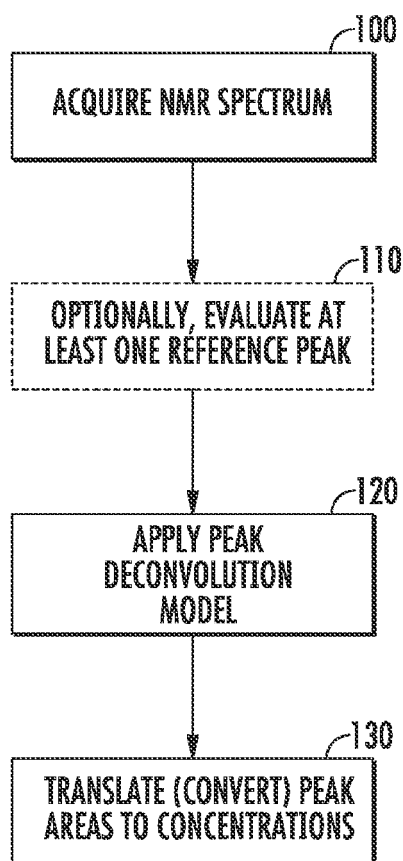
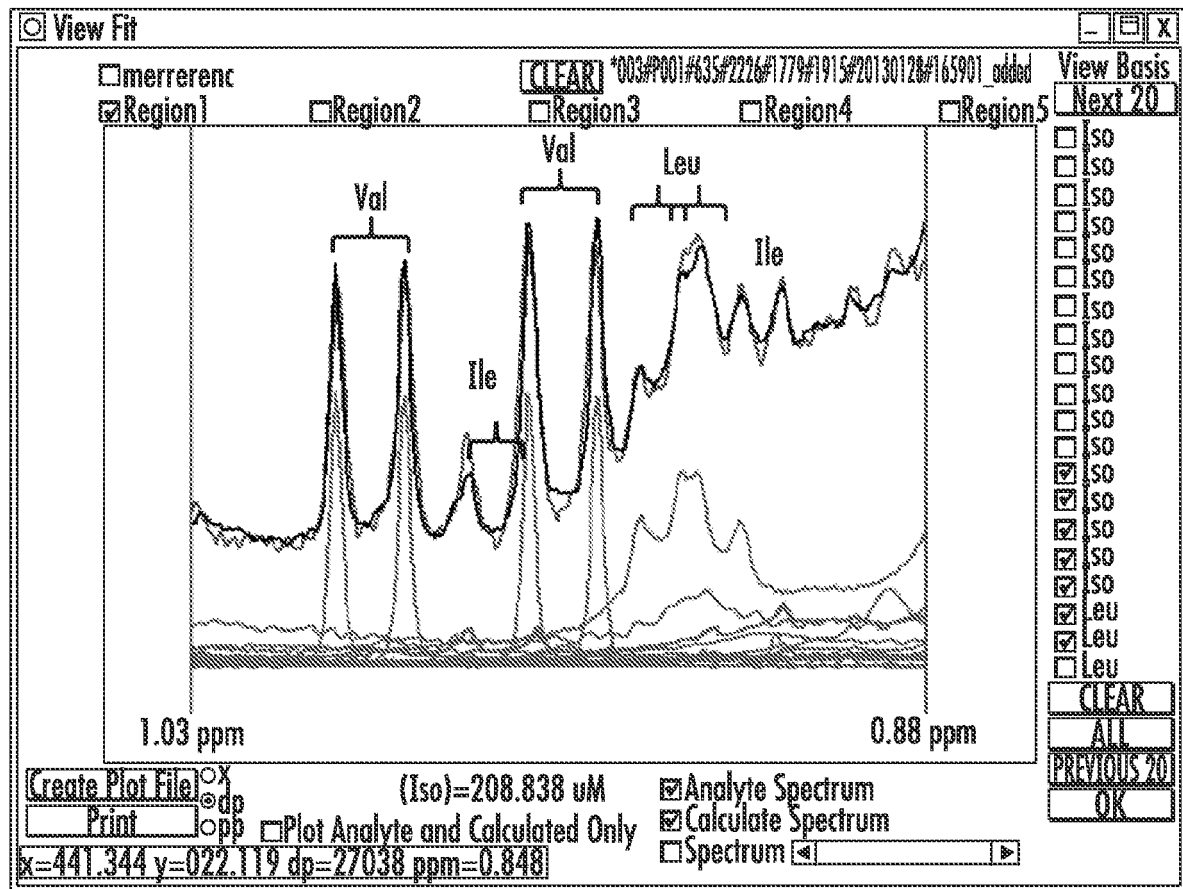


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*FIG. 1*

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Exemplary fitting of the BCAA region including valine, isoleucine and leucine. In this example these amino acids are modeled using experimentally derived components. The baseline is fit using experimentally derived protein and lipoprotein components. The chemical shift and coupling constant information for each of the BCAAs in this model are given below.

Chemical shifts and coupling constants in serum

Val	0.95 ppm, 7.14 (d) 1.00 ppm, 7.14 (d)
Ile	0.90 ppm, 7.49 (t) 0.97 ppm, 7.11 (d)
Leu	0.93 ppm, 6.22 (d) 0.92 ppm, 6.22 (d)

FIG. 2

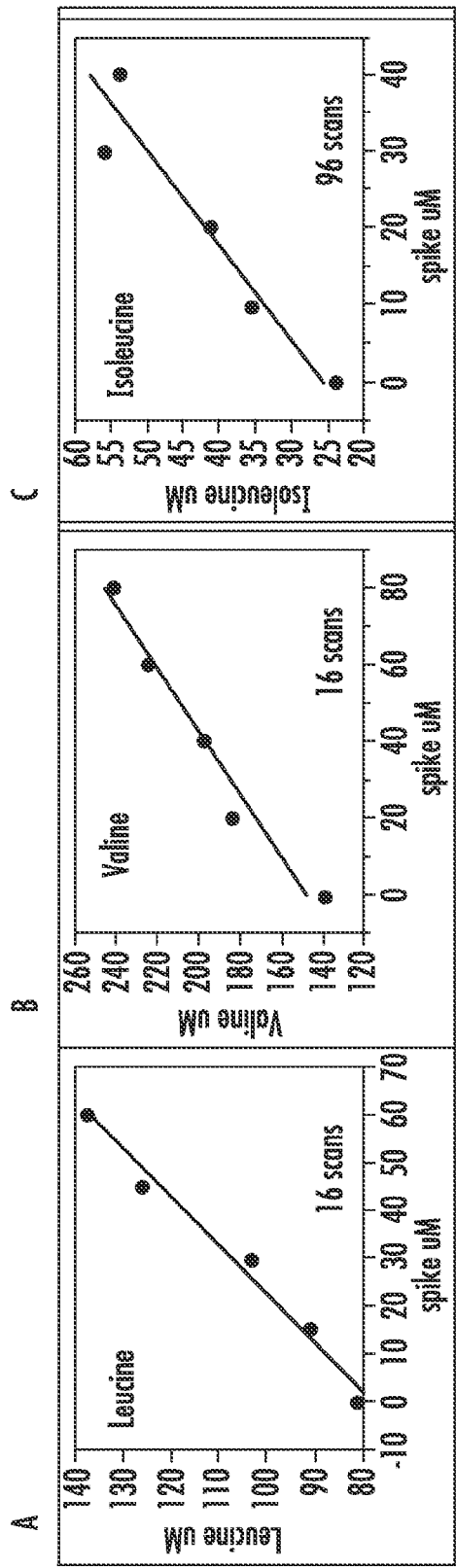
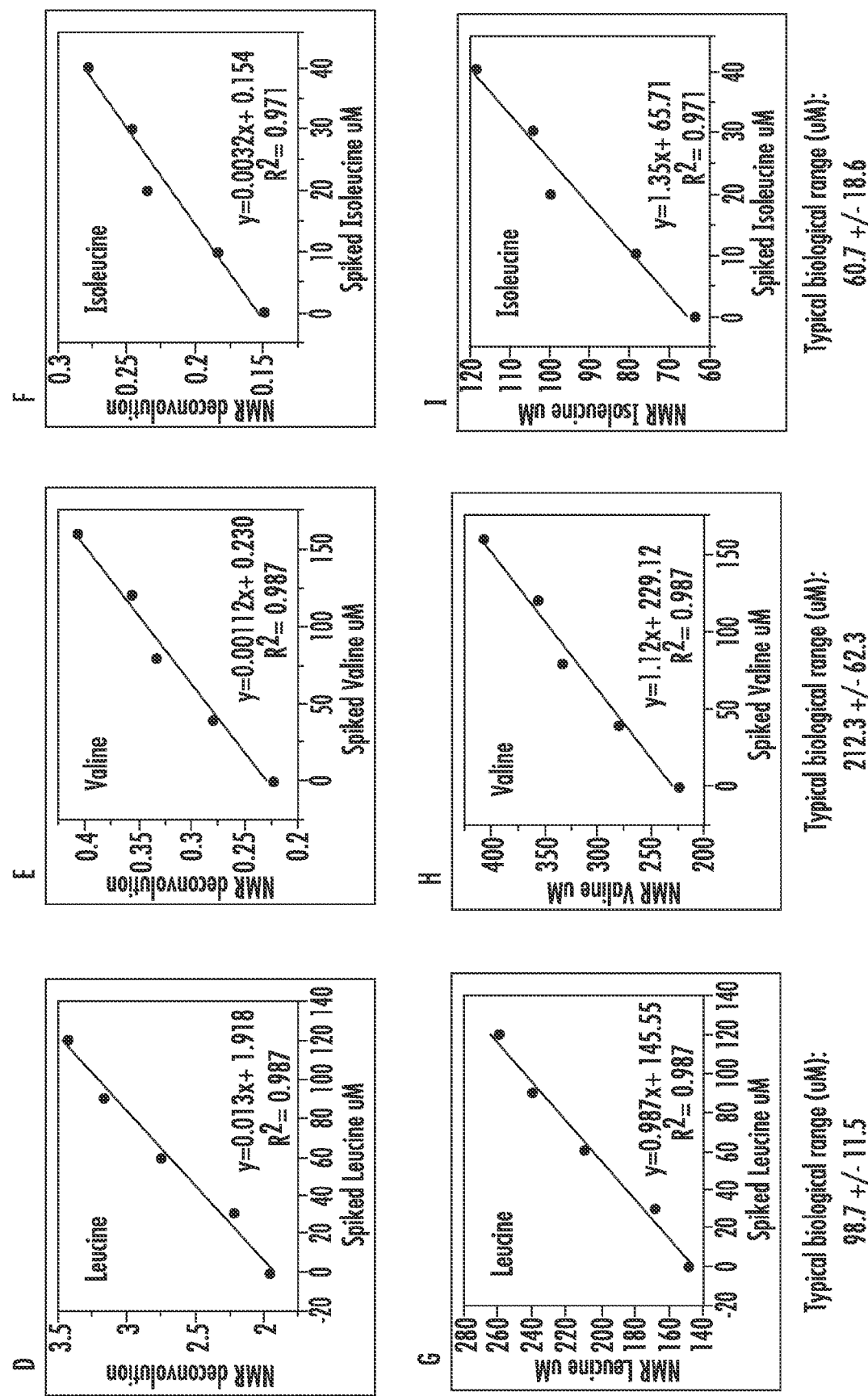


FIG. 3



Reference biological ranges taken from Psychogios N, Hau DD, Peng J, Guo AC, Mandal R, et al. (2011) The Human Serum Metabolome. PLoS ONE 6(2): e16957. Table 3. Concentrations (mean +/- stdev) of serum metabolites as determined by NMR

FIG. 3

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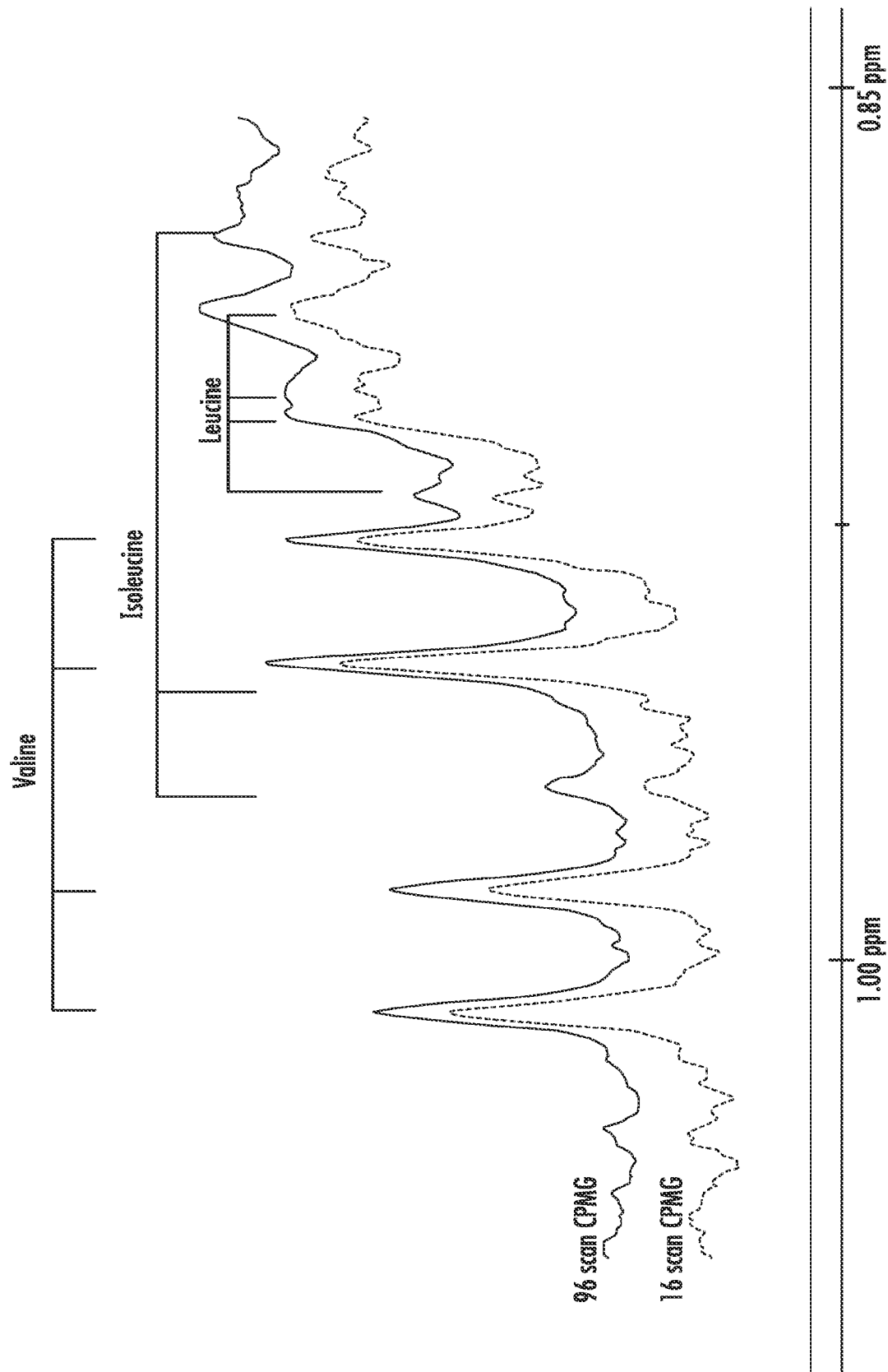


FIG. 4

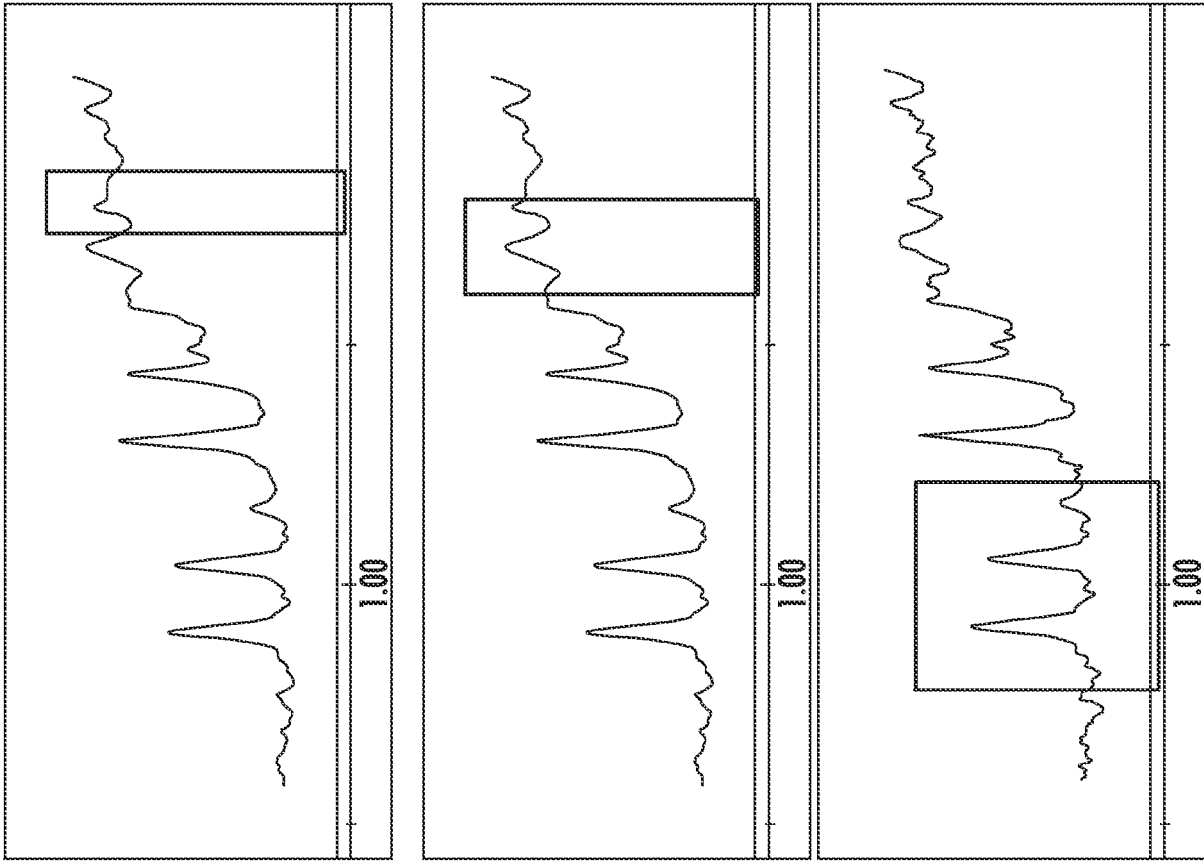
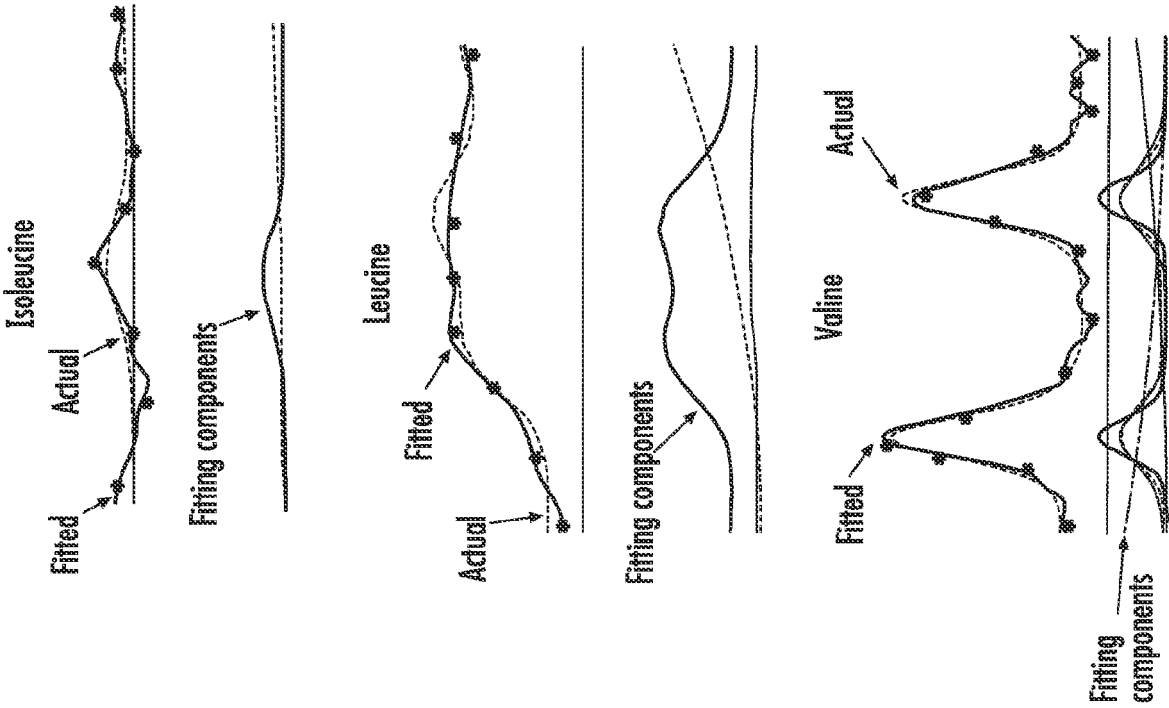


FIG. 5



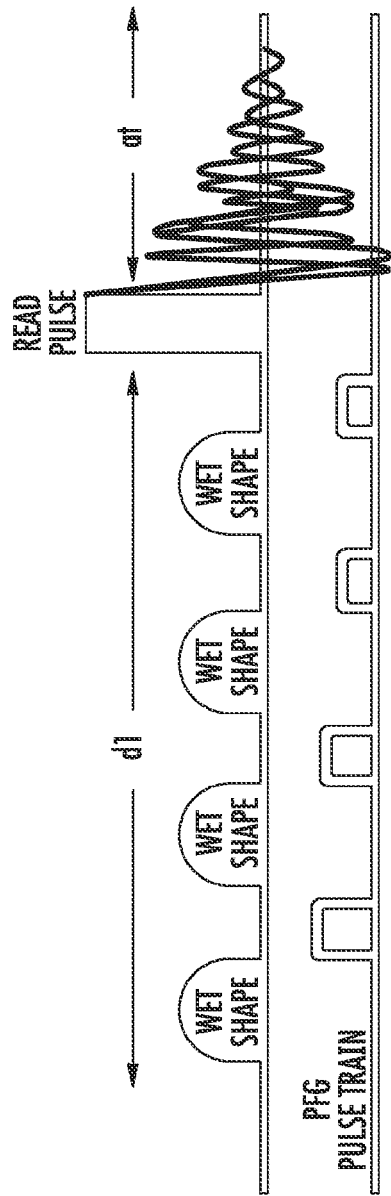


FIG. 6

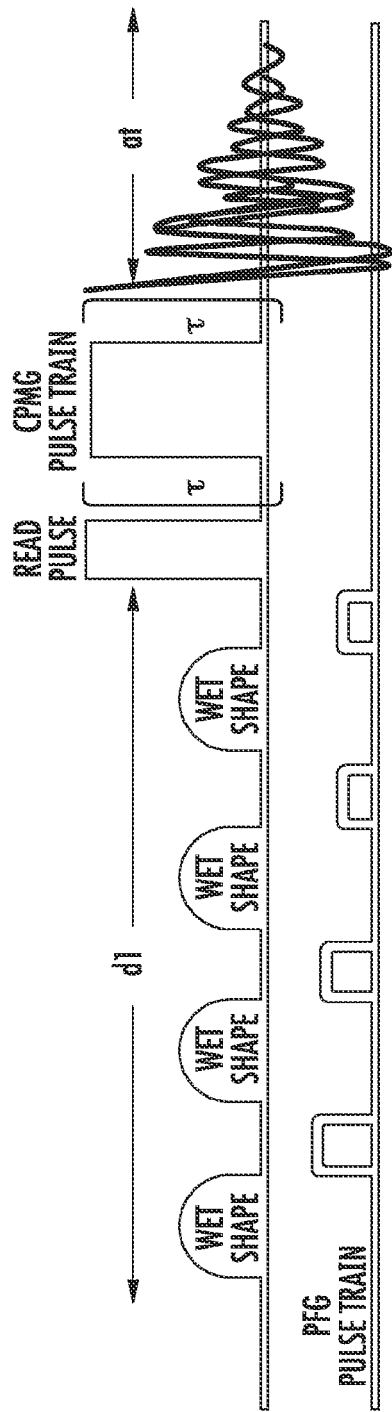


FIG. 7

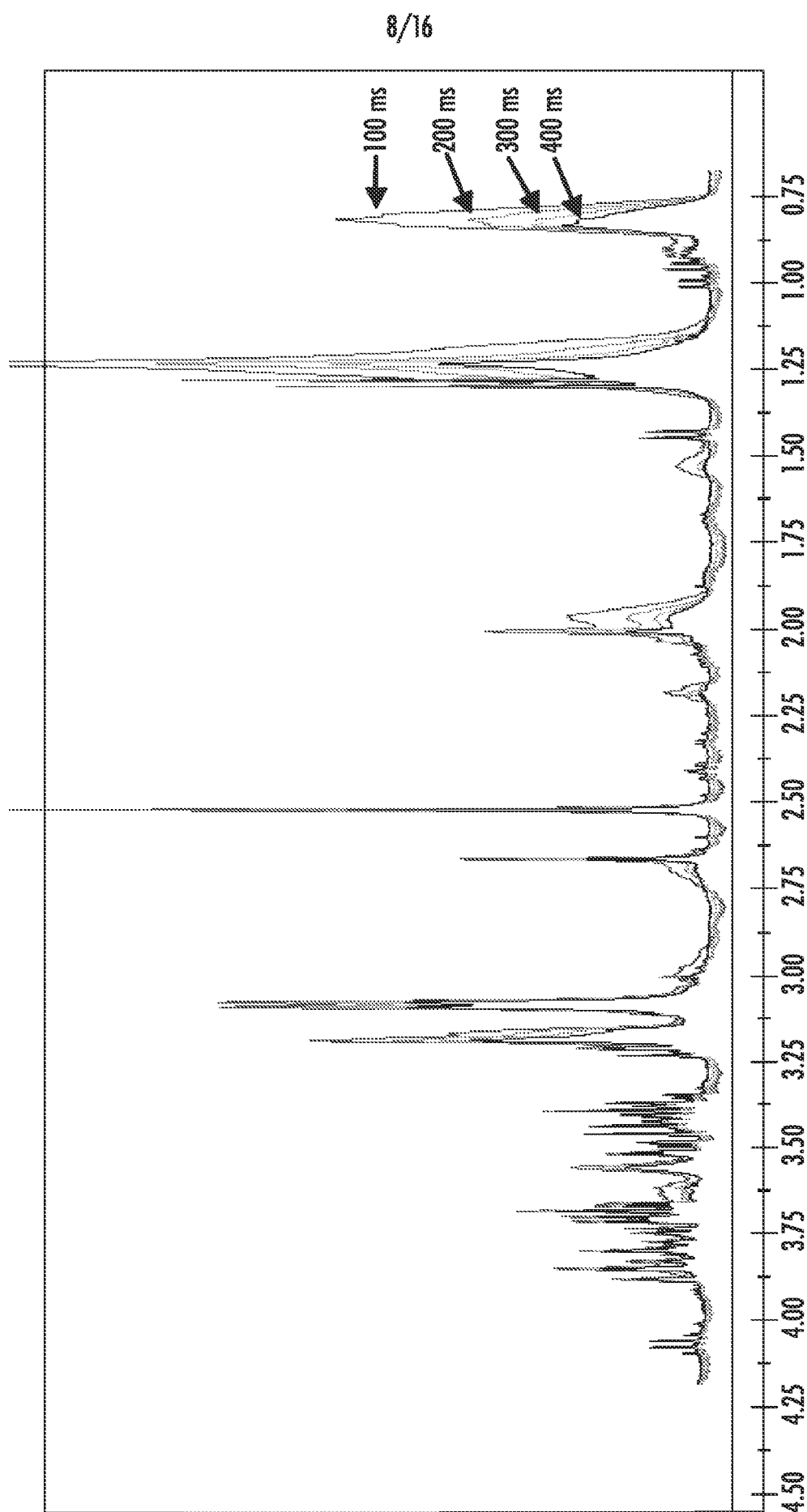


FIG. 8

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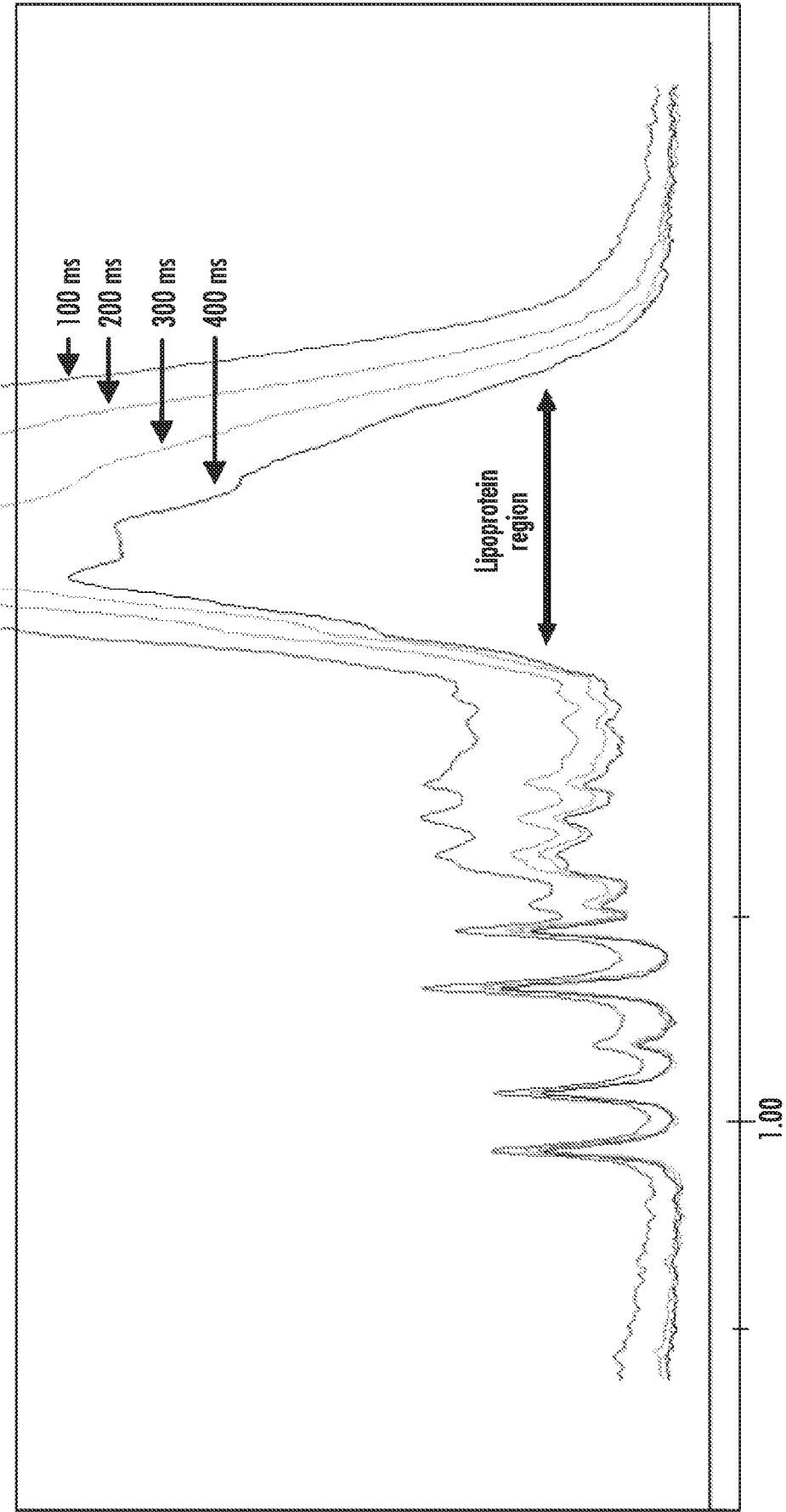
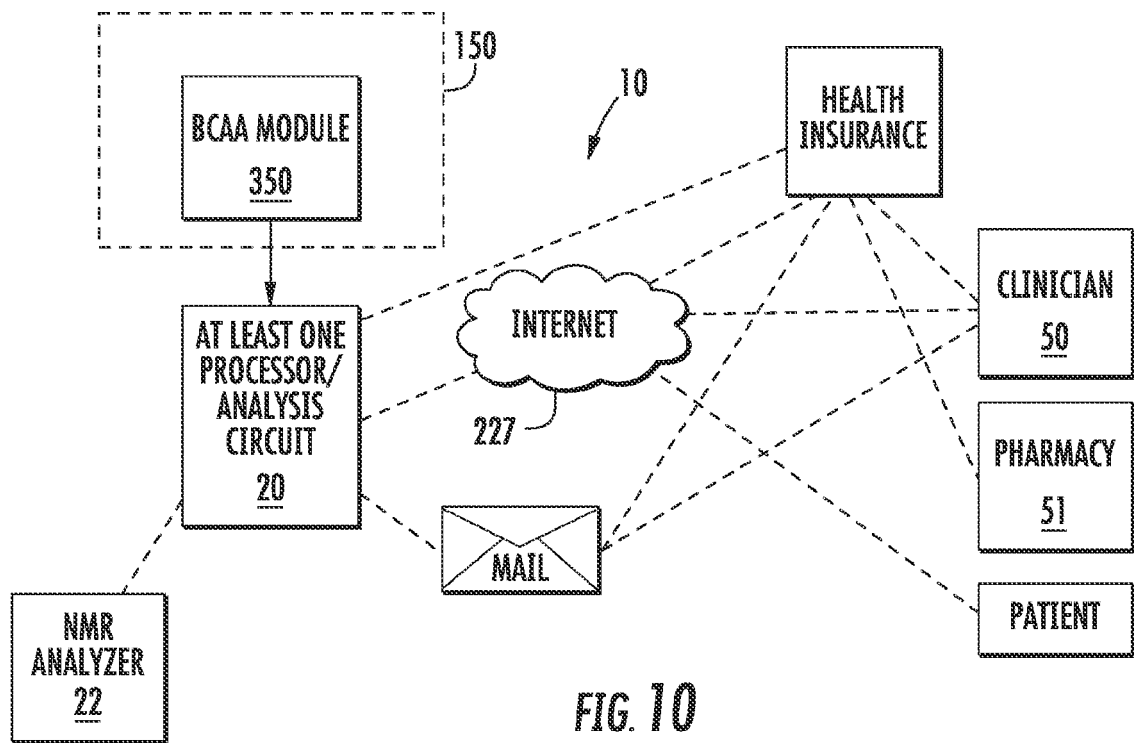


FIG. 9

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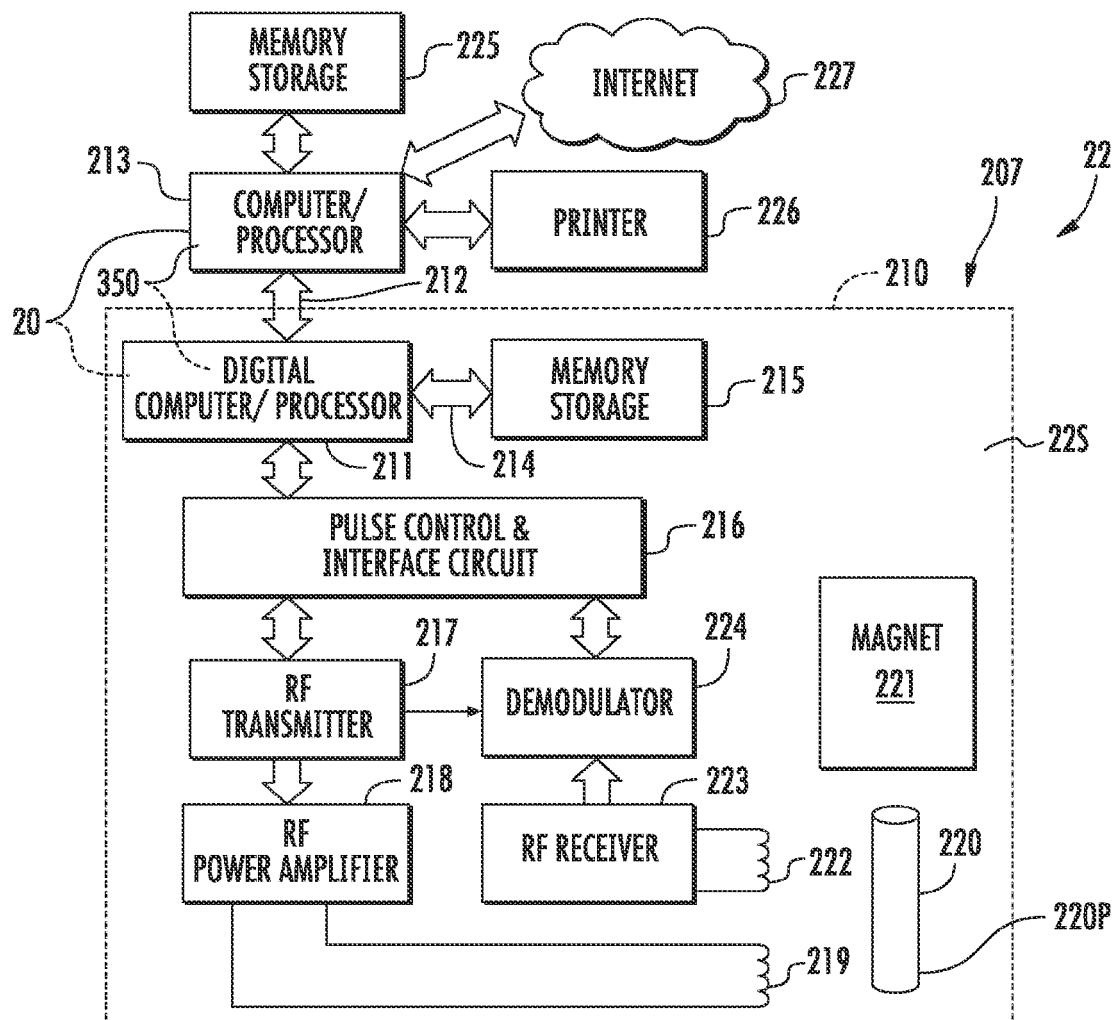


FIG. 11

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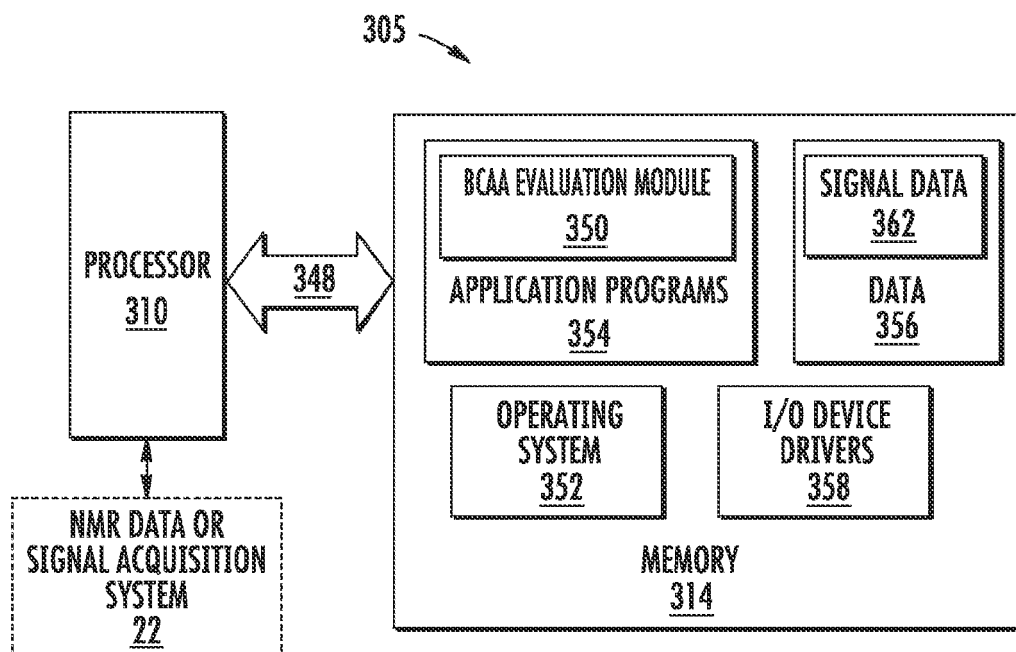
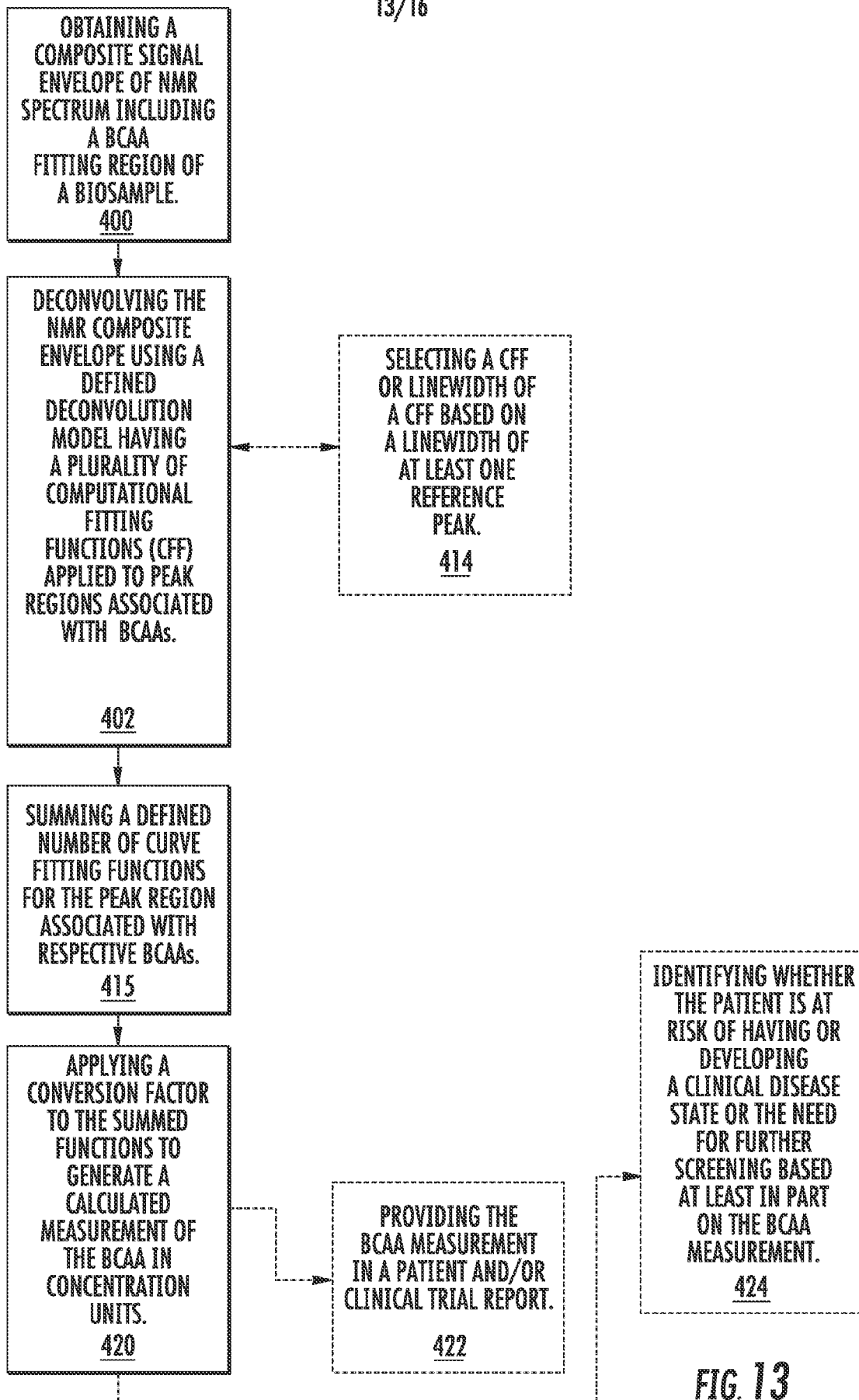


FIG. 12

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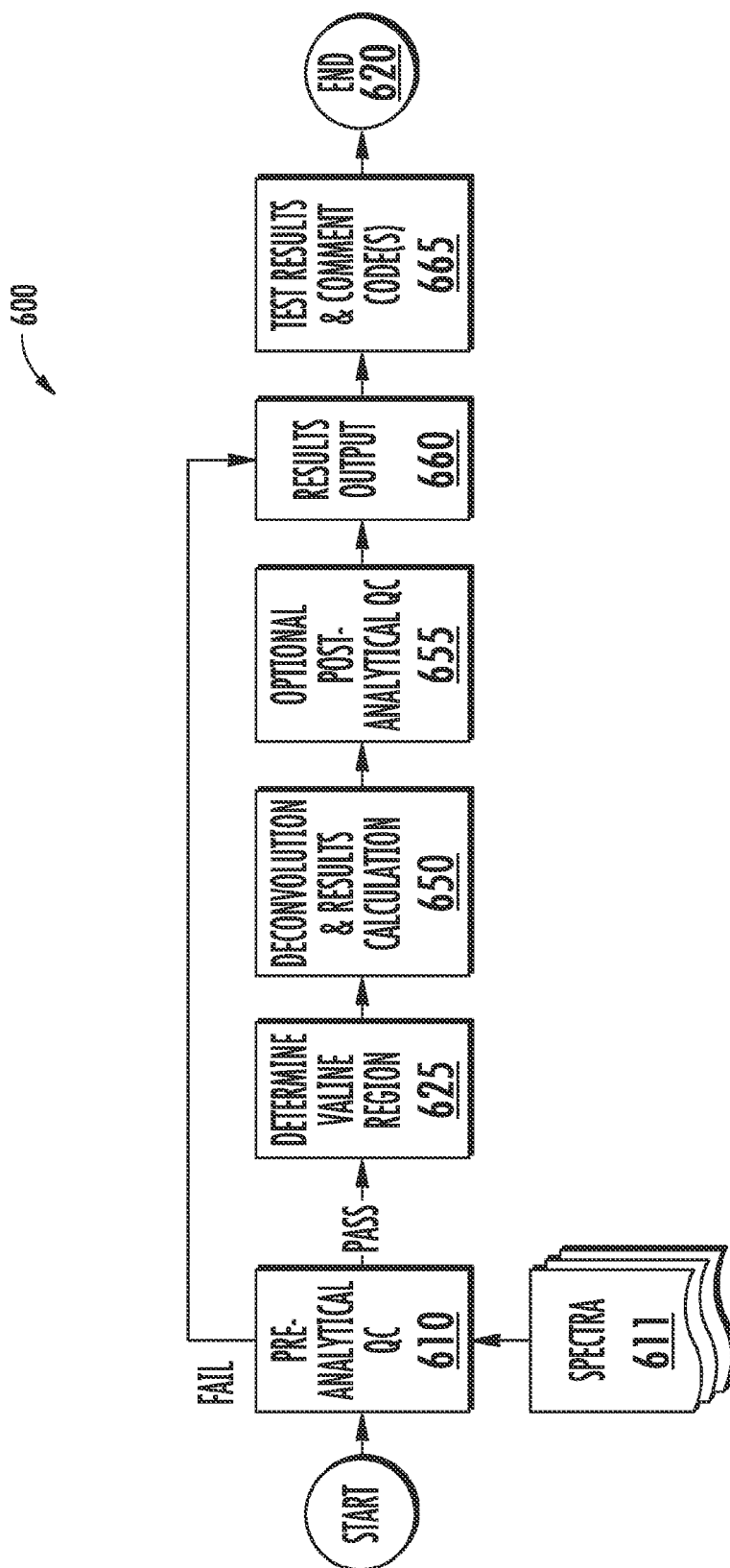
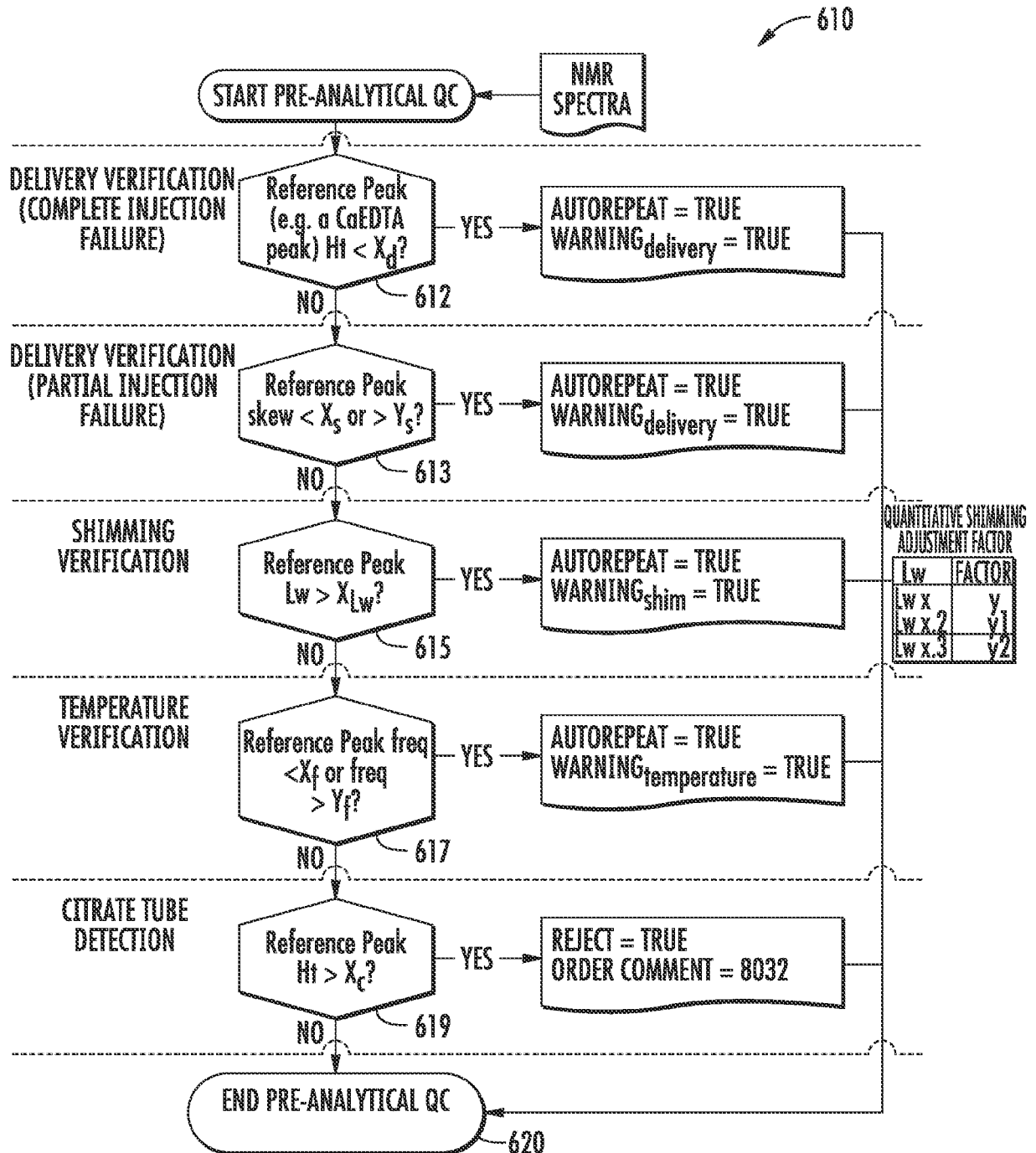


FIG. 14A

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X and Y= A VARIABLE BASED ON THE REFERENCE PEAK SELECTED

FIG. 14B

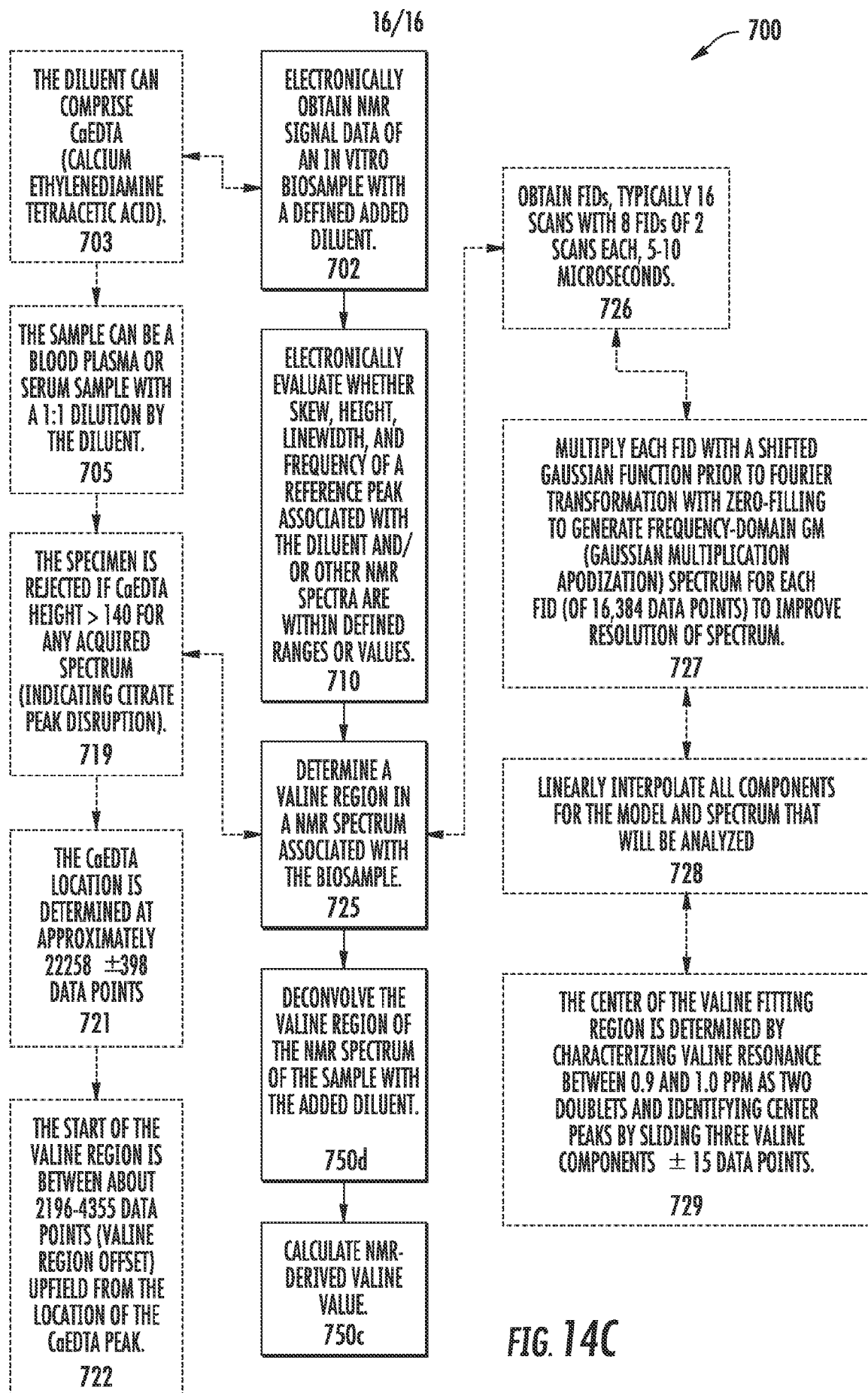


FIG. 14C