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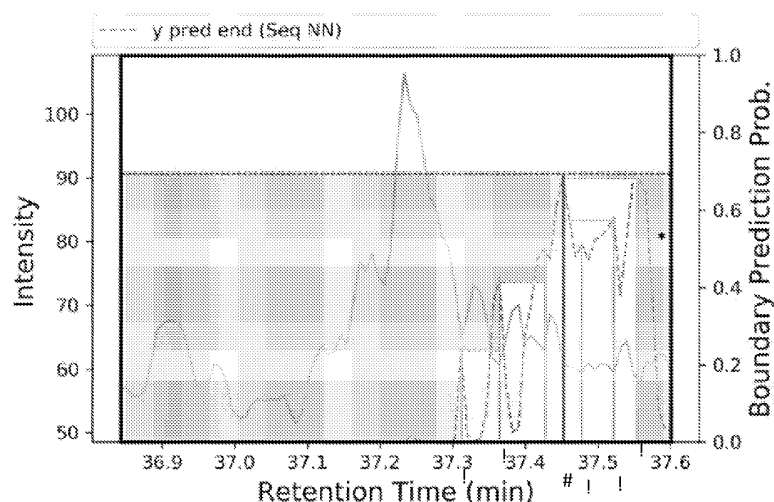
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(54) Title: AUTOMATED DETECTION OF BOUNDARIES IN MASS SPECTROMETRY DATA

**FIG. 12**

(57) **Abstract:** A system and method for automated detection of the presence or absence of a quantity based on intensities expressed in terms of, or derived from frequency or time dependent data. According to one example intensities from mass spectrometry are identified using a non-linear mathematical model, such as an artificial neural network trained to find start and stop peaks of an intensity, from which an abundance may be determined.

[Continued on next page]

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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