

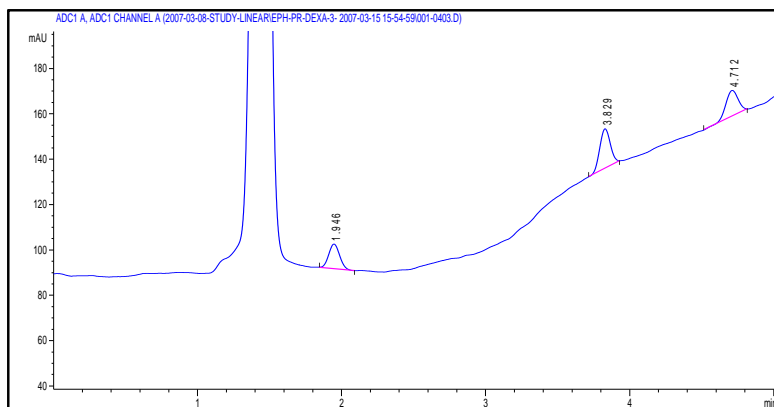
# Ultra-sensitive

CNLSD's ultra-sensitivity can be used:

- When analyzing ***non*** or ***semi volatile*** compound
- When only ***trace amount*** of analytes are available
- When searching for ***drug impurities*** and ***degradation*** products
- When identification and quantification of ***excipients*** is necessary
- When ***industrial hygiene*** is a concern
- When compounds have ***weak or no chromophores***
- Even when compounds ***have good chromophores***

Refer to chromatograms below showing ng levels of detection

# Detection of 2 ng (on column conc.)

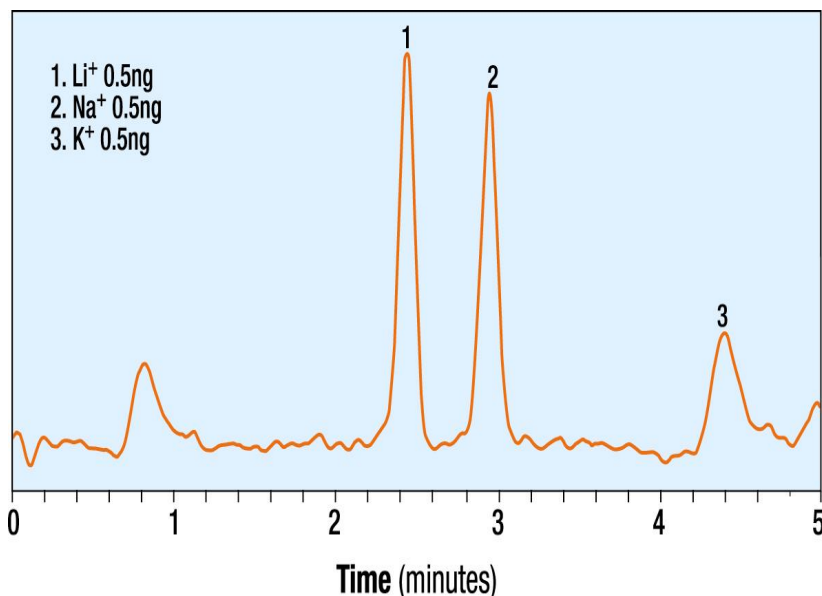


| Peak # | ID            | Retention  |
|--------|---------------|------------|
|        |               | Time (min) |
| 1      | Ephedrine     | 1.946      |
| 2      | Prednisone    | 3.829      |
| 3      | Dexamethasone | 4.712      |

Refer to the applications page for experimental conditions

| RetTime<br>[min] | Area<br>[mAU*s] | Height<br>[mAU] | Symm. | Width<br>[min] | Signal<br>/Noise |
|------------------|-----------------|-----------------|-------|----------------|------------------|
| 1.946            | 54.21151        | 10.68454        | 0.94  | 0.0808         | 25.5             |
| 3.829            | 89.13013        | 17.42297        | 1.04  | 0.0817         | 41.5             |
| 4.712            | 67.69373        | 11.36119        | 1.13  | 0.0975         | 27.1             |

# Detection of 0.5 ng (on column conc.)

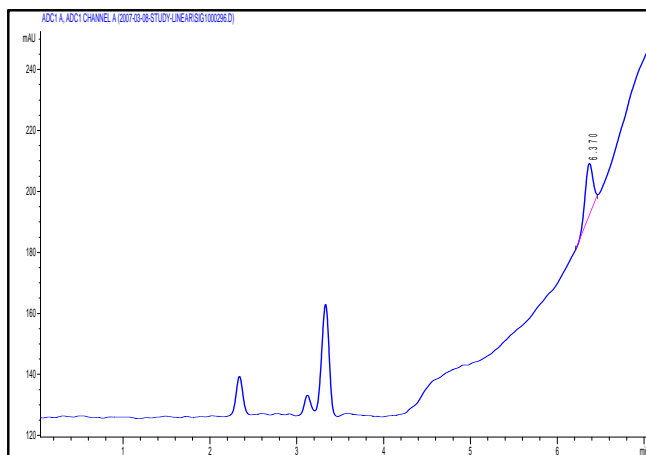


| Peak # | ID              | Retention  |
|--------|-----------------|------------|
|        |                 | Time (min) |
| 1      | Li <sup>+</sup> | 2.429      |
| 2      | Na <sup>+</sup> | 2.936      |
| 3      | K <sup>+</sup>  | 4.392      |

Refer to the applications page for experimental conditions

| RetTime<br>[min] | Area<br>[mAU*s] | Height<br>[mAU] | Symm. | Width<br>[min] | Signal<br>/Noise |
|------------------|-----------------|-----------------|-------|----------------|------------------|
| 2.429            | 2369.87573      | 355.07587       | 1.01  | 0.1042         | 28.2             |
| 2.936            | 2241.30737      | 315.27234       | 1.01  | 0.1108         | 25.1             |
| 4.392            | 1084.76123      | 99.28452        | 0.91  | 0.1800         | 7.9              |

# Detection of 9 ng of Lysozyme (on column conc.)



| Peak #   | ID       | Retention  |
|--|----------|------------|
|  |          | Time (min) |
| 1  | Lysozyme | 6.37       |
| Refer to the applications page for experimental conditions |          |            |

| RetTim<br>[min] | Area<br>[mAU*s] | Height<br>[mAU] | Width<br>[min] | Plates | Signal<br>/Noise |
|-----------------|-----------------|-----------------|----------------|--------|------------------|
| 6.37            | 105.07286       | 17.08284        | 0.1058         | 20068  | 65.1             |

## 10 ng on column of Diphenhydramine (S/N=328) and Trimipramine (S/N=480) Detection by CNLSD

