



# MINIMAL BAND BROADENING/PEAK TAILING

Application note # QAN-0052

## PARAMETERS

### NQAD

GAS: Air  
FILTER: 0.3 sec  
GAIN: 50x  
EVAPORATION TEMP: Off

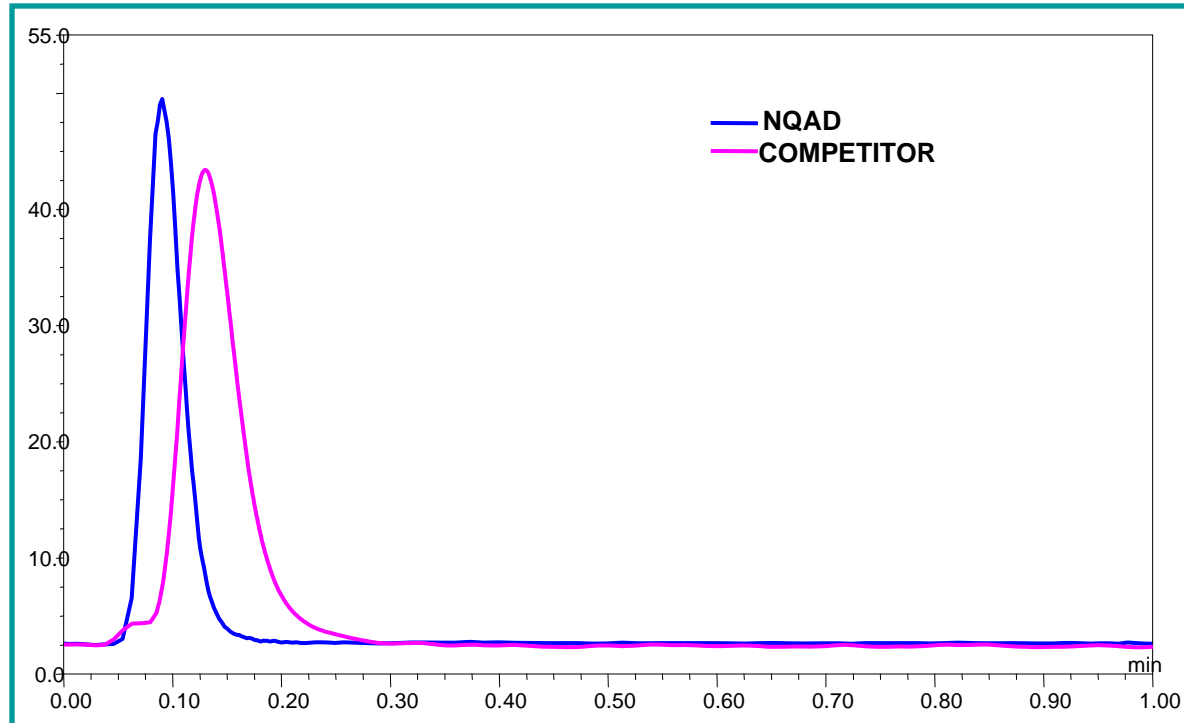
### COMPETITOR

GAS: Nitrogen  
FILTER: low  
GAIN: 50 pA

### HPLC

MOBILE PHASE: 50:50 ACN:Water  
FLOW RATE: 0.25 mL/min  
COLUMN: none  
INJECTION VOLUME : 1 µL  
ANALYTE: 100 ng Hydrocortisone

## DATA



The NQAD has very low dead volume which allows peaks to come out sooner, minimizing band broadening for uHPLC applications. Peak widths at half height of 1 second or below can be achieved for faster flows. Shown here is a typical uHPLC flow rate of 0.25 mL/min. The NQAD demonstrates minimal peak tailing and a superior peak width at half height in comparison to a competing aerosol based detector. This correlates to higher resolution between peaks, allowing the chromatographer to accurately calculate peak areas for even though most difficult separations. Is your current technology limiting you?

|            | PWHH (min) | LPW (min) | RPW (min) |
|------------|------------|-----------|-----------|
| NQAD       | 0.03       | 0.03      | 0.04      |
| Competitor | 0.06       | 0.04      | 0.06      |



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NQAD APPLICATION NOTES