

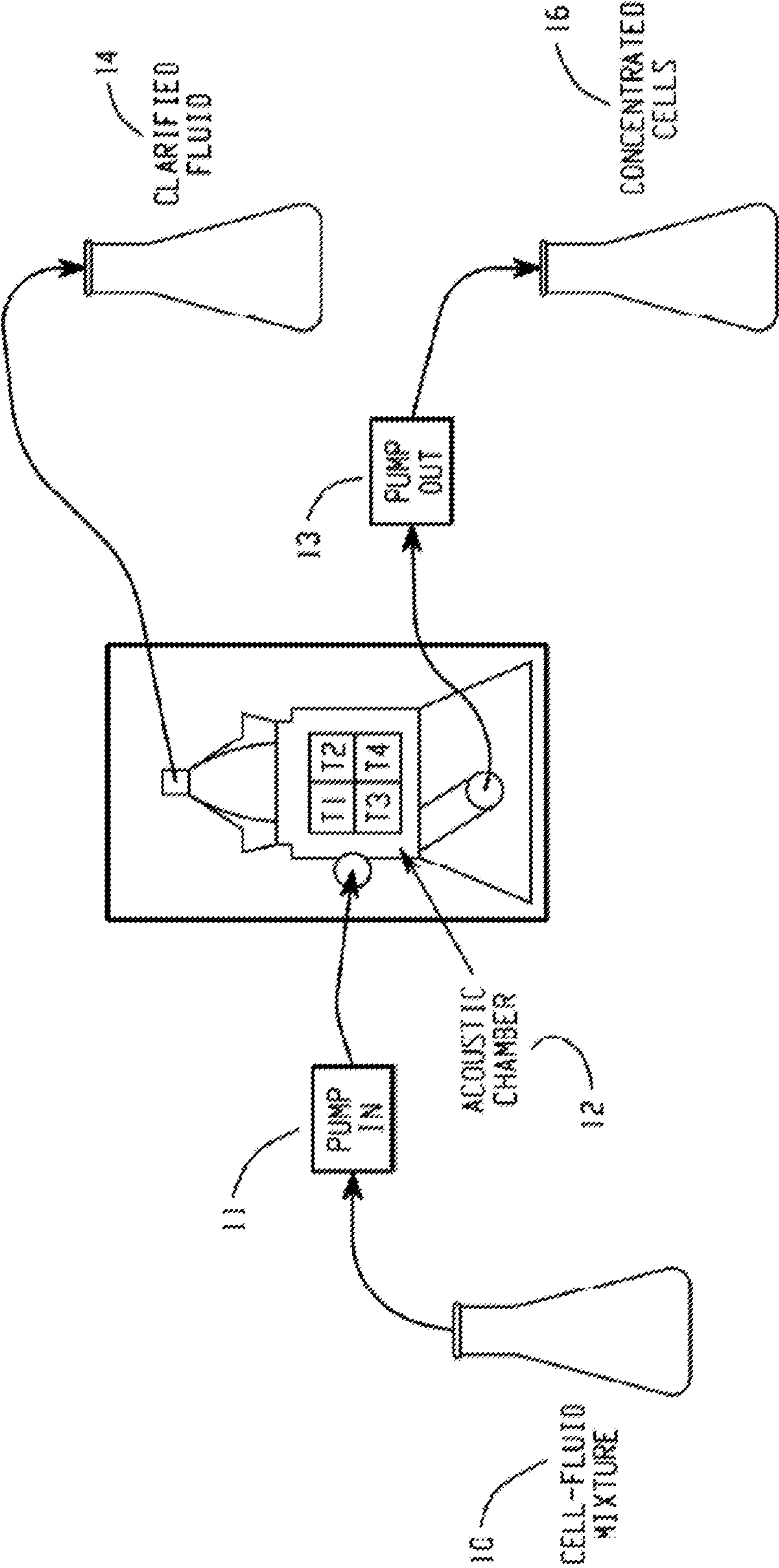


Fig. 1

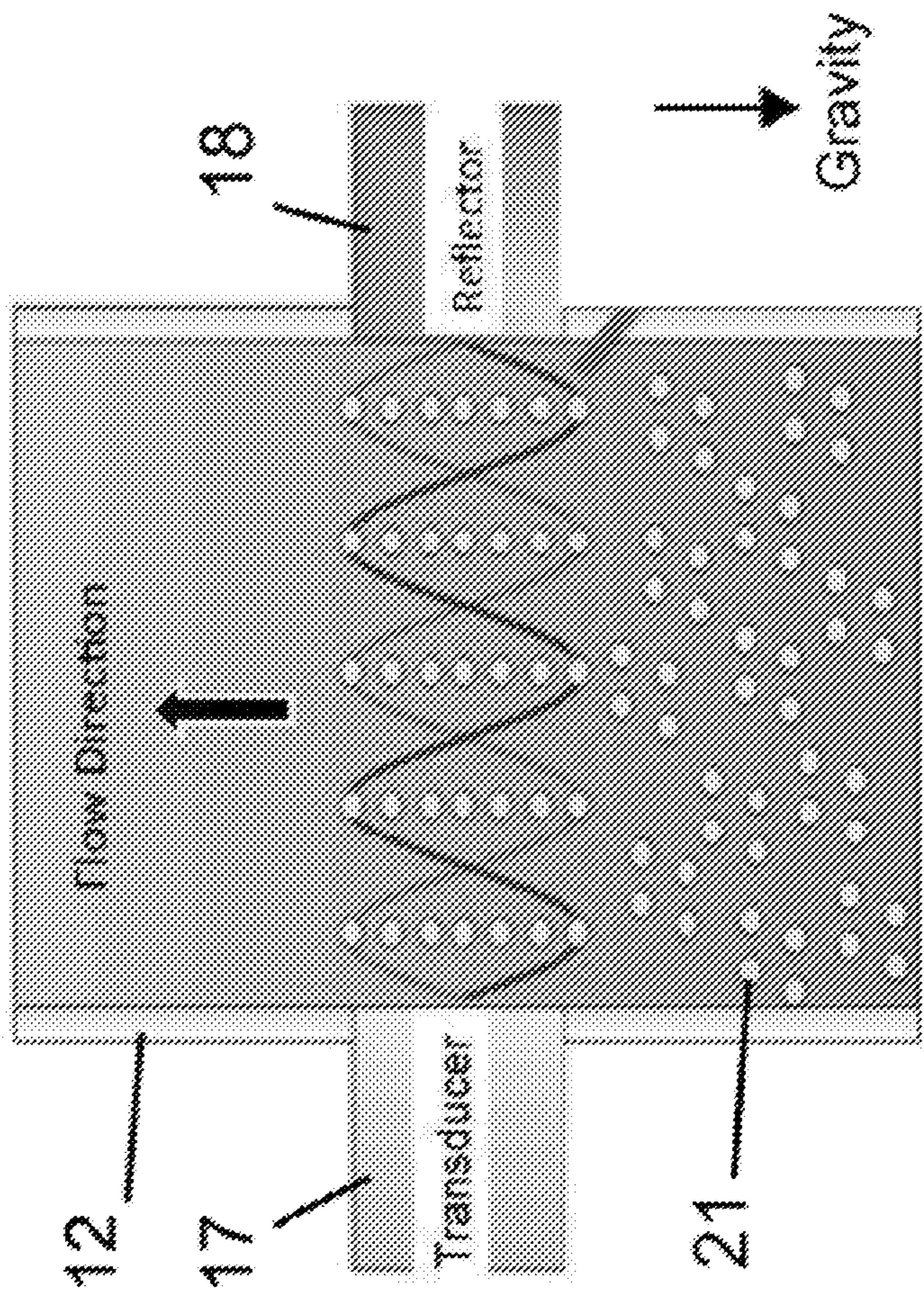


Figure 2

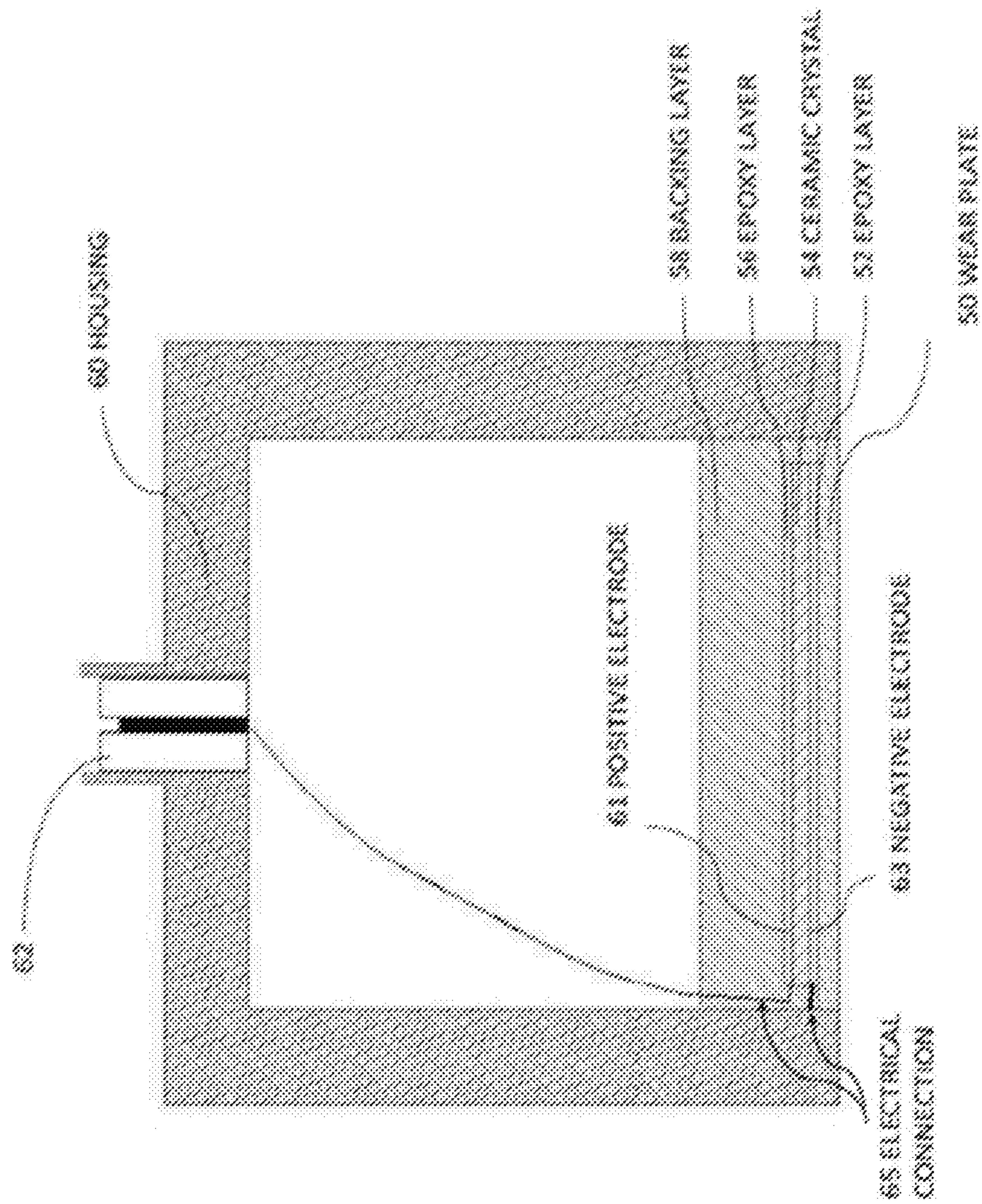


Figure 3

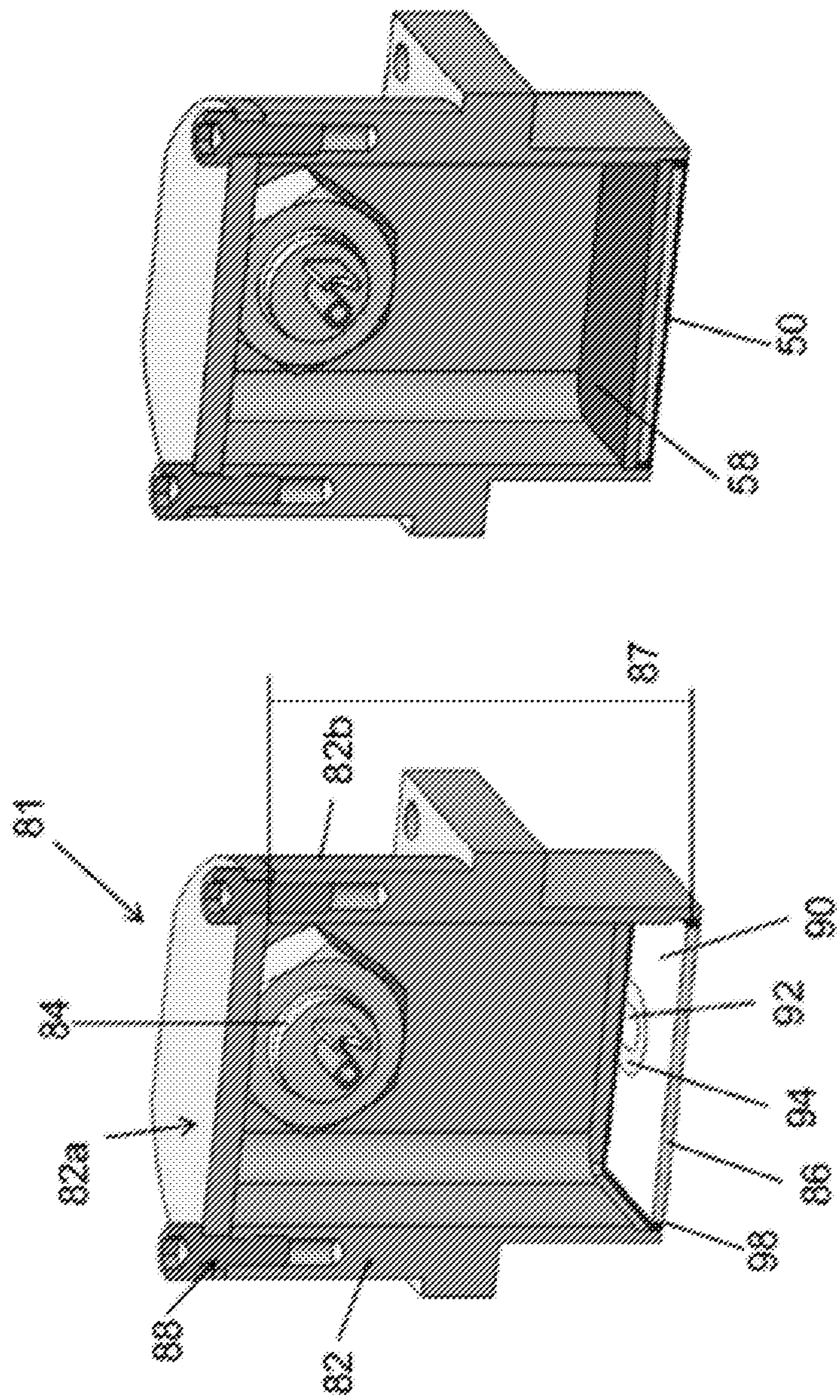


Figure 5

Figure 4

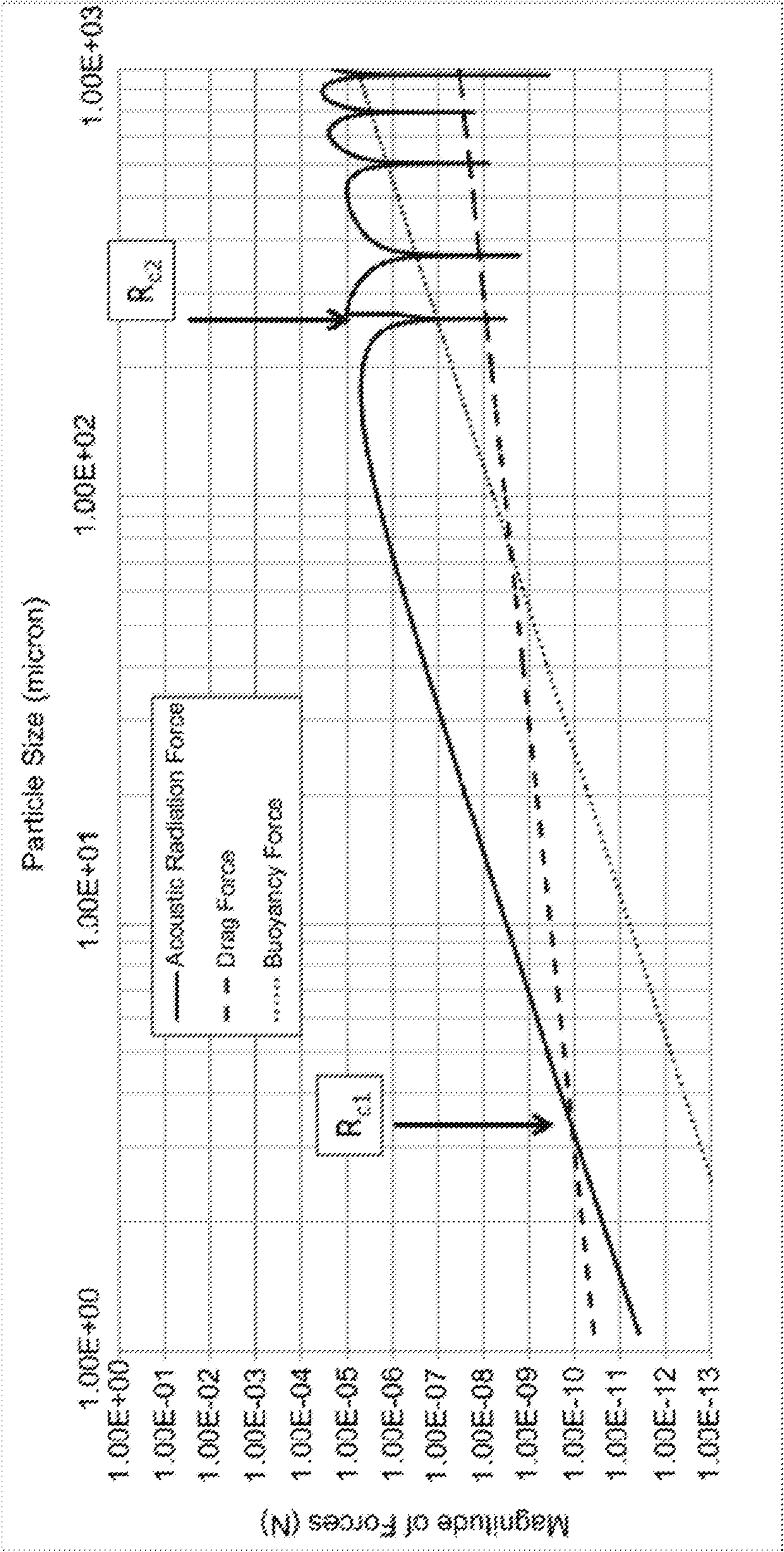


Figure 6

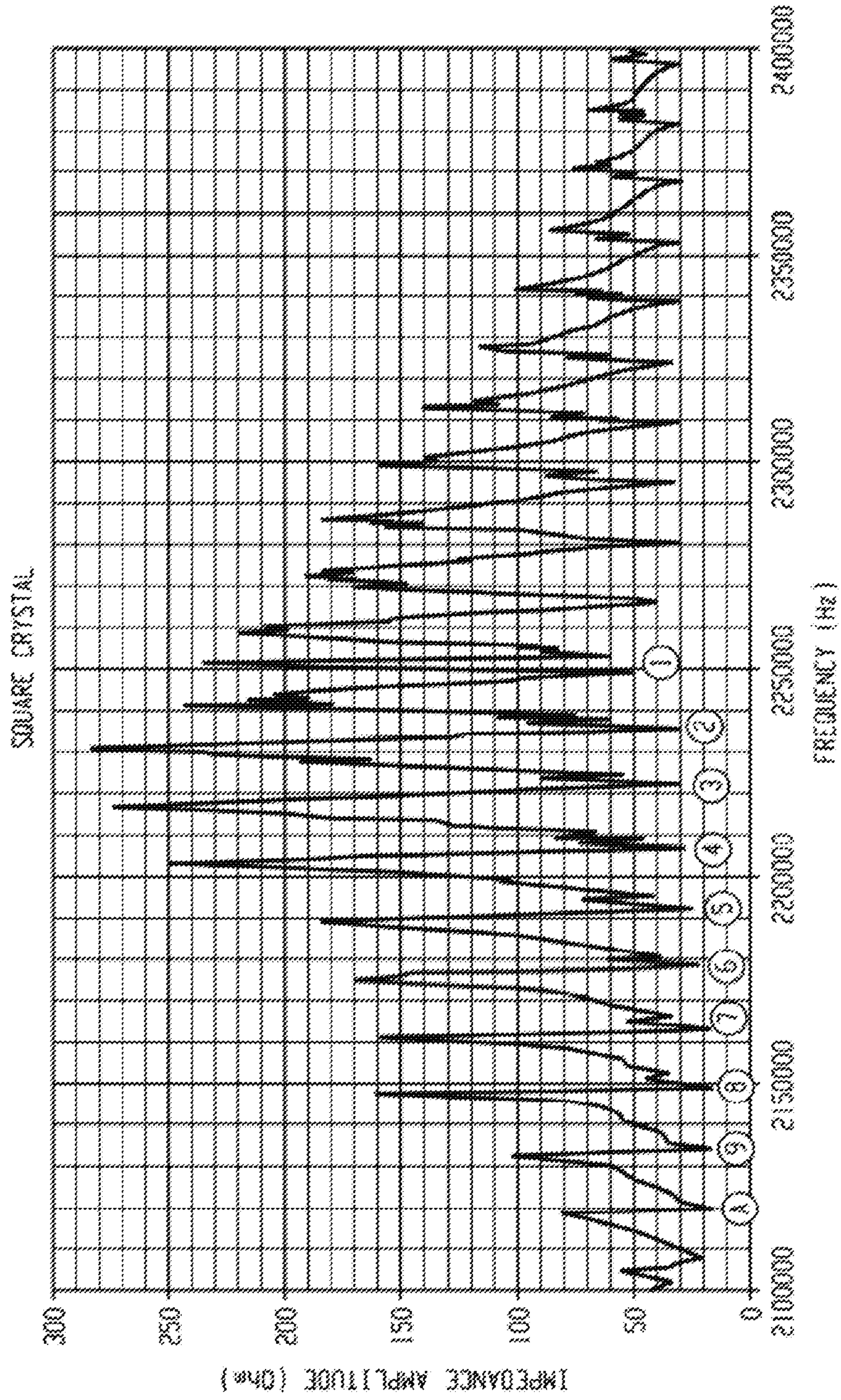


Figure 7

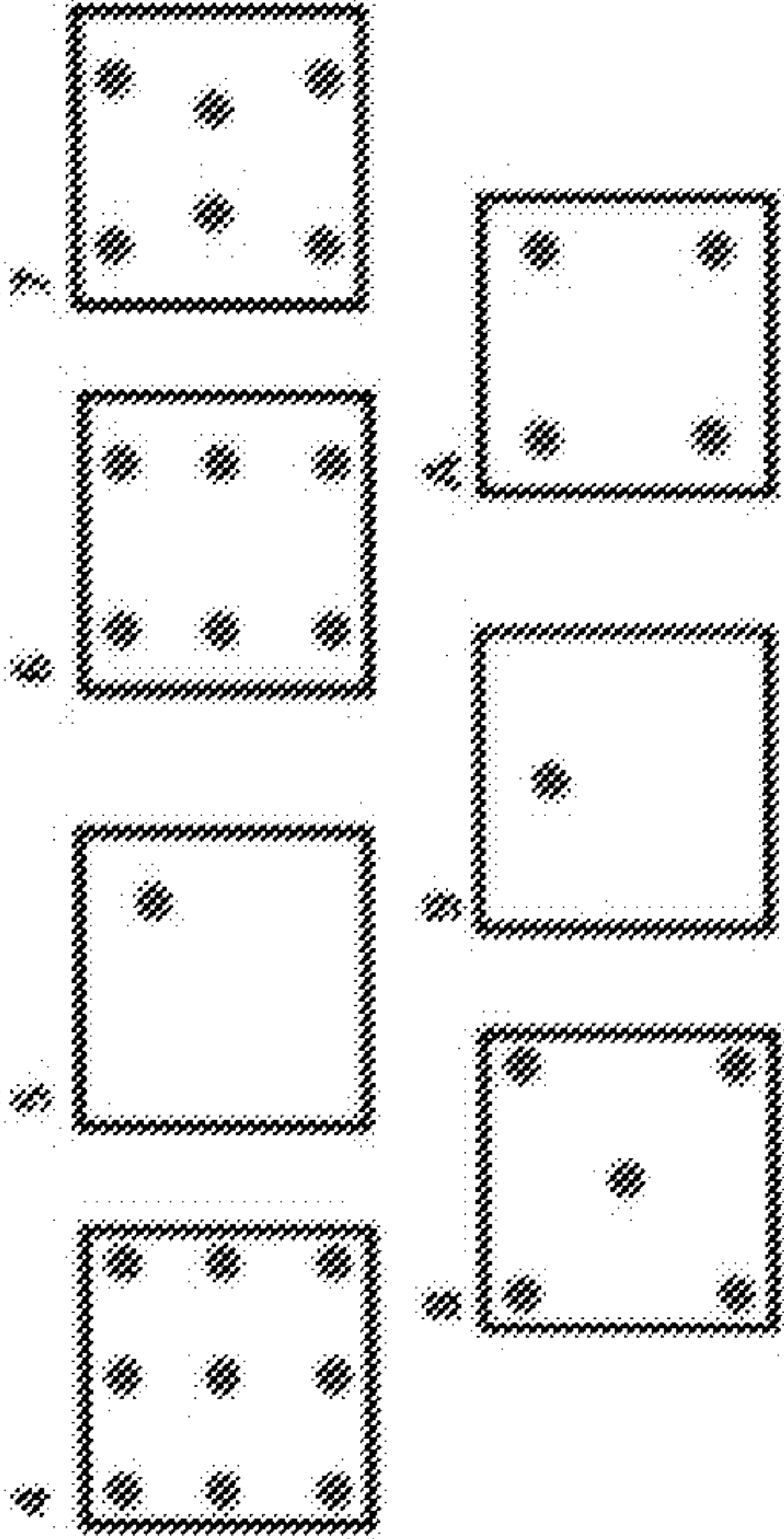


Figure 8A

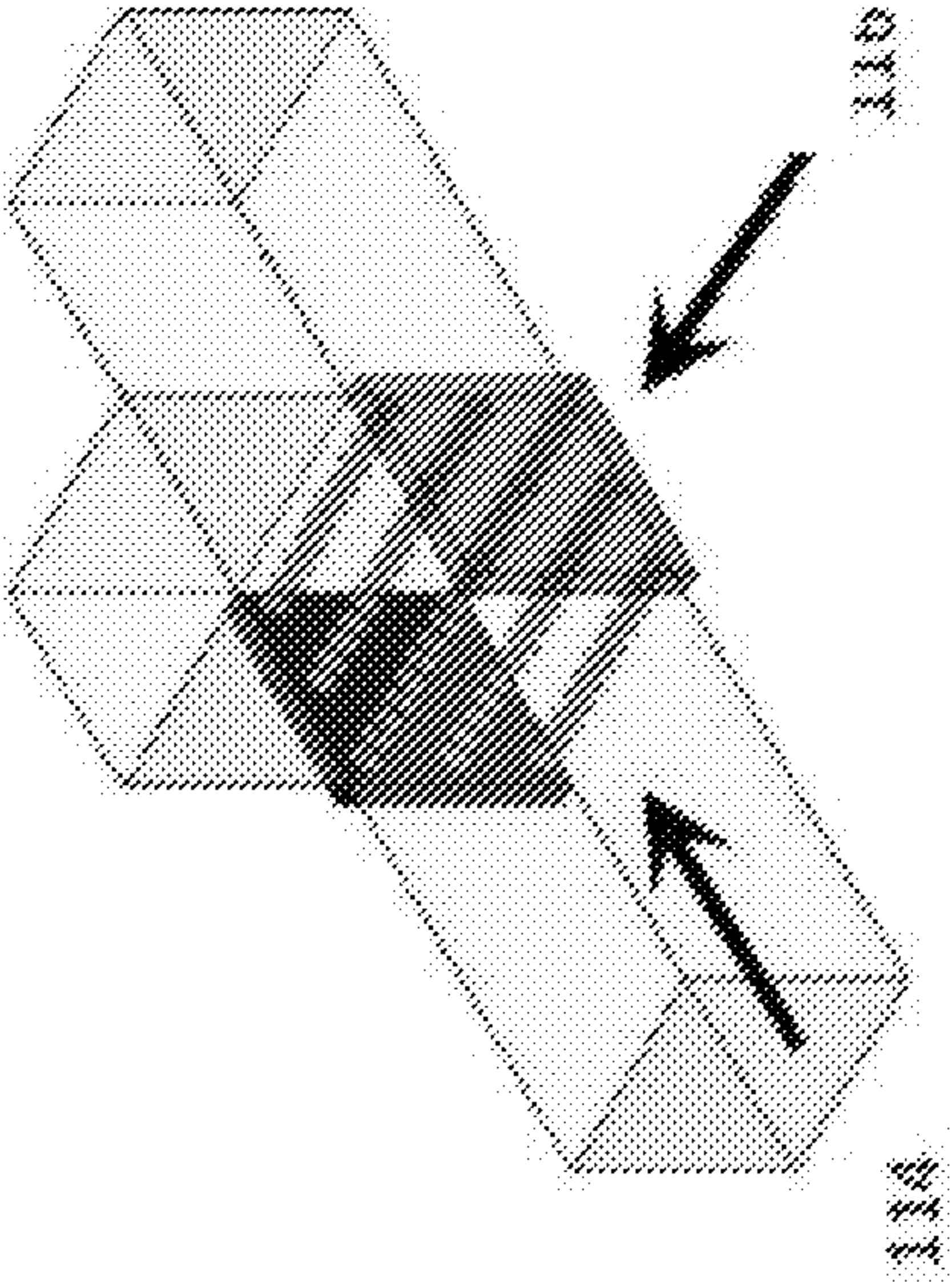


Figure 8B

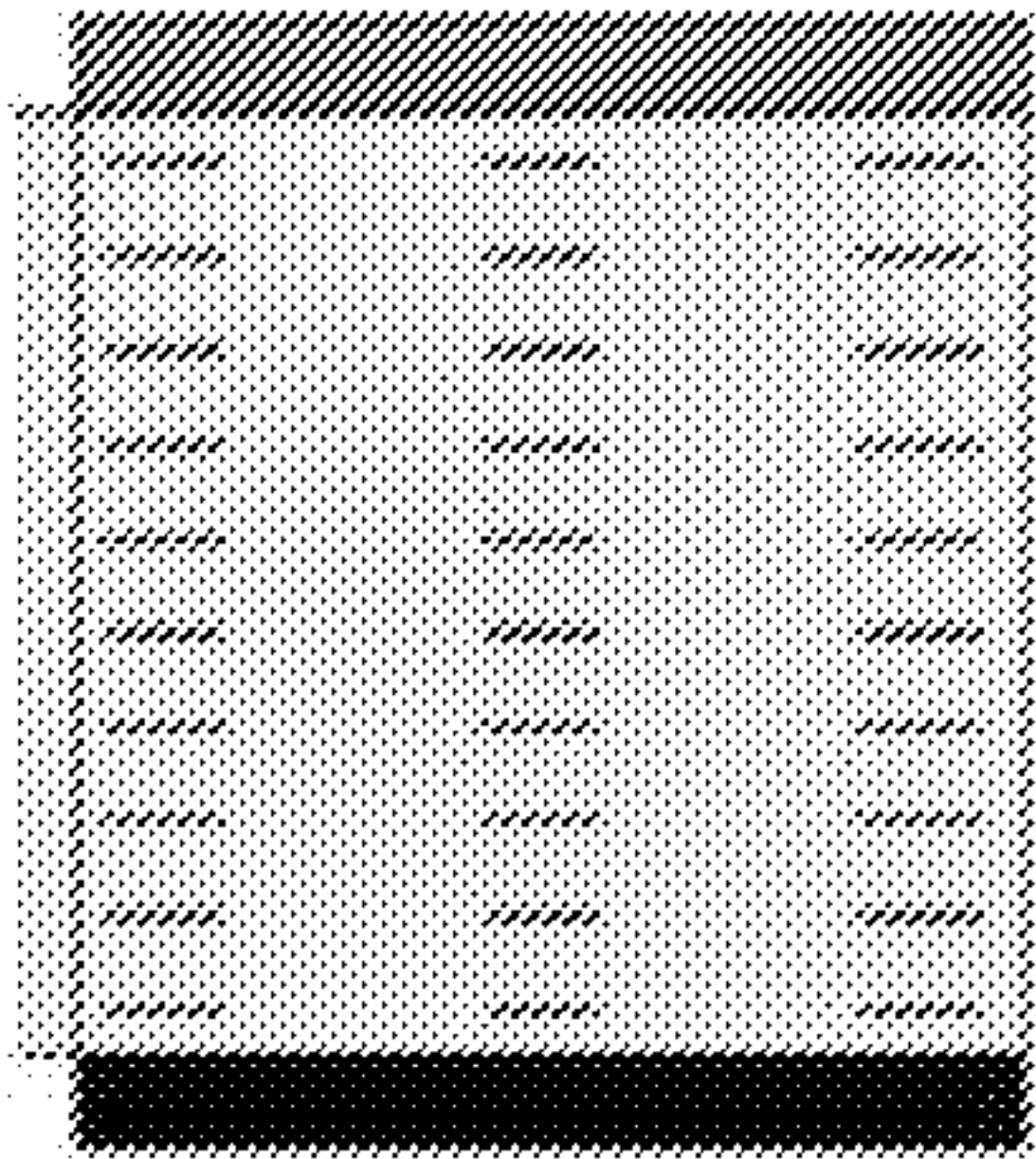


Figure 8C

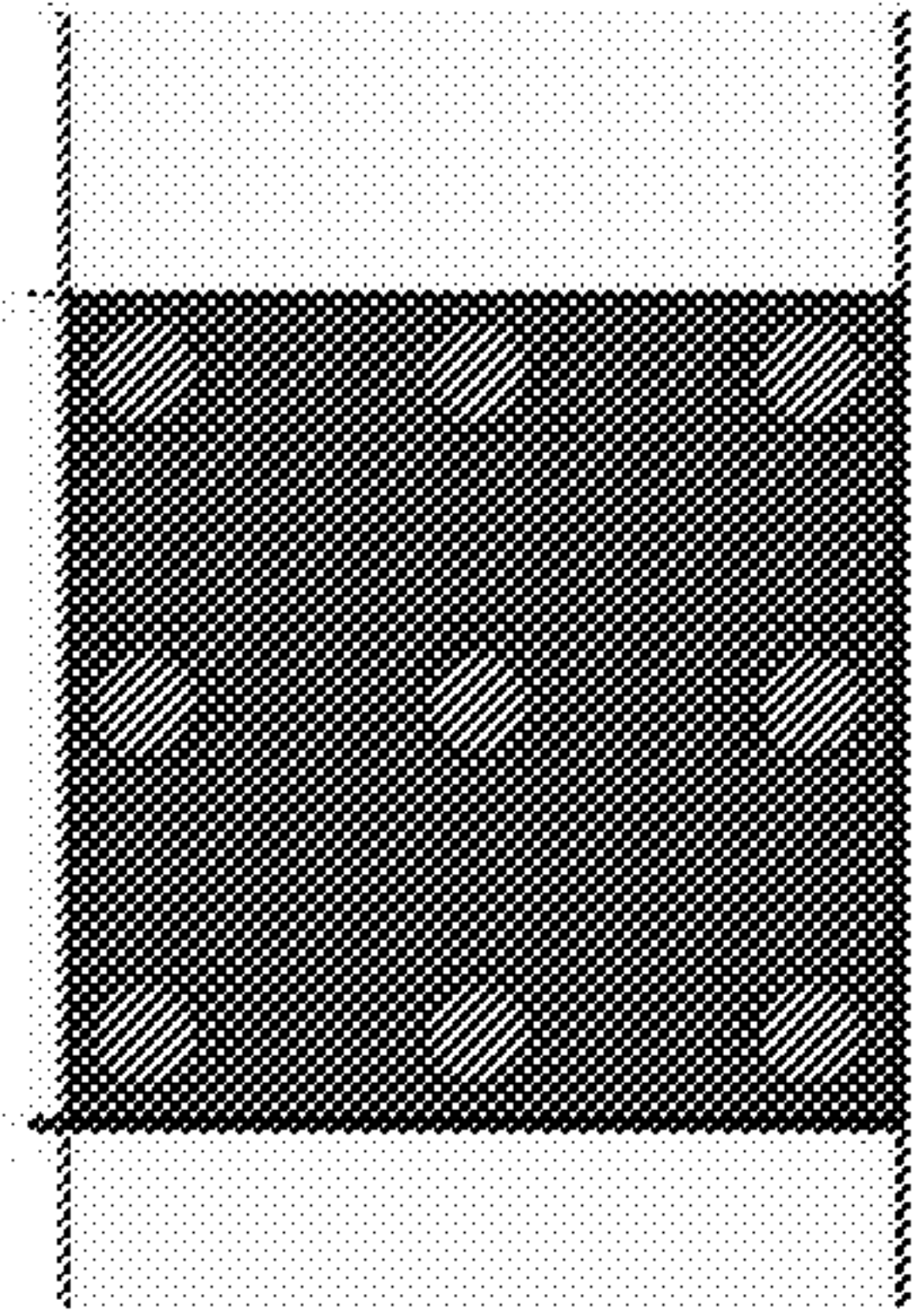


Figure 8D

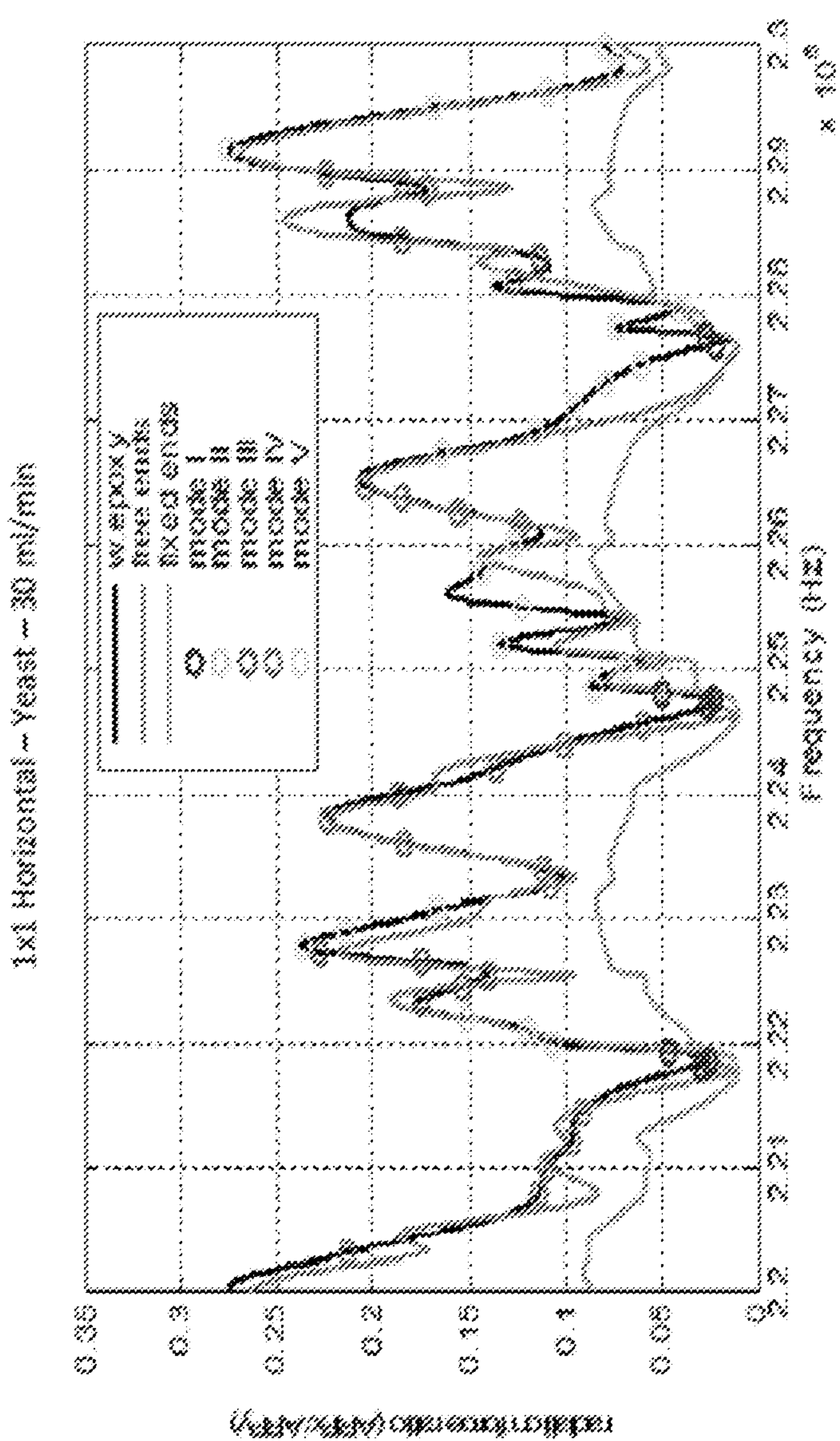


Figure 9

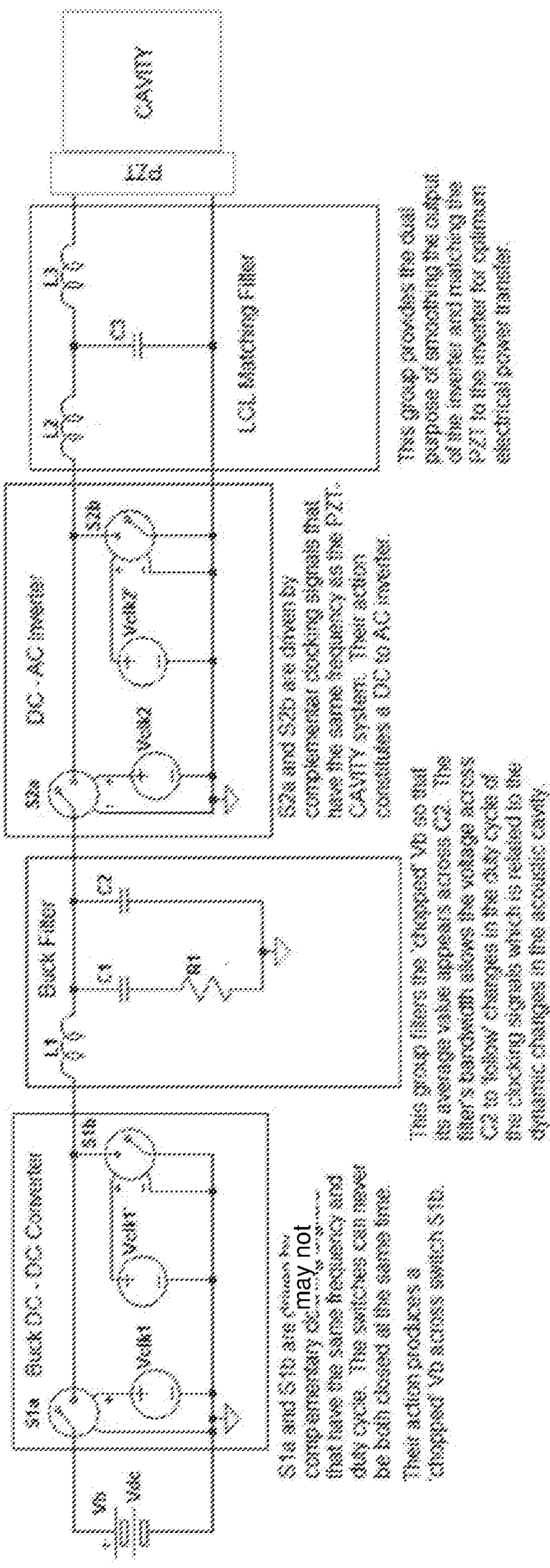


Figure 10

Optimized Lowpass Filter

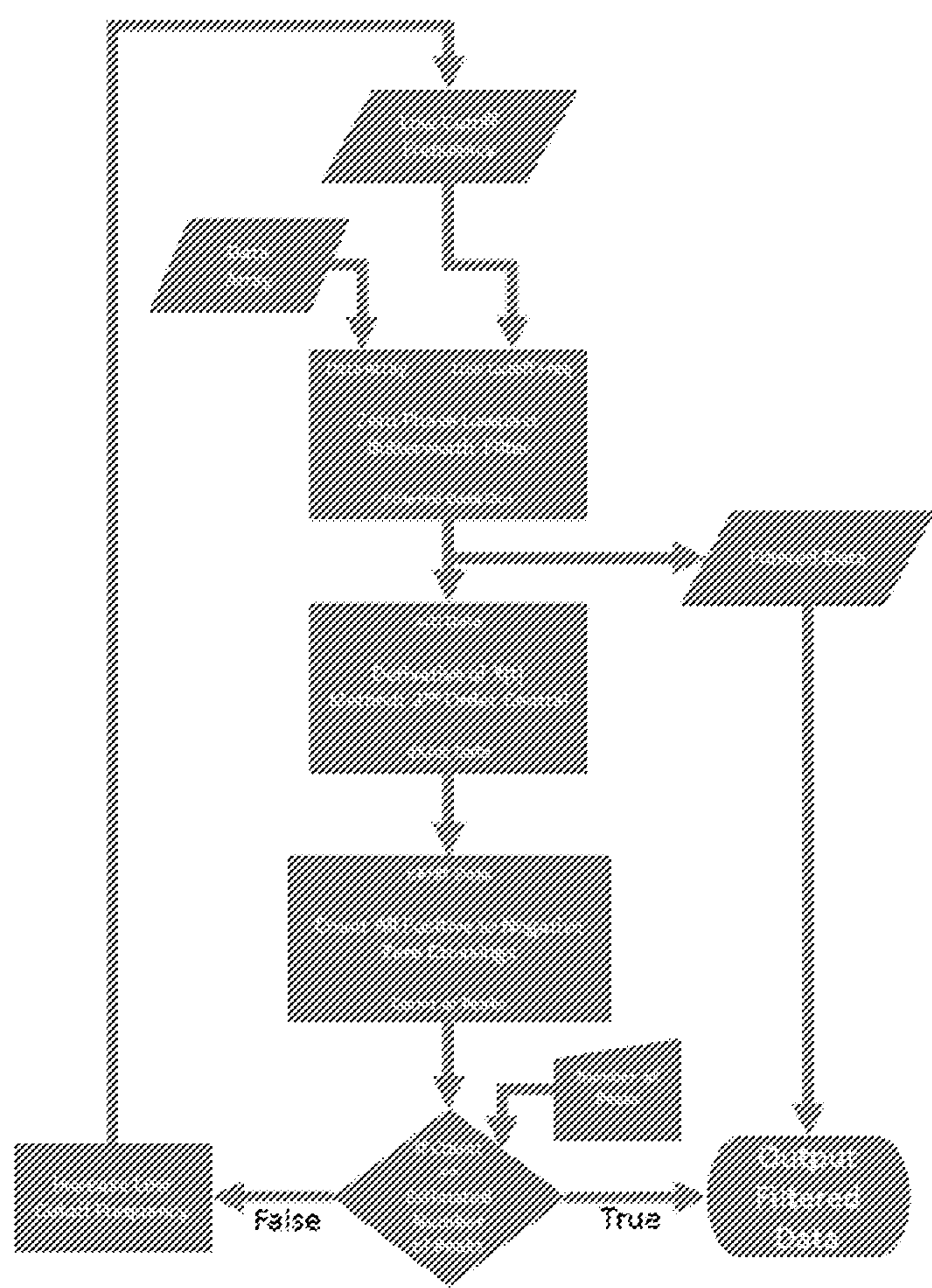


Figure 12

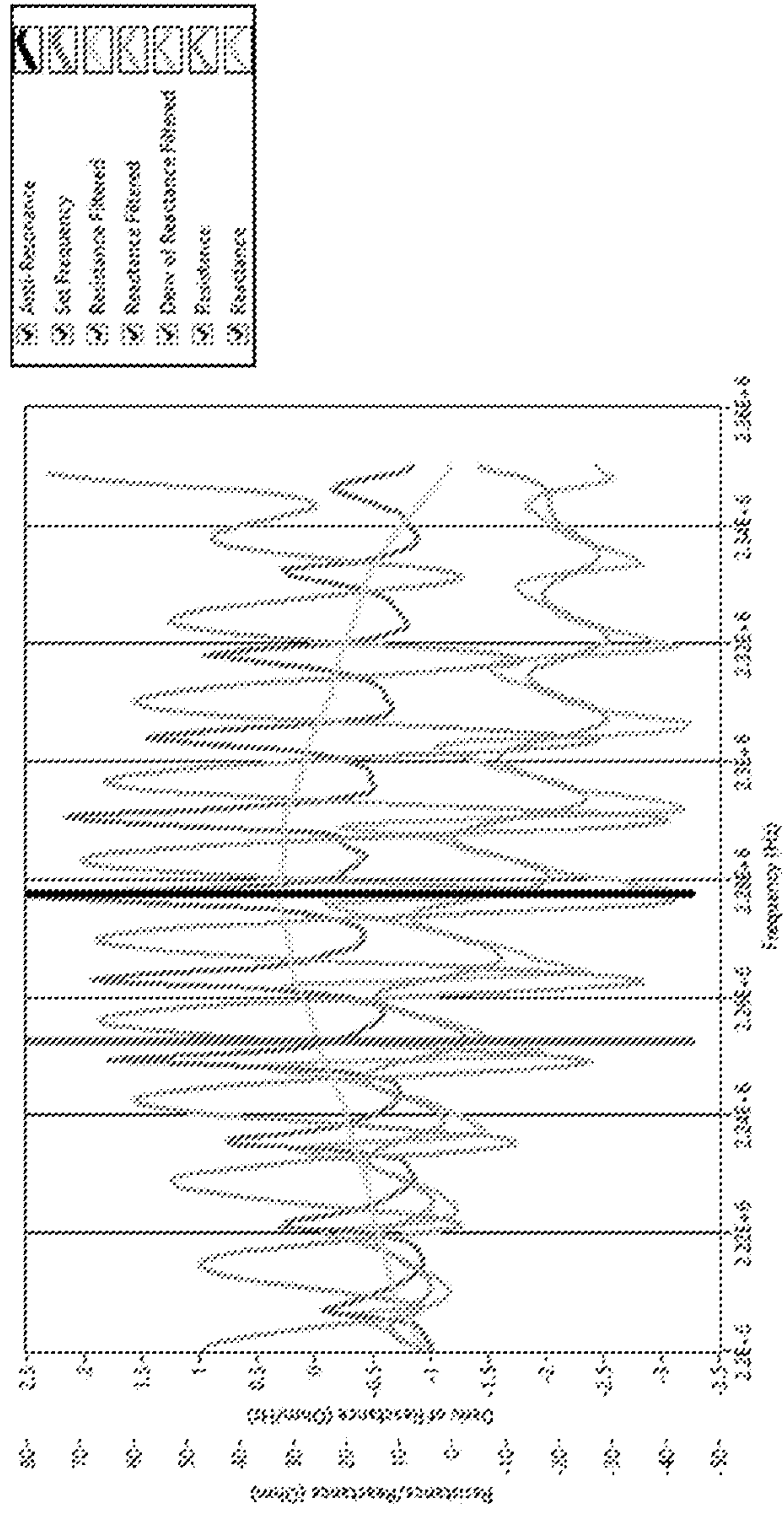


Figure 13

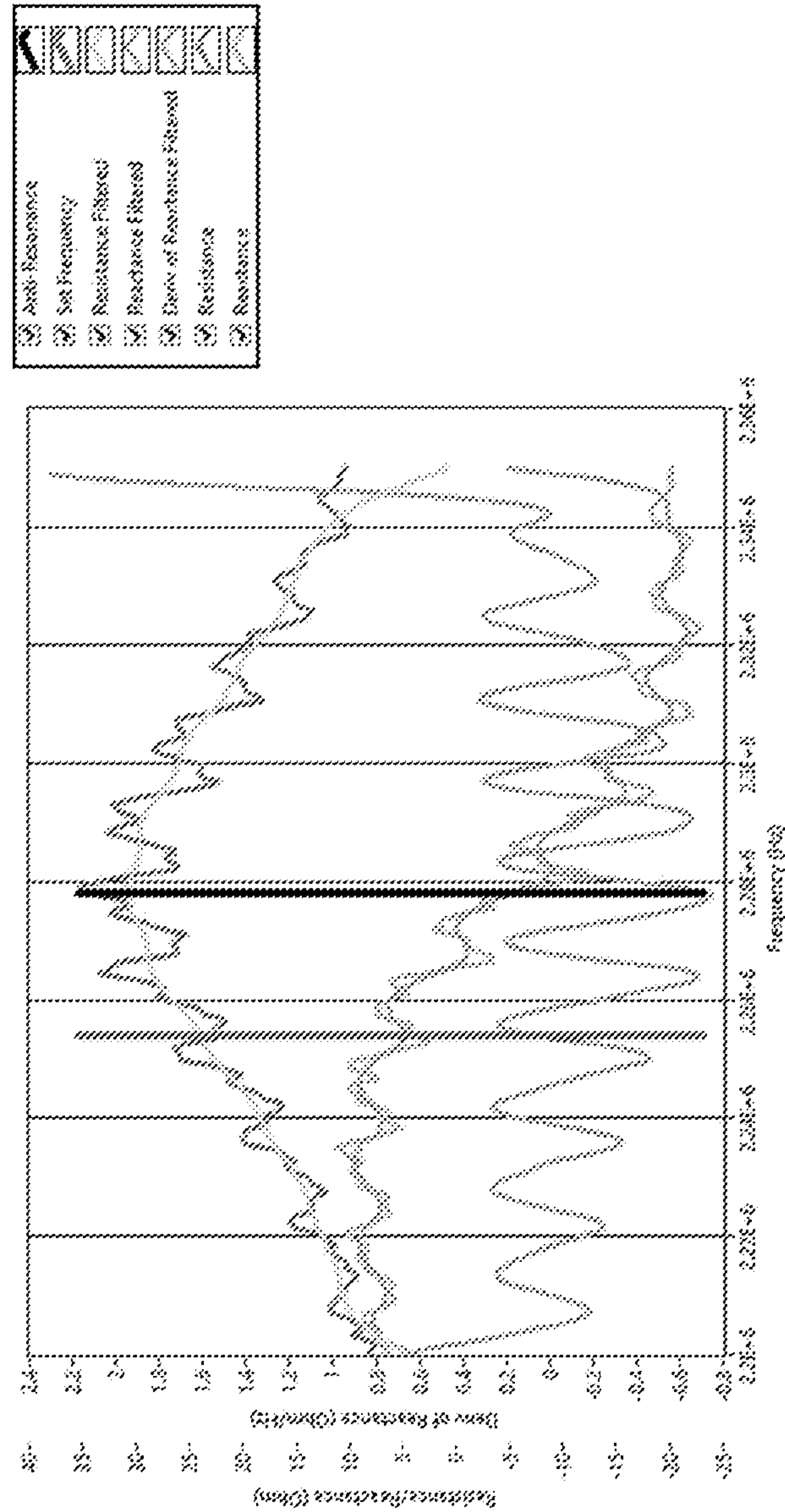


Figure 14

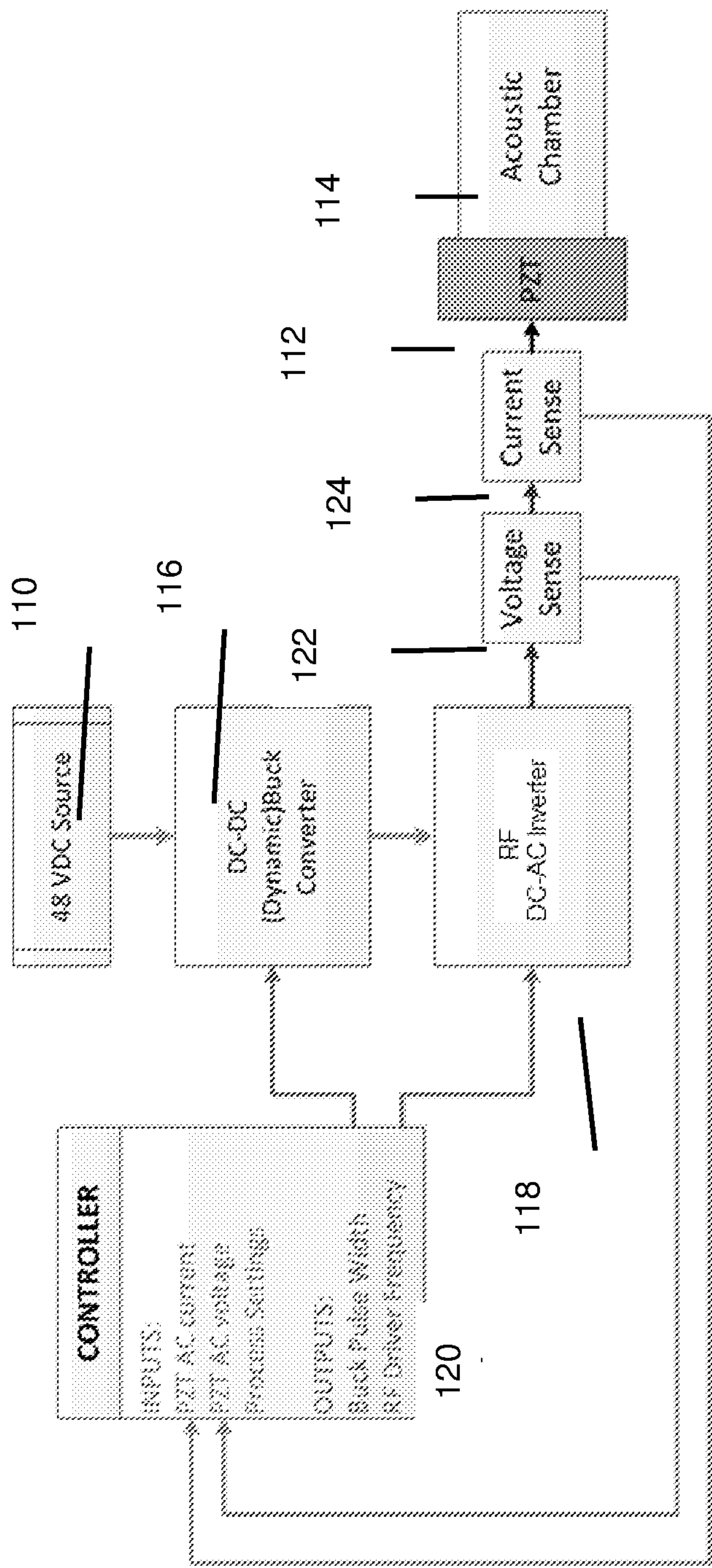


Figure 15

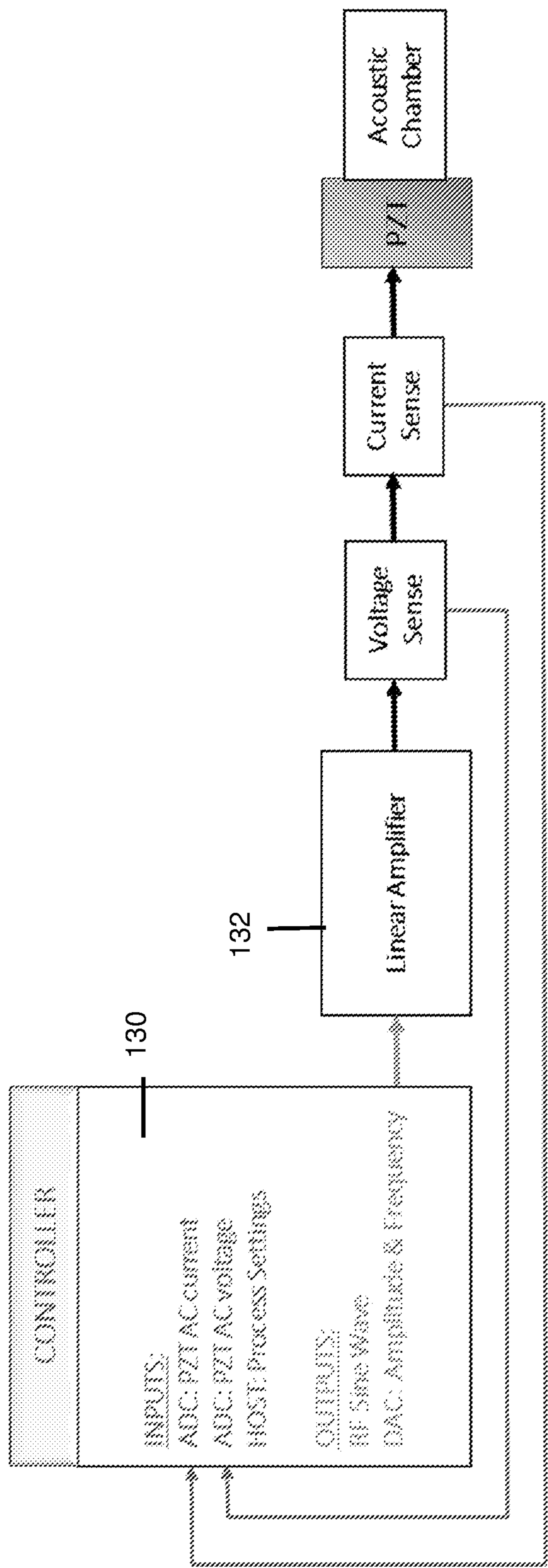


Figure 16

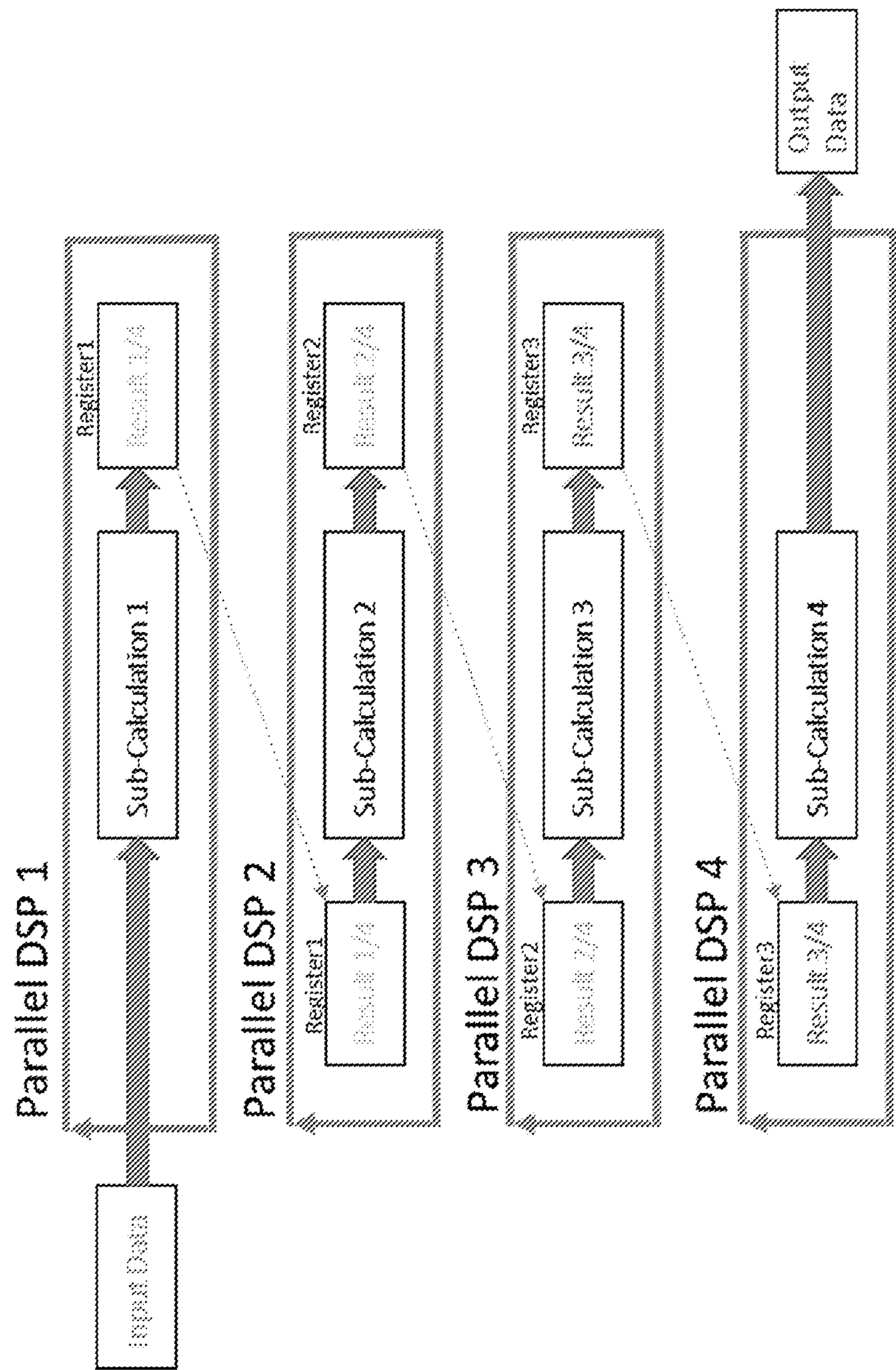


Figure 17

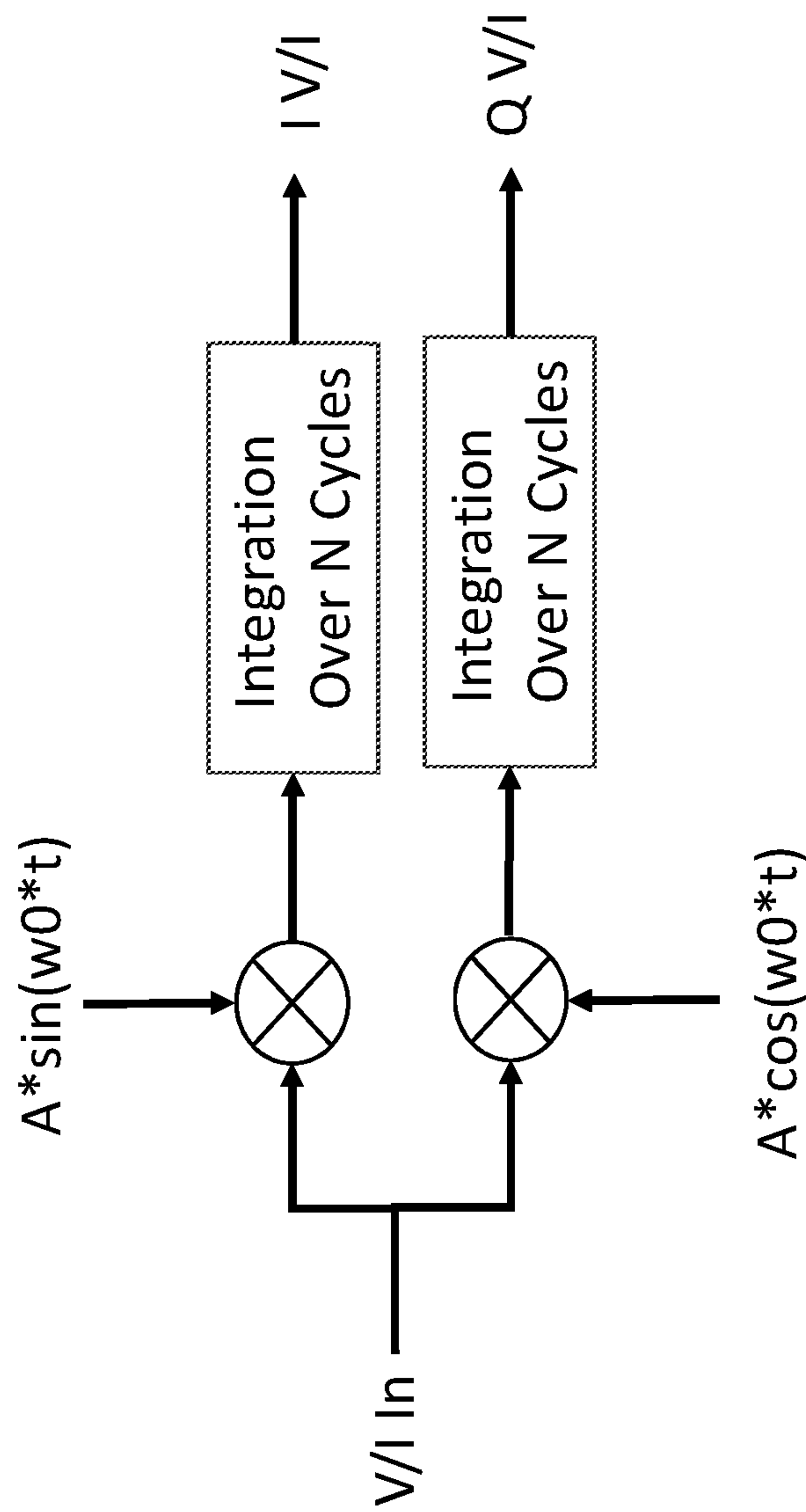


Figure 18

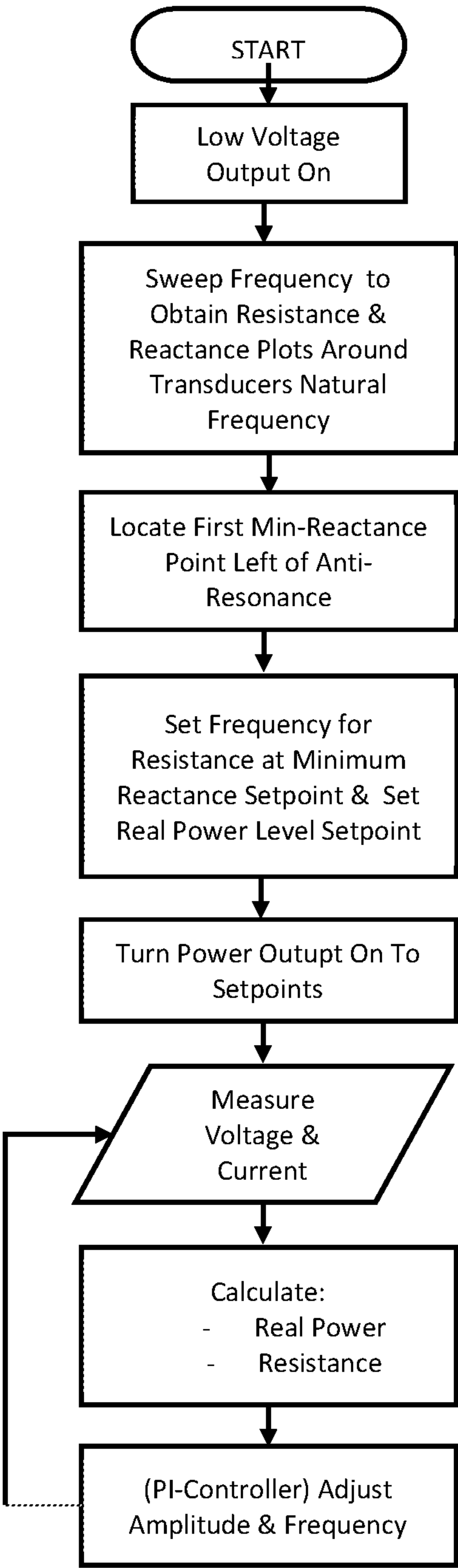


Figure 19

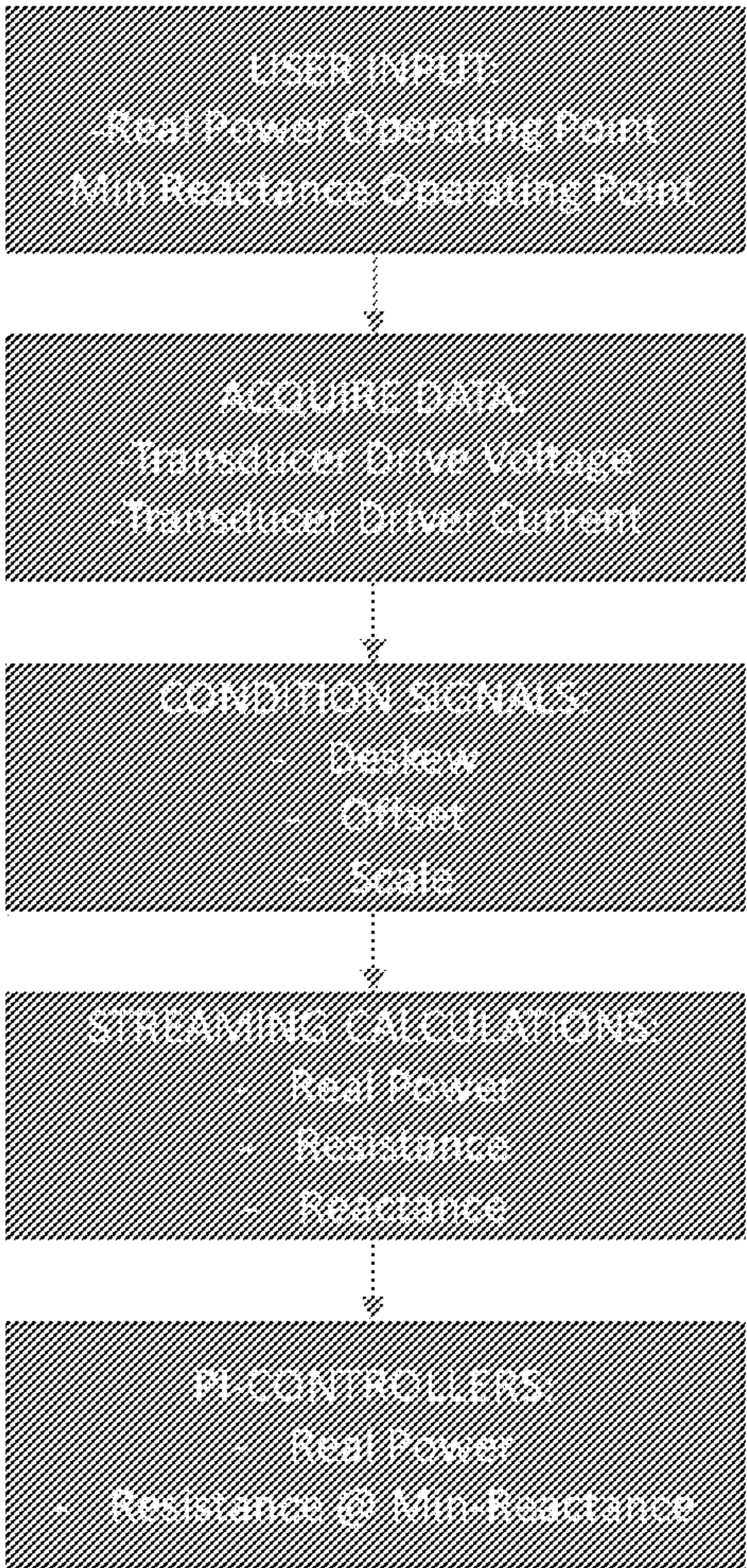


Figure 20

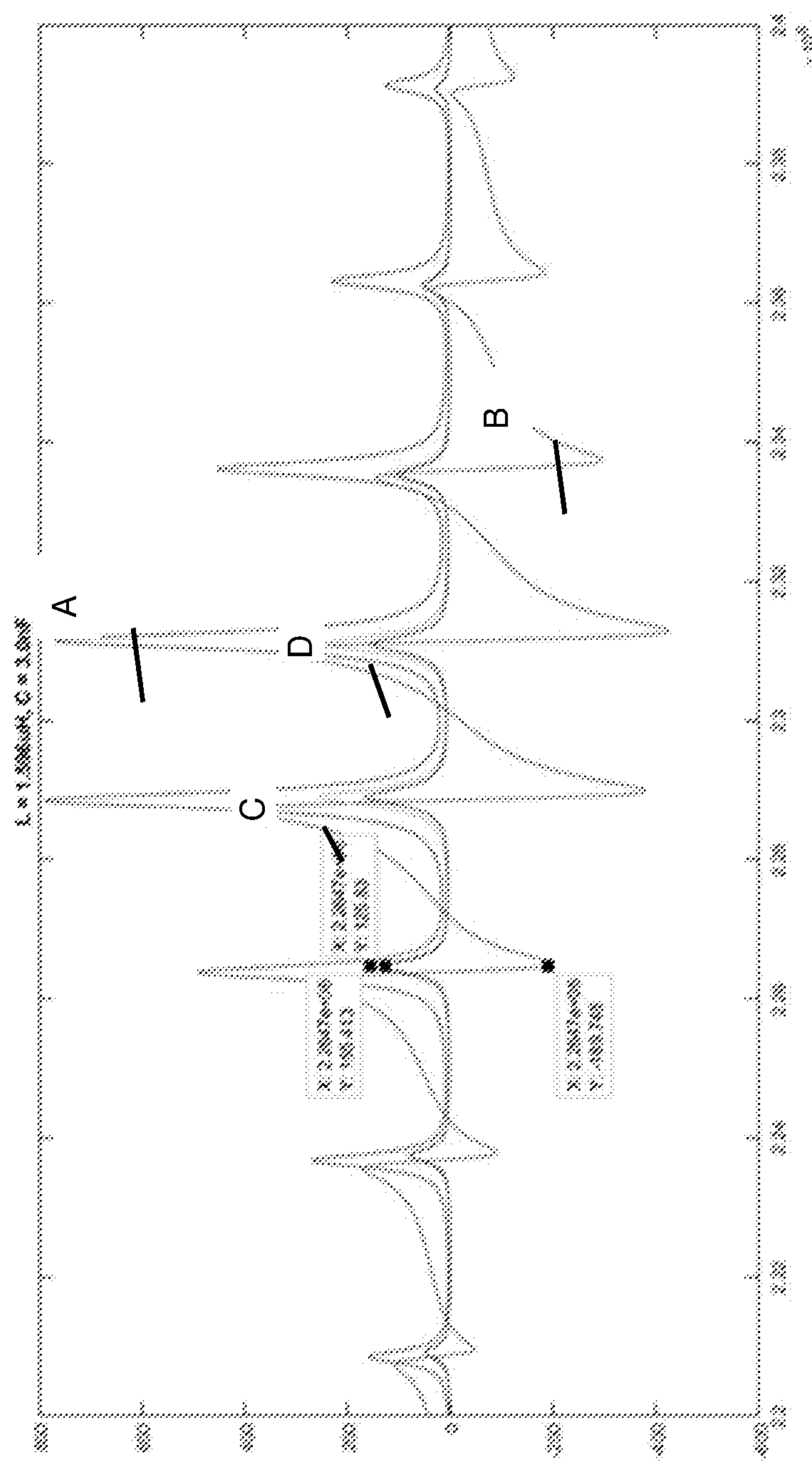


Figure 21

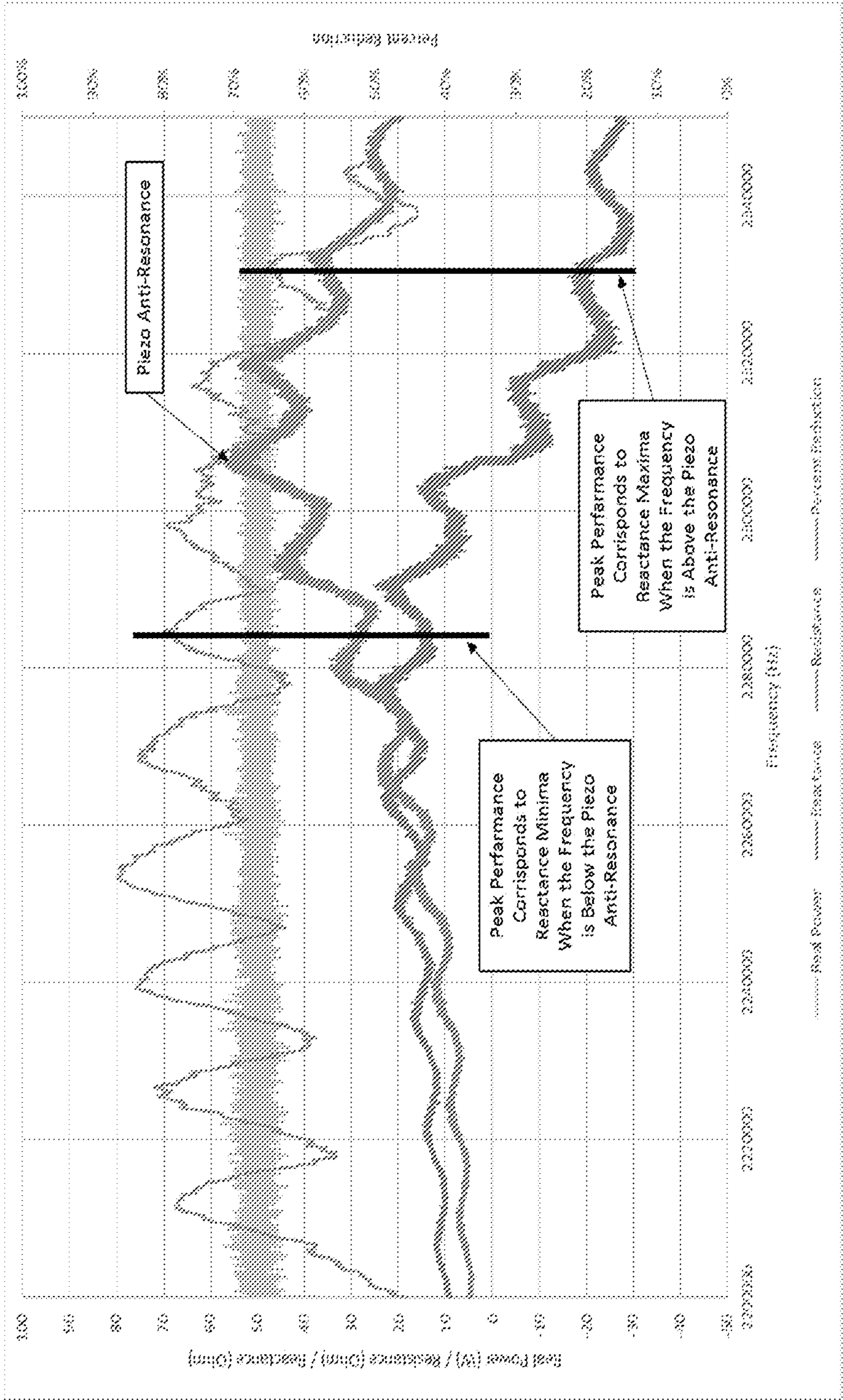
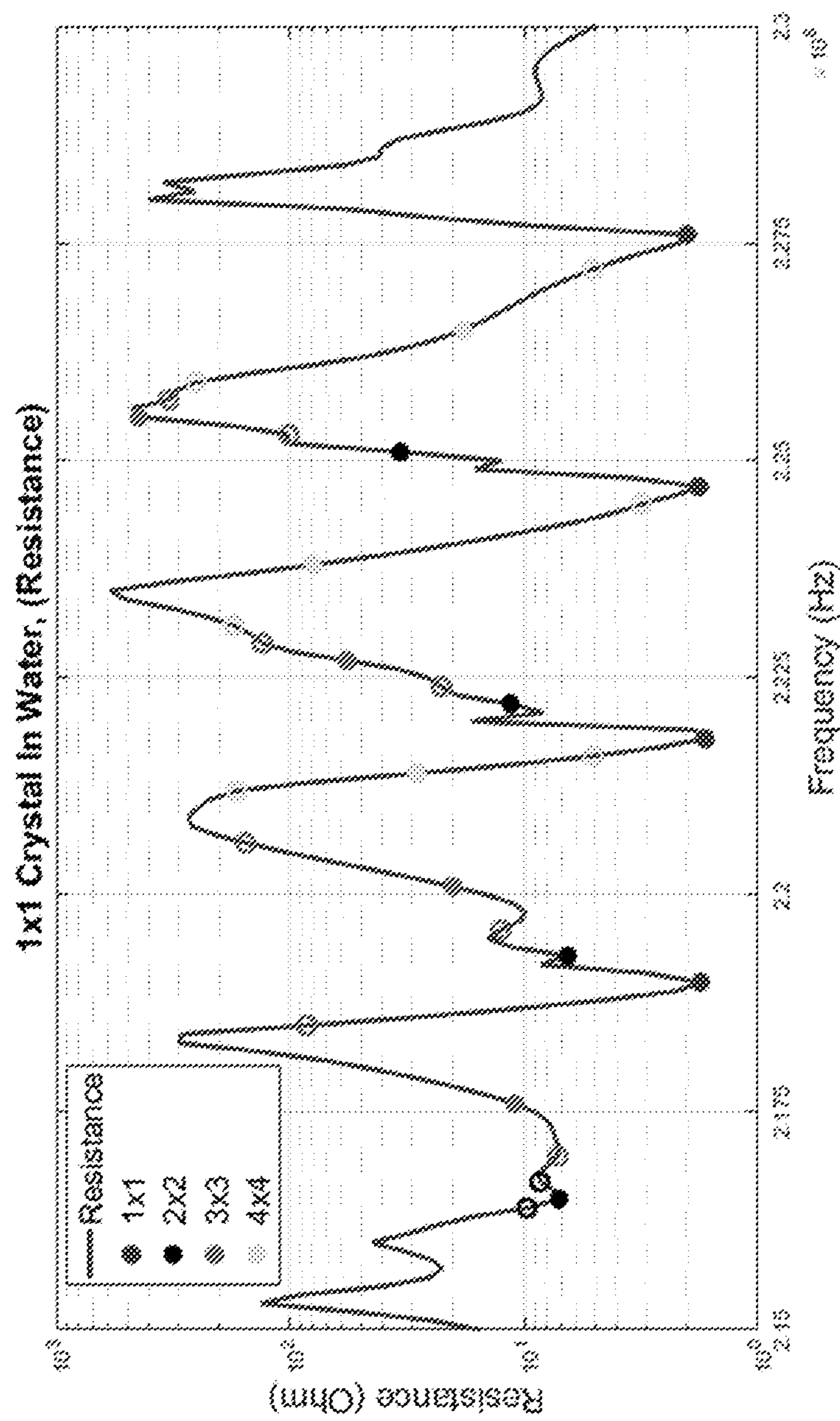


Figure 22



- Solid circles are pure modes
- Hollow circles are where the mode first occurs and disappears

Figure 23

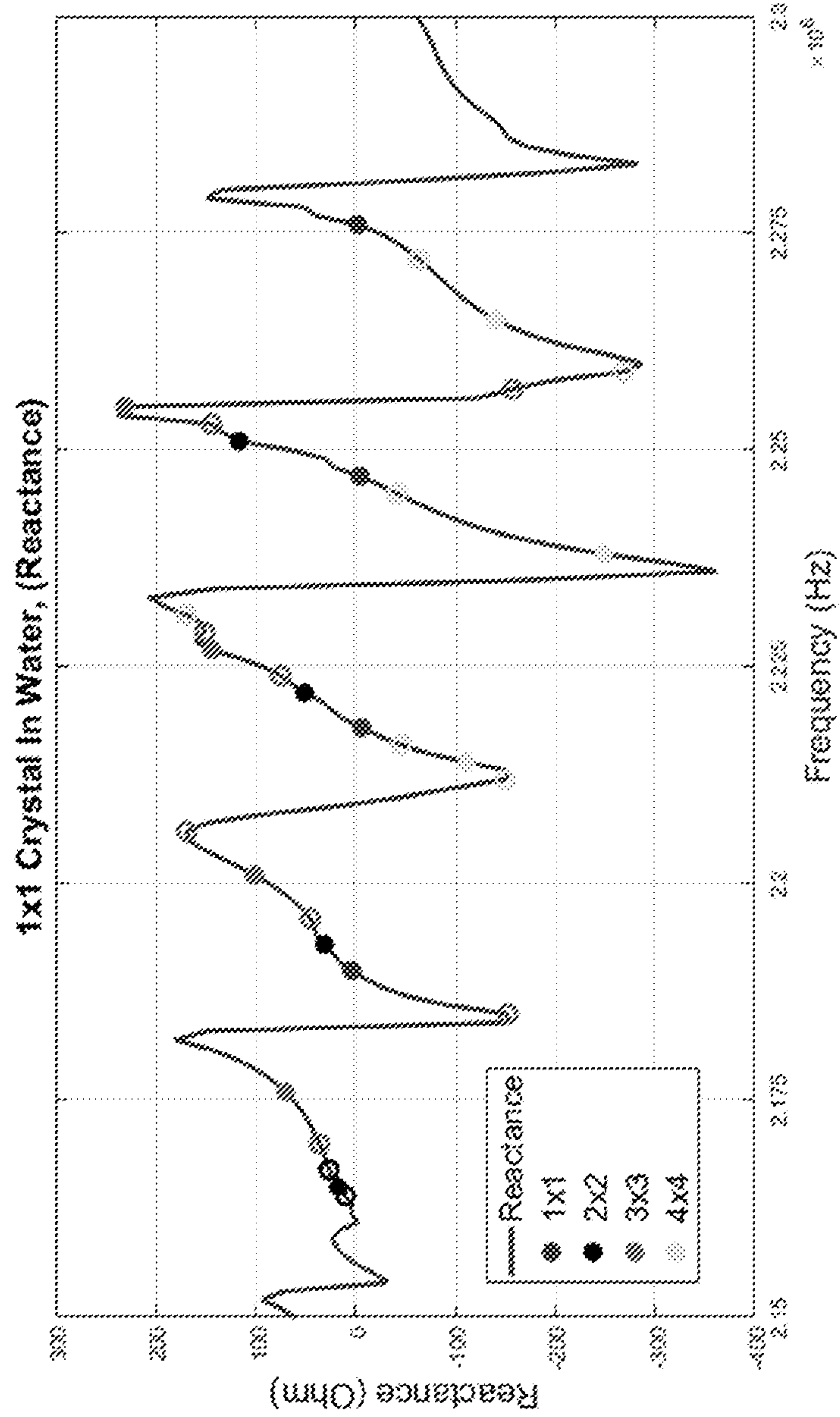


Figure 24

- Solid circles are pure modes
- Hollow circles are where the mode first occurs and disappears

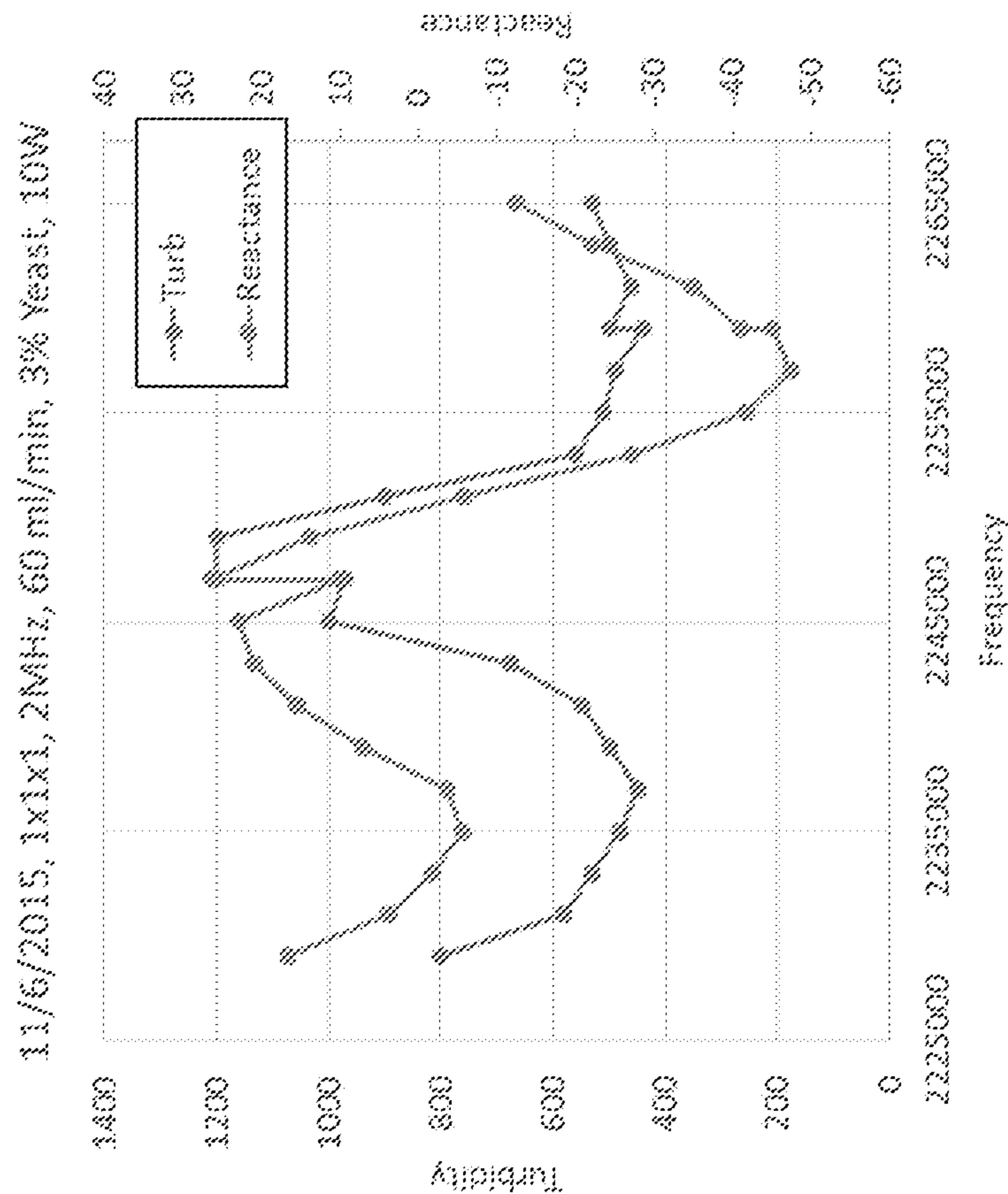


Figure 25

- 1x1x1
- 3% Yeast
- 2 MHz
- 60 ml/min, 10W
- Each frequency ran for 20 minutes to reach a steady state
- Average values plotted

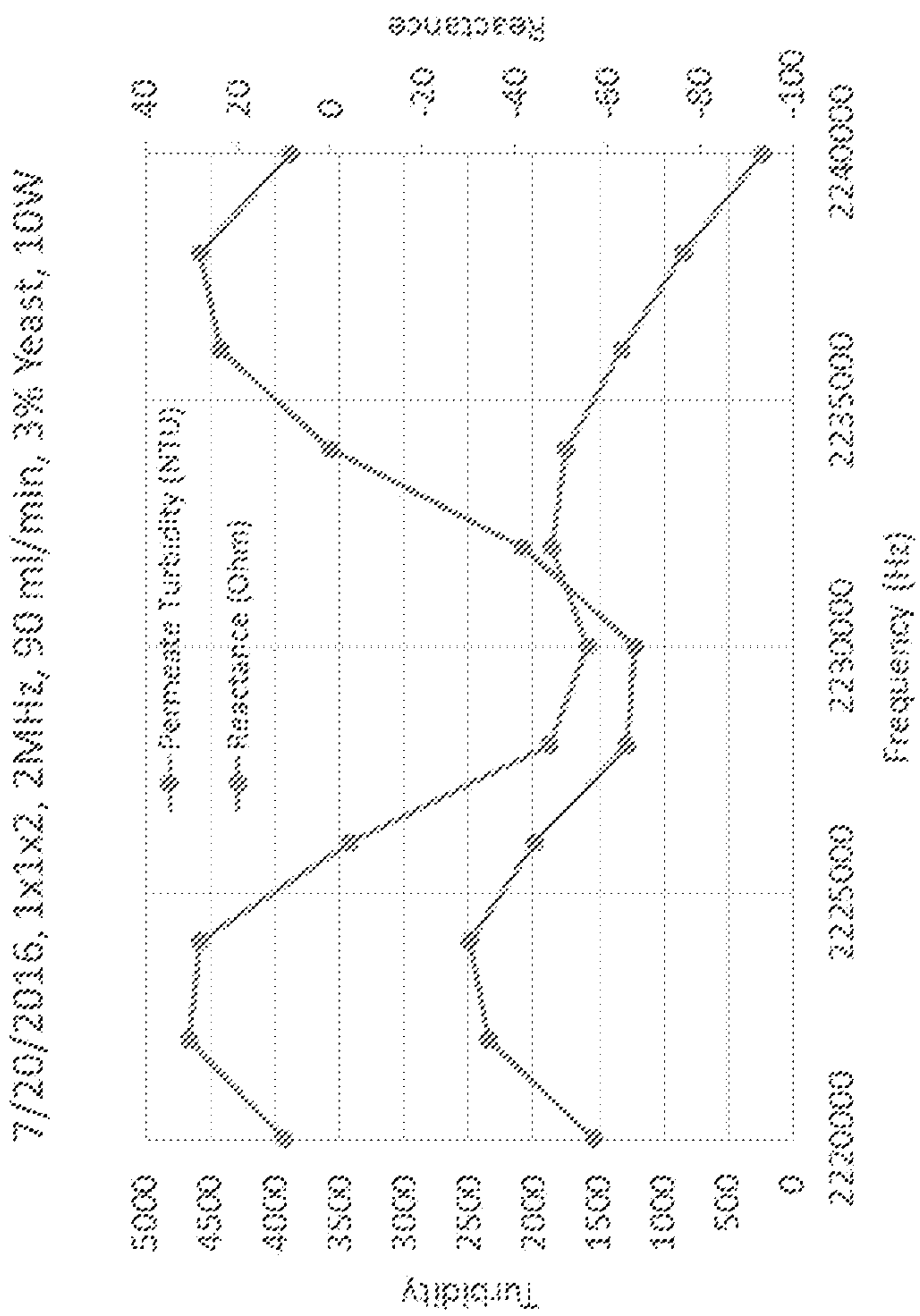


Figure 26

- 1x1x2
- 3% Yeast
- 2 MHz
- 90 ml/min, 10W
- Each frequency ran for 20 minutes to reach a steady state
- Average values plotted

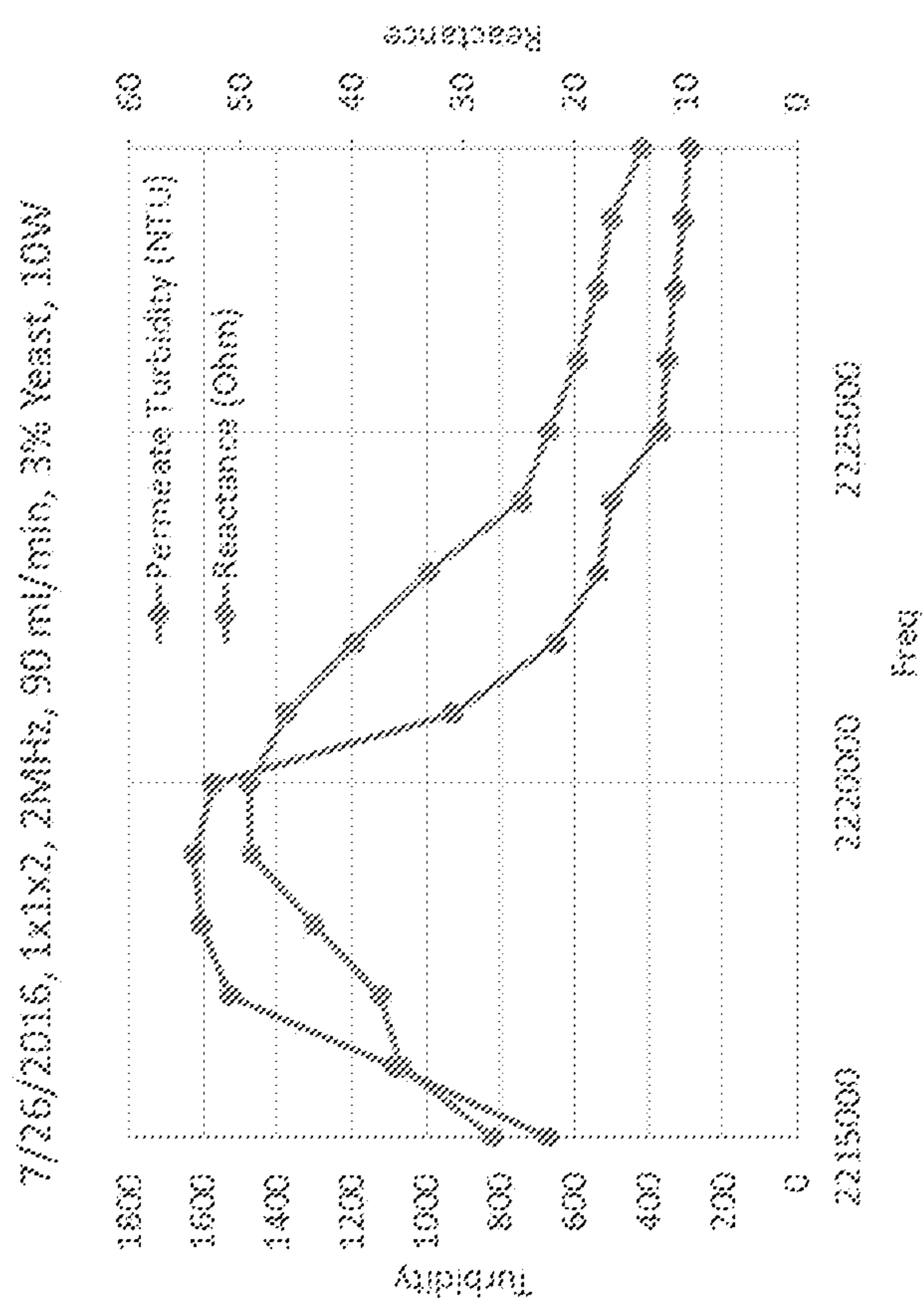


Figure 27

- 1x1x2
- 3% Yeast
- 2 MHz
- 90 ml/min, 10W
- Each frequency ran for 20 minutes to reach a steady state
- Average values plotted

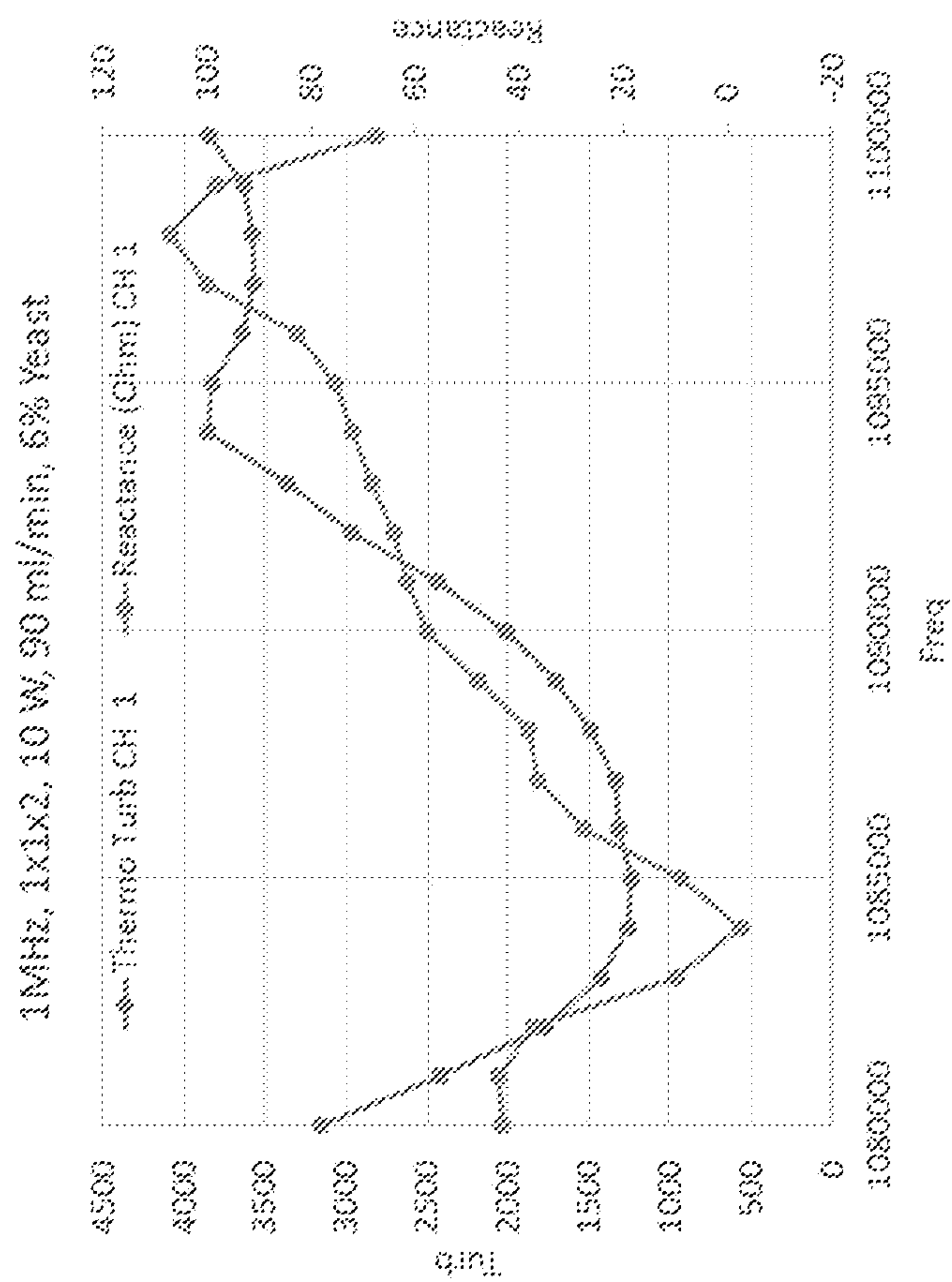


Figure 28

- 1x1x2
- 6% Yeast
- 1 MHz
- 90 ml/min, 10W
- Each frequency ran for 20 minutes to reach a steady state
- Average values plotted

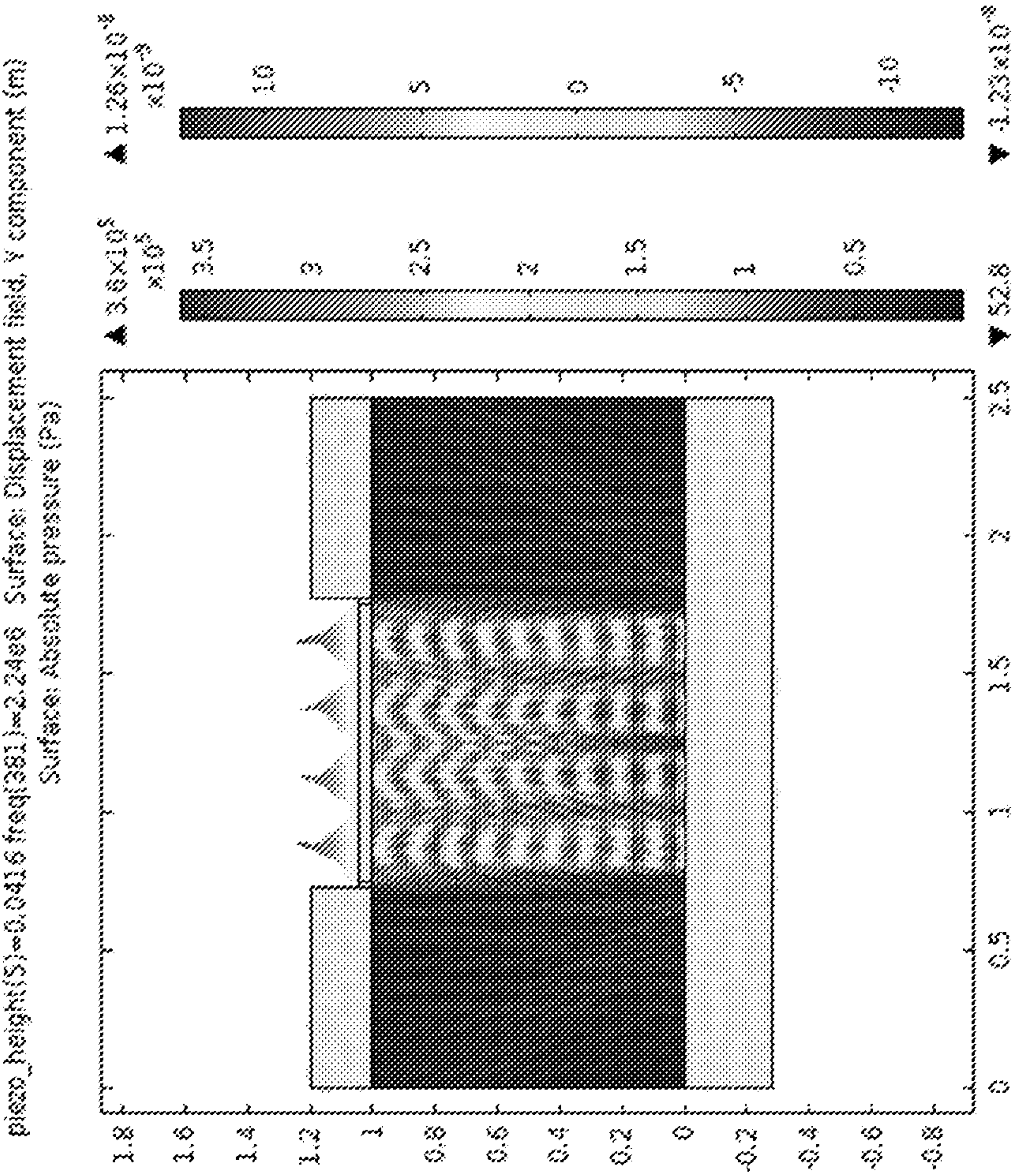


Figure 29

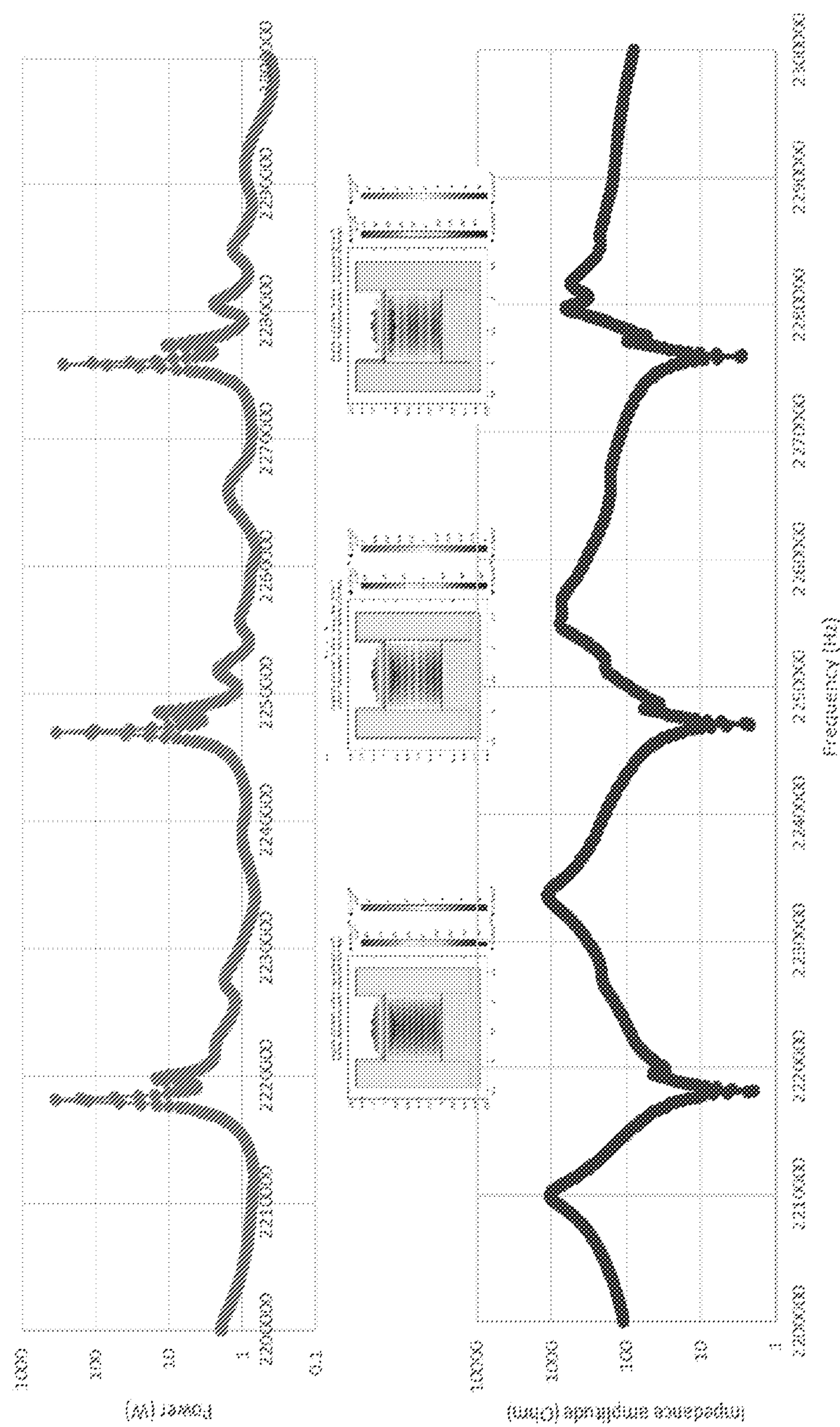


Figure 30

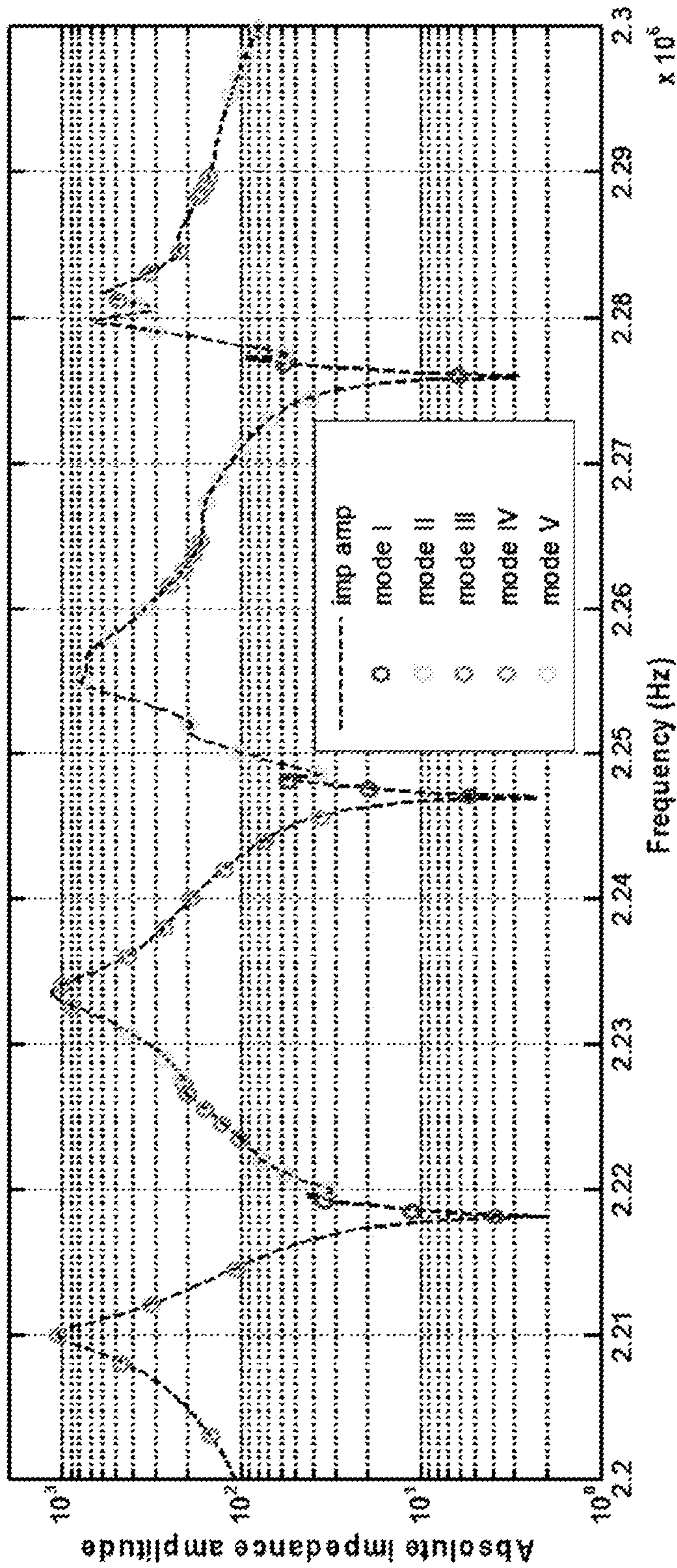


Figure 31

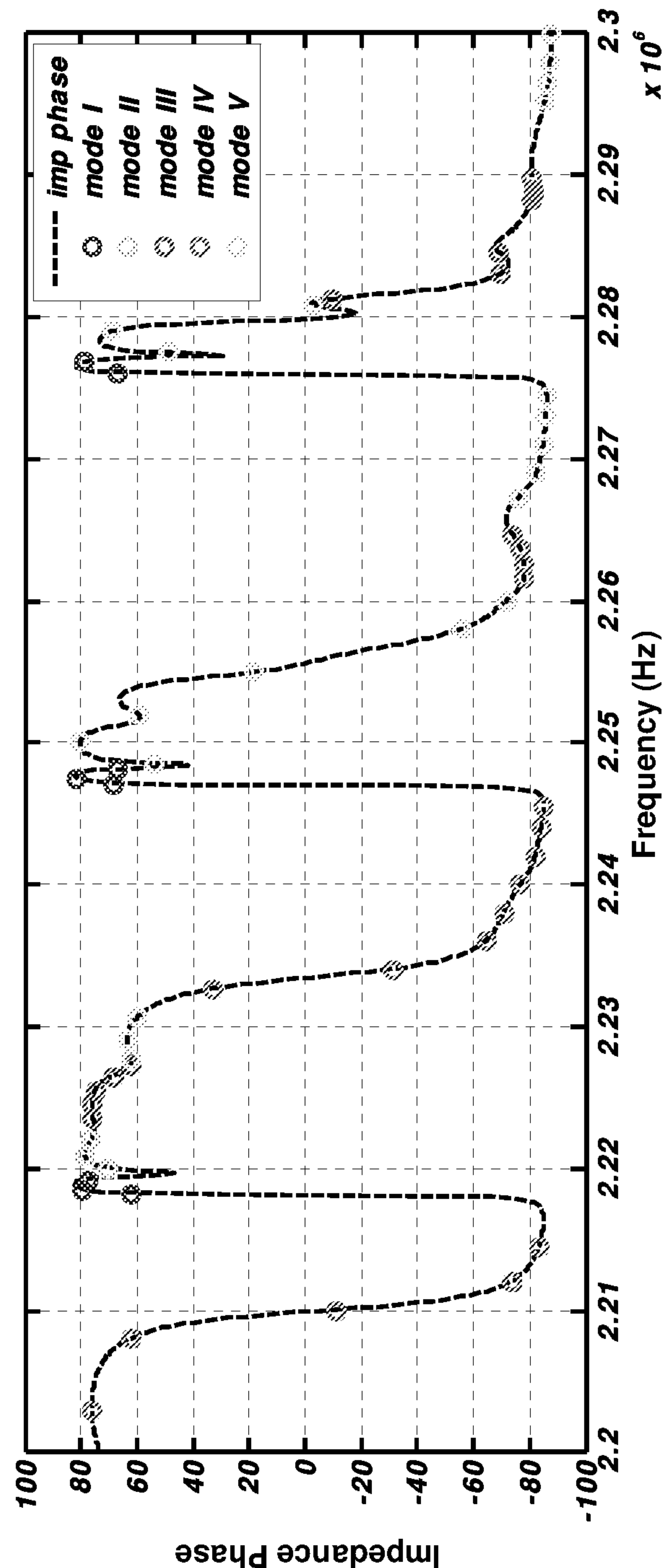


Figure 32

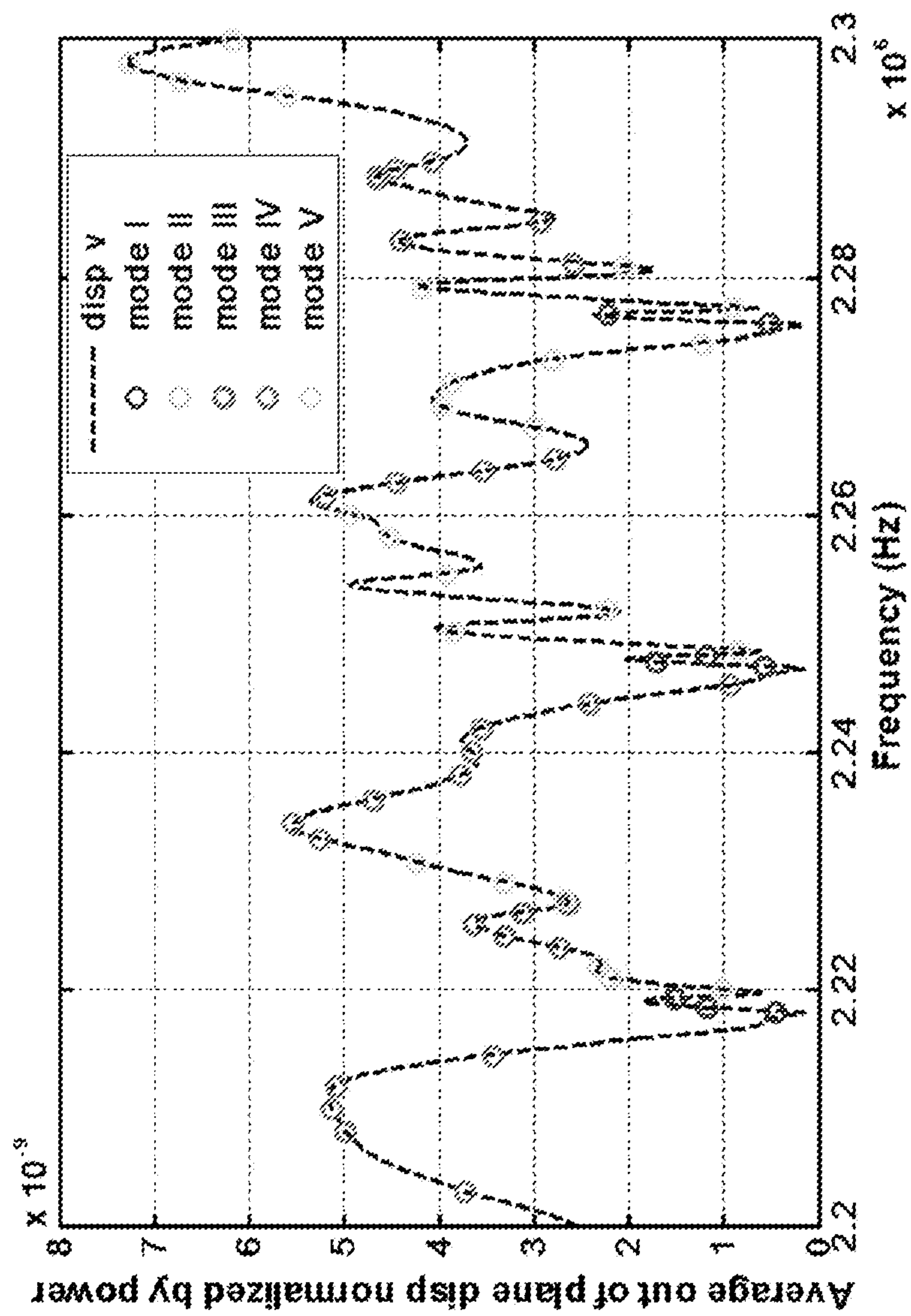


Figure 33

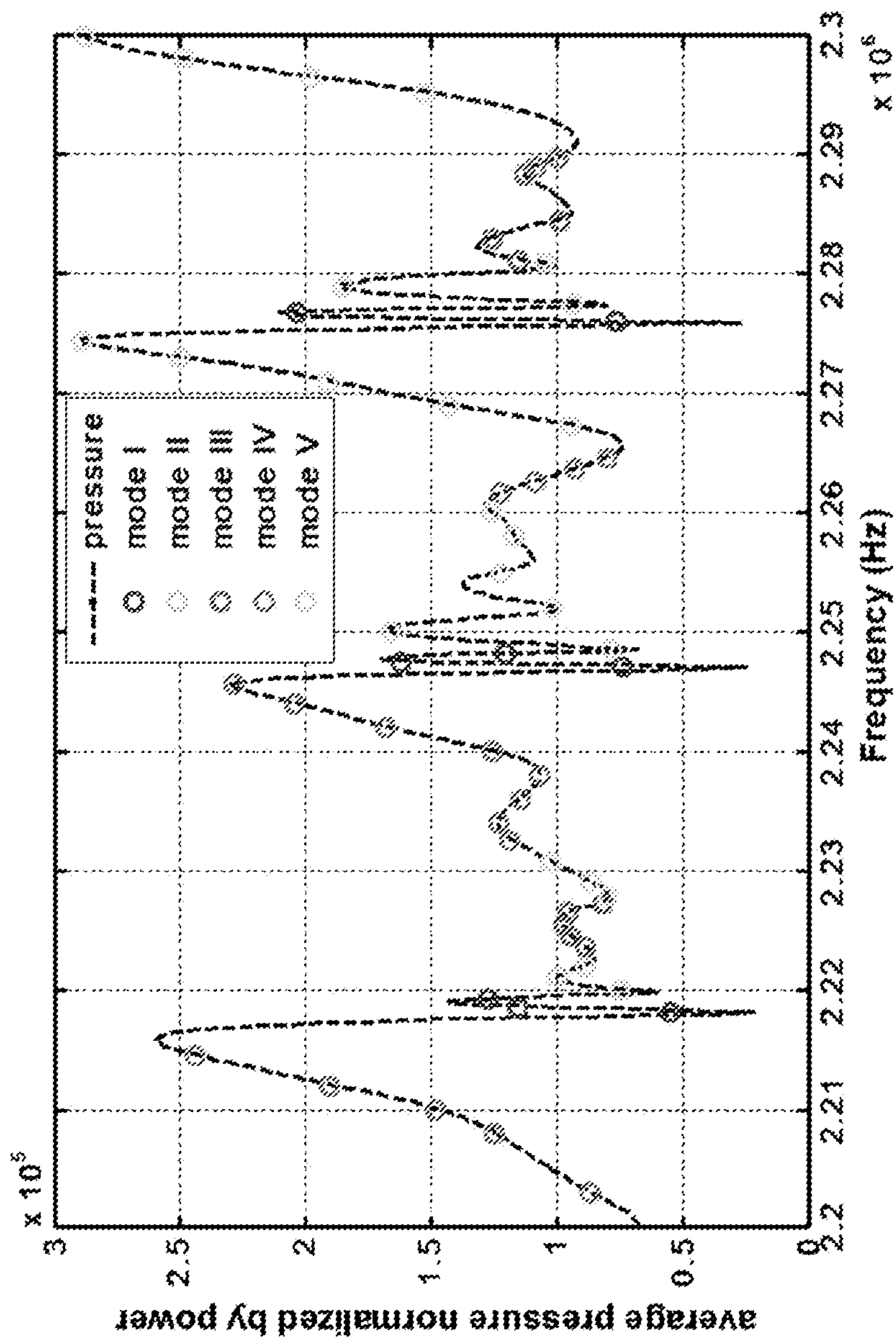


Figure 34

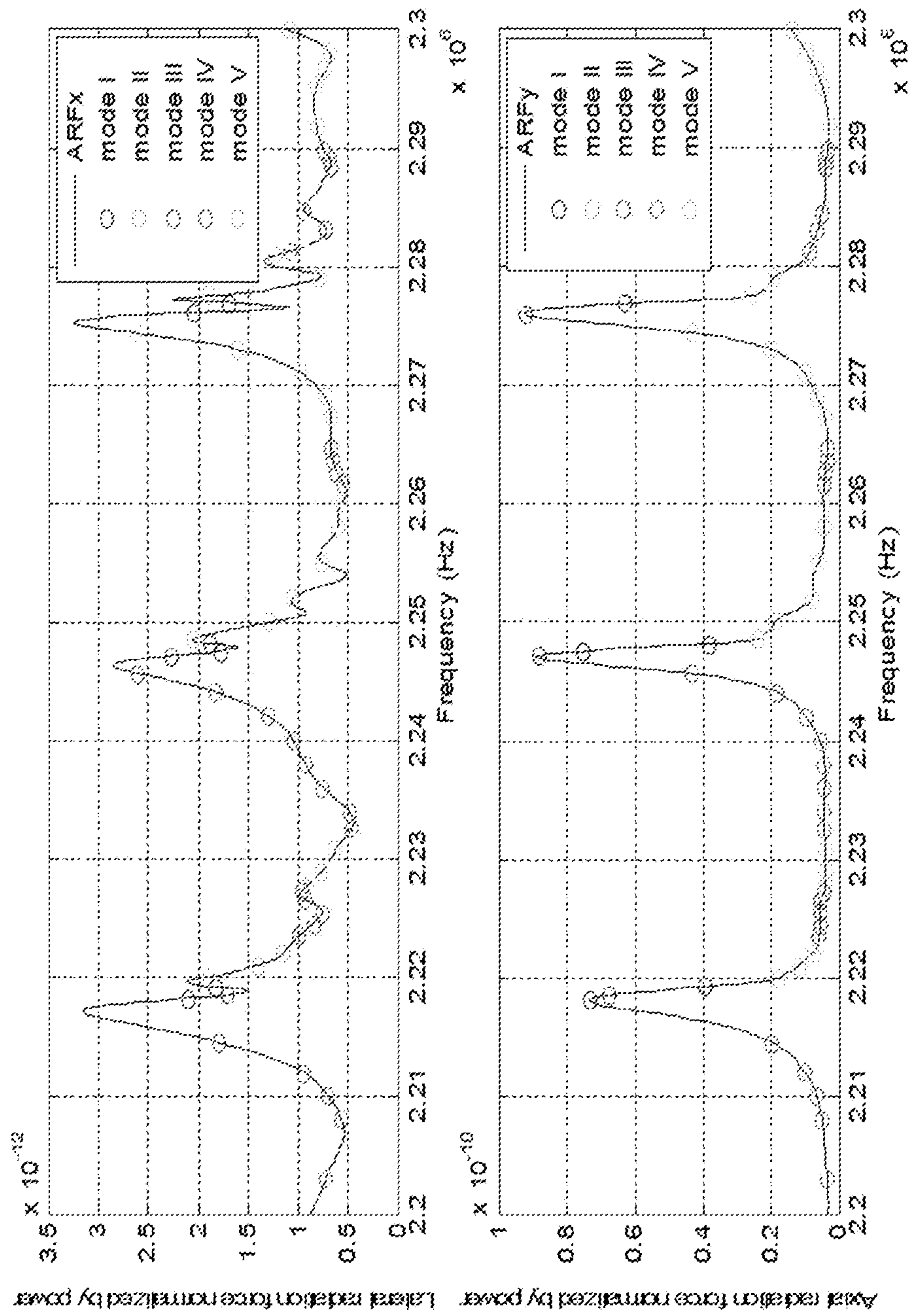


Figure 35

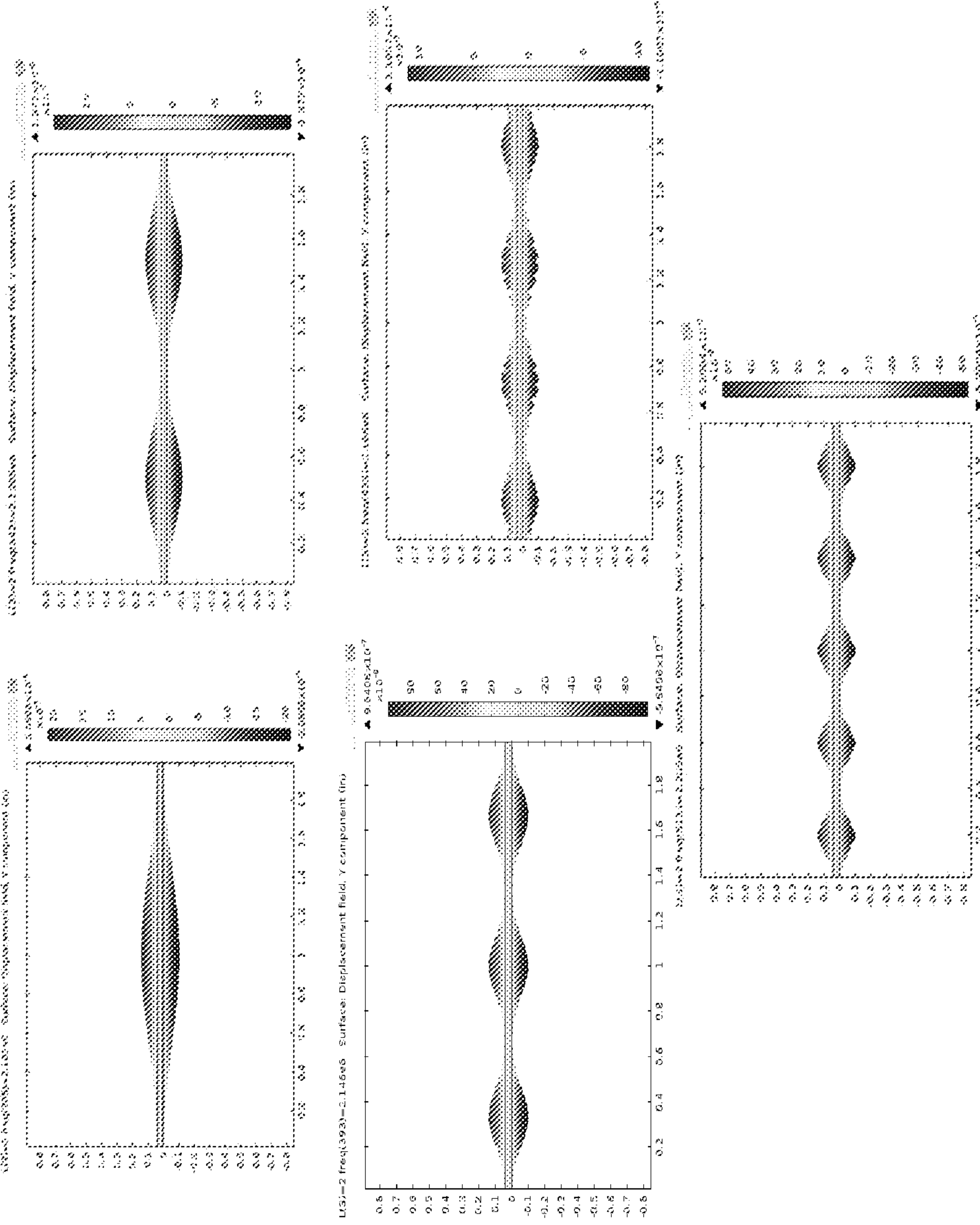


Figure 36

Lamb Wave Dispersion Curve over Length
2 MHz PZT 8 Material

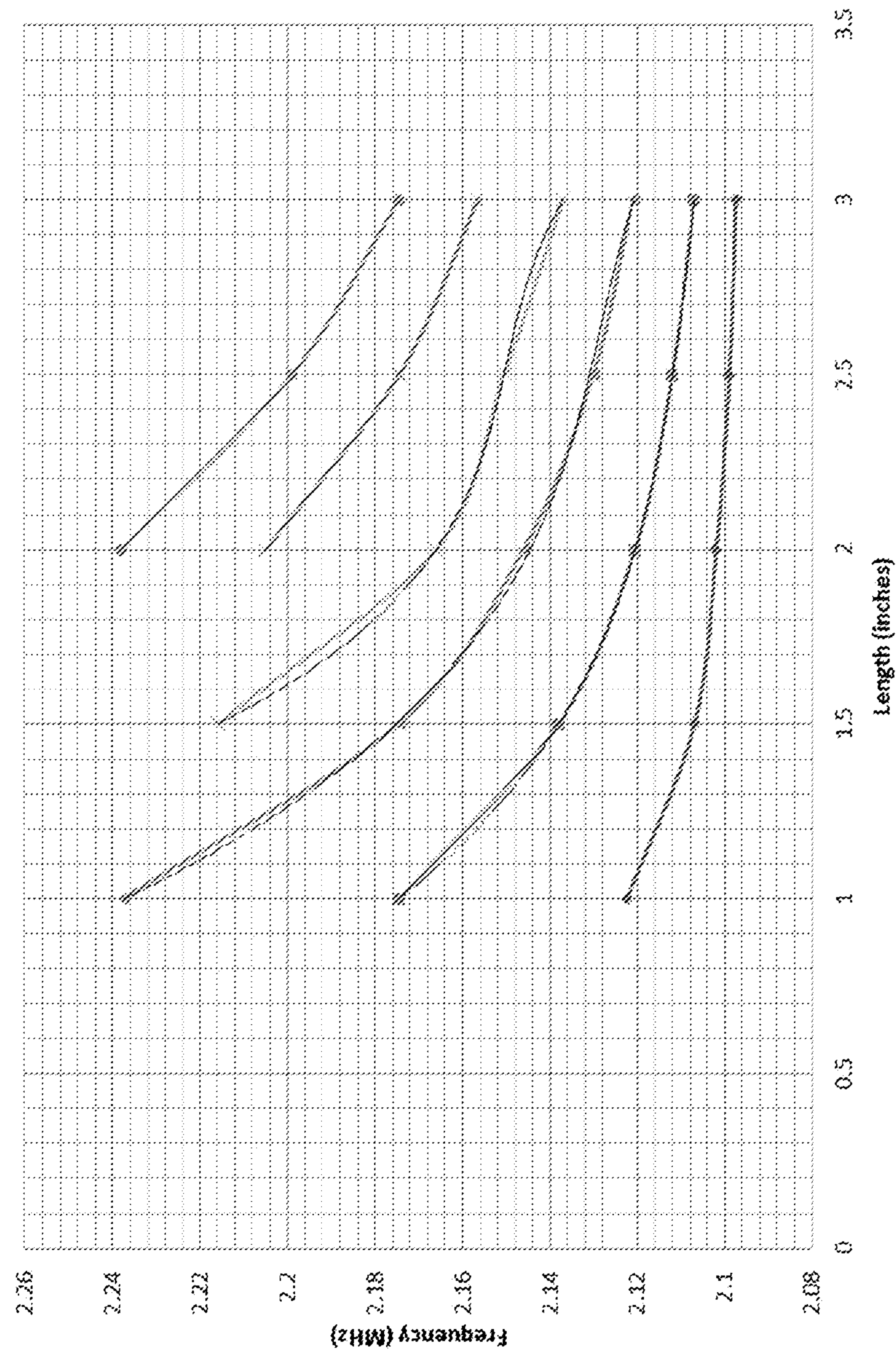


Figure 37

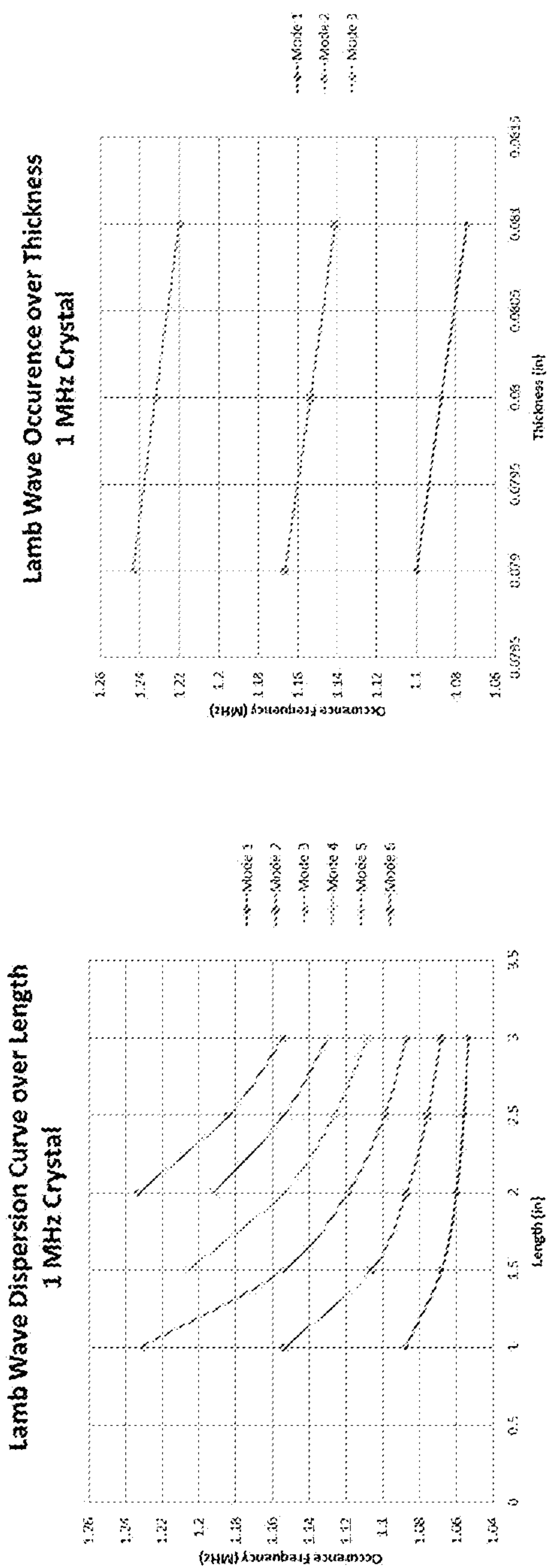


Figure 38

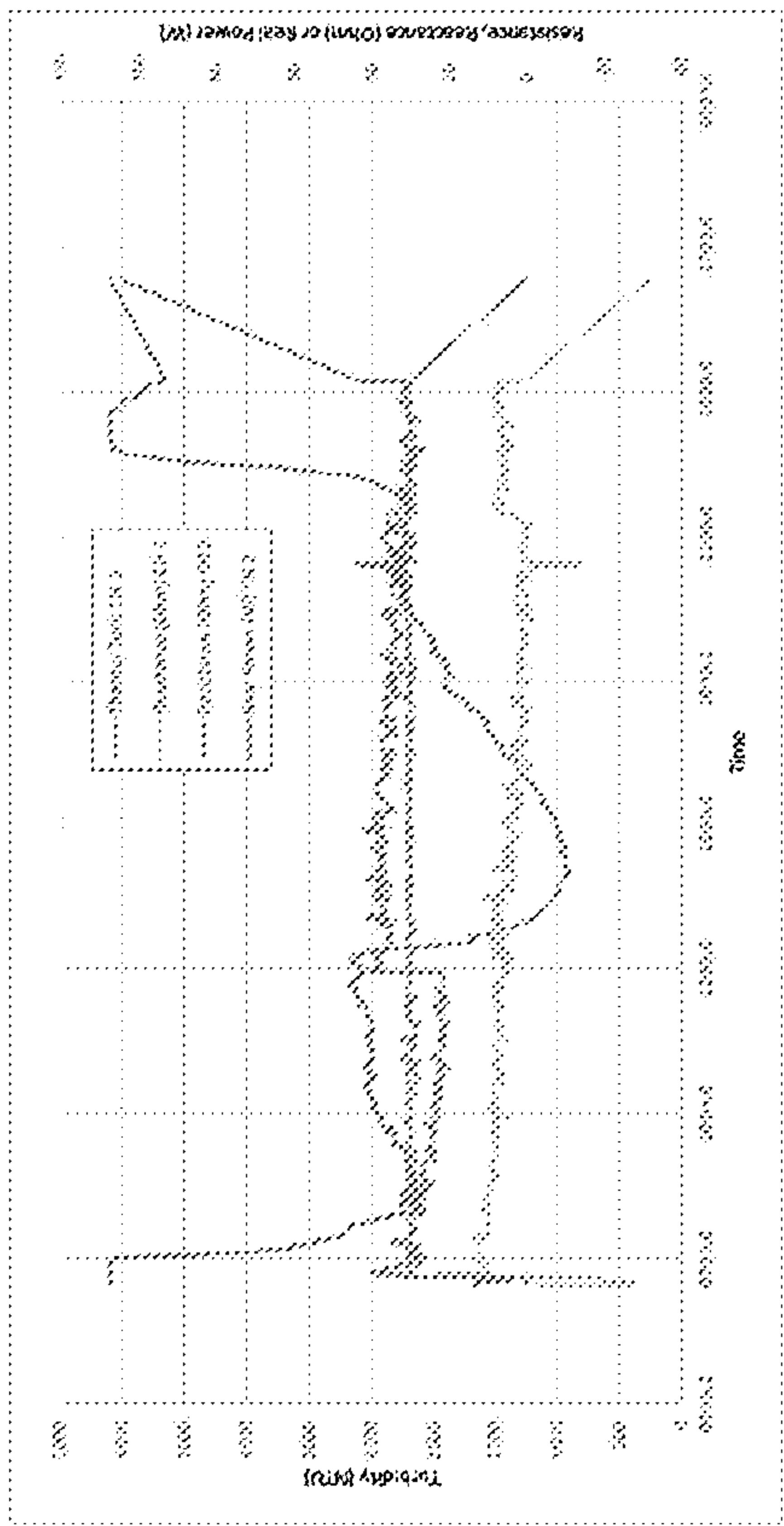


Figure 39

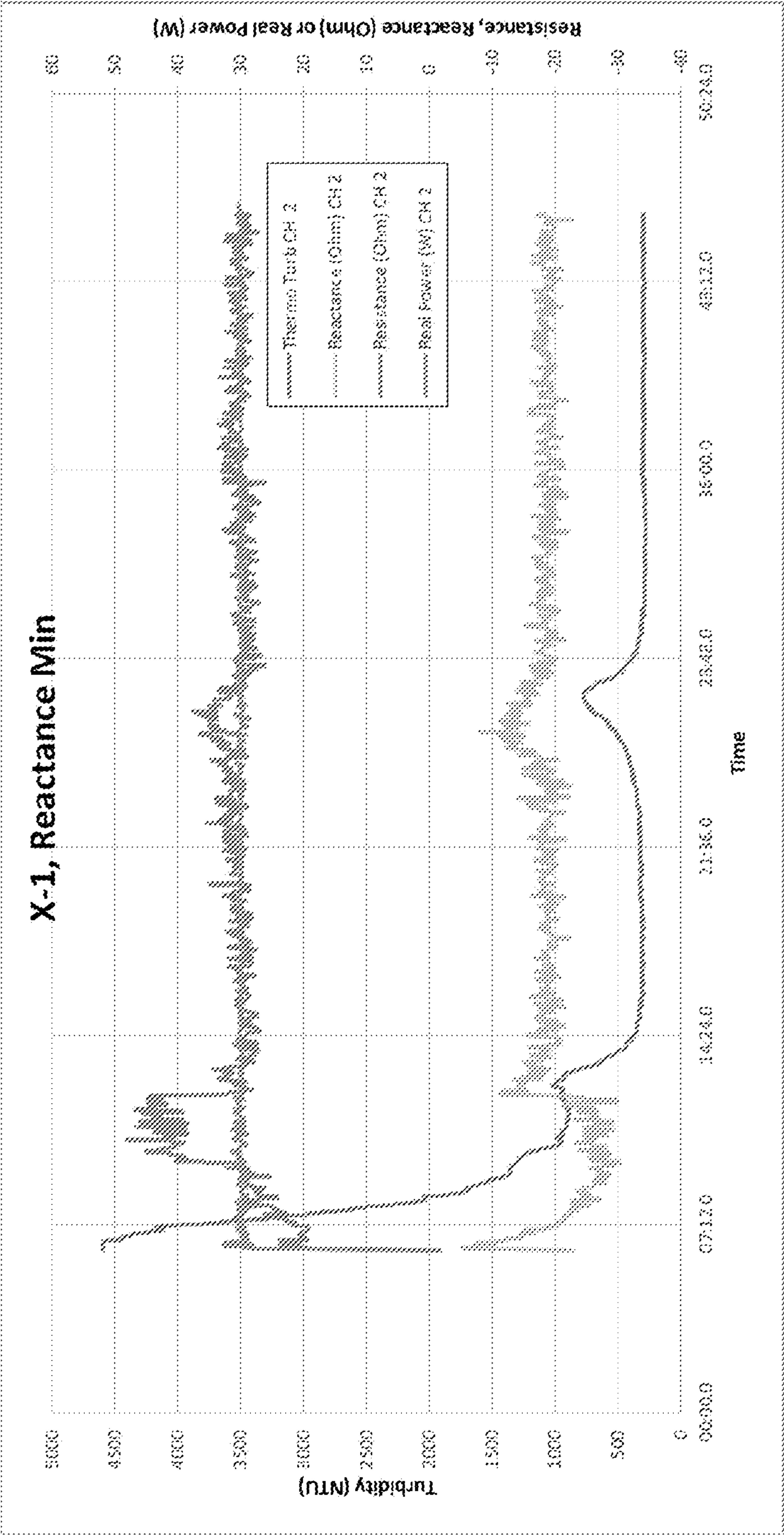


Figure 40

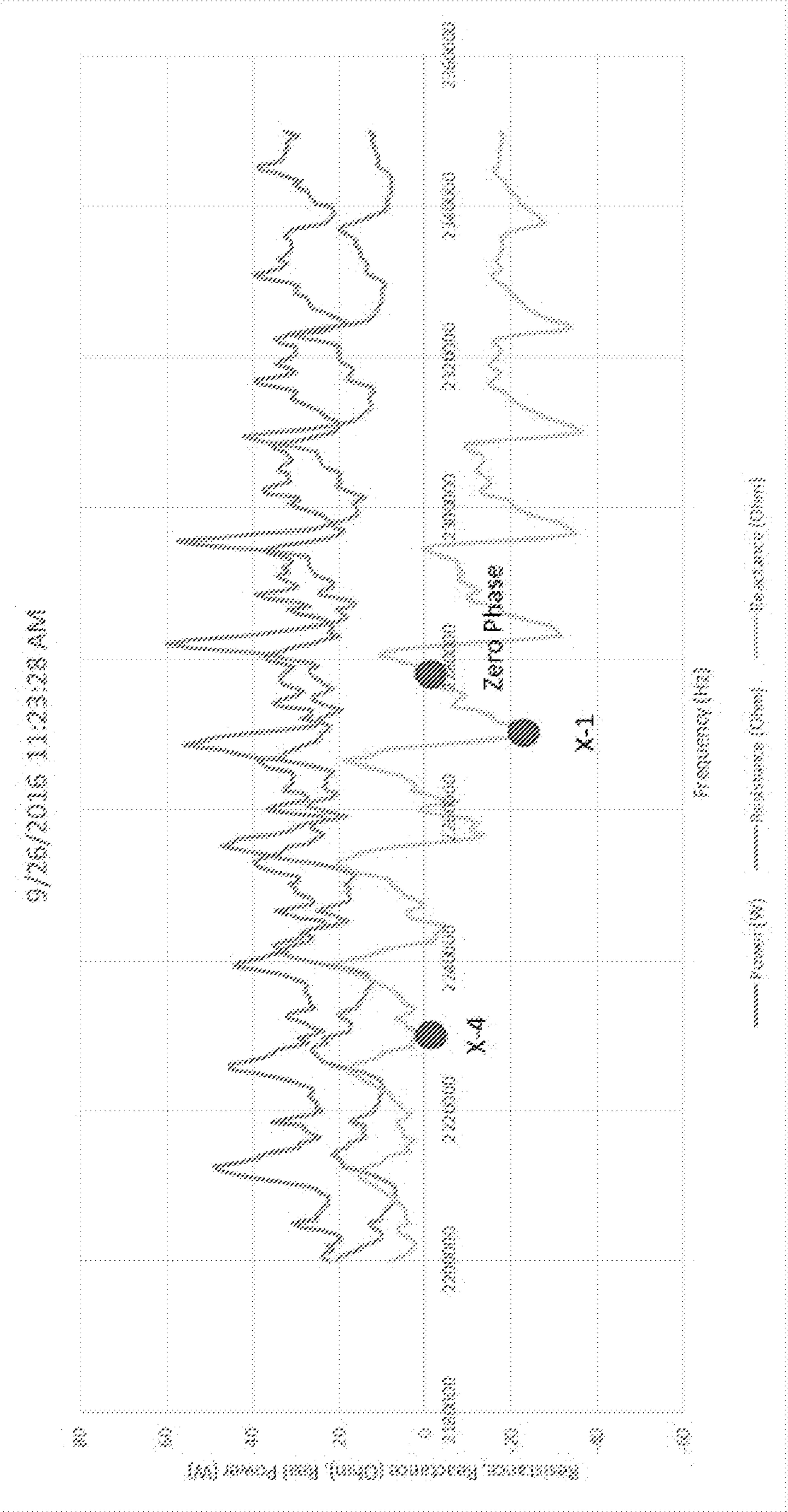


Figure 41

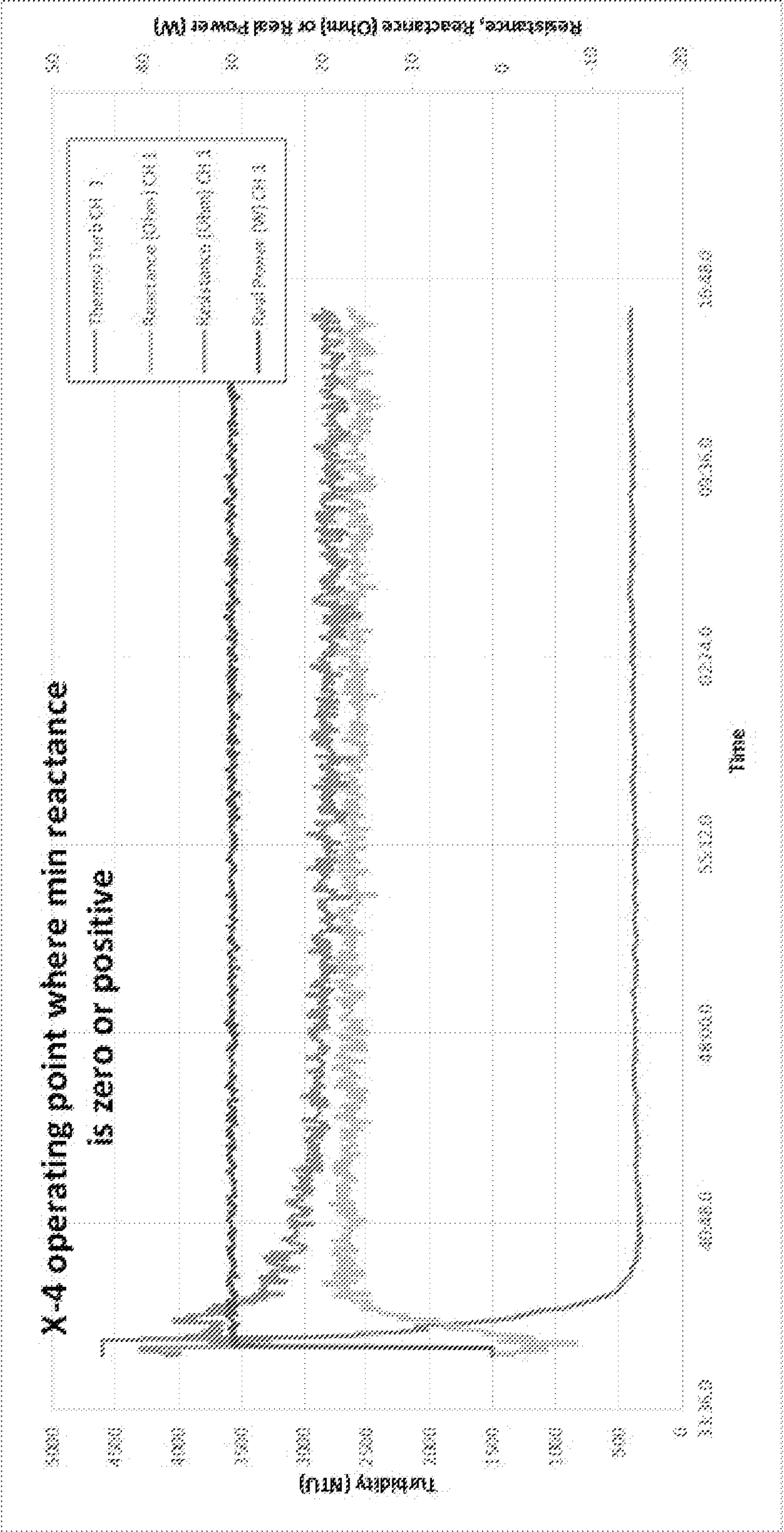


Figure 42

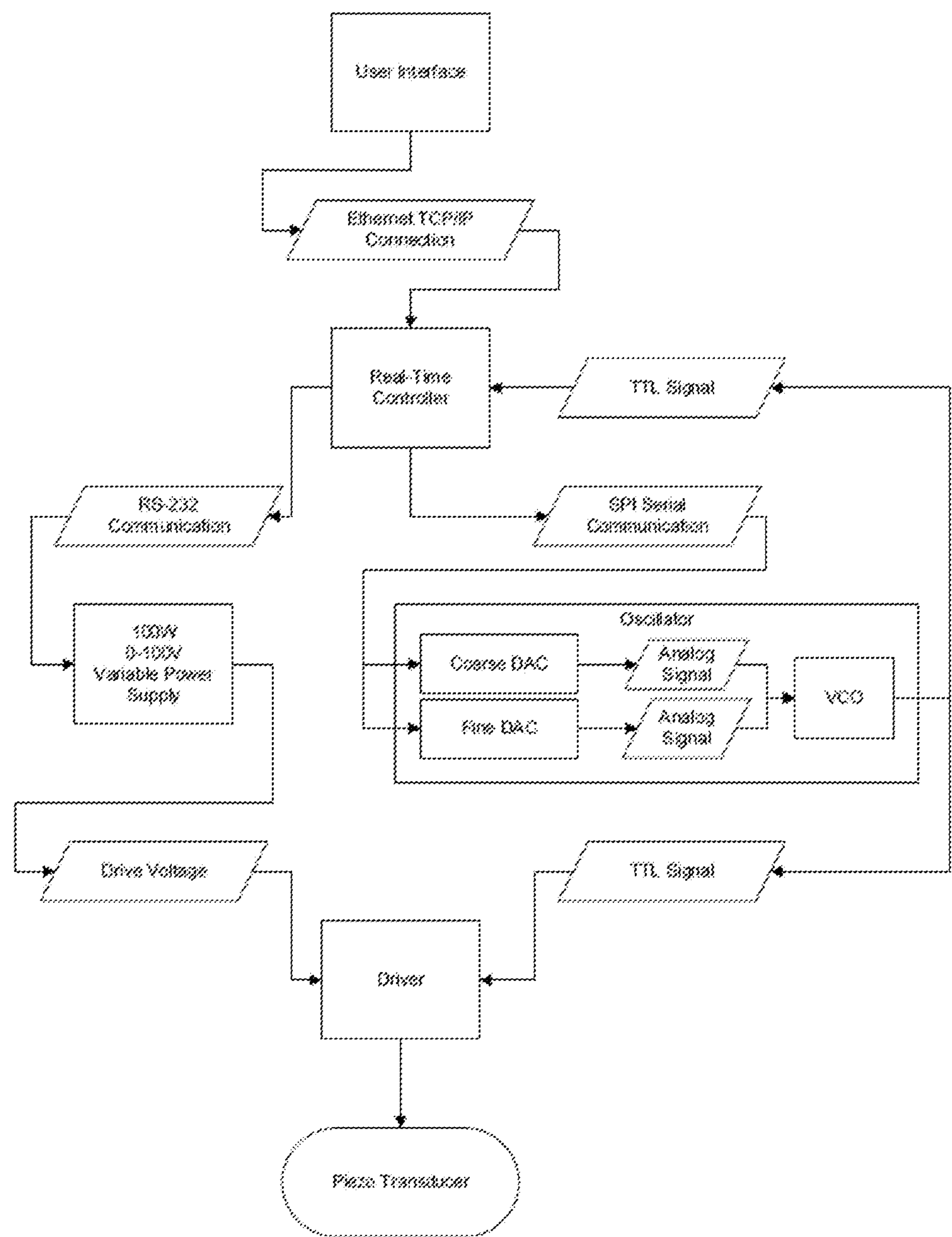


Figure 43

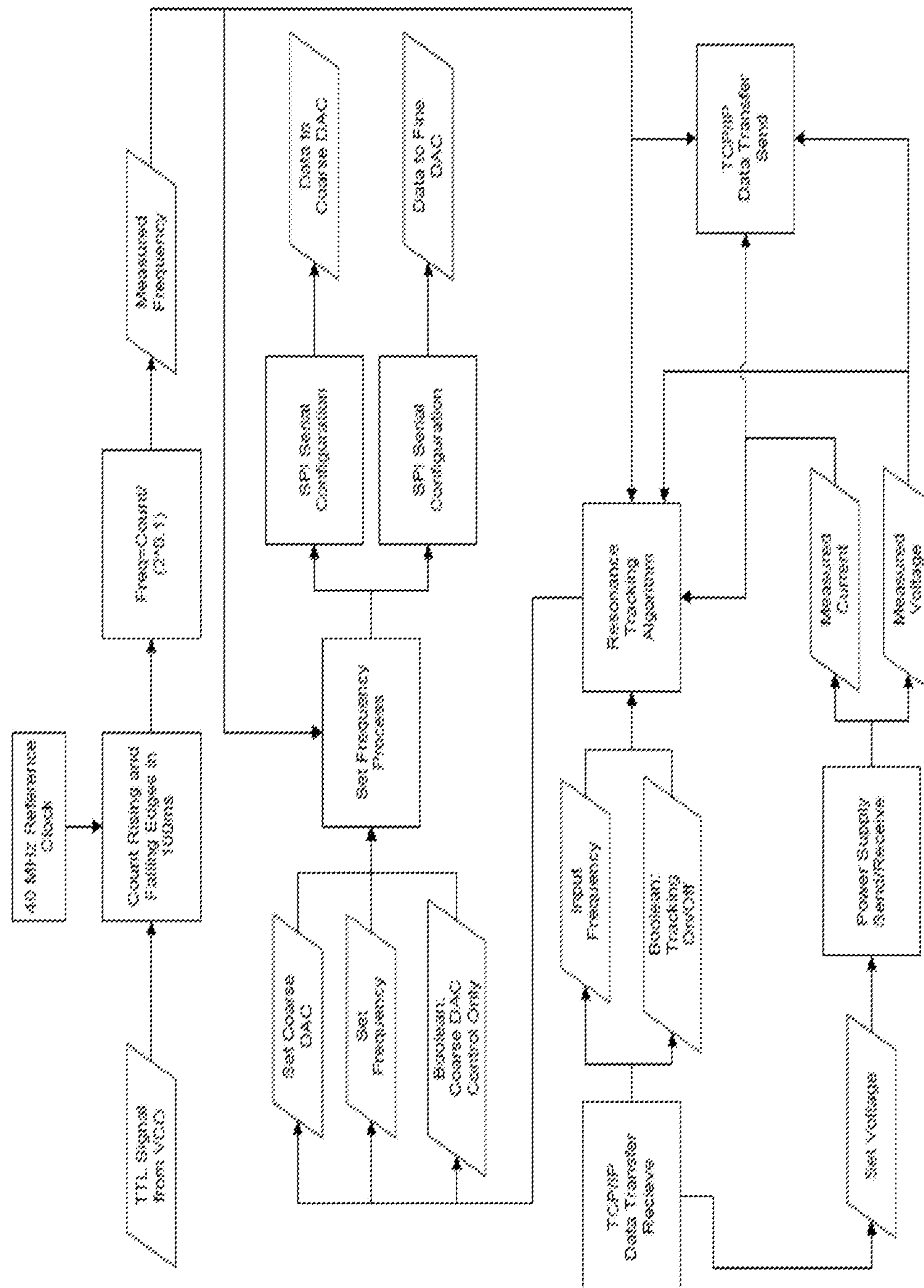


Figure 44

FloDesign Sonics

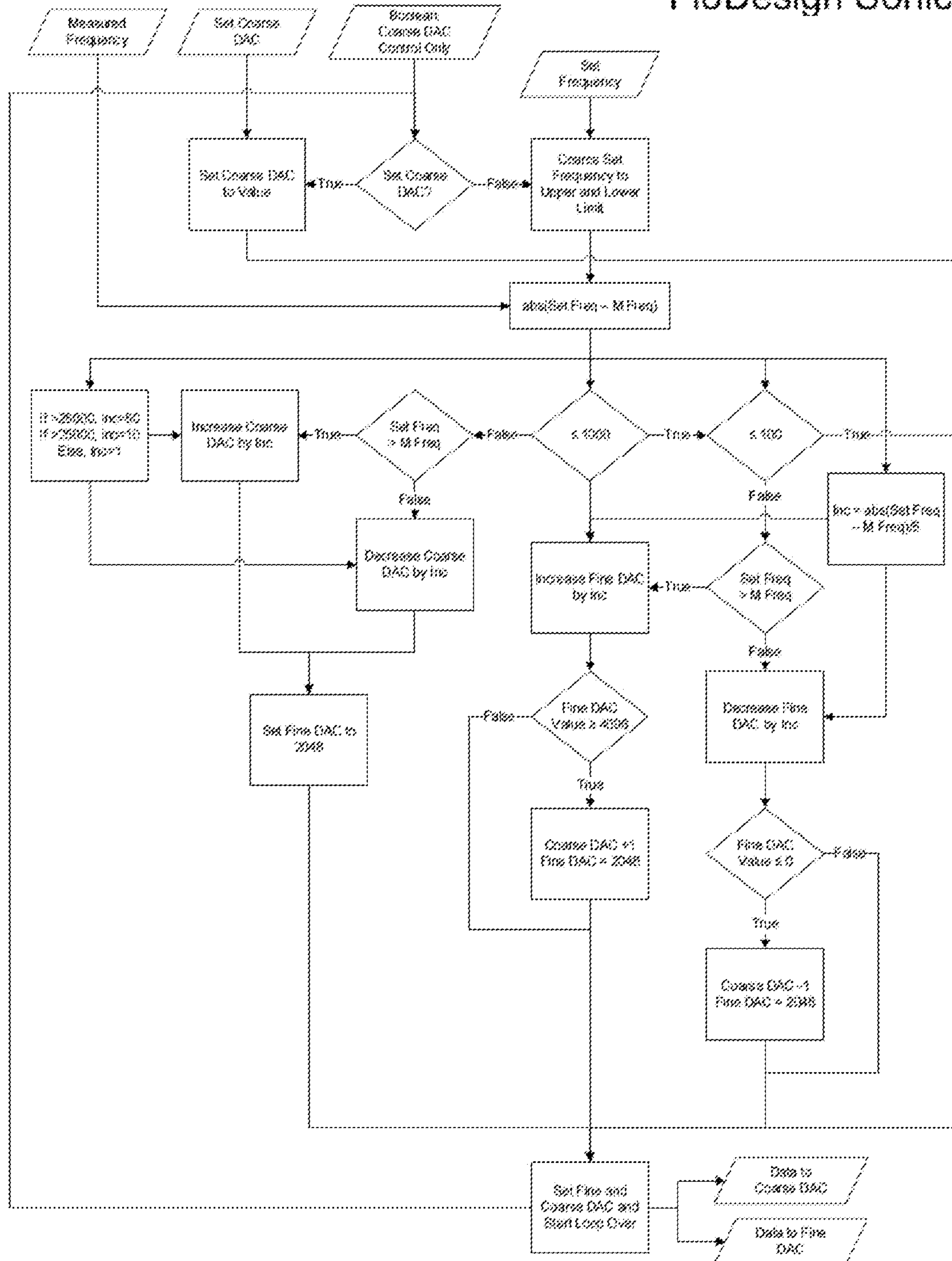


Figure 45

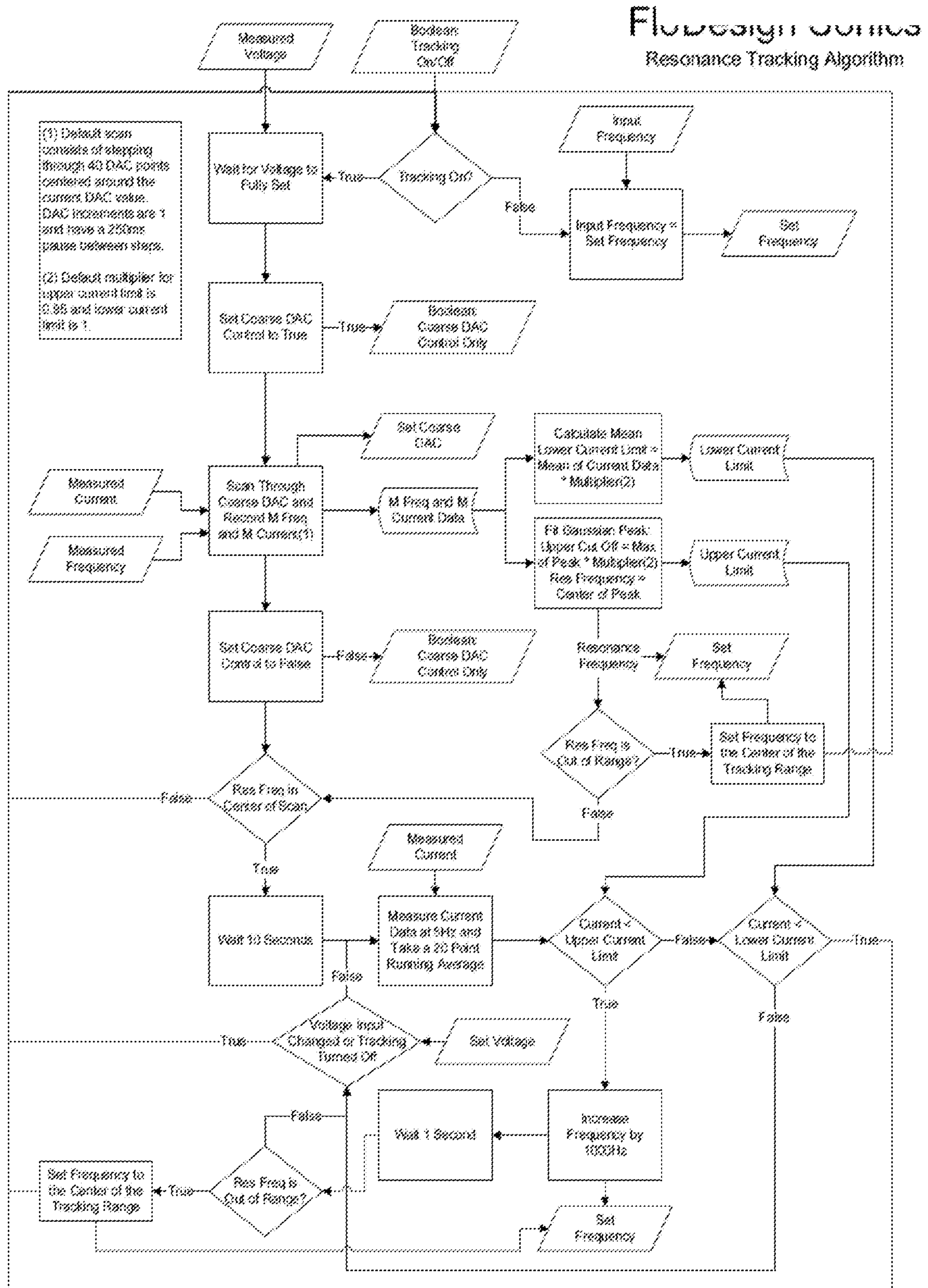


Figure 46

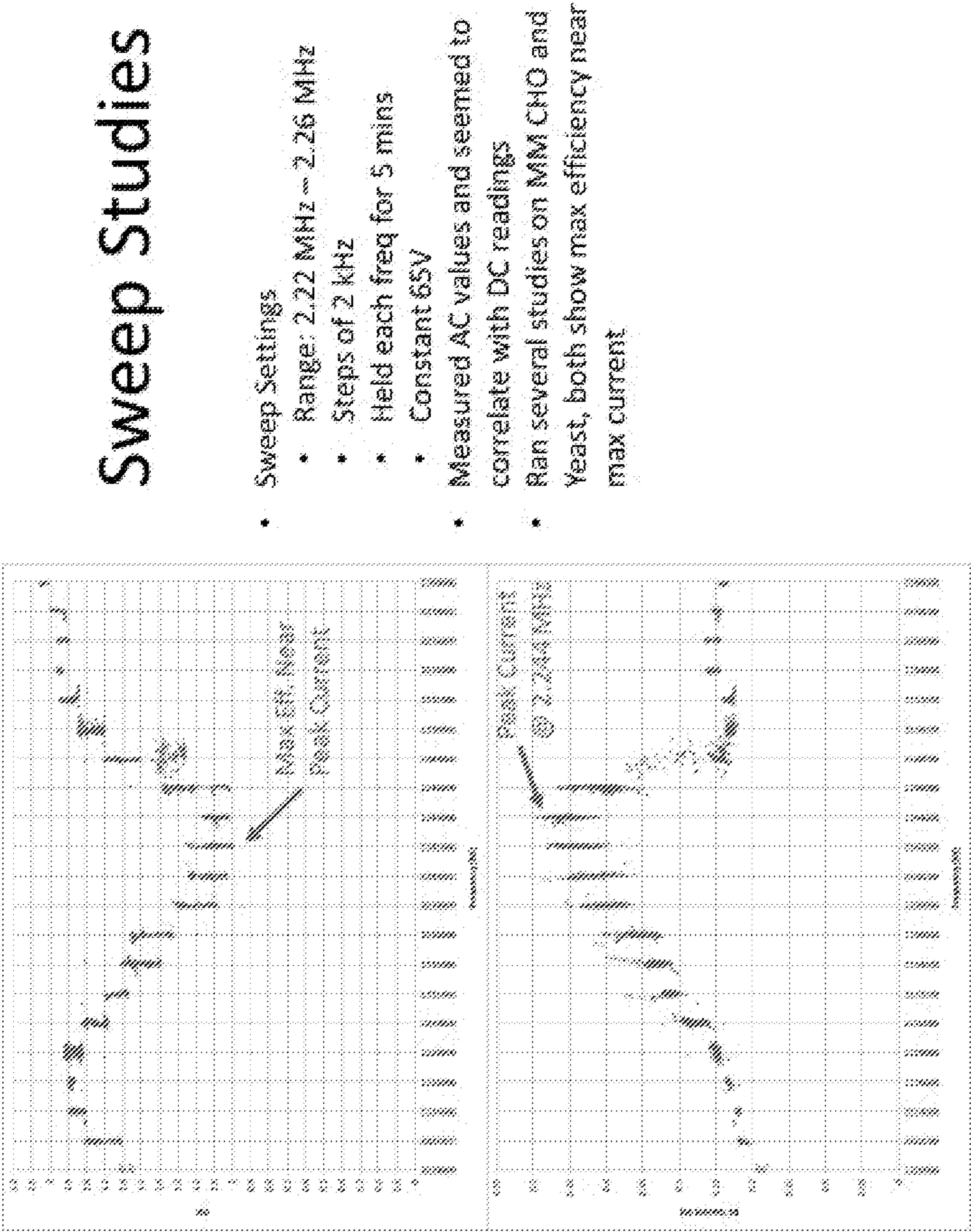


Figure 47

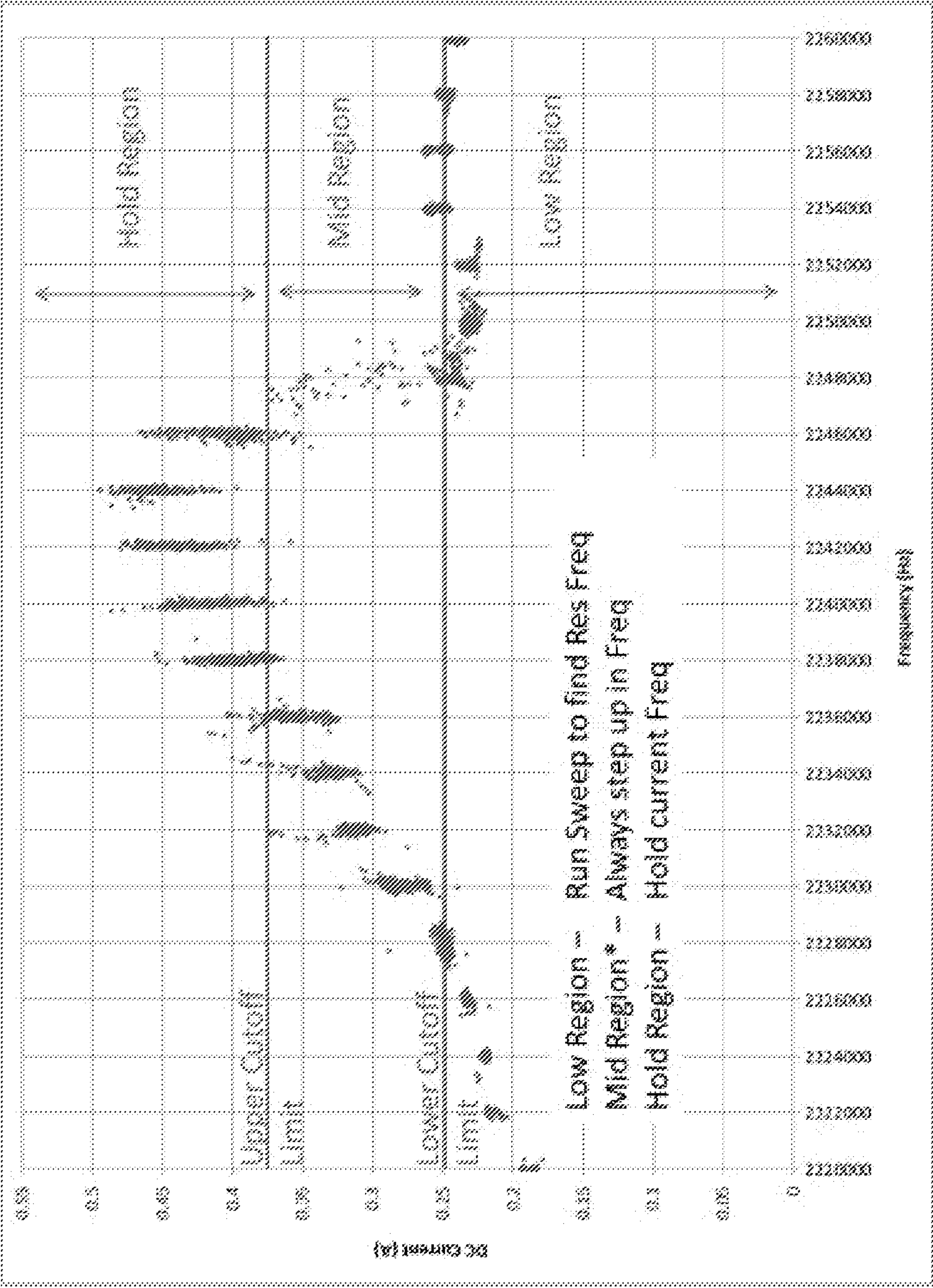


Figure 48

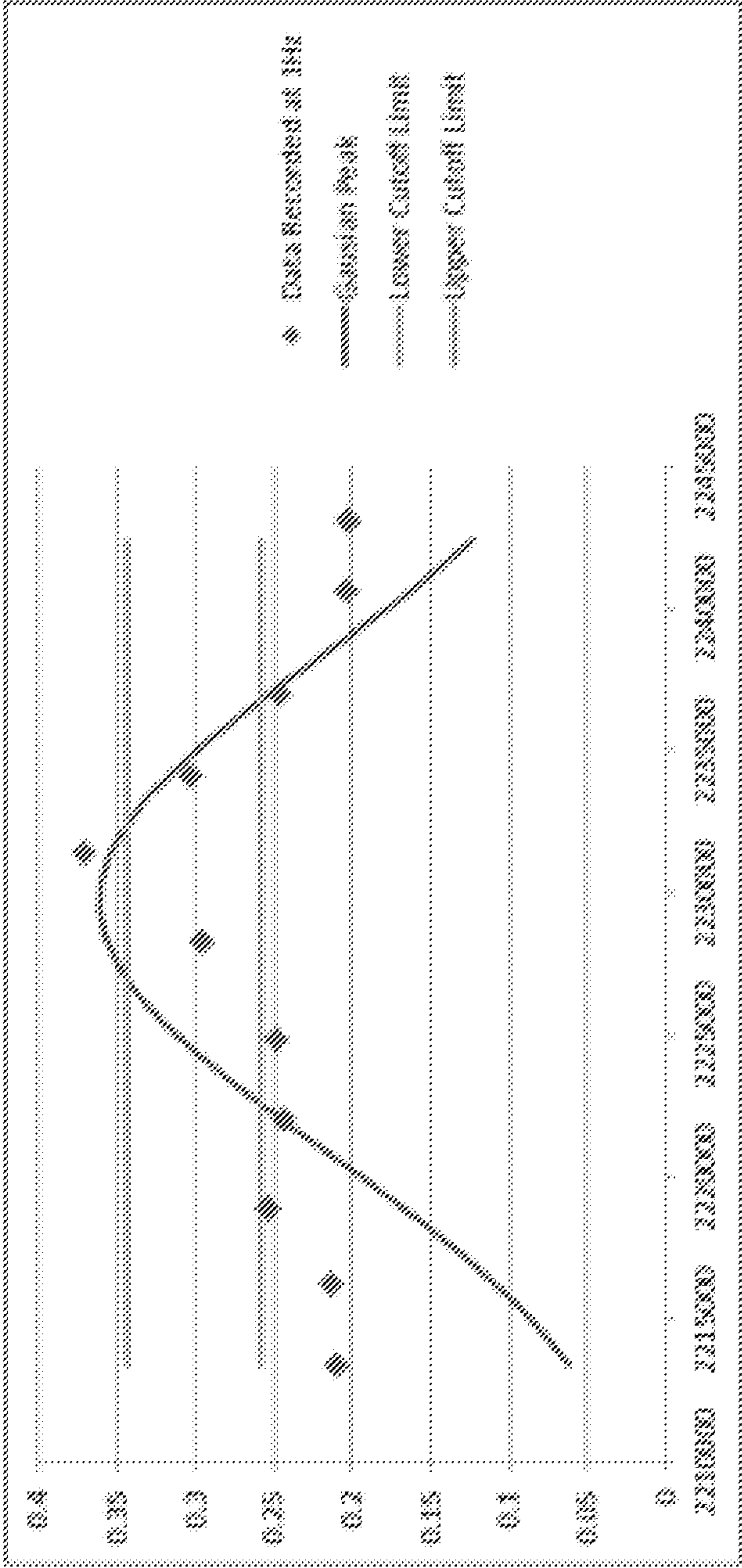


Figure 49

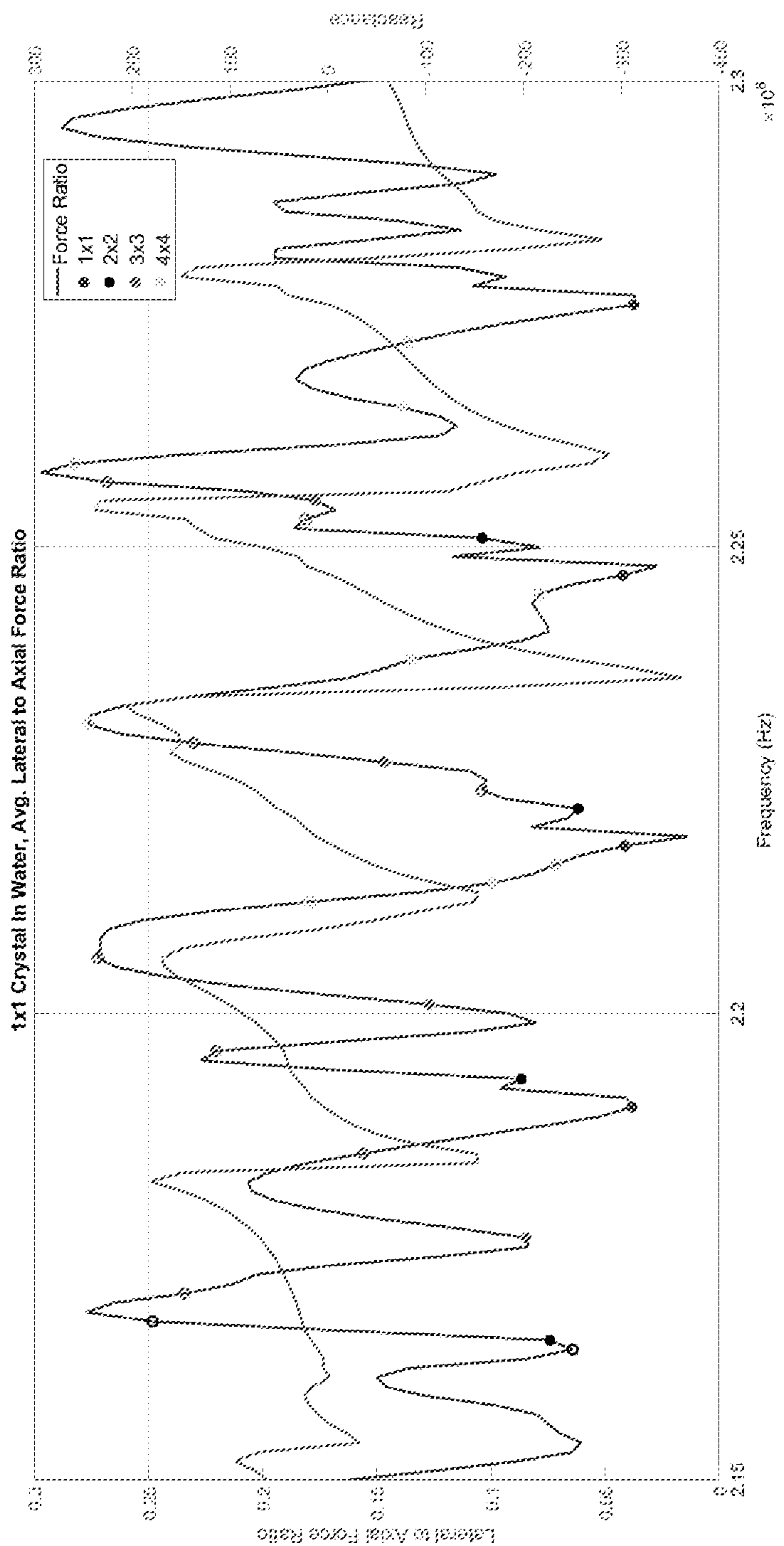


Figure 50

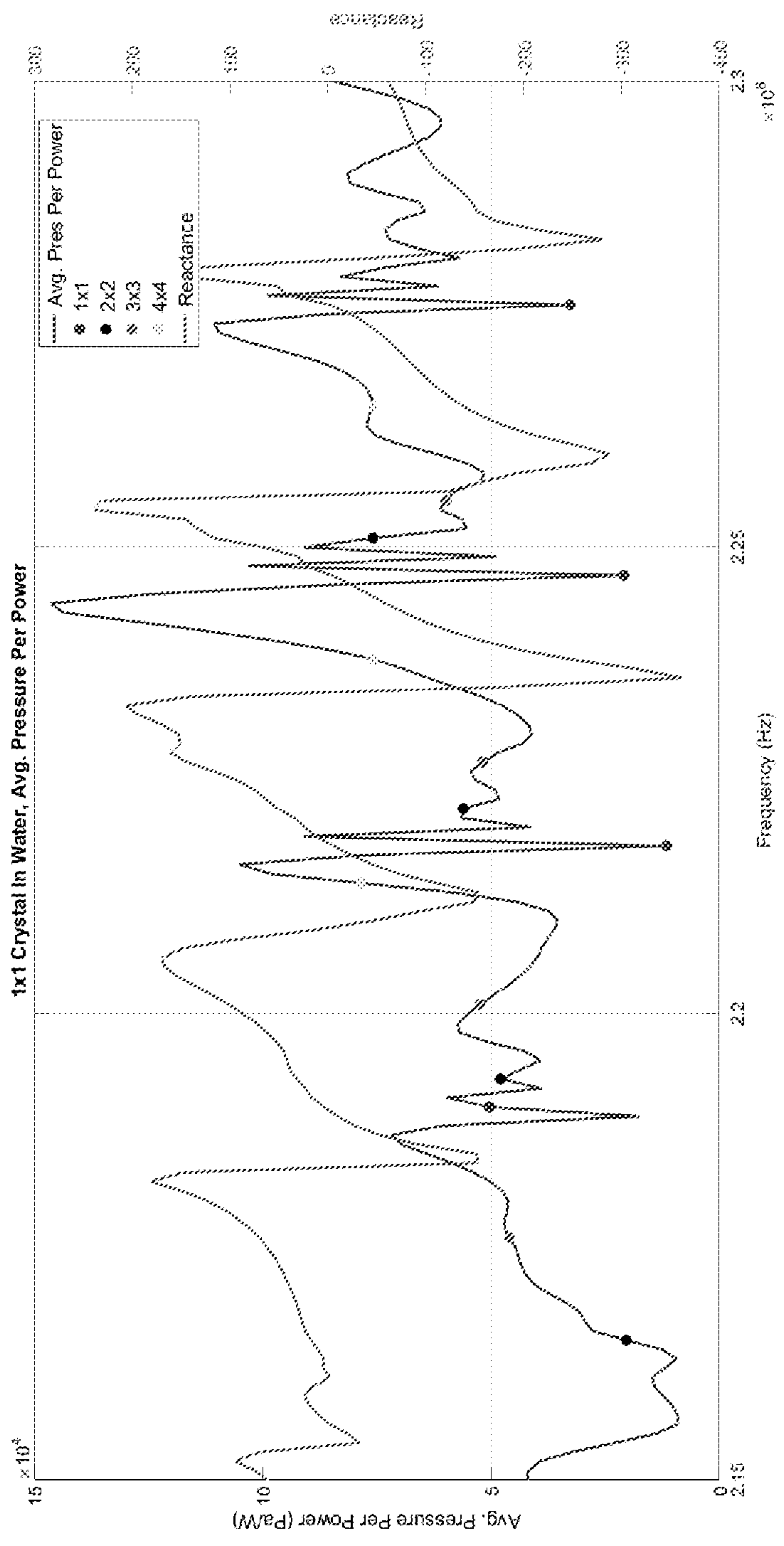


Figure 51

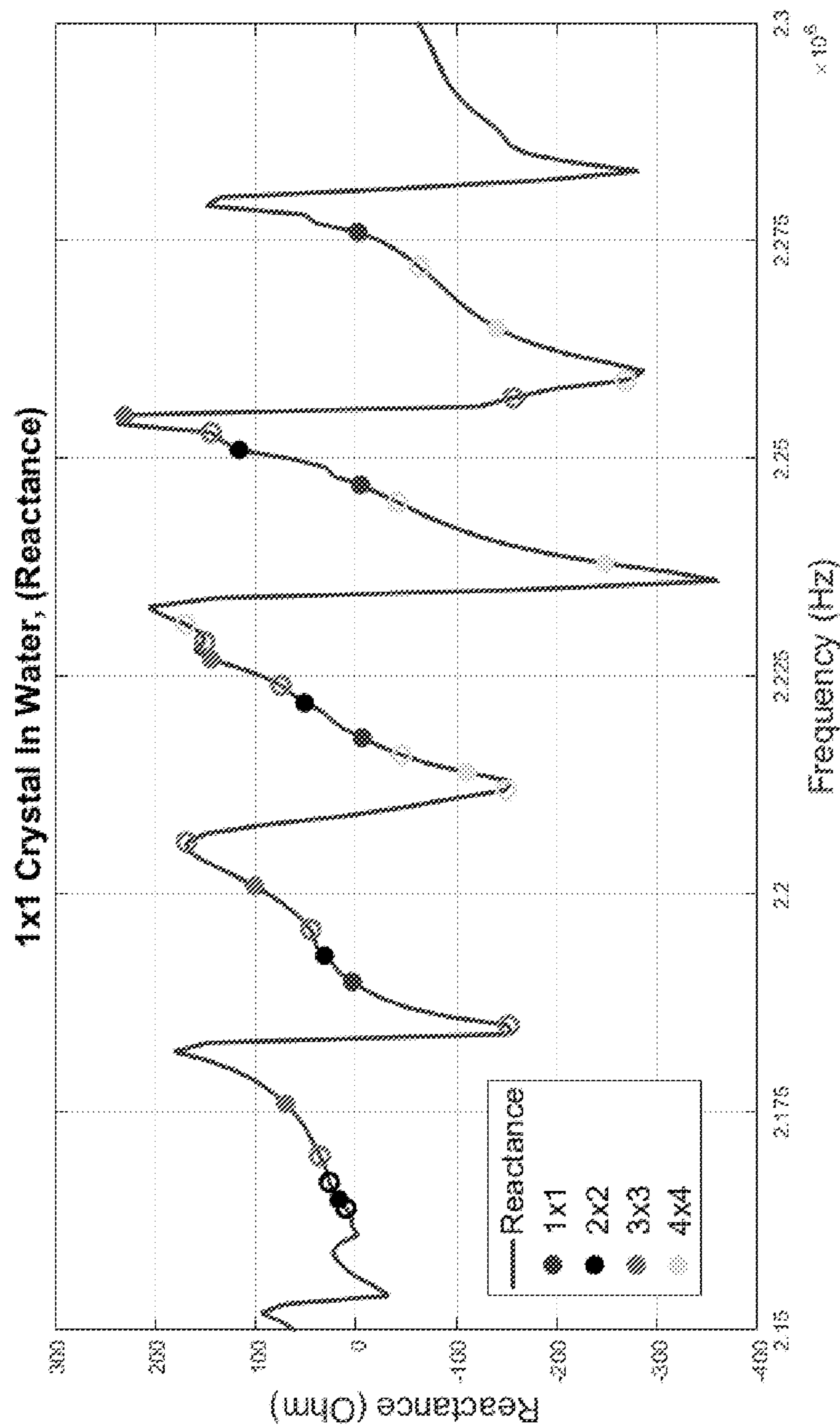


Figure 52

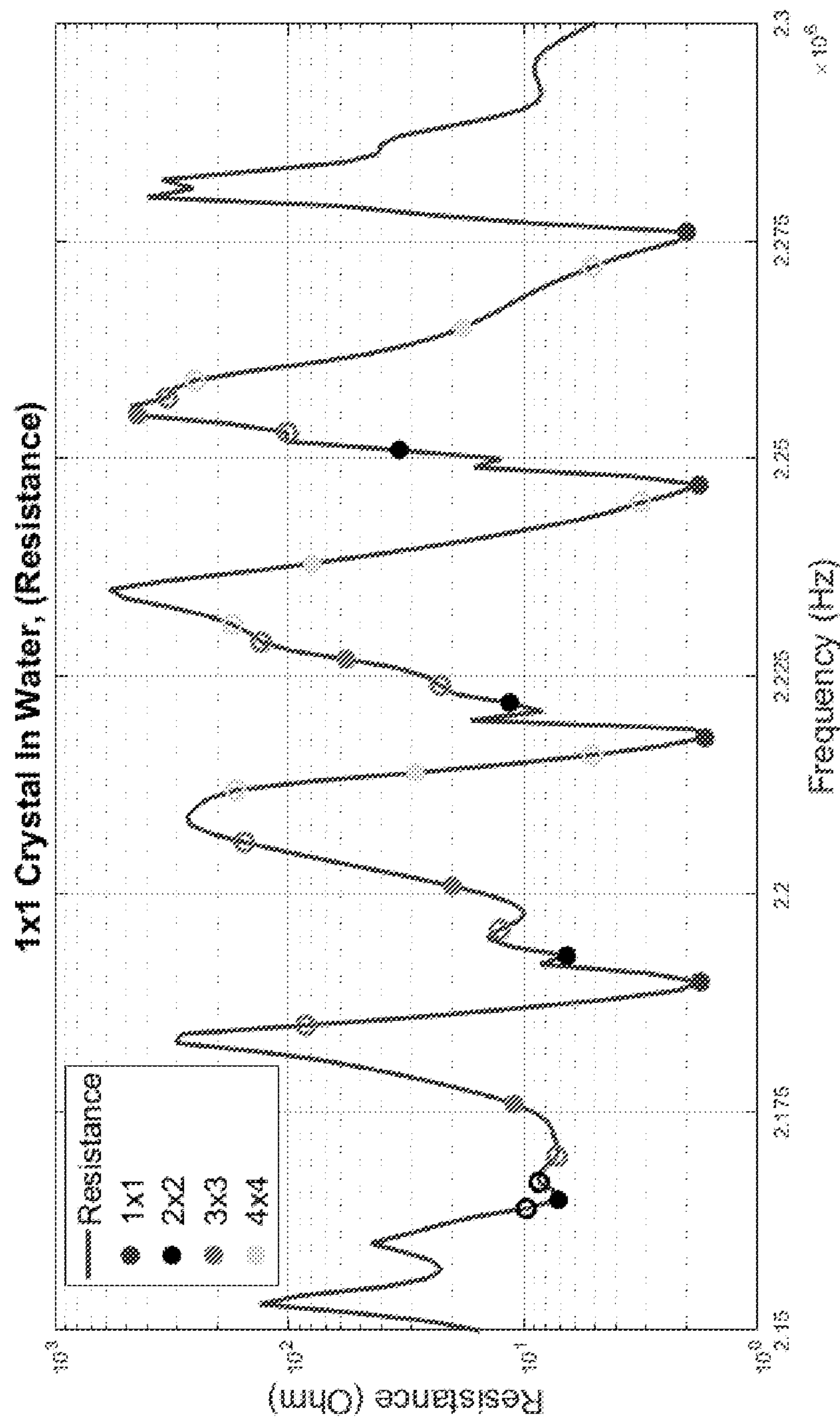


Figure 53