
Maltodextrin 19 - 0.25 ml/min - 70 deg C



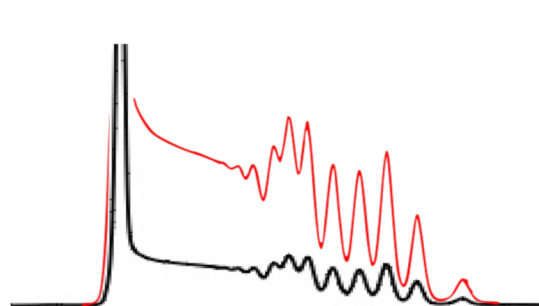
Maltodextrin 12 - 0.25 ml/min - 70 deg C



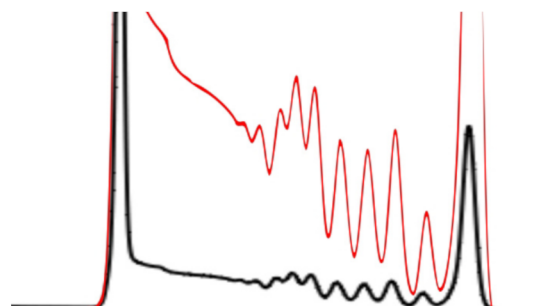
Maltodextrin 6 - 0.25 ml/min - 70 deg C



Maltodextrin 12 (blk) - 0.25 ml/min - 70 deg C



Comparison: Maltodextrin 12 without (left) and with added glucose (right)



Accelerated analysis of a standard solution for wine analysis (red wins, analysis for sugars, glycerol, ethanol)

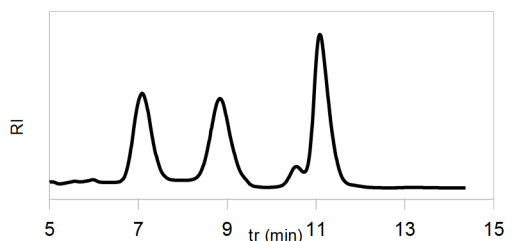


Abb1: AppliChrom ABOA SugarSep-Ca, 150x8mm, H₂O, 80°C, 0,5ml/min

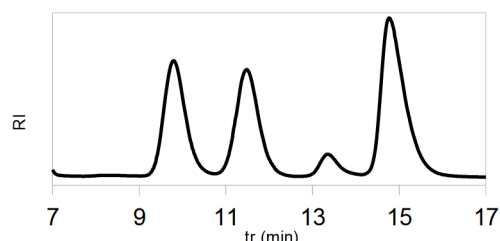


Abb2: AppliChrom ABOA SugarSep-Ca, 150x8mm + „Trapsäule“ AppliChrom ABOA TSW, 50x8mm., H₂O, 80°C, 0,5ml/min

Standard approach (left) speed is reached by using short column (150x8 mm instead of 300x8): resolution of glycerol to ethanol is not satisfactory. AppliChrom solution: using an AppliChrom SugarSep-Ca 150x8 column and an additional AppliChrom ABOA TSW "Trap Column" 50x8 mm.

Column type selection guide

- AppliChrom SugarSep-Ca** – Analysis of sugars, sugar alcohols, alcohols.
- AppliChrom SugarSep-Pb** – Analysis of sugars
- AppliChrom SugarSep-H** – Analysis of sugars, sugaralcohols, alcohols and carobxylic acids.
- AppliChrom SugarSep-Na** – Analysis of sugars, sugaralcohols, alcohols and carobxylic acids
- AppliChrom SugarSep-Oligo** – Analysis of sugars, sugaralcohols, alcohols and carobxylic acids.