

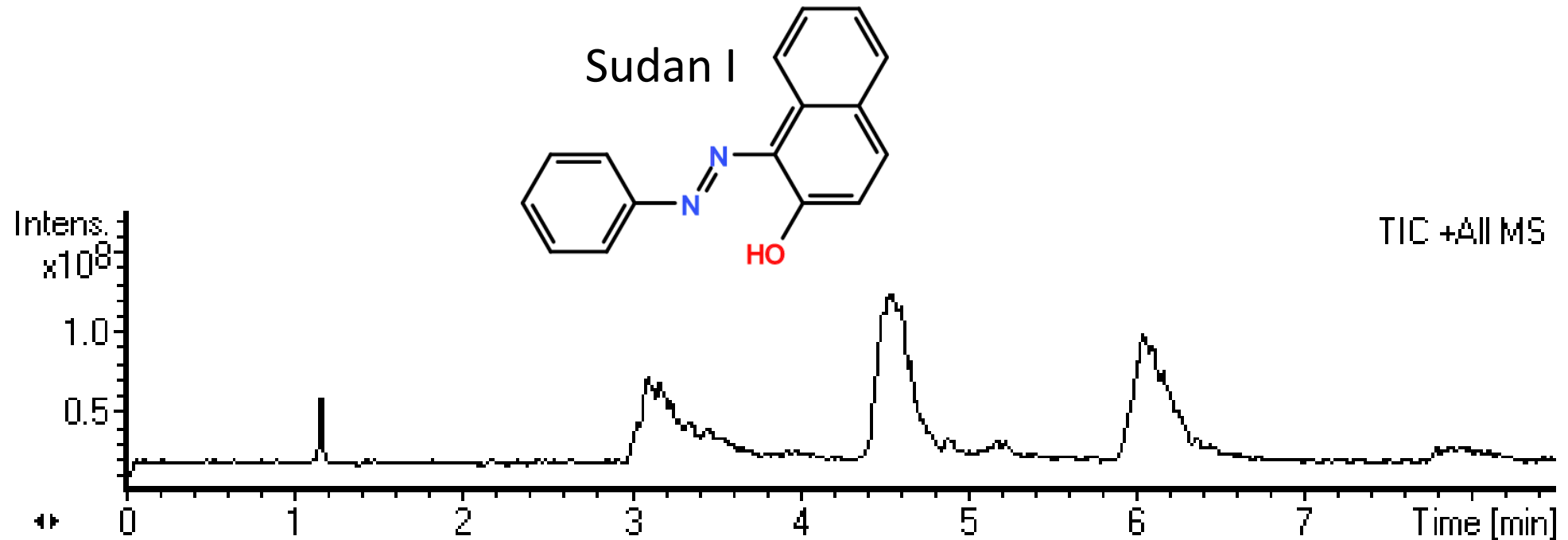
Detector-side selectivity

MS selectivity

- MS detection adds new dimension to the analytical signal.
- m/z dimension enables additional selectivity.

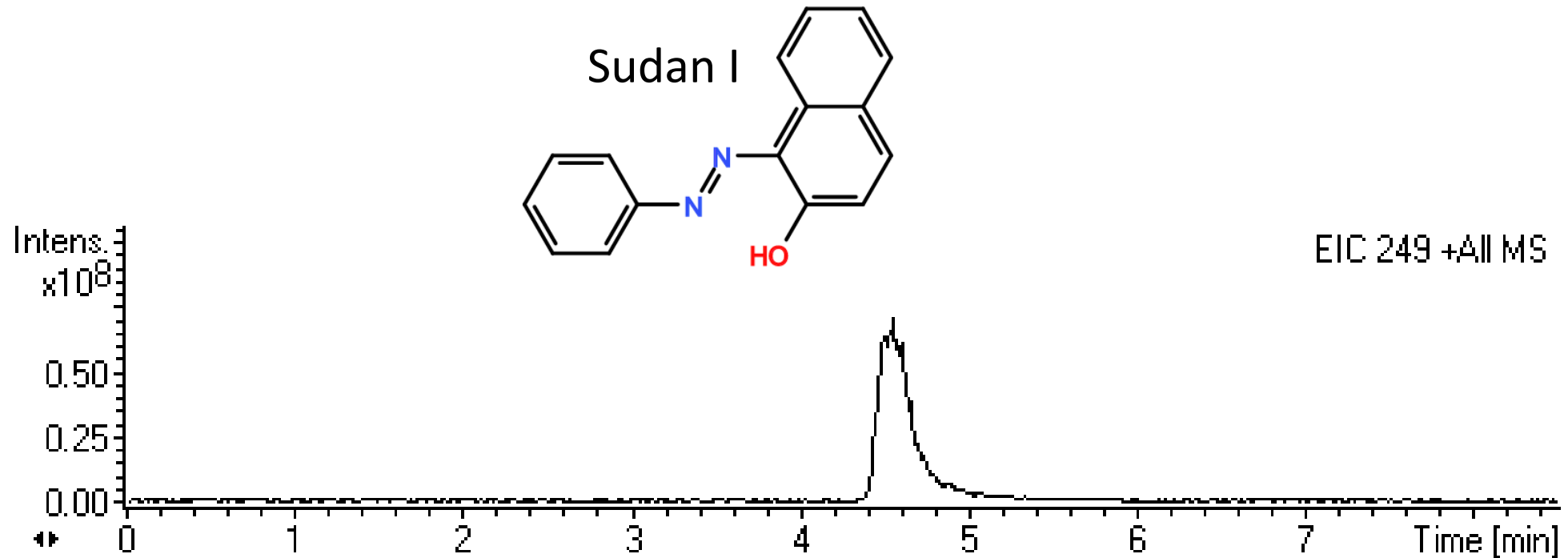
Analysis of Sudan I dye – TIC

- Total ion chromatogram (TIC) – all sample components are “visible”.



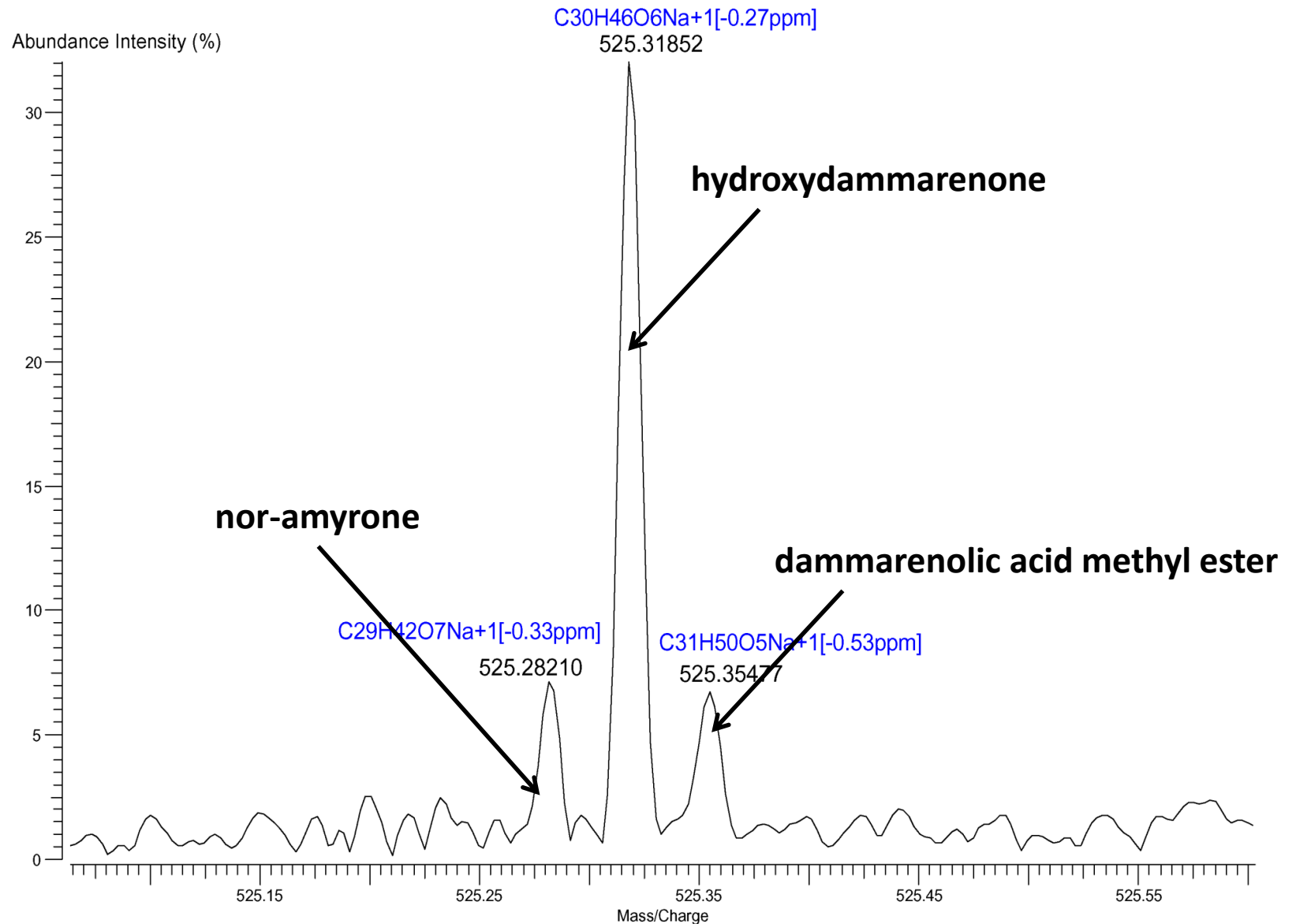
Analysis of Sudan I dye – EIC

- Extracted ion chromatogram (EIC) – only compound(s) with m/z 249 are registered.



MS selectivity

- Even higher selectivity can be obtained:
 - Tandem MS (MS/MS).
 - High resolution MS (HRMS).



Could MS be used without LC?

- In principle “yes“, BUT ...
 - Mixture components may yield ions with the same m/z as the analyte.
 - Mixture components may alter analyte signal (matrix effect).

LC and MS selectivities are orthogonal to each other.
Highest selectivity is achieved if LC and MS are combined.