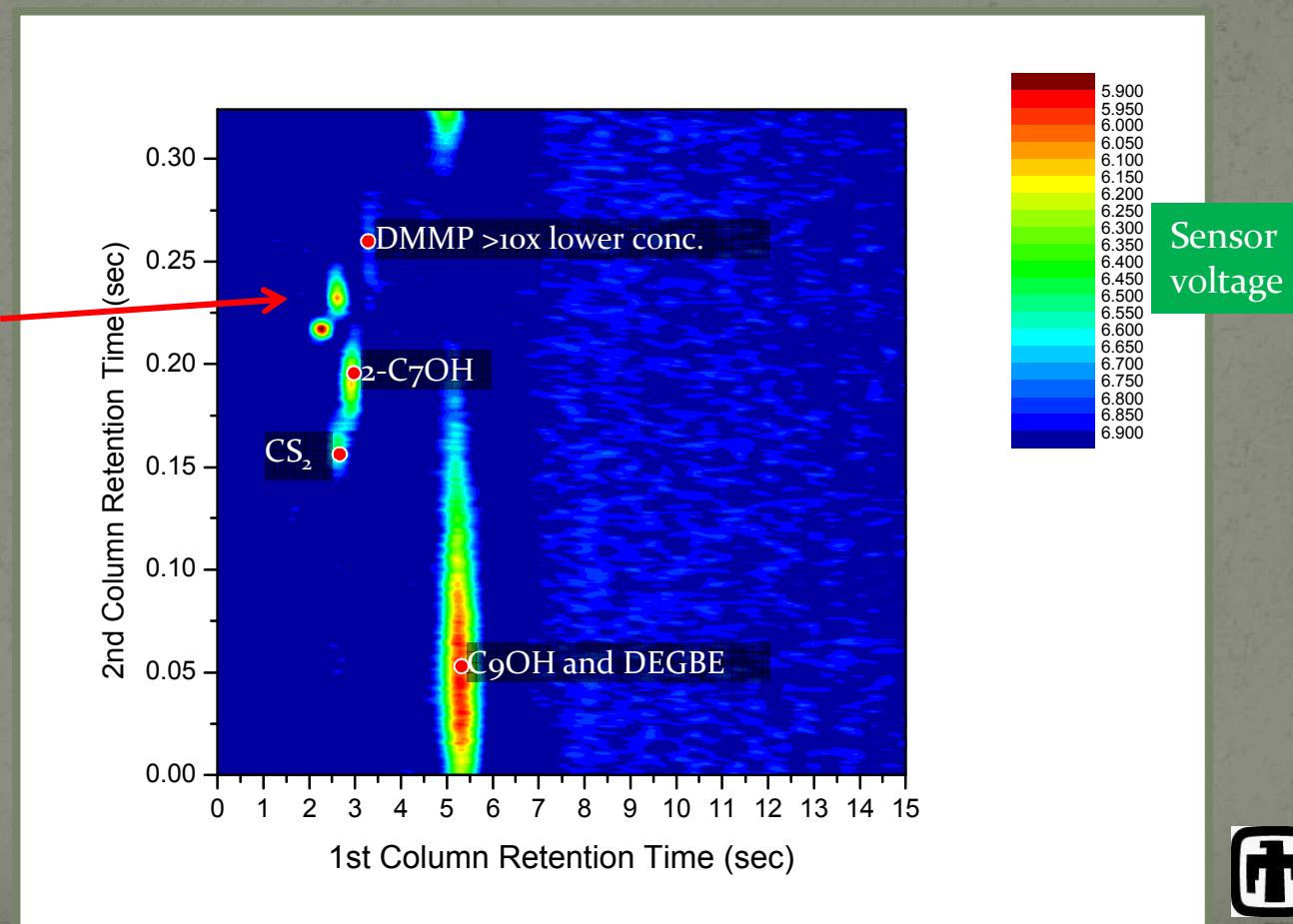


GCxGC + NEMS: initial data

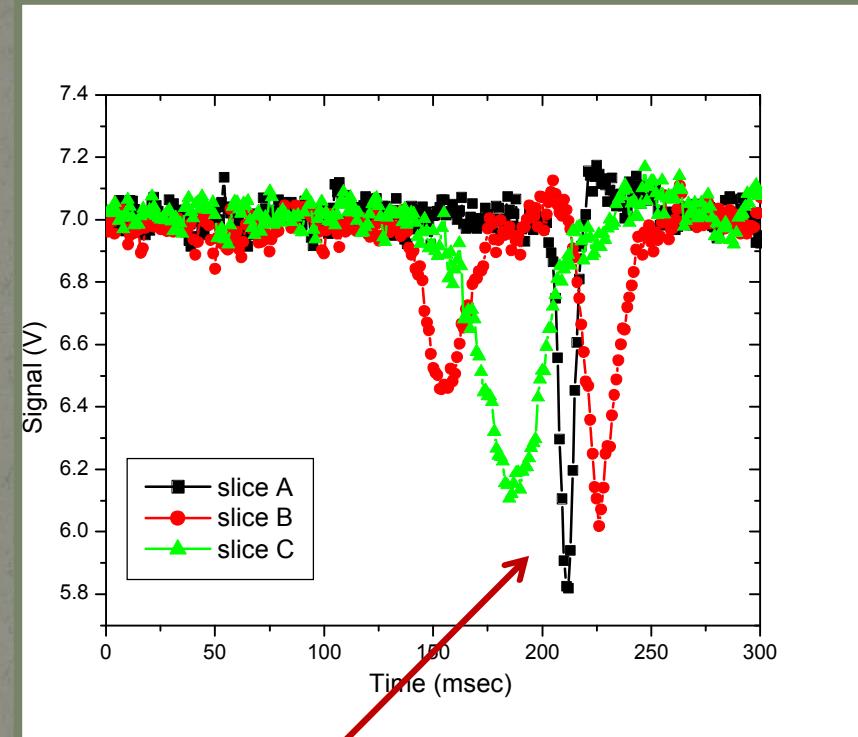
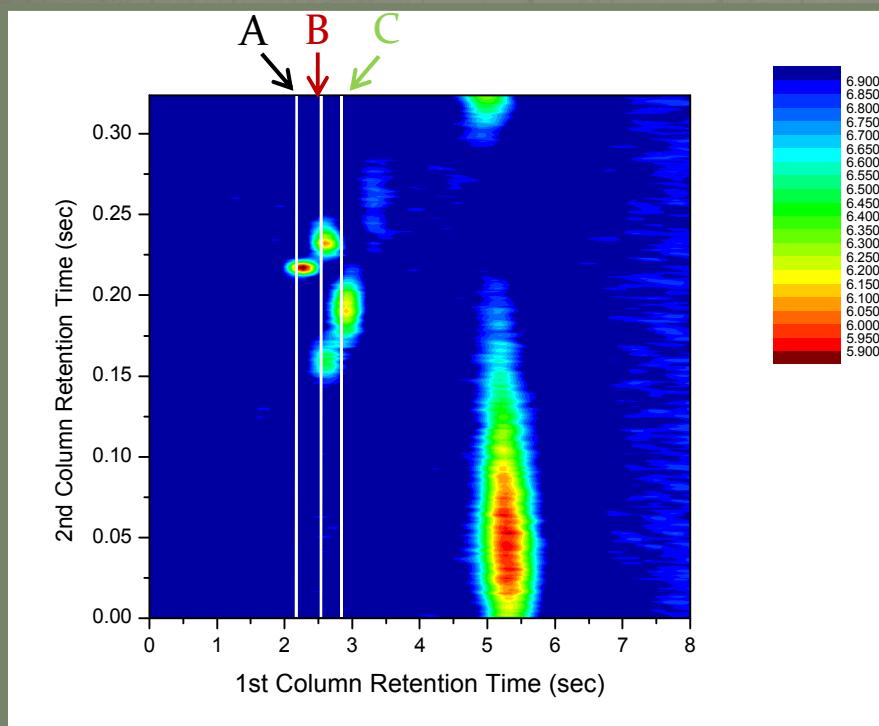
SAND2009-3854C

- Analyte: DMMP (nerve gas simulant)
- Interferents: isoheptanol, n-nanoldiethylene glycol monobutyl ether (DEGBE, found in floor wax), carbon disulfide (solvent)

might be some
contaminants in
solvent



Ultrafast NEMS response



1 msec/sample; FWHM of narrowest peak ~ 8 msec
(fastest demo of nanoscale gas sensor?)



Response repeatability

- Extensive data analysis/process occurring at Sandia to develop analyte ID algorithm (to minimize effects of noise, drift, etc.)
- Simplest to process data as 1-D runs
- Loops show consistency in retention time

