

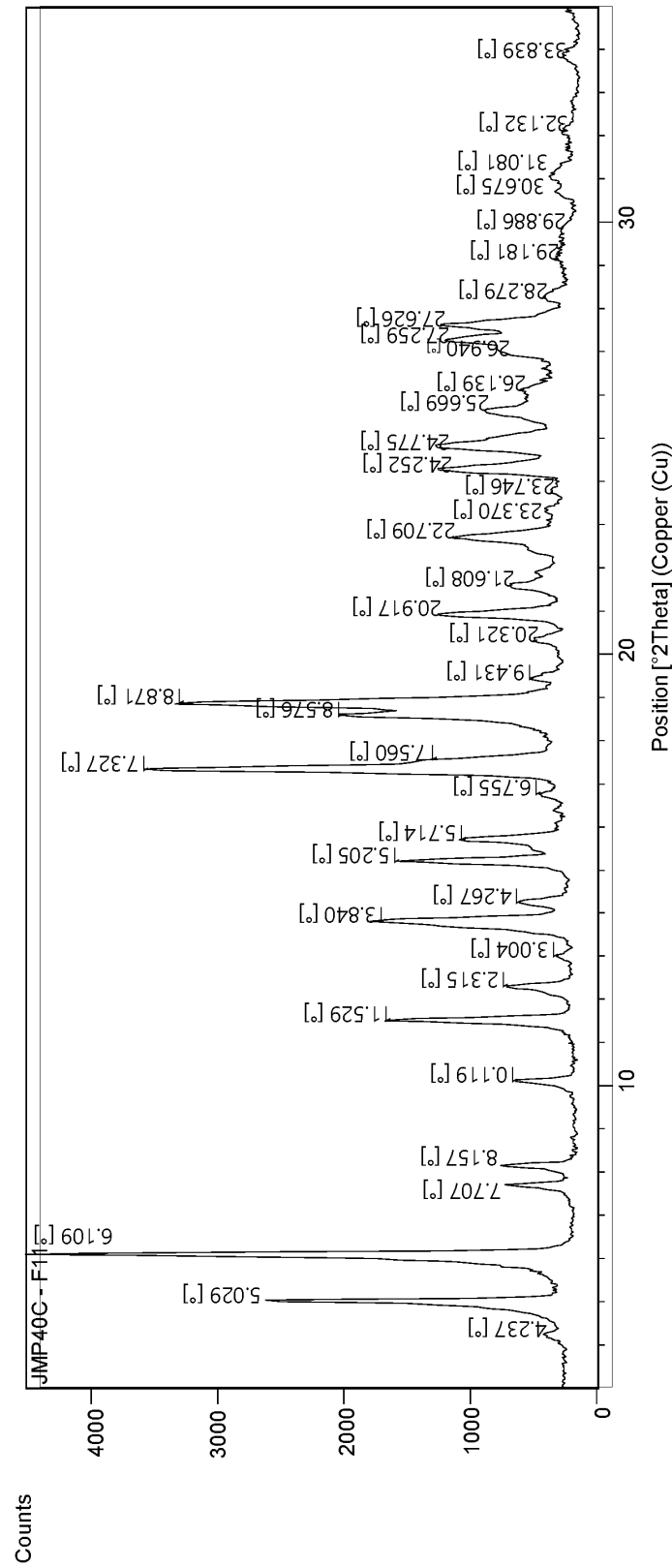


Fig. 1 – XRPD diffractogram of D-LSD Naphthalene-2-sulfonic acid salt

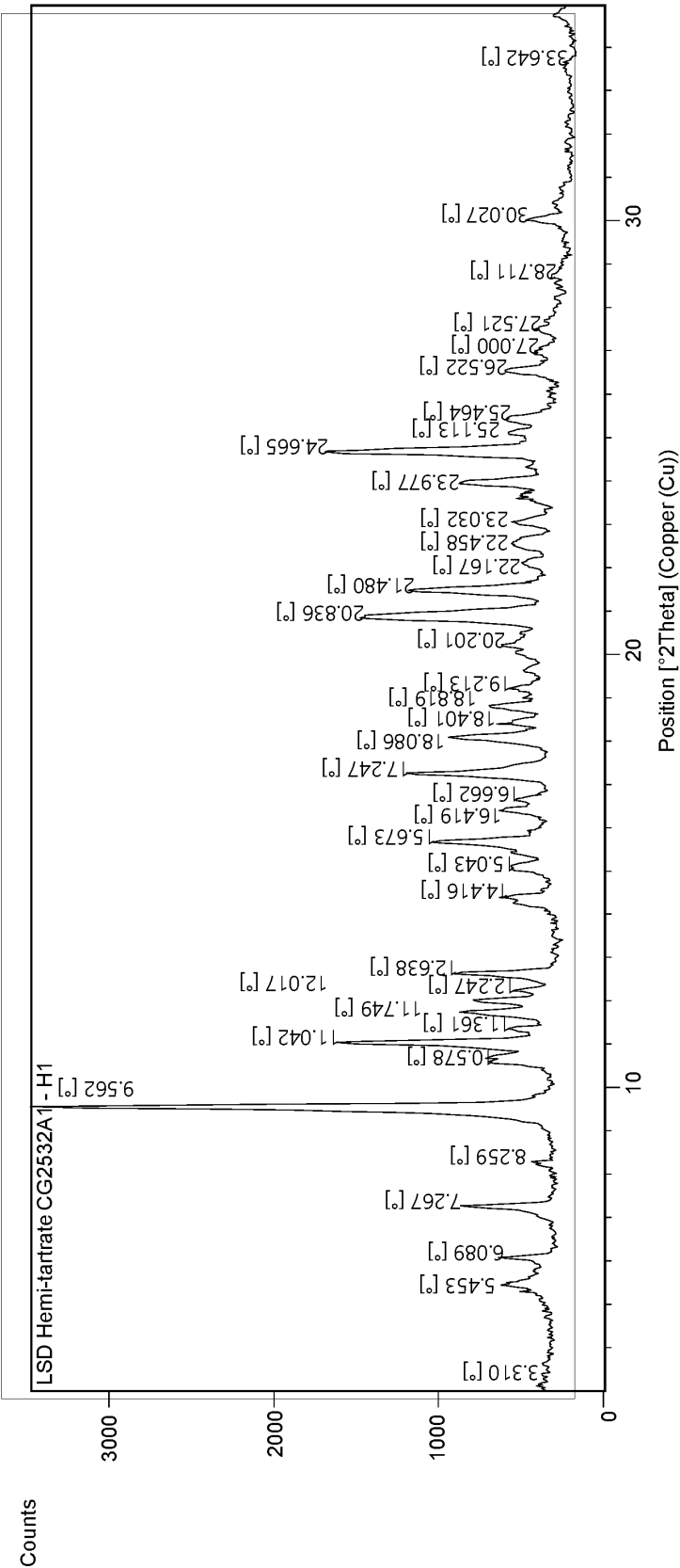


Fig. 2 – XRPD diffractogram of D-LSD tartaric acid (+ L) hemi-salt

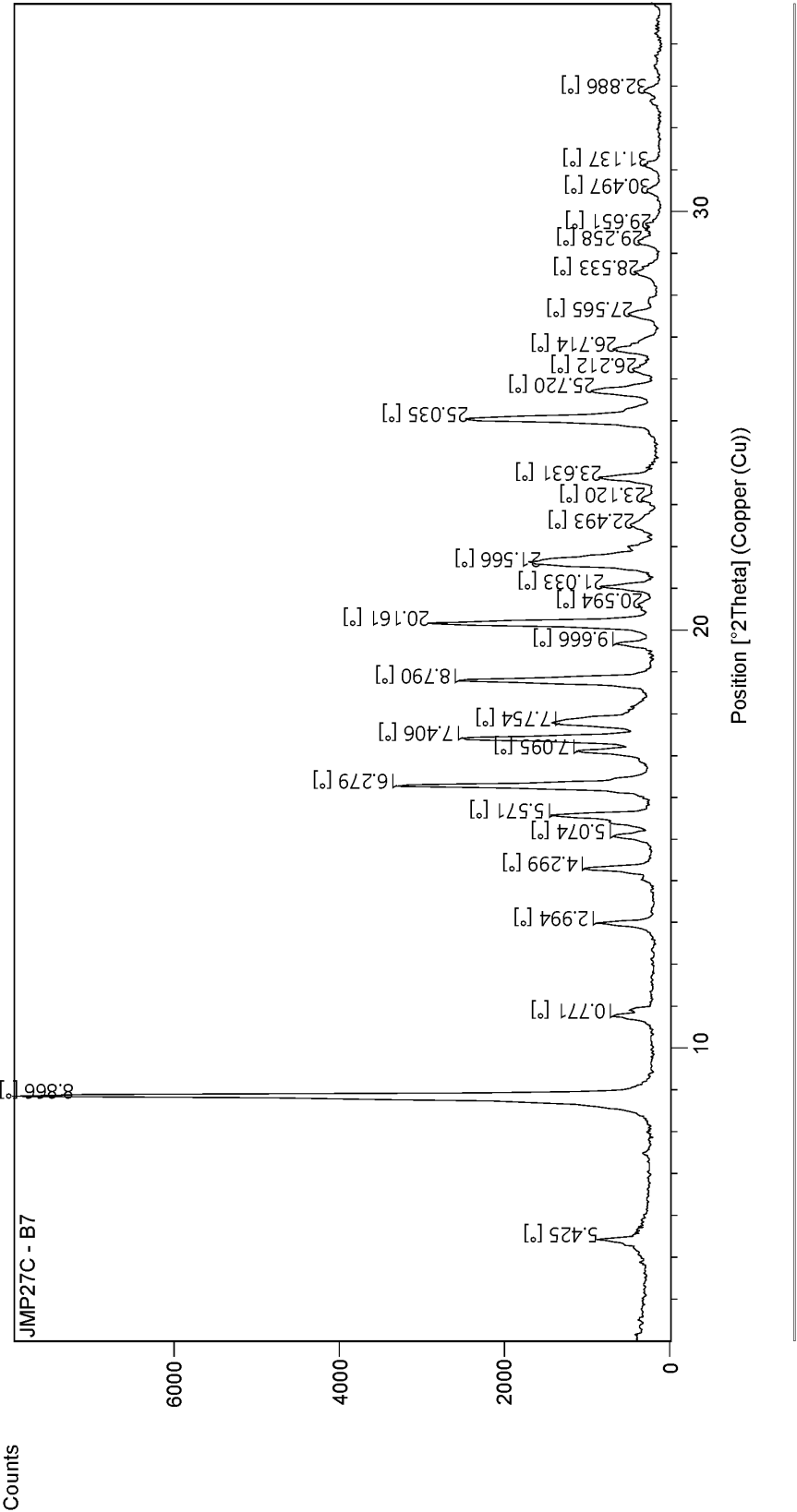


Fig. 3 – XRPD diffractogram of D-LSD maleic acid salt form A

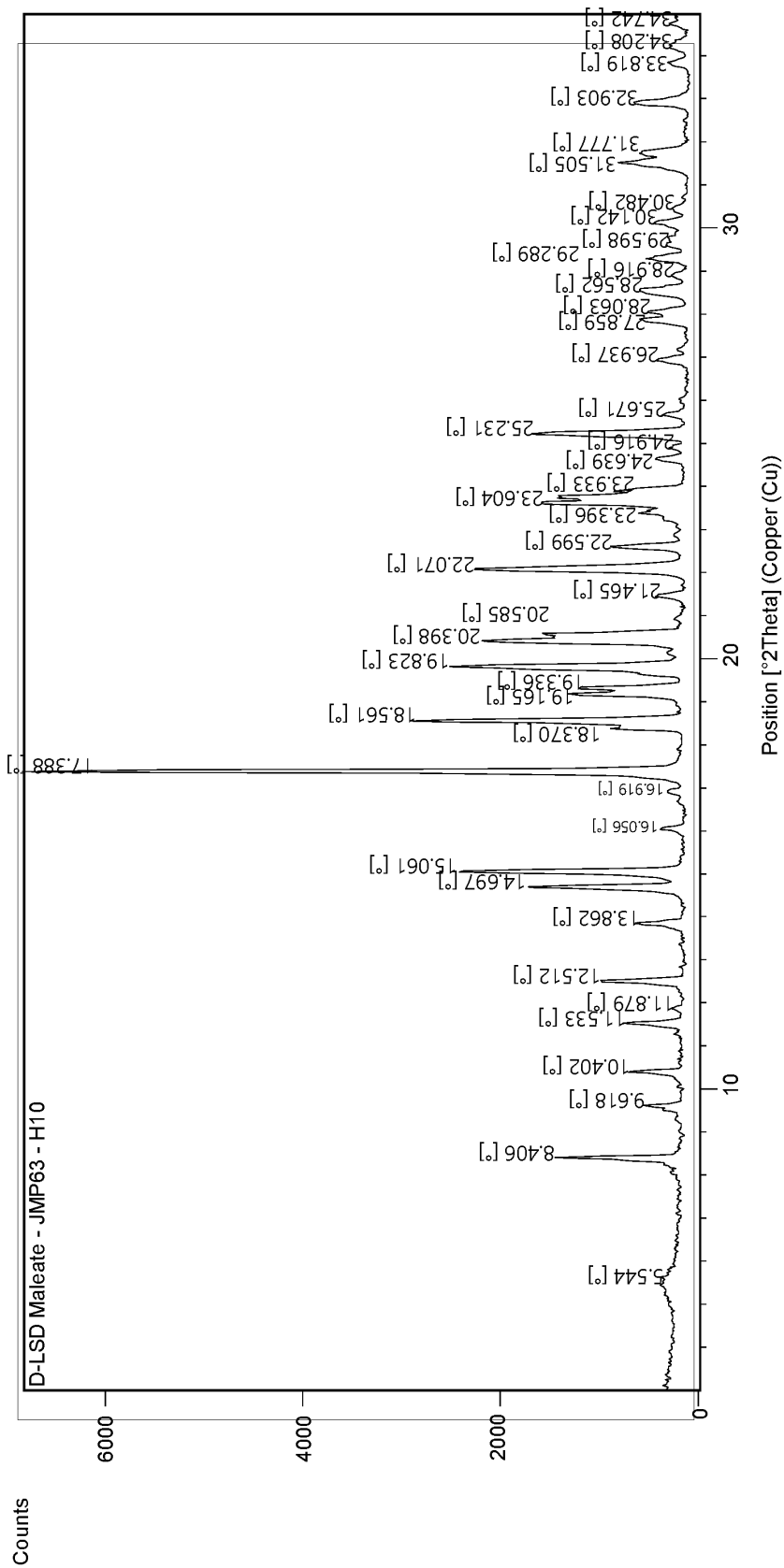


Fig. 4 – XRPD diffractogram of D-LSD maleate salt form B

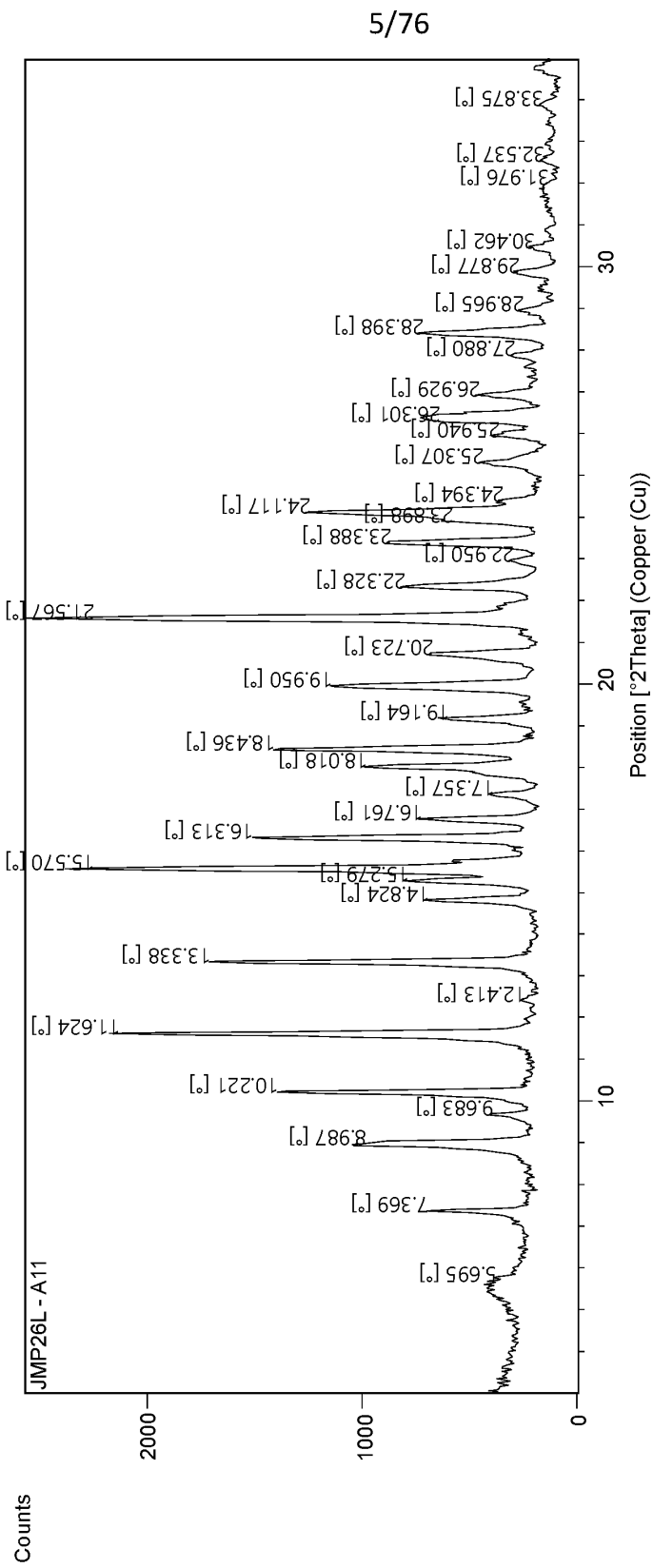


Fig. 5 – XRPD diffractogram of D-LSD xinafoic acid salt form A

6/76

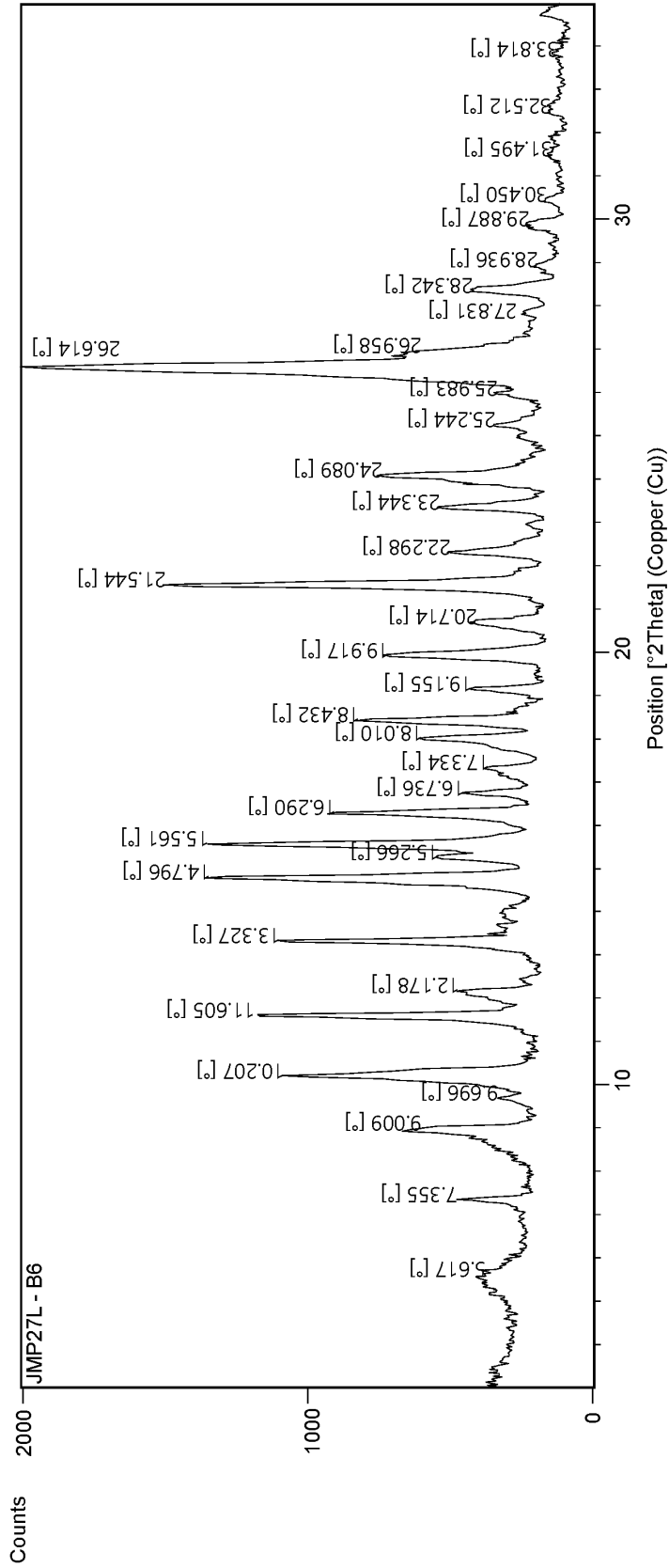


Fig. 6 – XRPD diffractogram of D-LSD xinafoic acid salt form A'

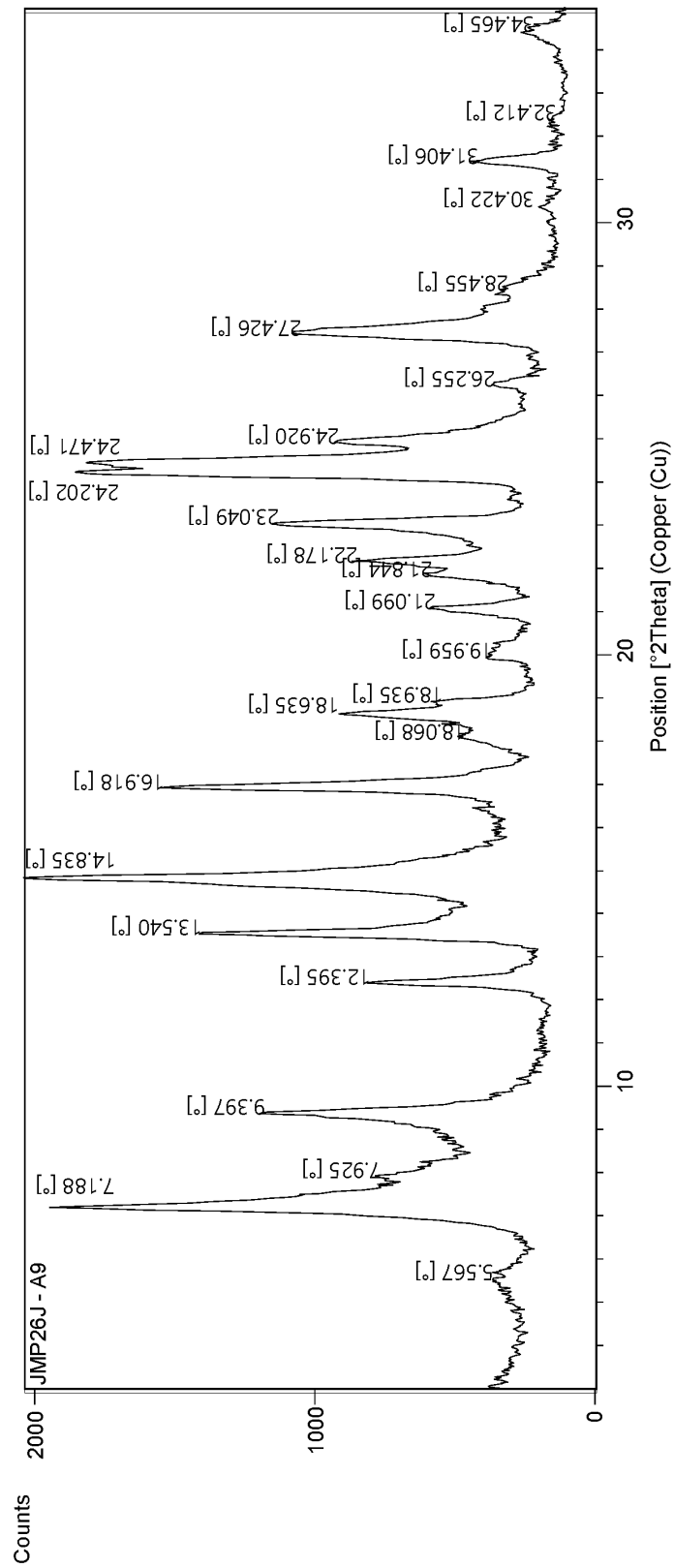


Fig. 7 – XRPD diffractogram of D-LSD phosphoric acid salt form A

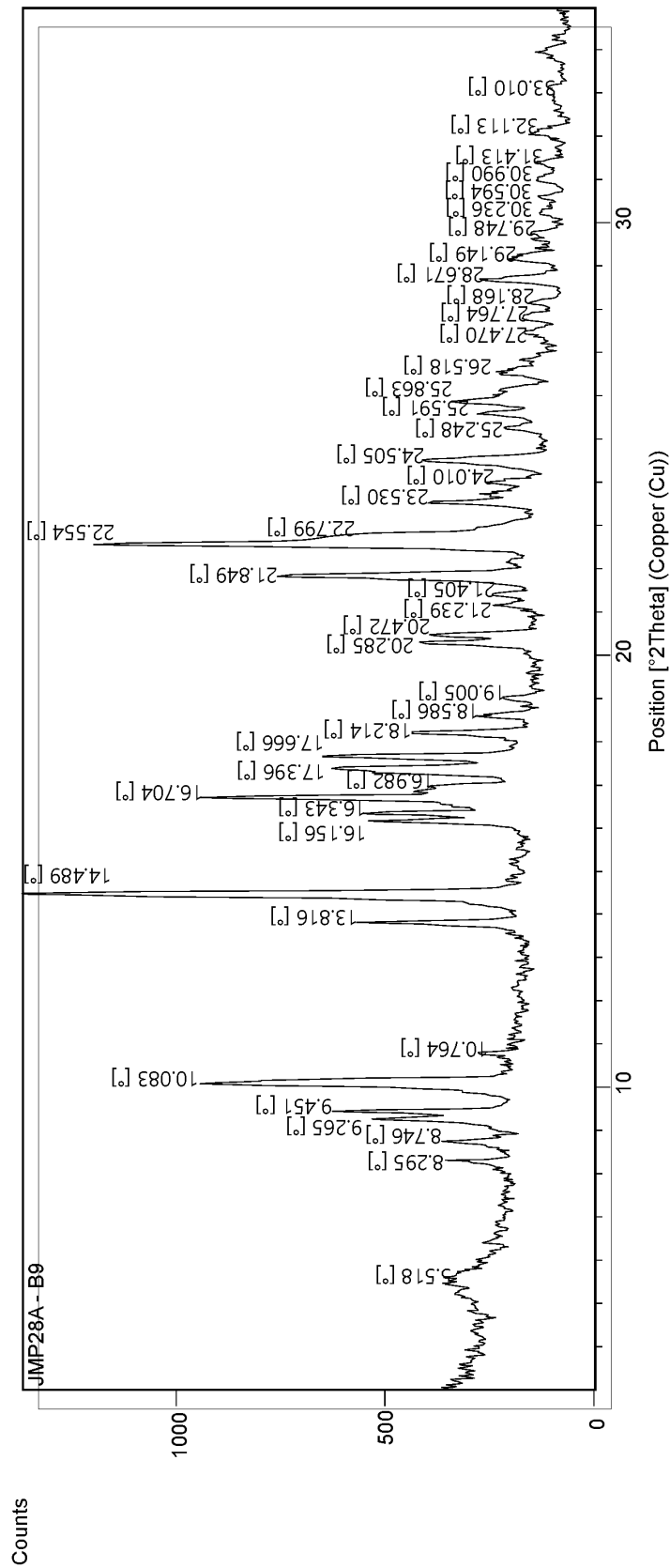


Fig. 8 – XRPD diffractogram of D-LSD naphthalene-1,5-disulfonic acid hemi-salt

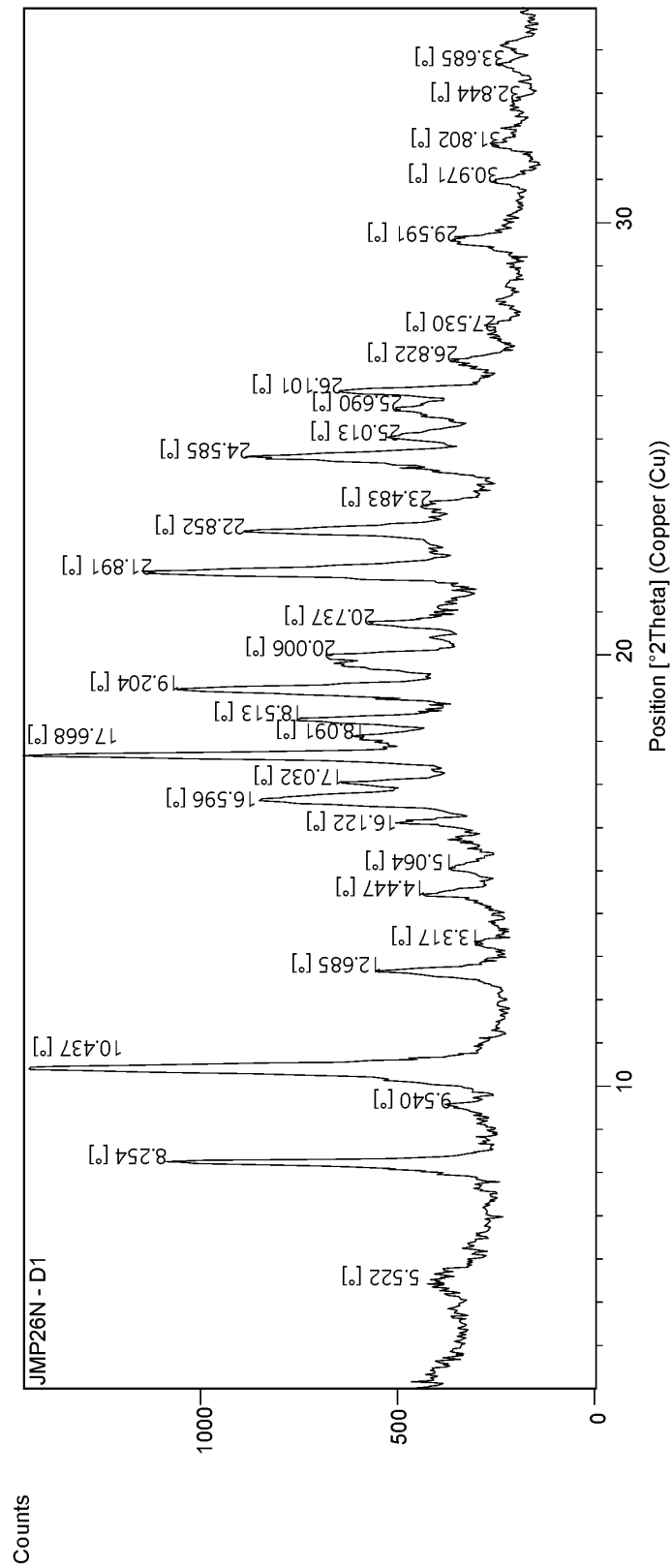


Fig. 9 – XRPD diffractogram of D-LSD oxalic acid salt form A

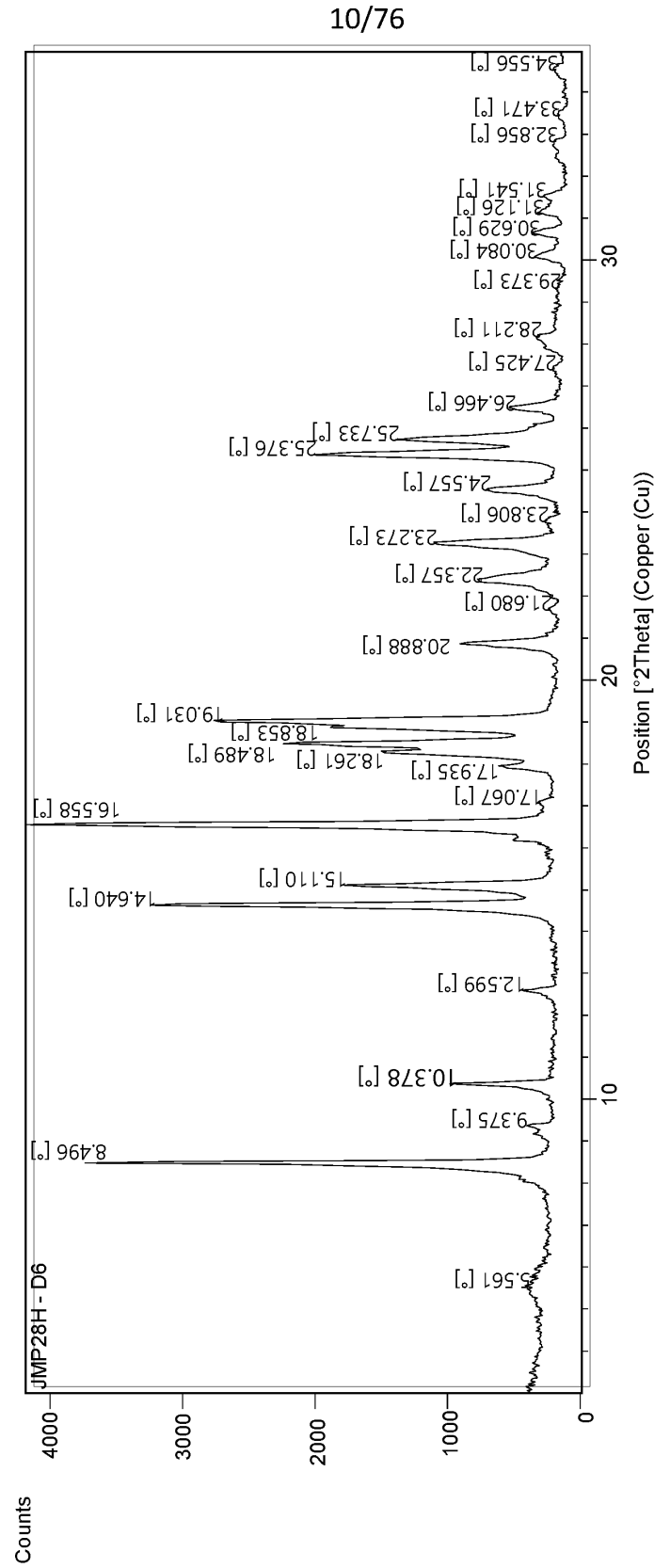


Fig. 10 – XRPD diffractogram of D-LSD benzoic acid salt form A

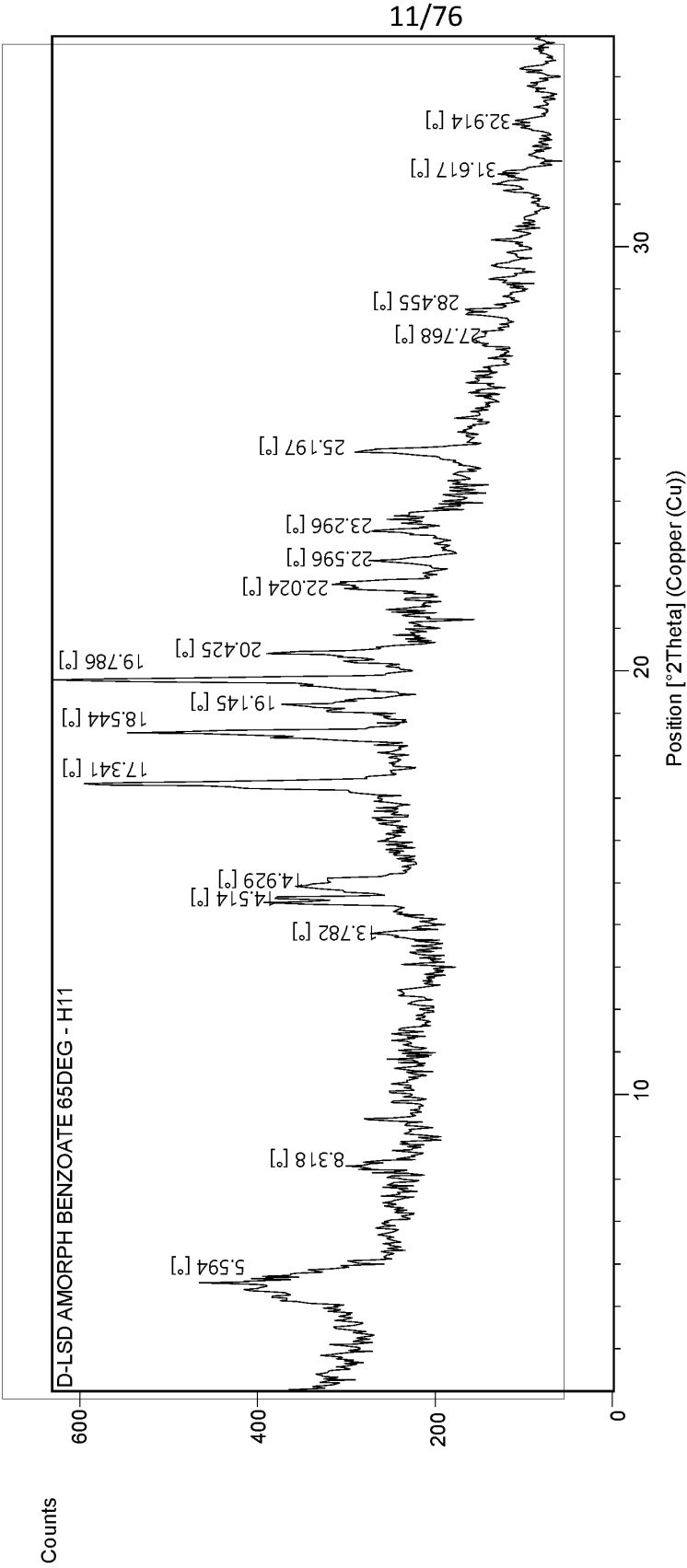


Fig. 11 – XRPD diffractogram of D-LSD benzoic acid salt form B

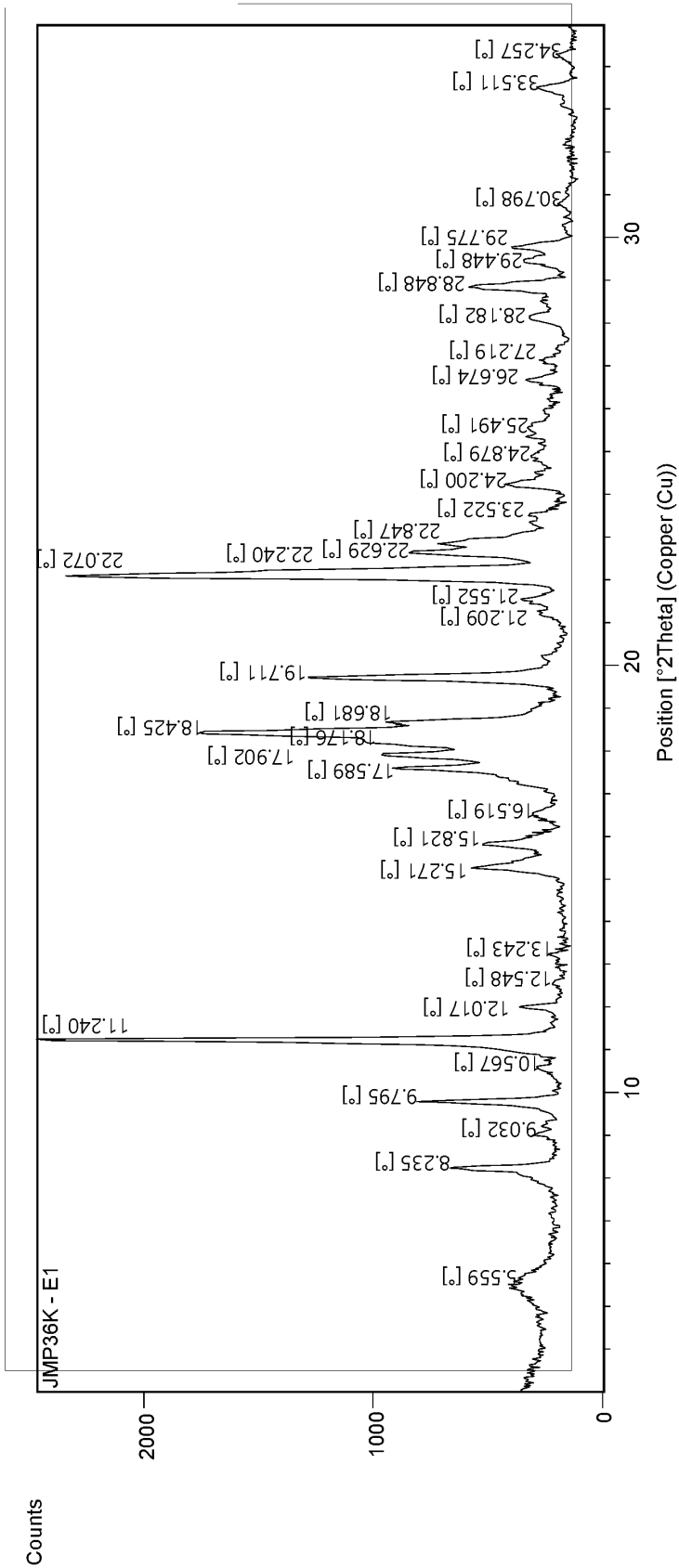


Fig. 12 – XRPD diffractogram of D-LSD fumaric acid salt

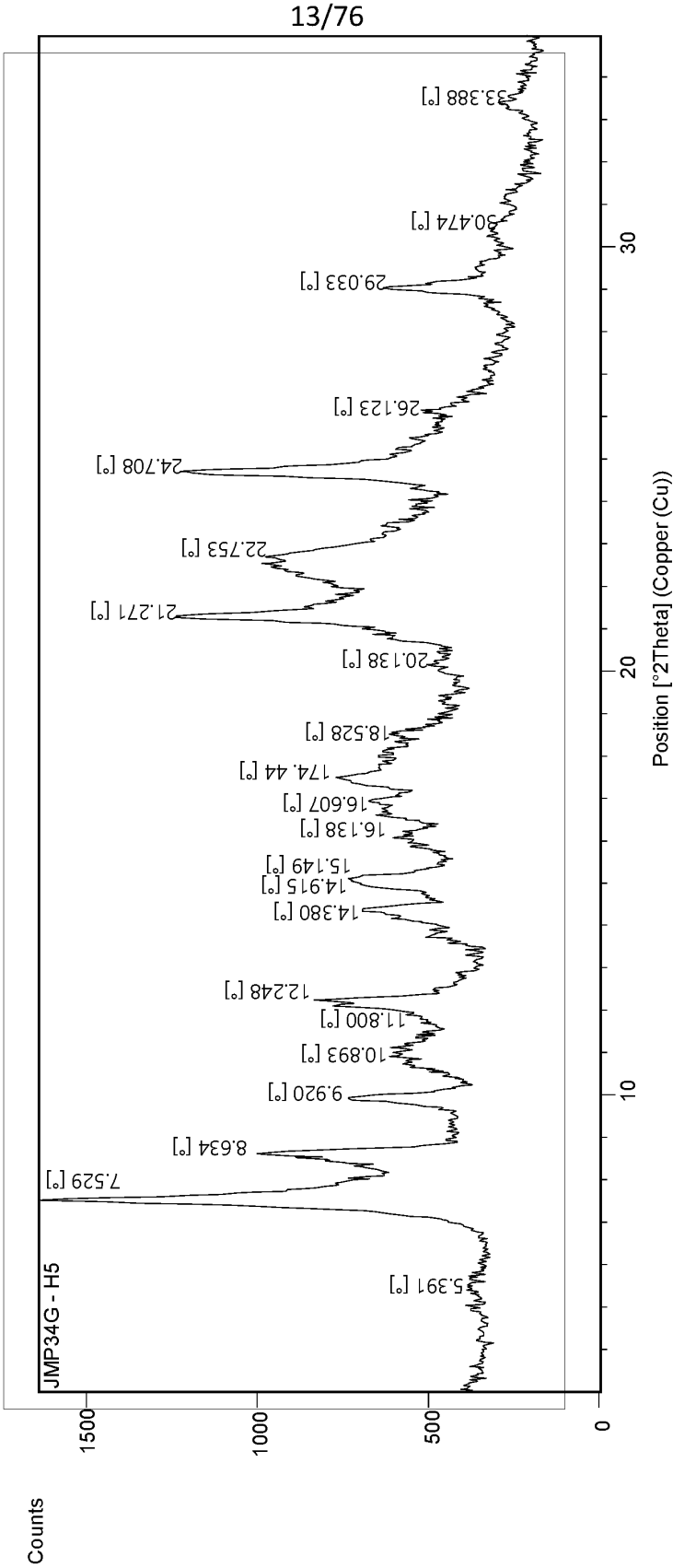


Fig. 13 – XRPD diffractogram of D-LSD fumaric acid salt hemi-salt

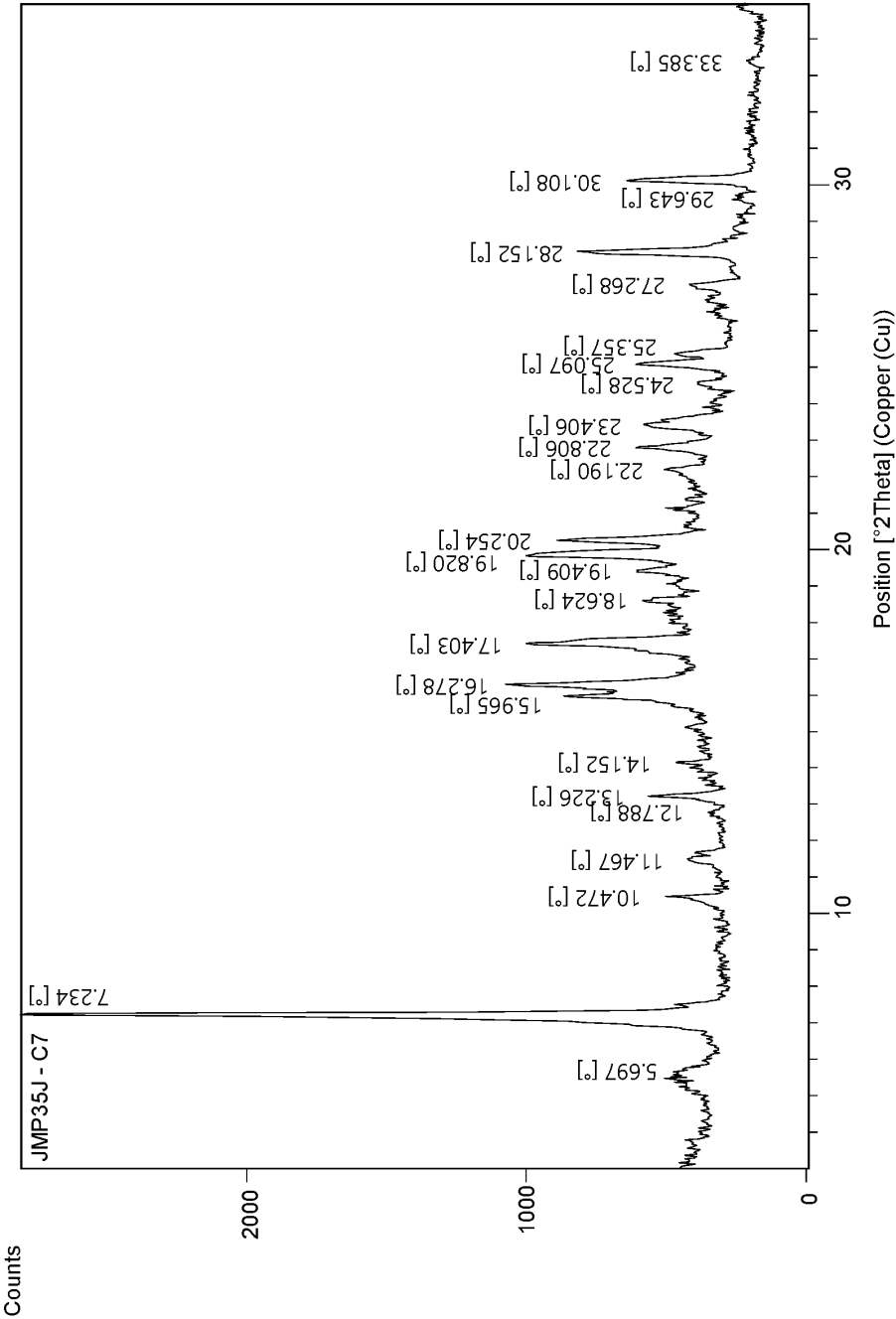


Fig. 14 – XRPD diffractogram of D-LSD ascorbic acid (L) salt form A

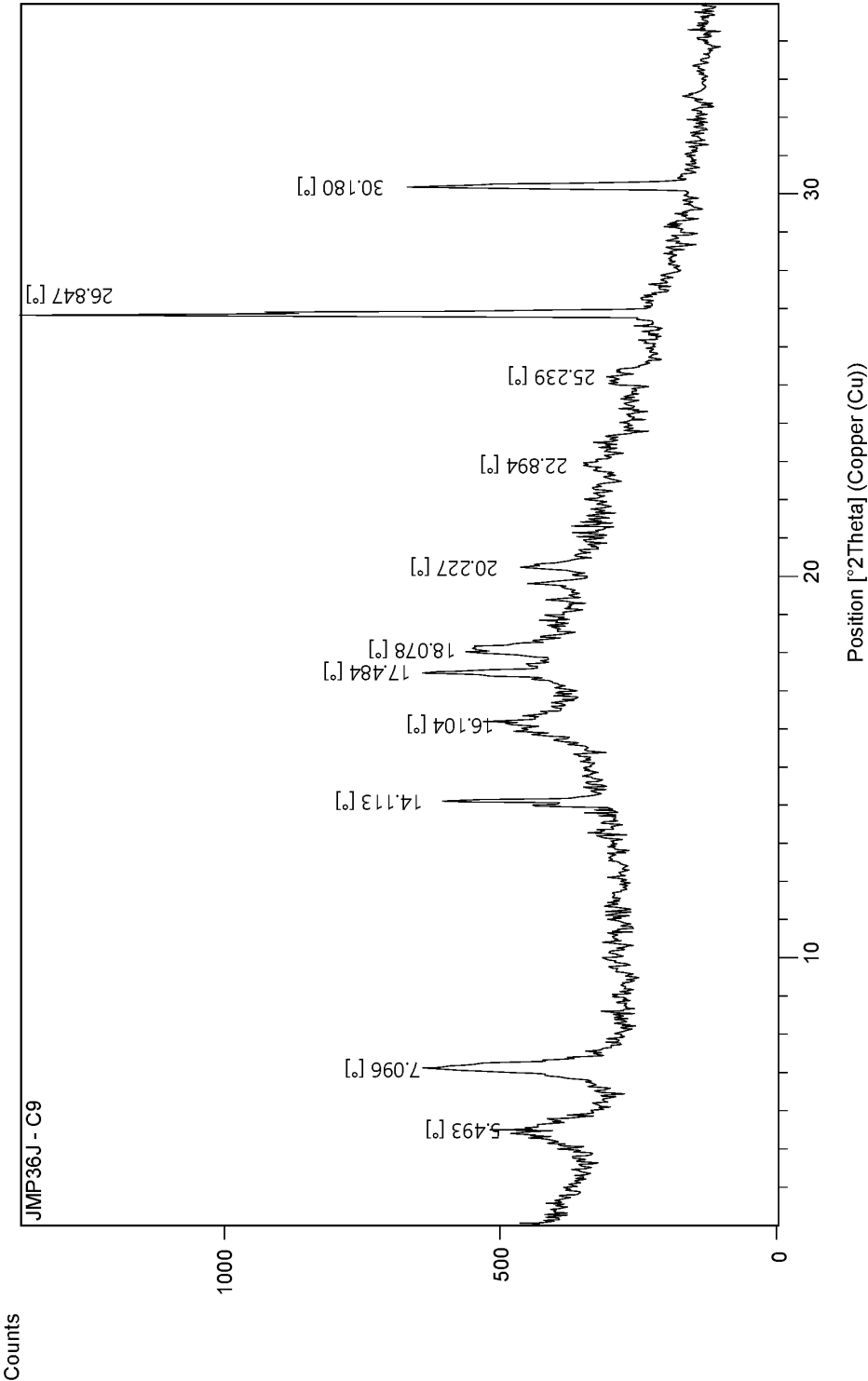


Fig. 15 – XRPD diffractogram of D-LSD ascorbic acid (L) salt form B

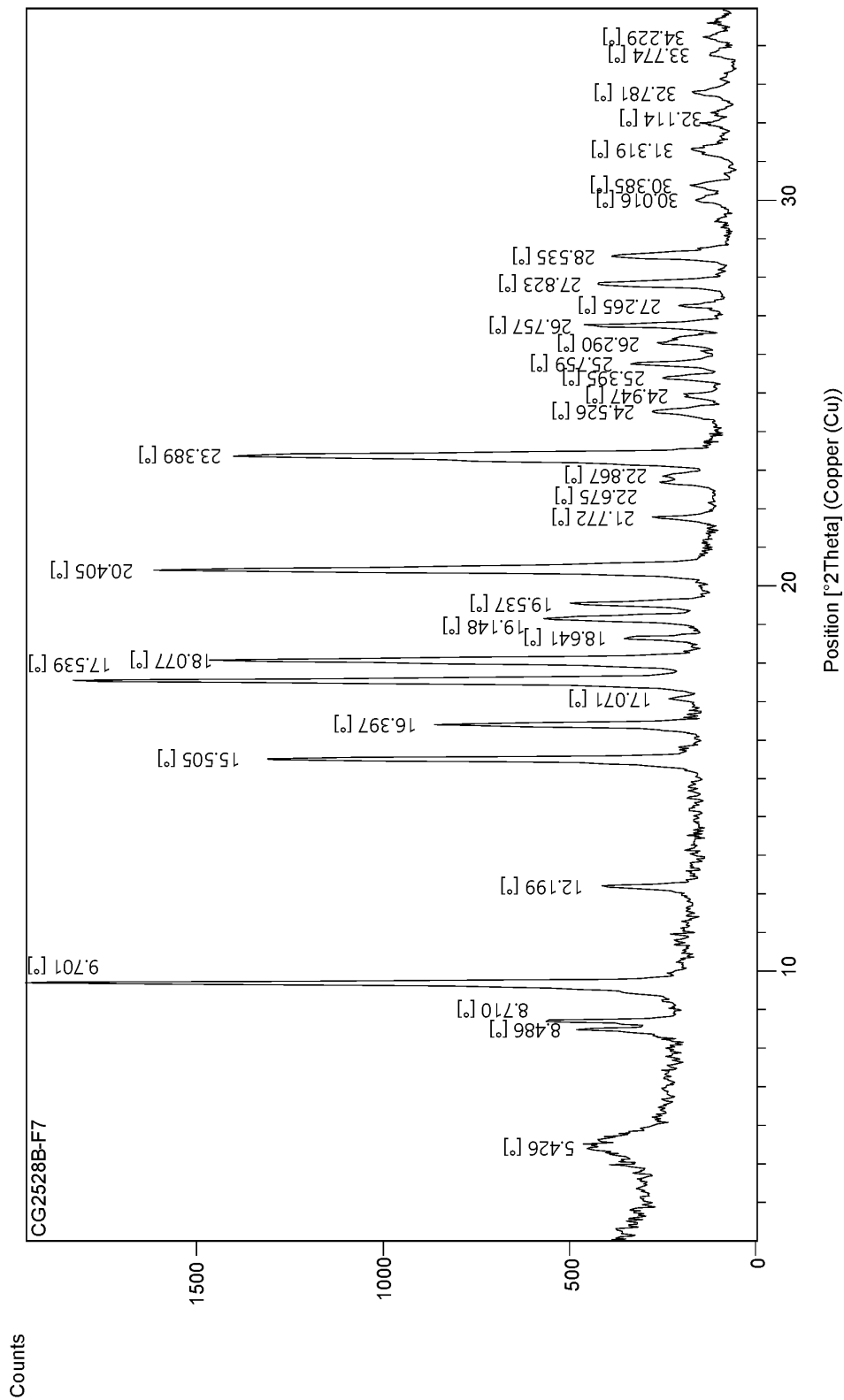


Fig. 16 – XRPD diffractogram of D-LSD tartaric acid (D) salt

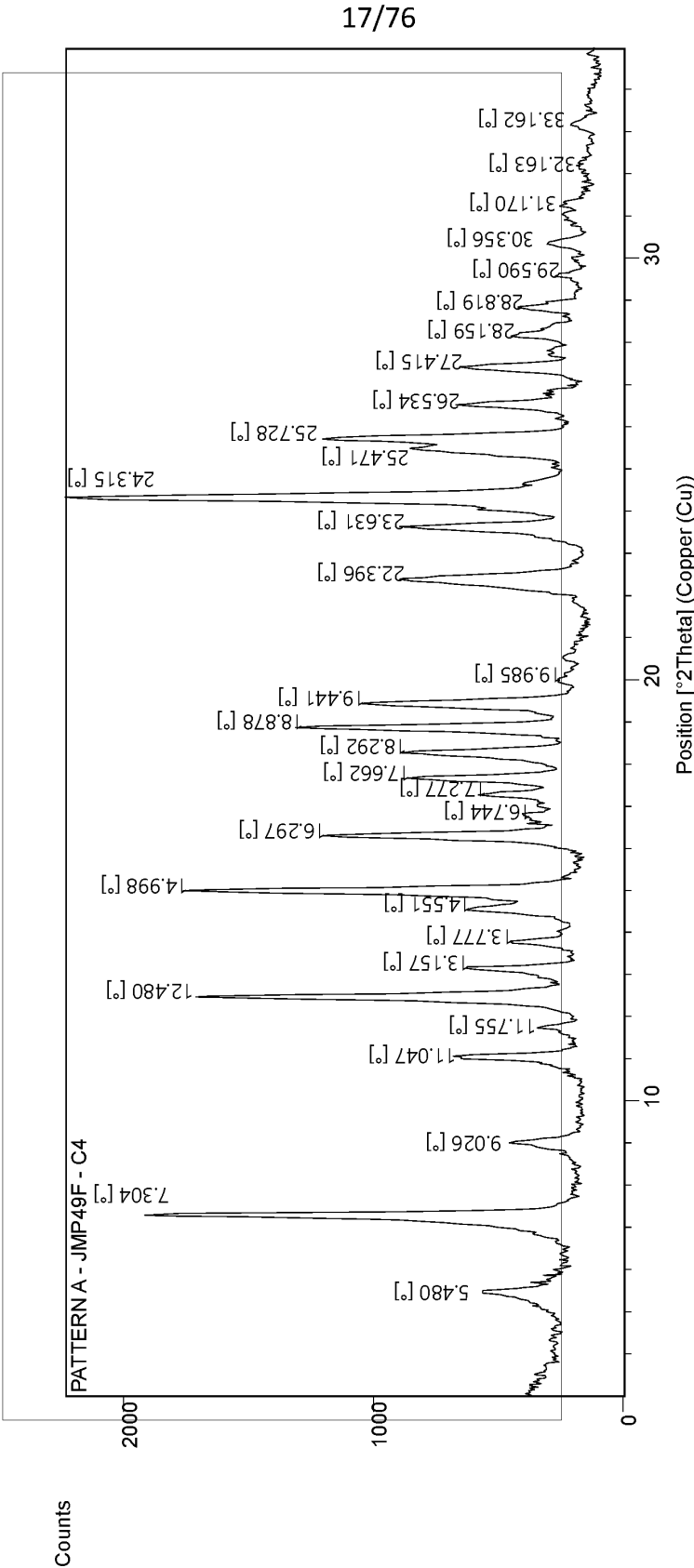


Fig. 17 – XRPD diffractogram of D-LSD hydrochloric acid salt form A

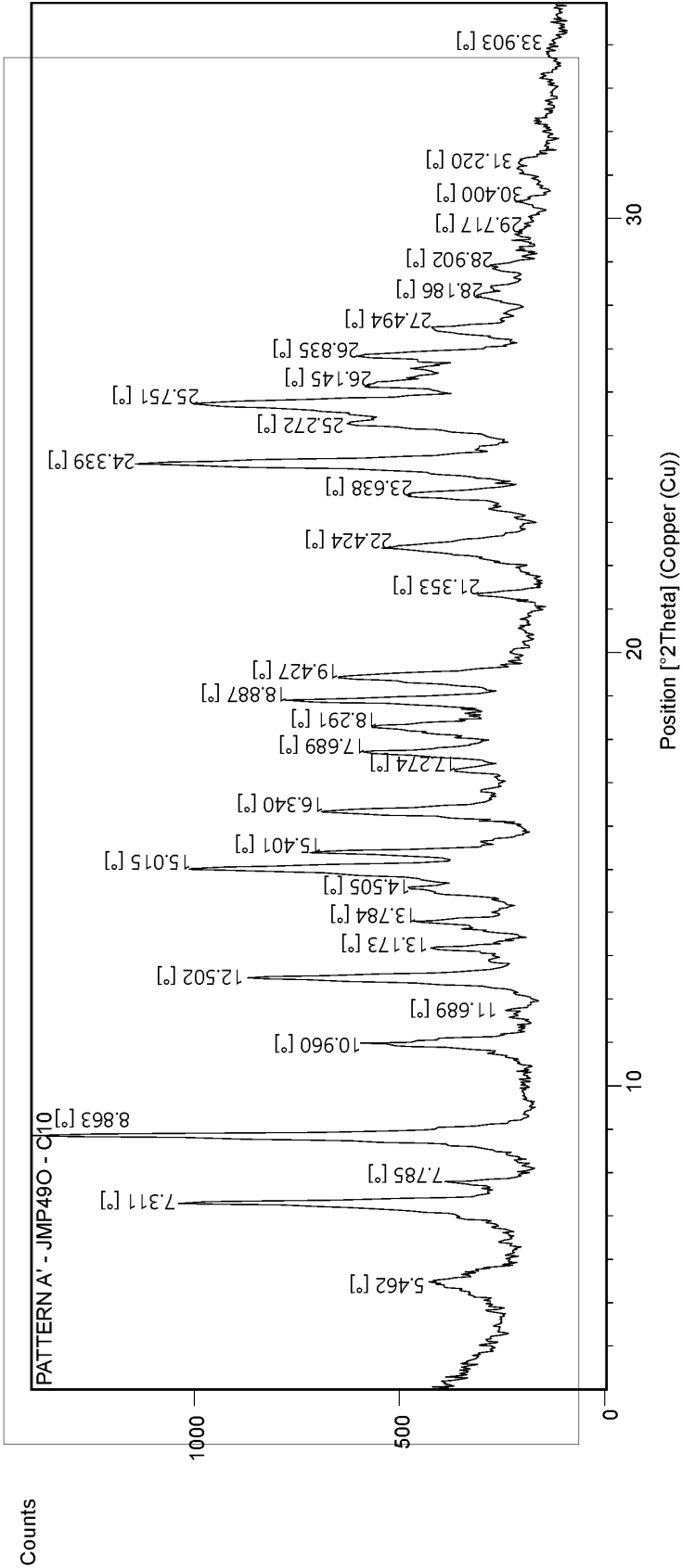


Fig. 18 – XRPD diffractogram of D-LSD hydrochloric acid salt form A'

19/76

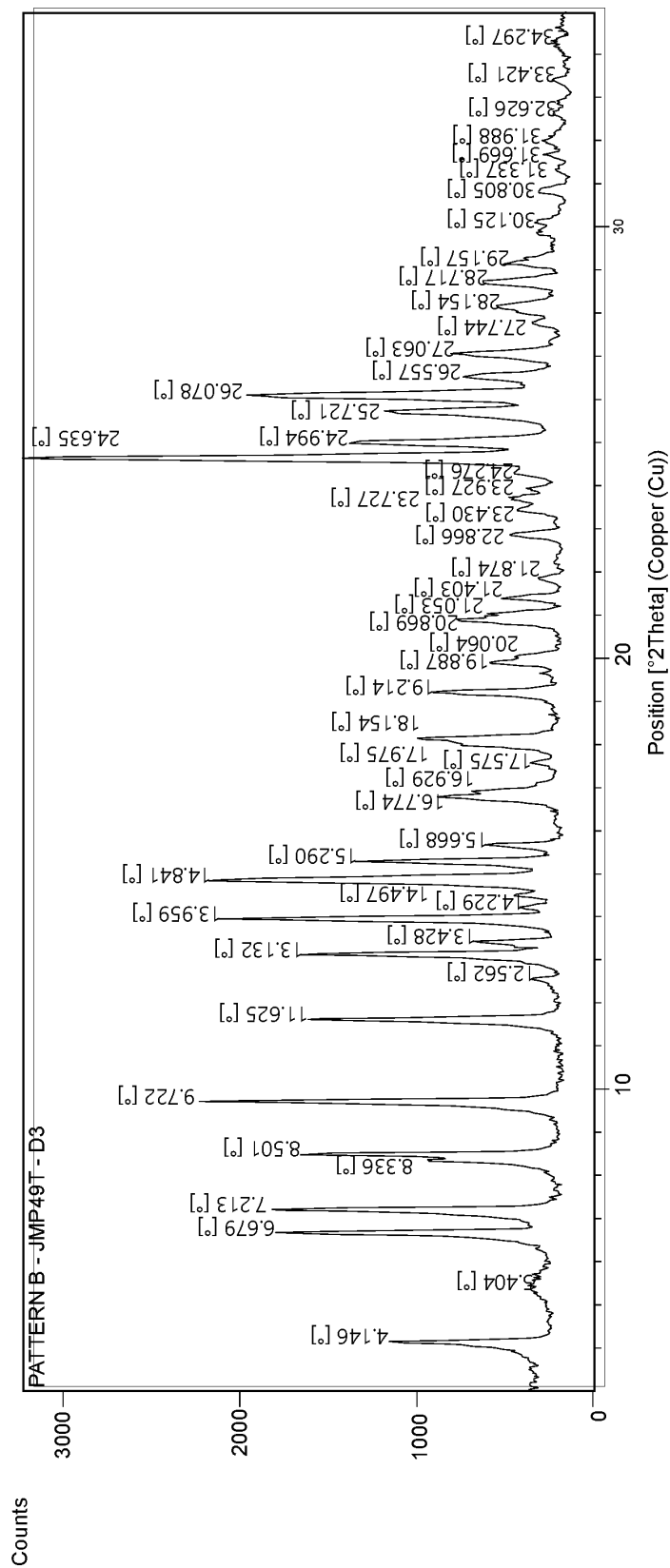


Fig. 19 – XRPD diffractogram of D-LSD hydrochloric acid salt form B

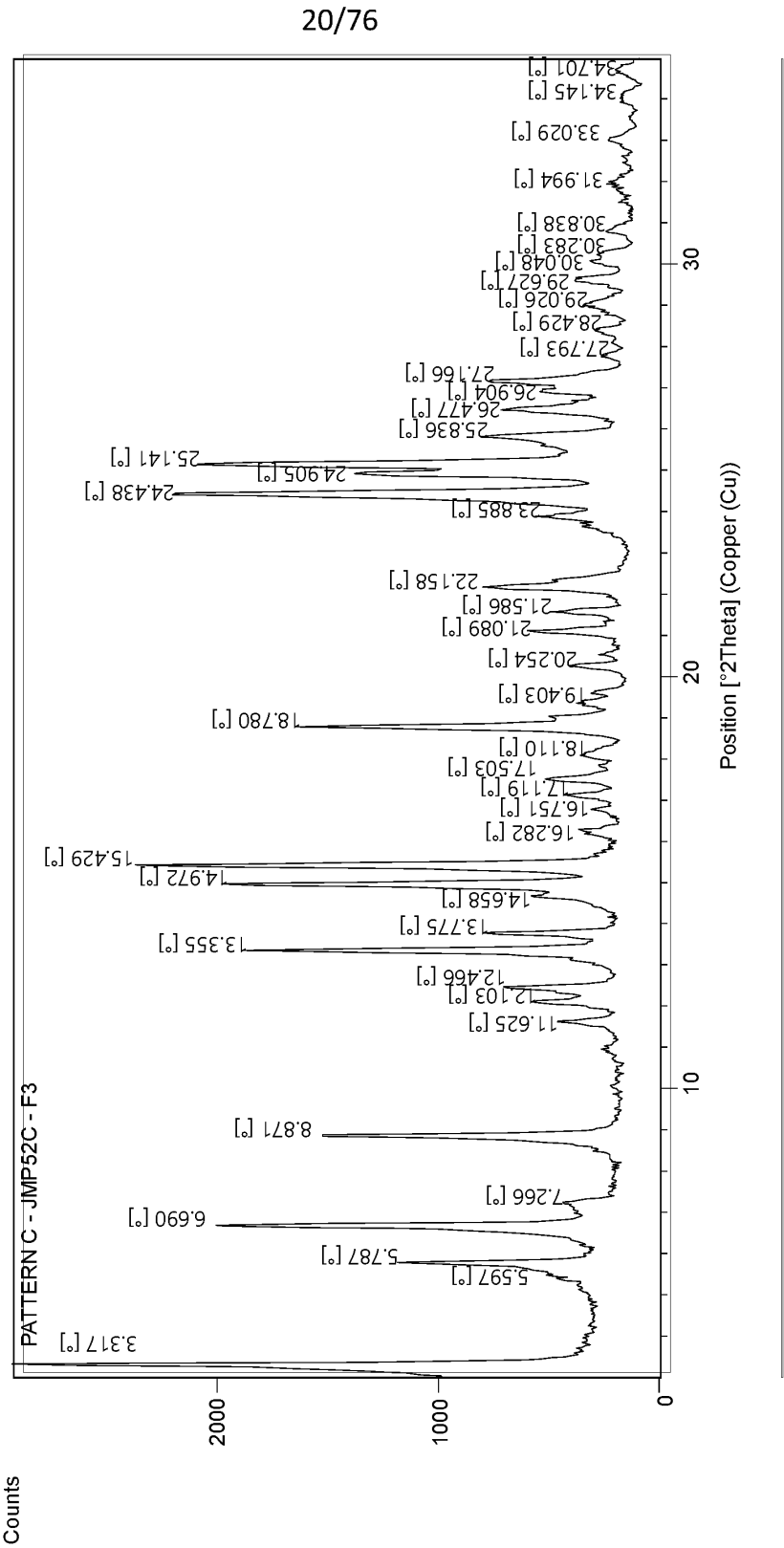


Fig. 20 – XRPD diffractogram of D-LSD hydrochloric acid salt form C

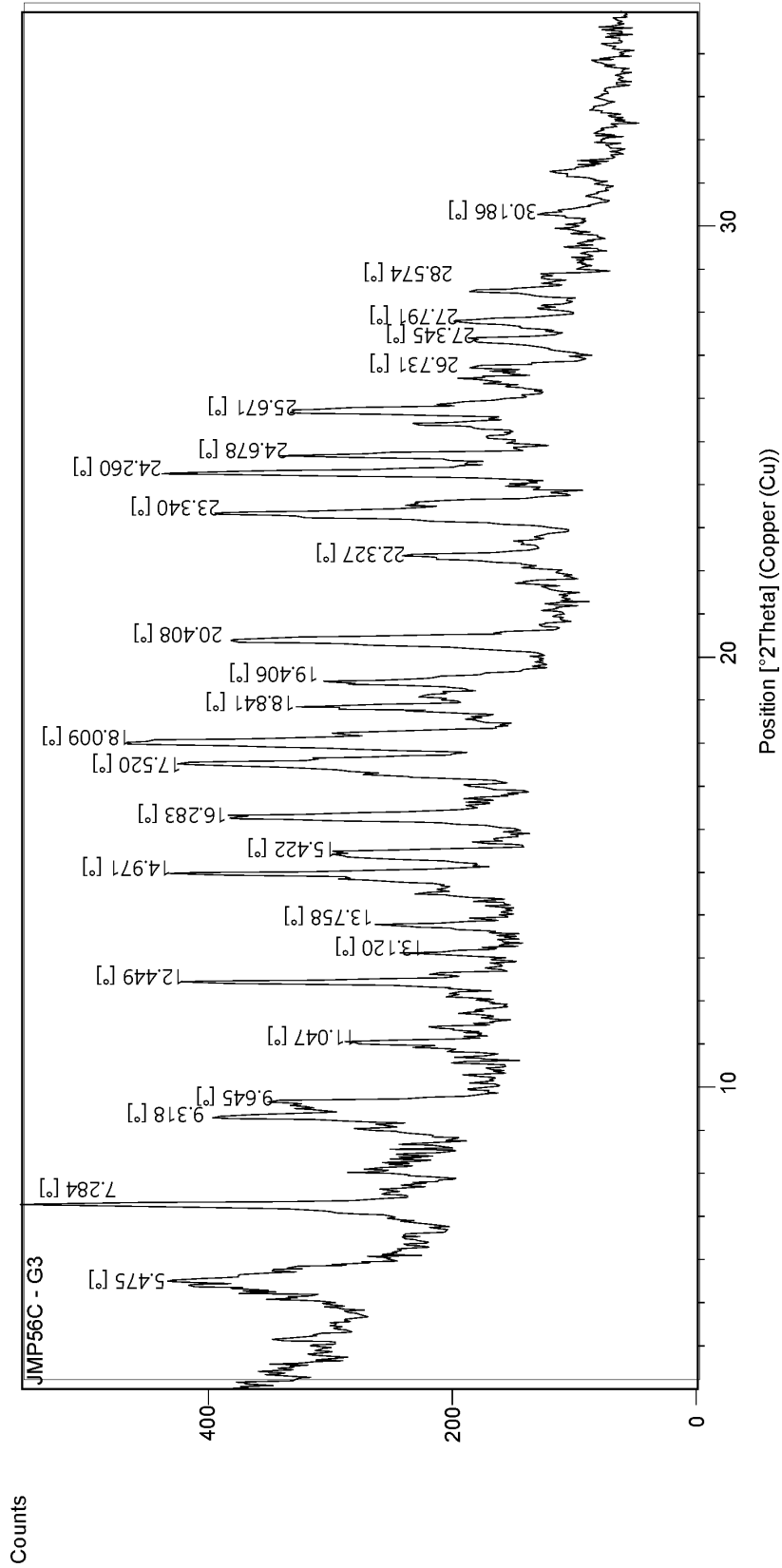


Fig. 21 – XRPD diffractogram of D-LSD hydrochloric acid salt form D

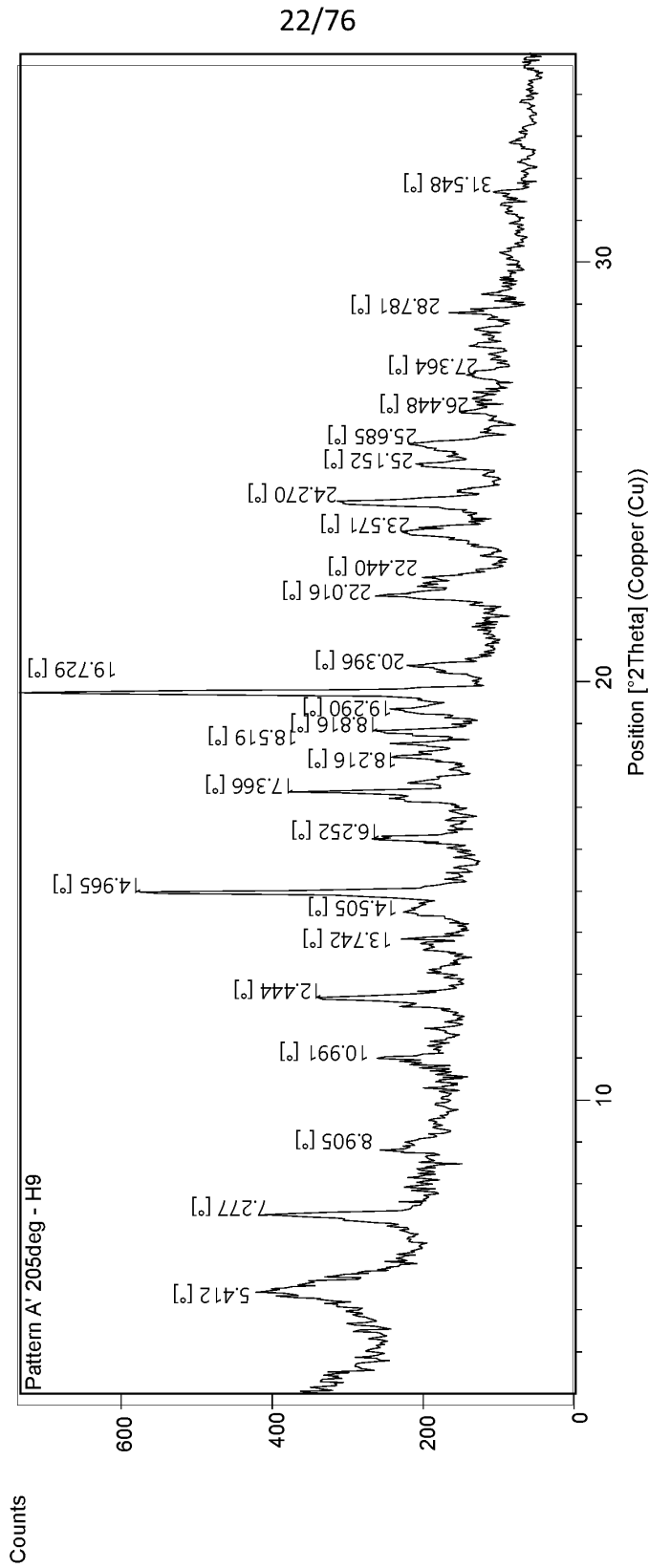


Fig. 22 – XRPD diffractogram of D-LSD hydrochloric acid salt form E

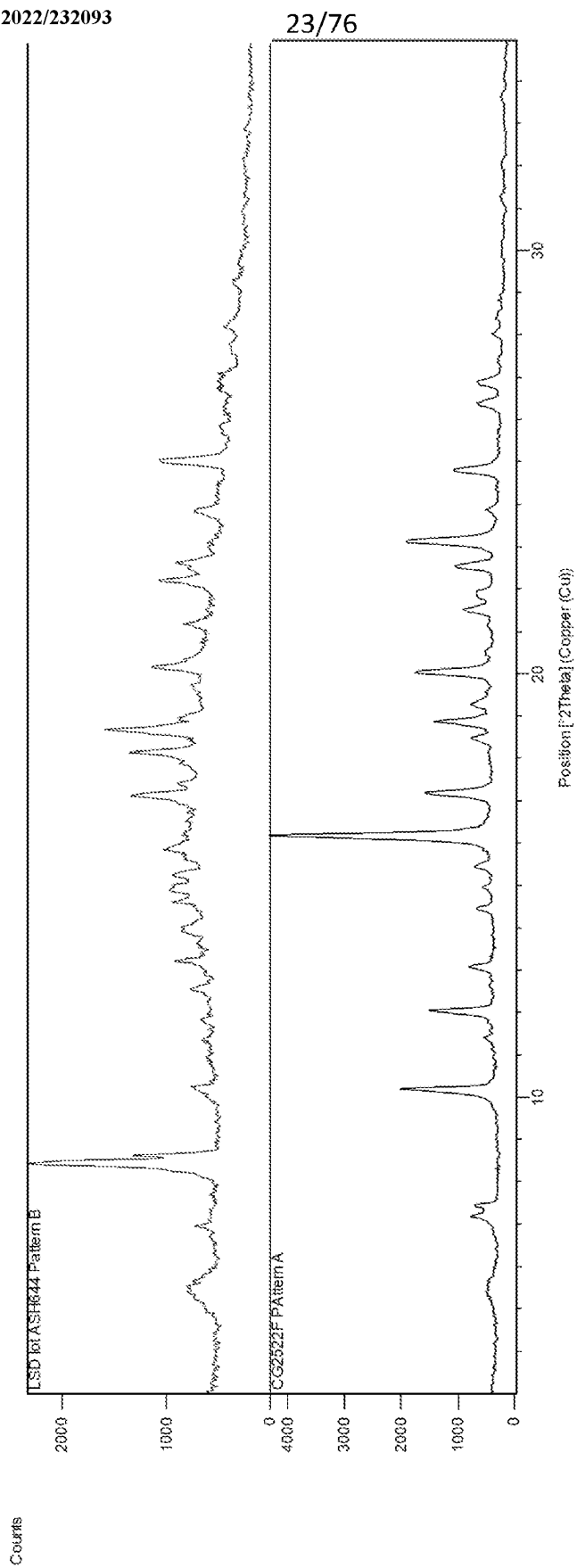


Fig. 23 – XRPD diffractograms of D-LSD free-base form A (bottom) and form B (top)

24/76

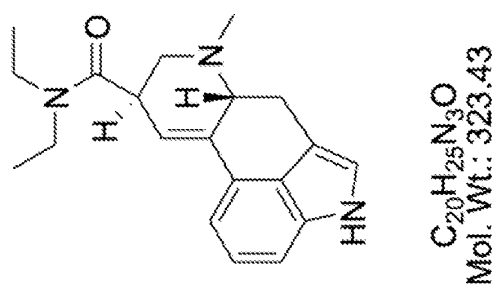


FIGURE 24 - the molecular structure of D-LSD

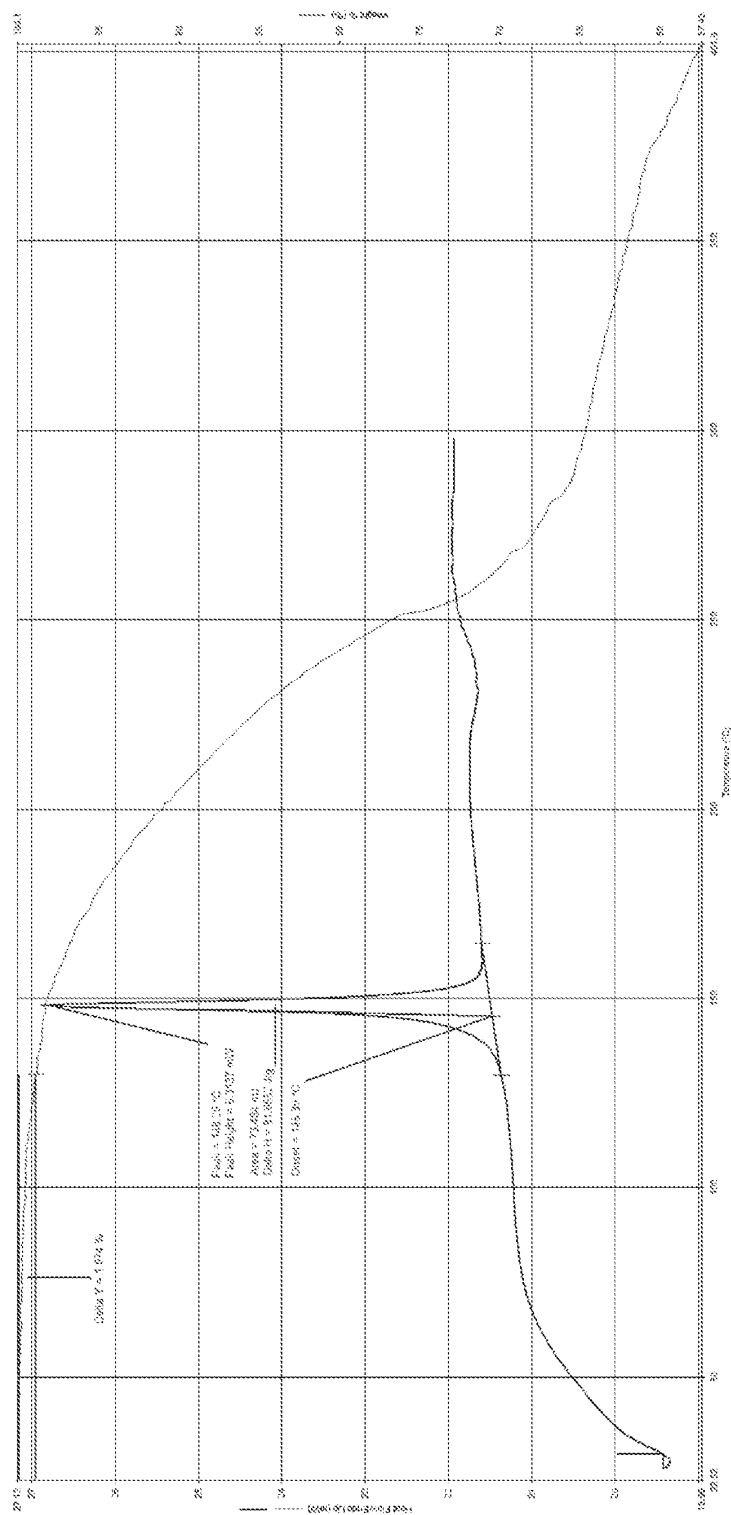


FIGURE 25

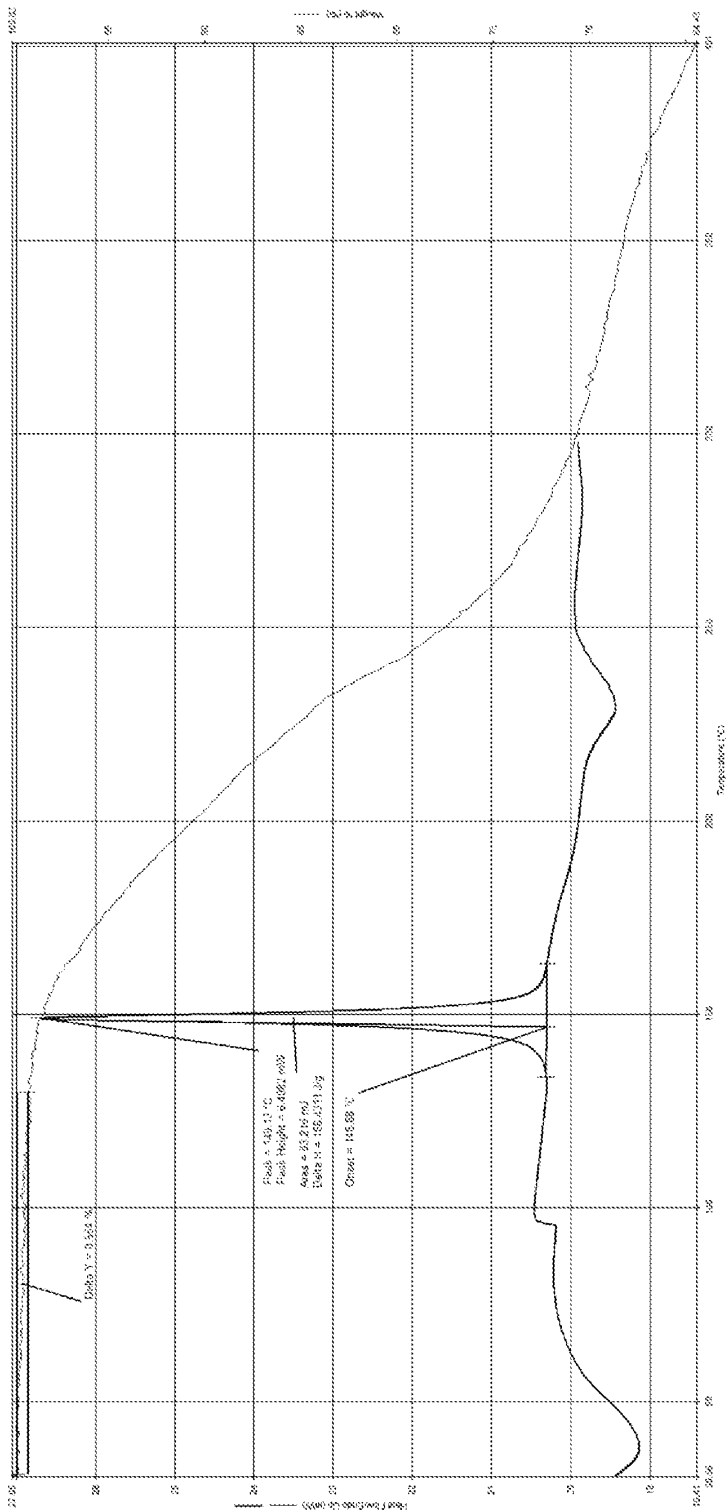


FIGURE 26

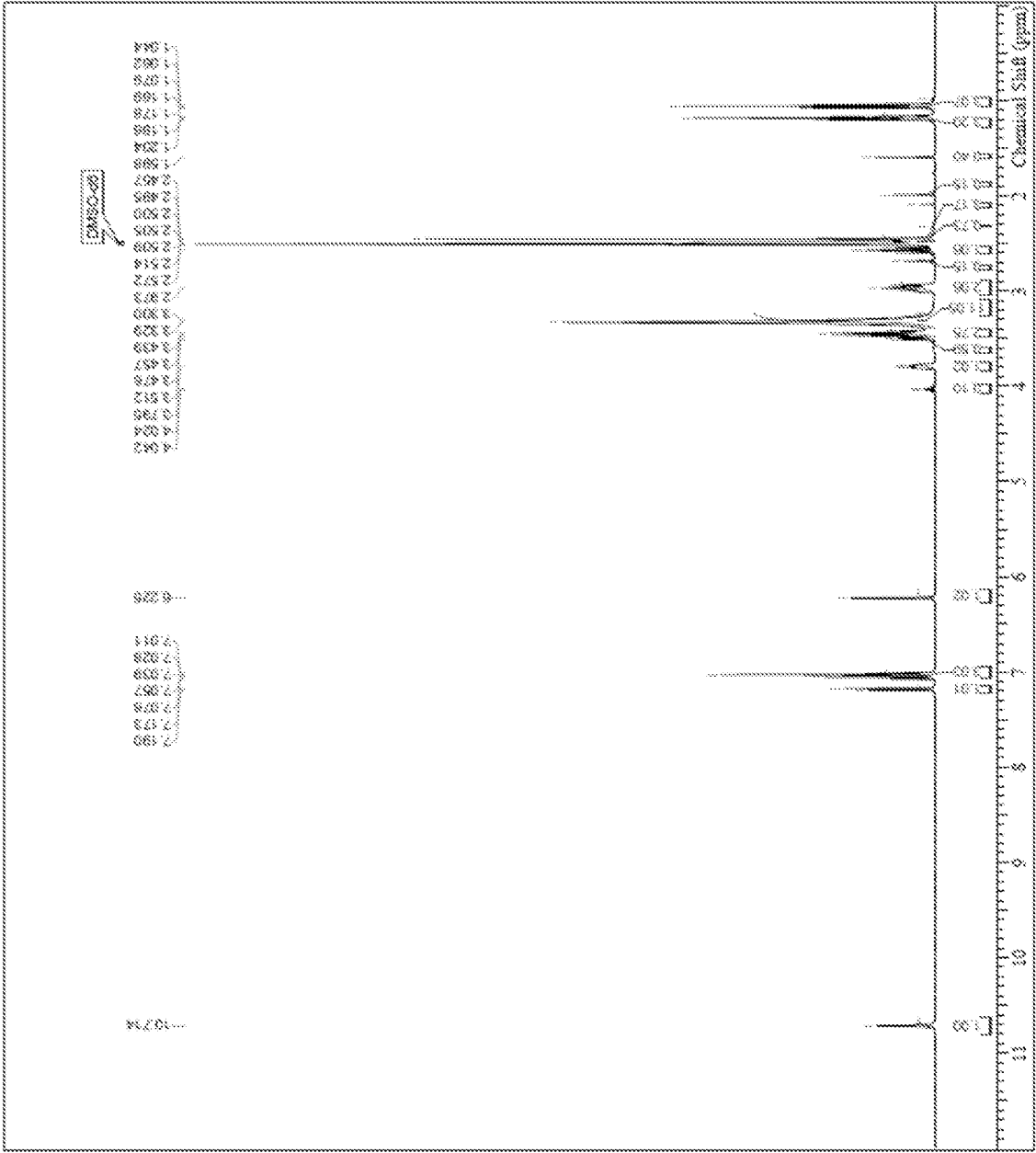


FIGURE 27 - NMR of D-LSD free base form B

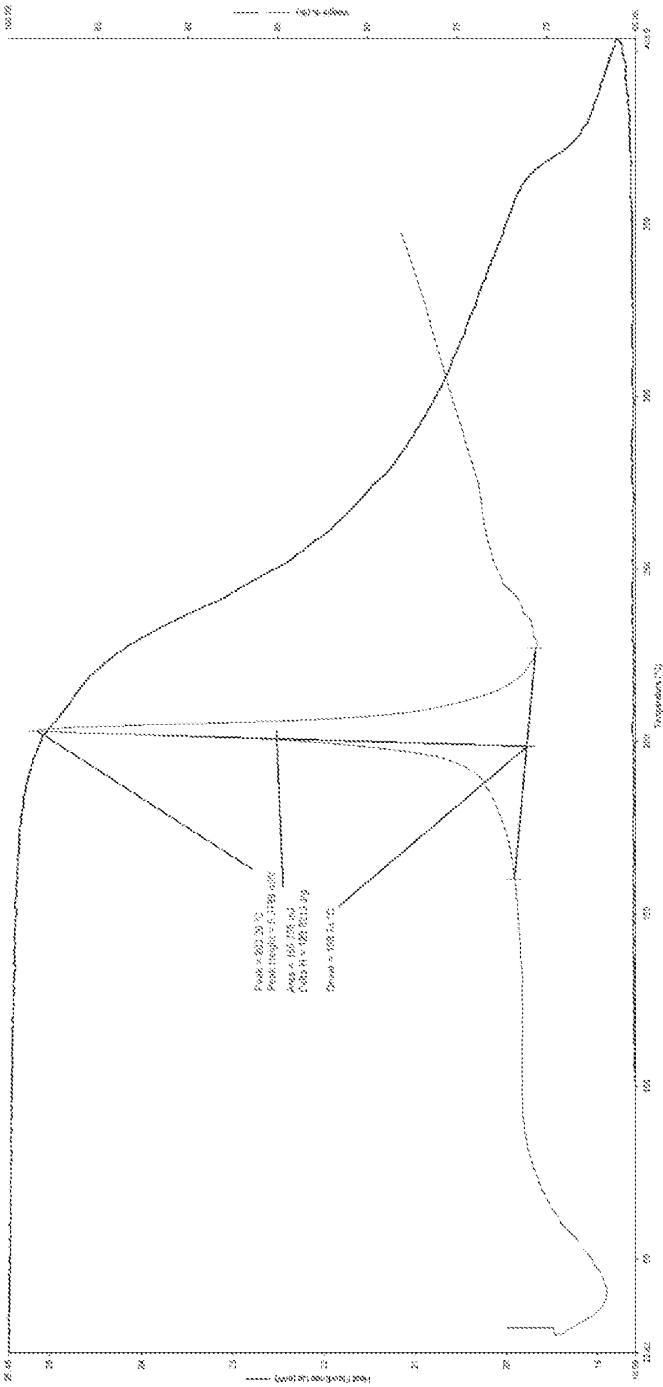


FIGURE 28

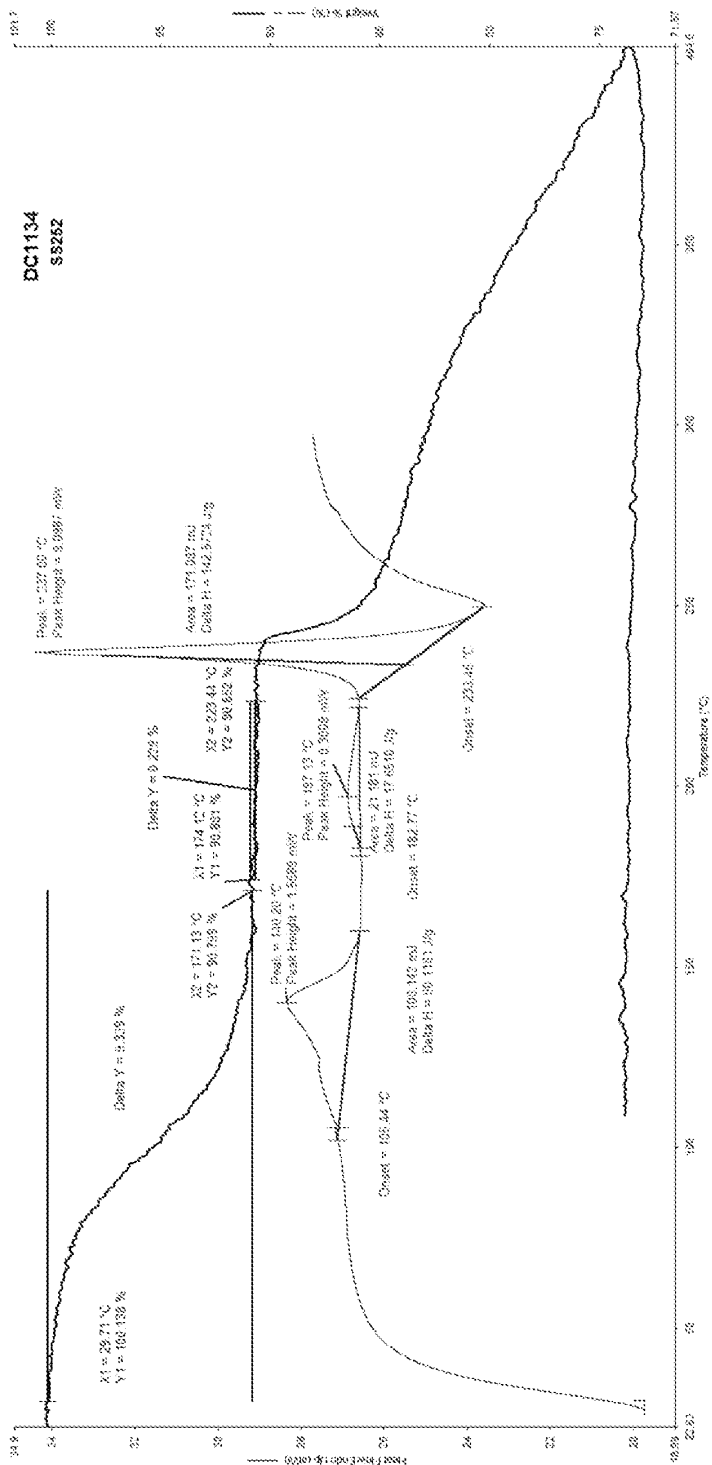
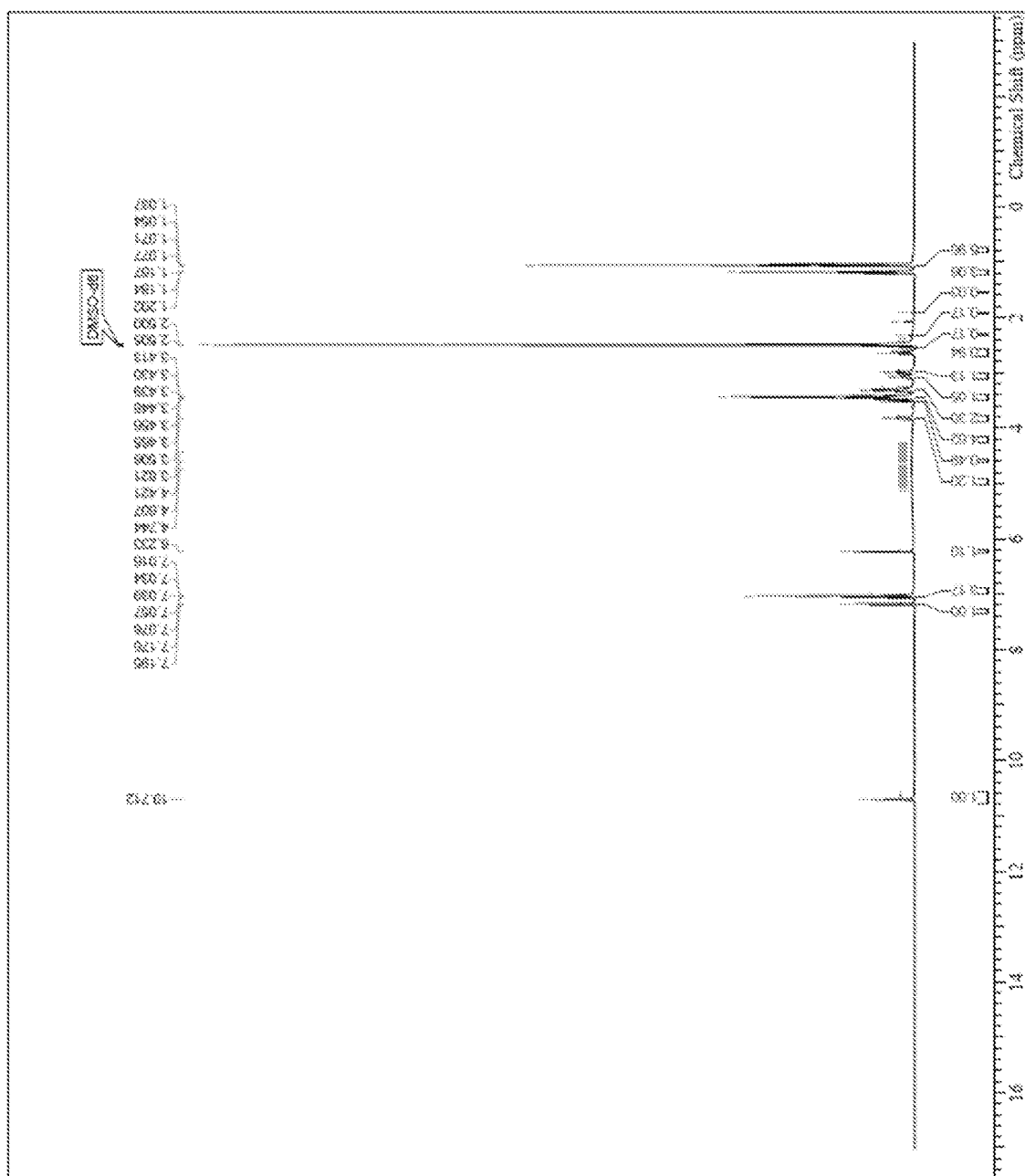
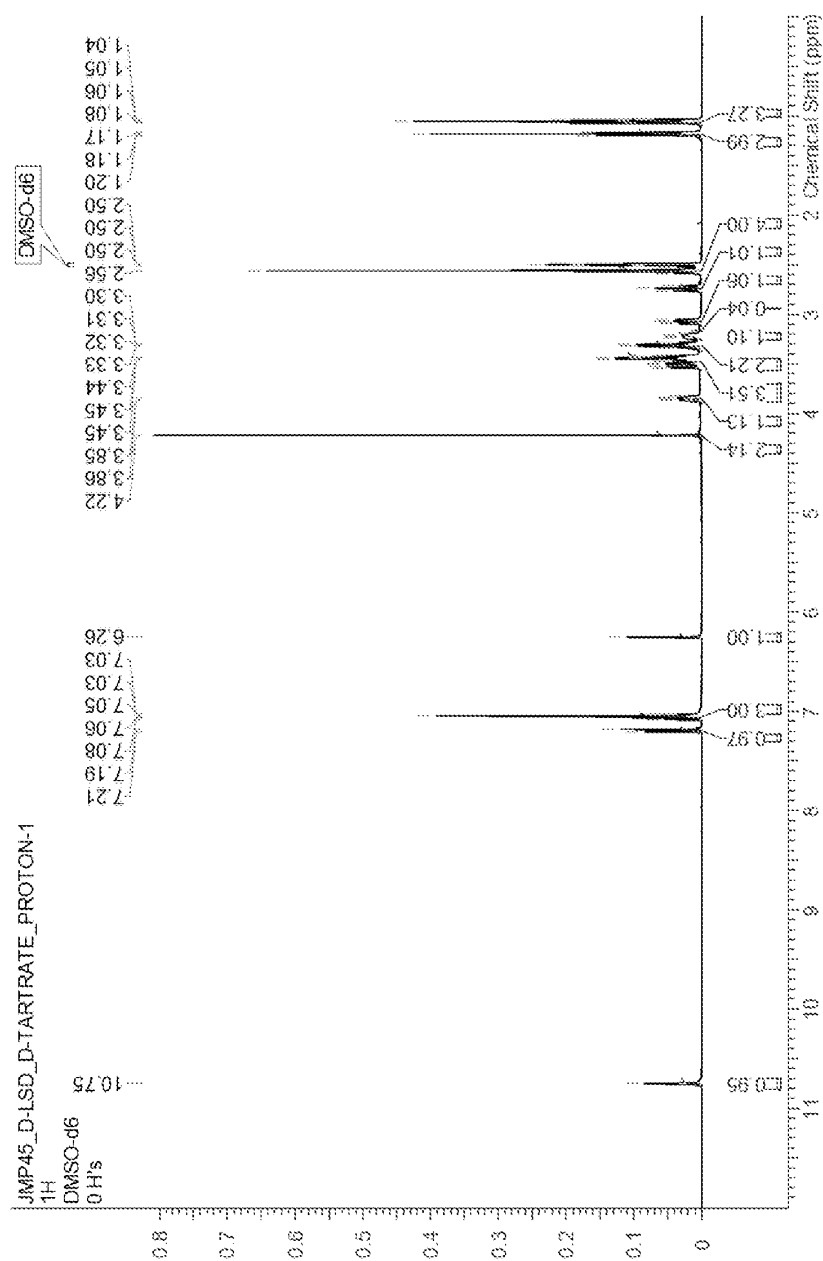


FIGURE 29-DSC and TGA thermographs of D-LSD phosphoric acid salt form B



31/76

FIGURE 31- <sup>1</sup>H NMR of D-LSD D-tartrate acid salt



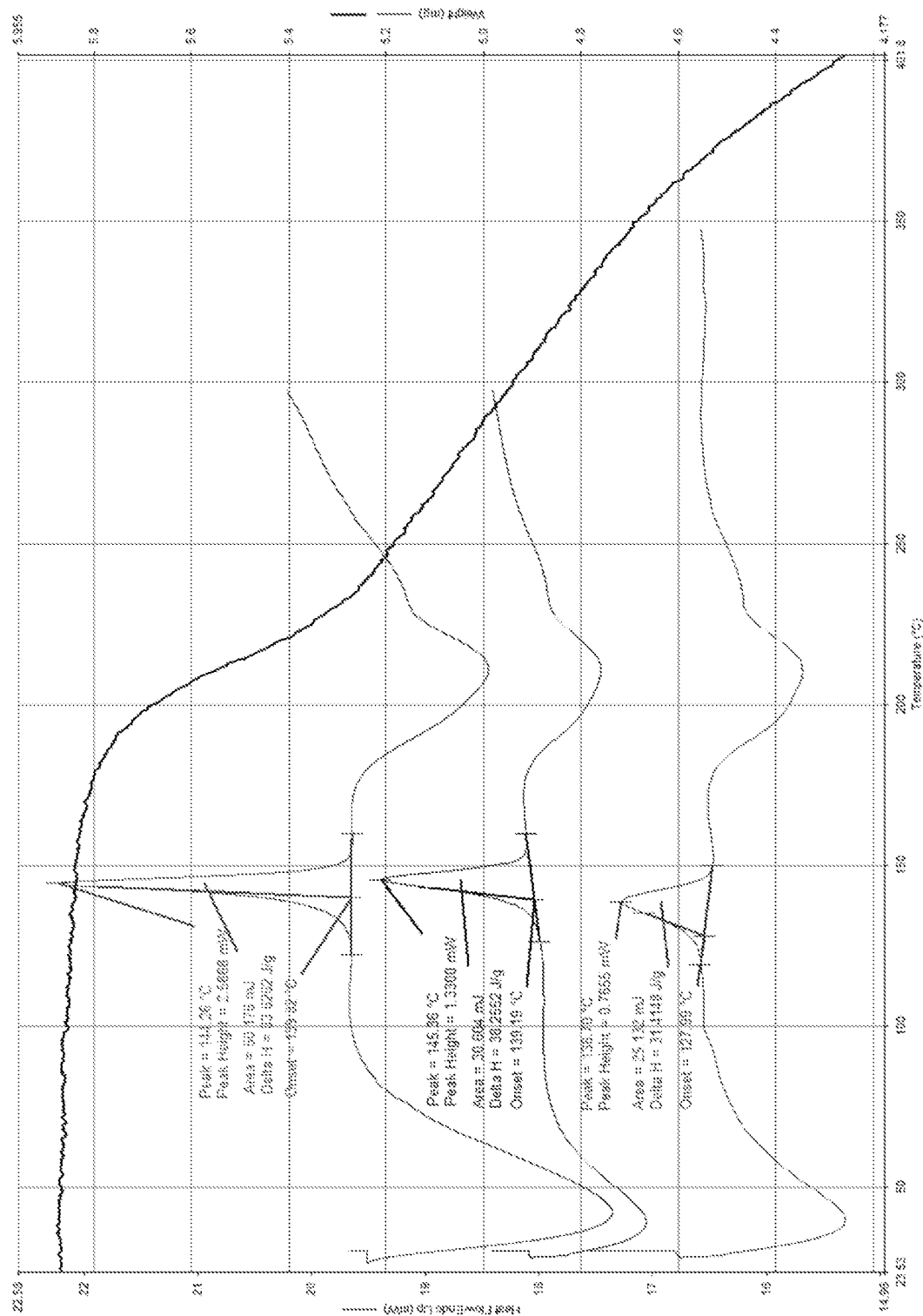


FIGURE 33 - DSC and TGA thermographs of D-LSD Maleate salt form A

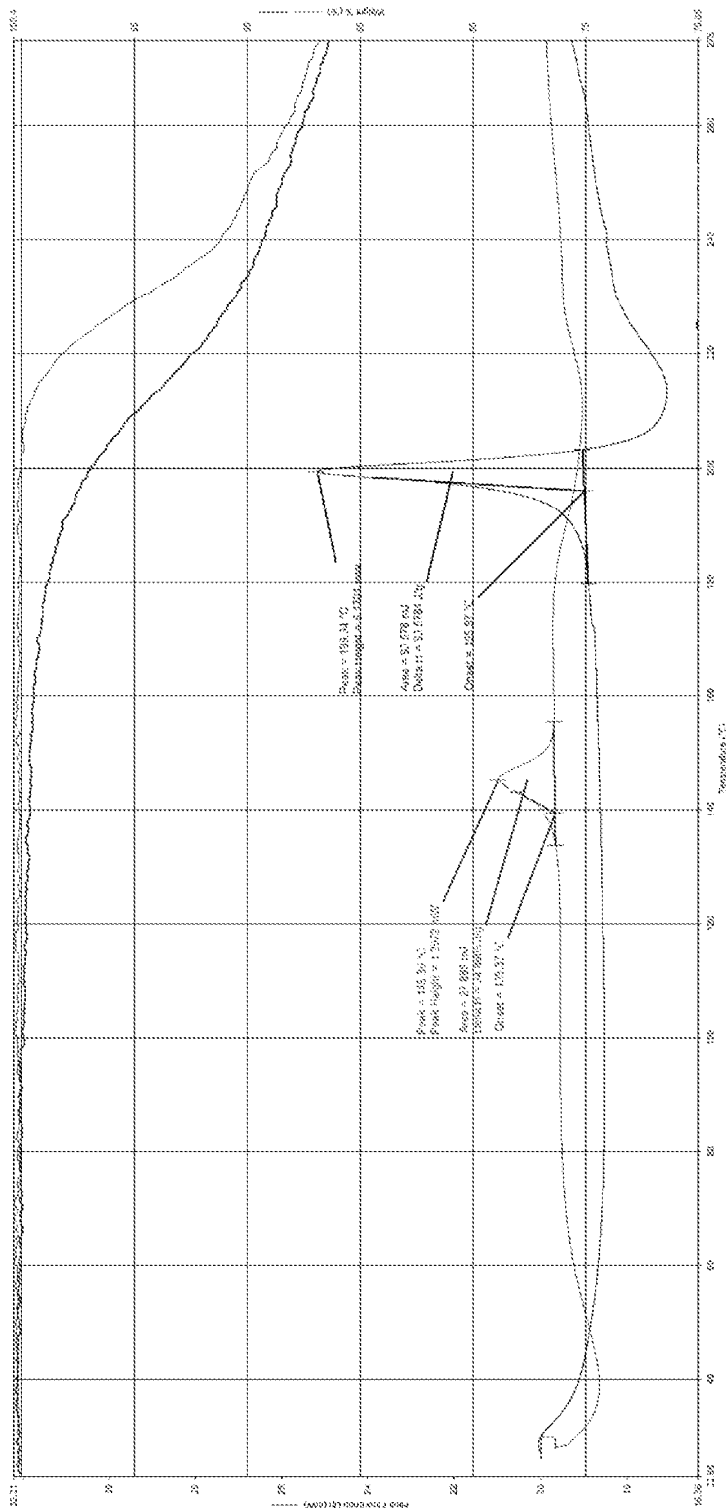


FIGURE 34 - DSC and TGA thermographs of D-LSD Maleate salts form A and form B

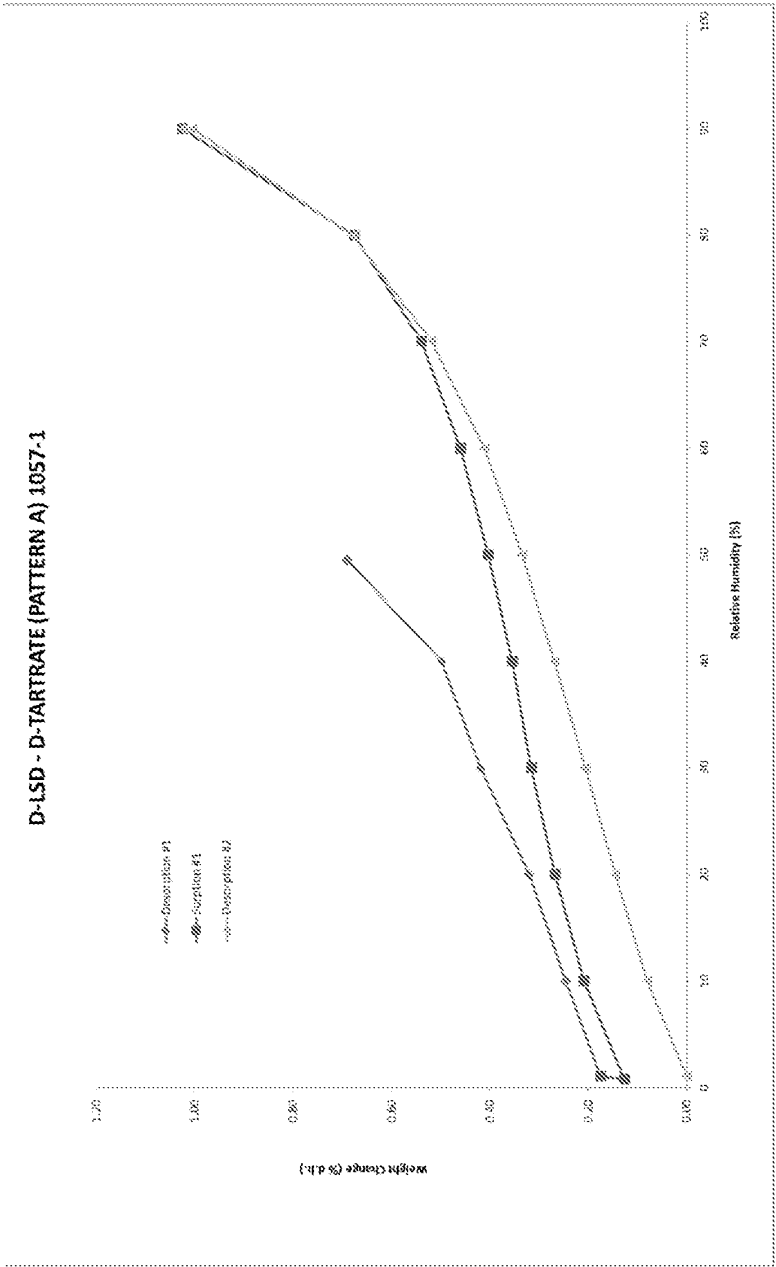


FIGURE 35 - DSC and TGA thermographs of D-LSD Maleate salts form A and form B

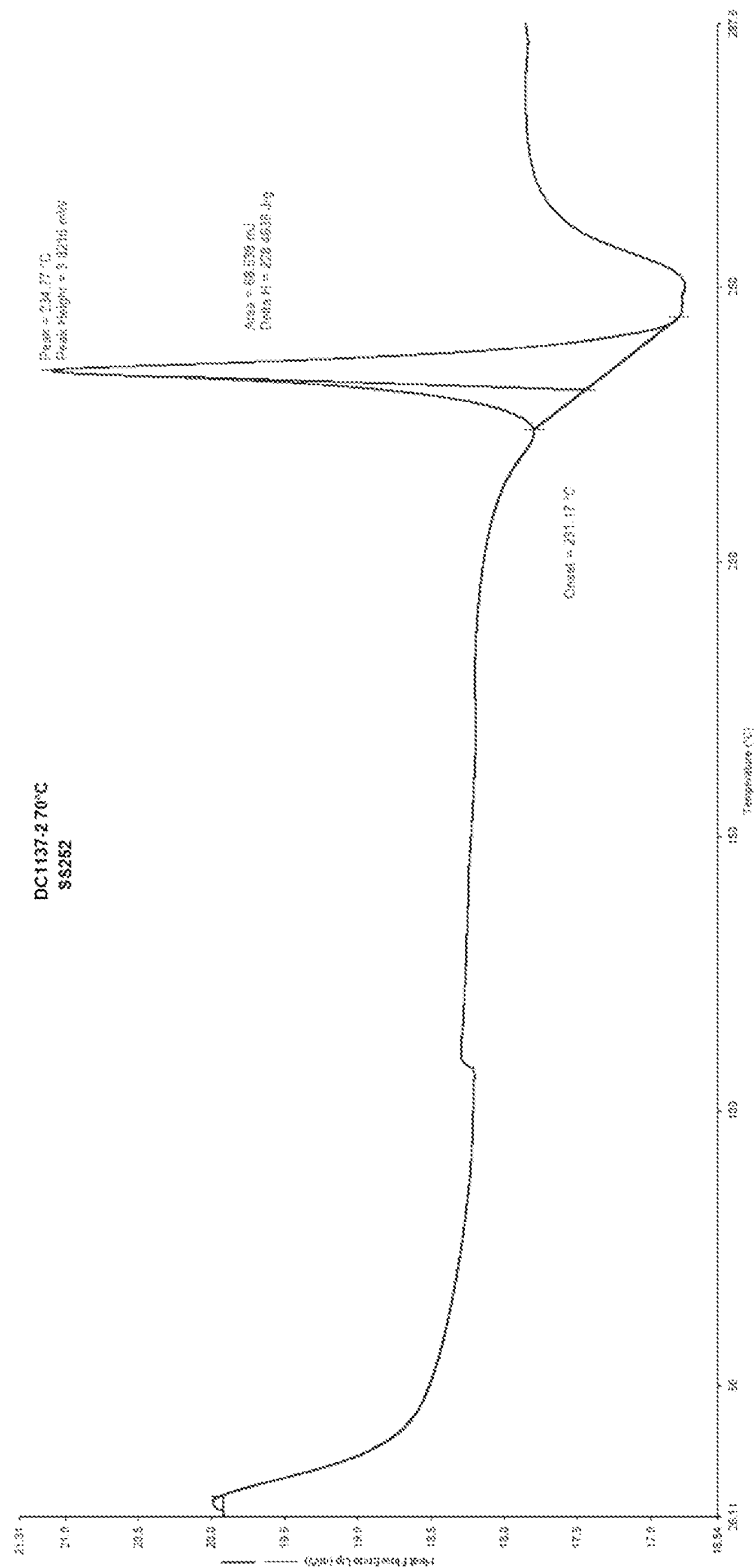


FIGURE 36 -DSC thermogram of D-LSD phosphoric acid salt Pattern C

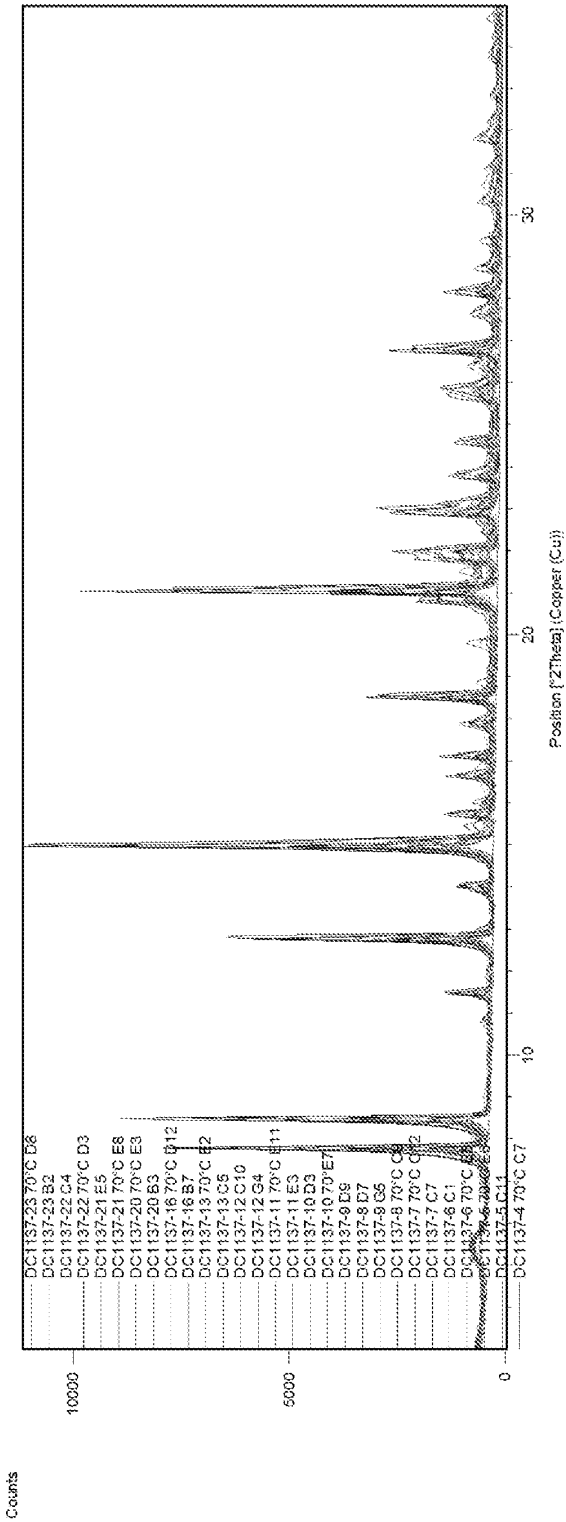


FIGURE 37

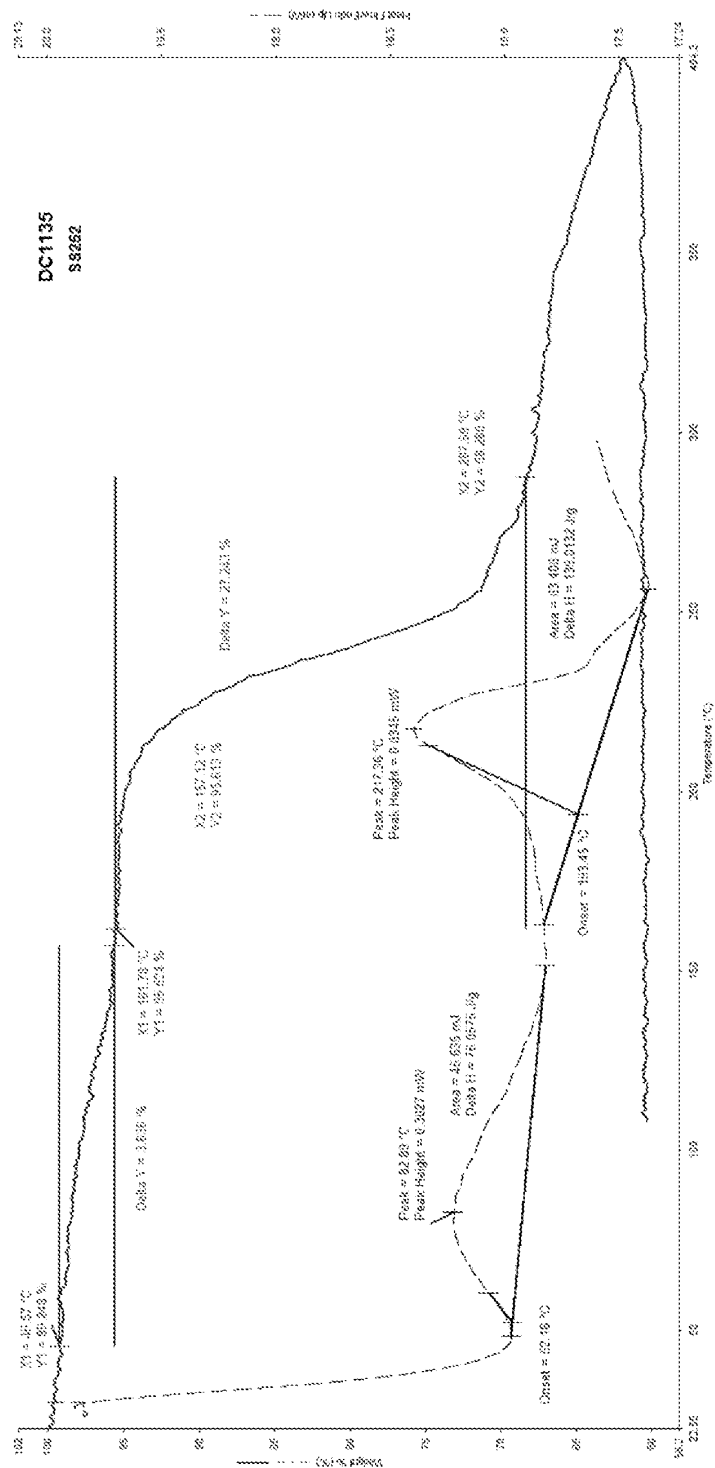


FIGURE 38

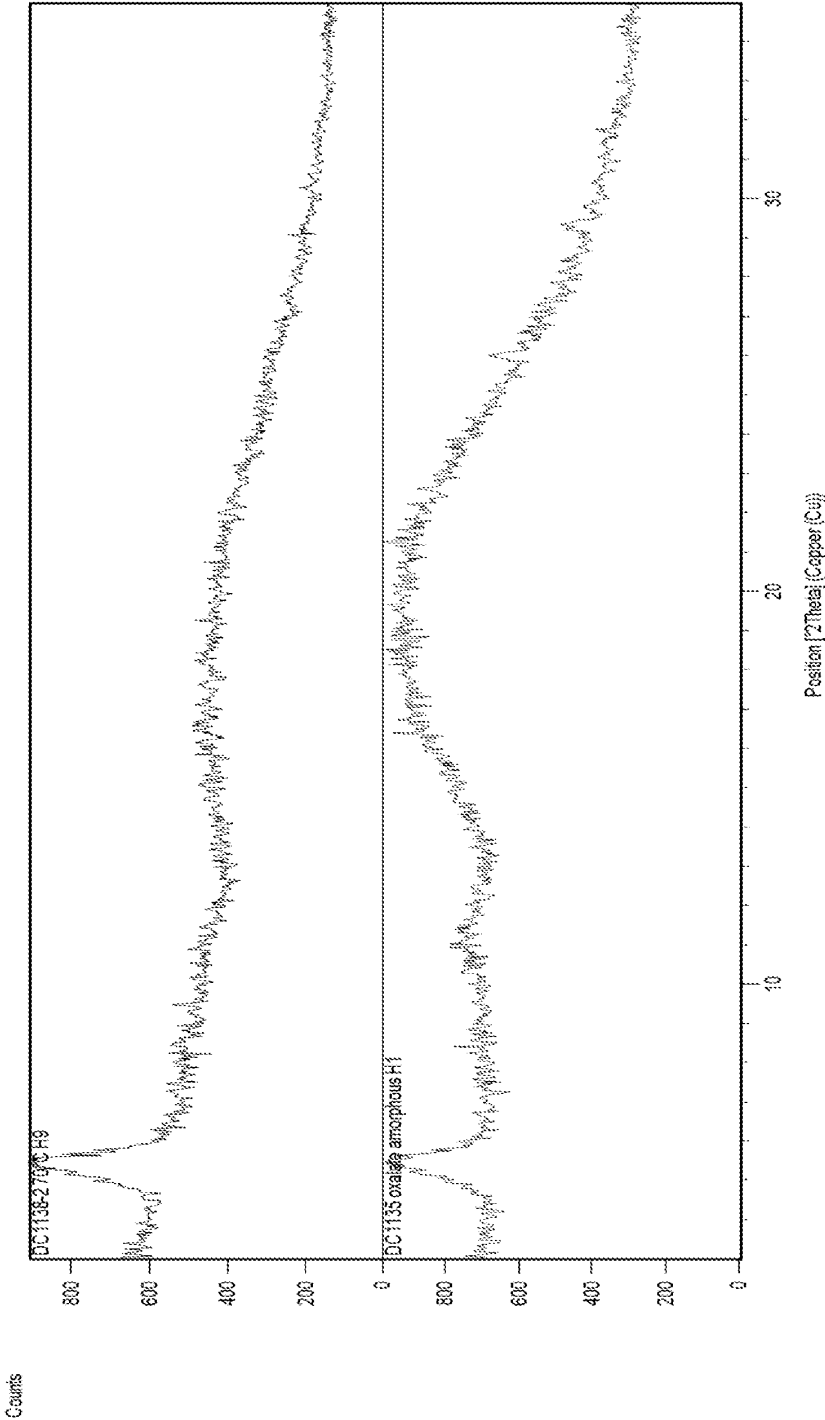


FIGURE 39

FIGURE 40

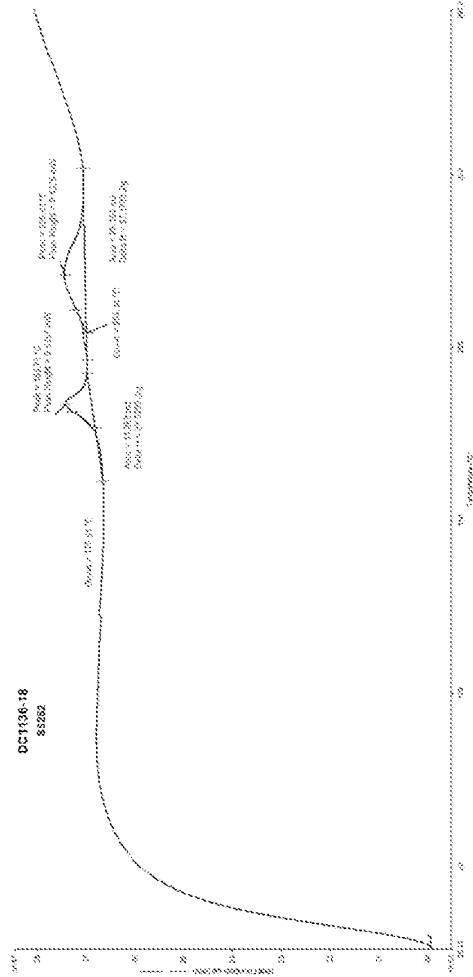


FIGURE 41

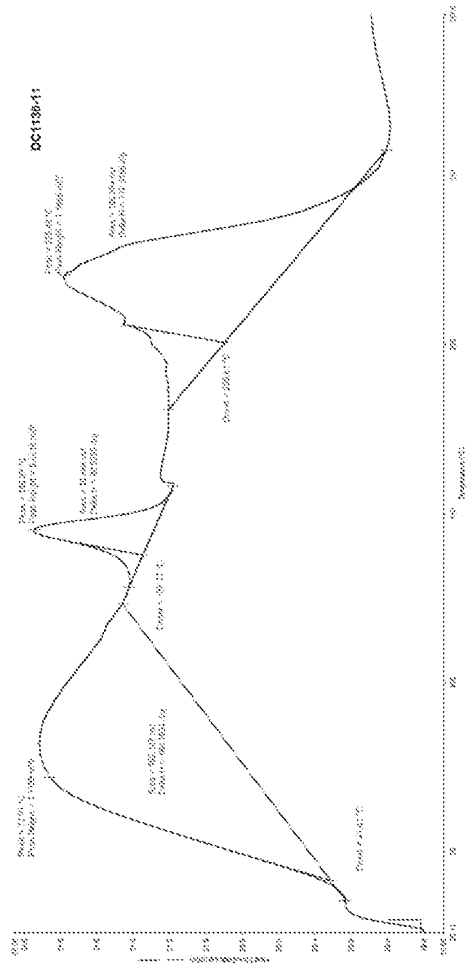


FIGURE 42

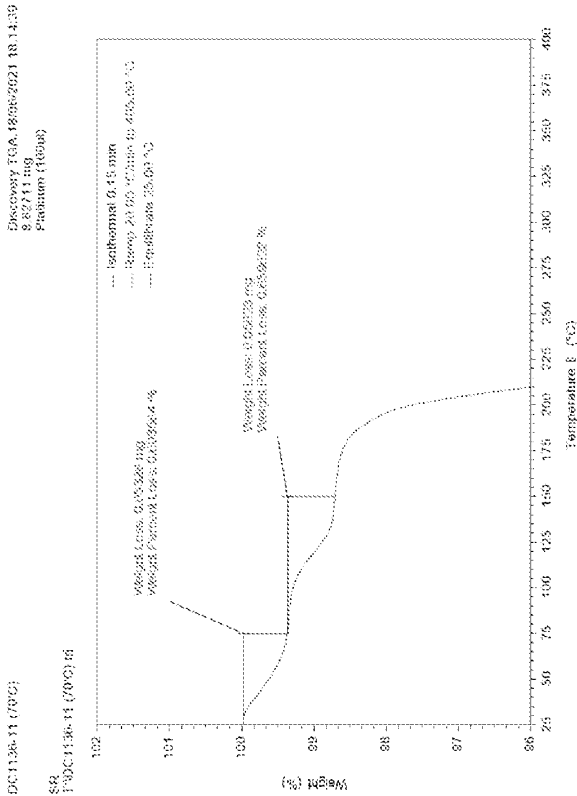


FIGURE 43

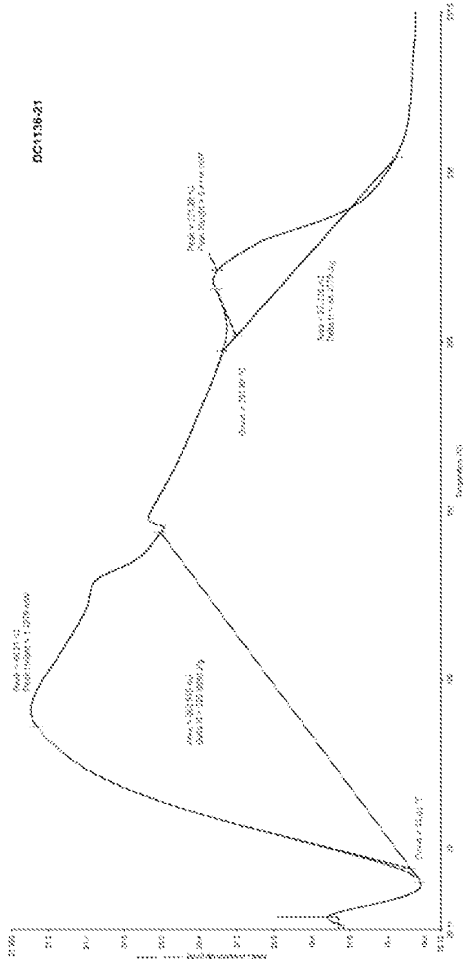


FIGURE 44

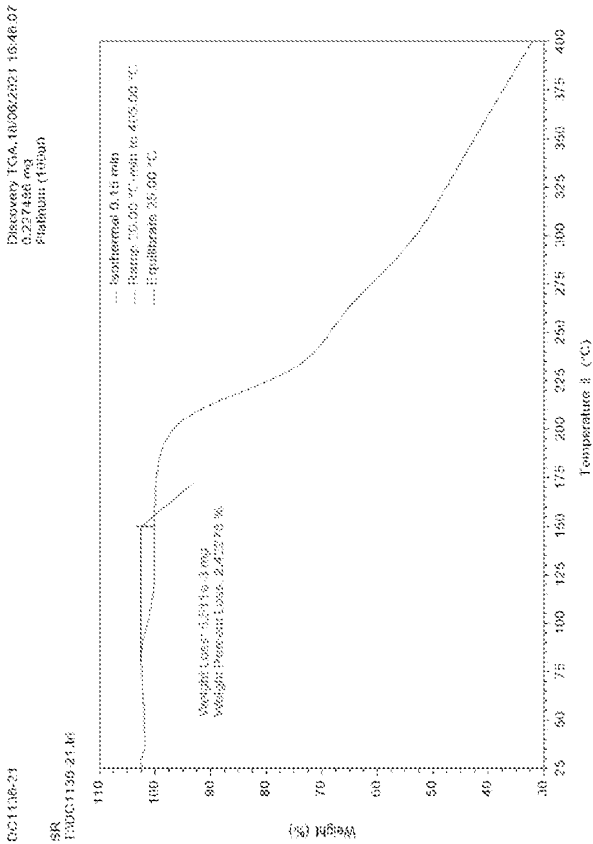
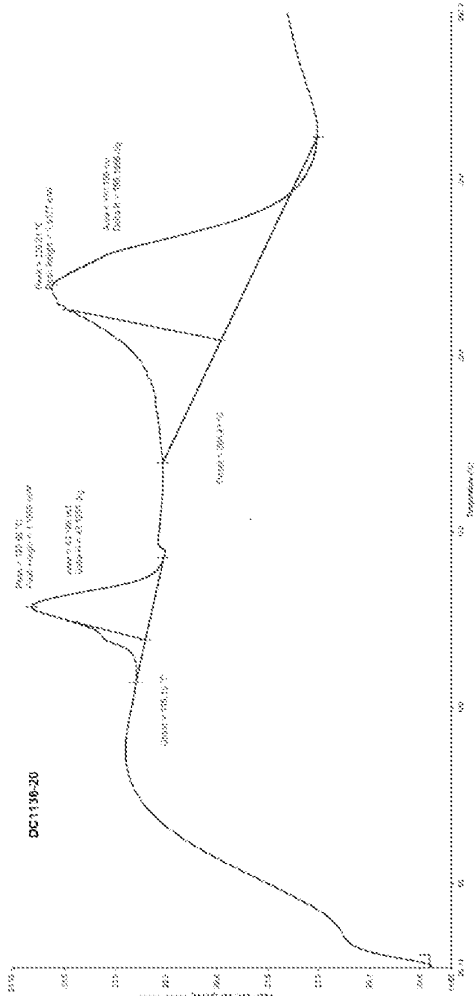


FIGURE 45



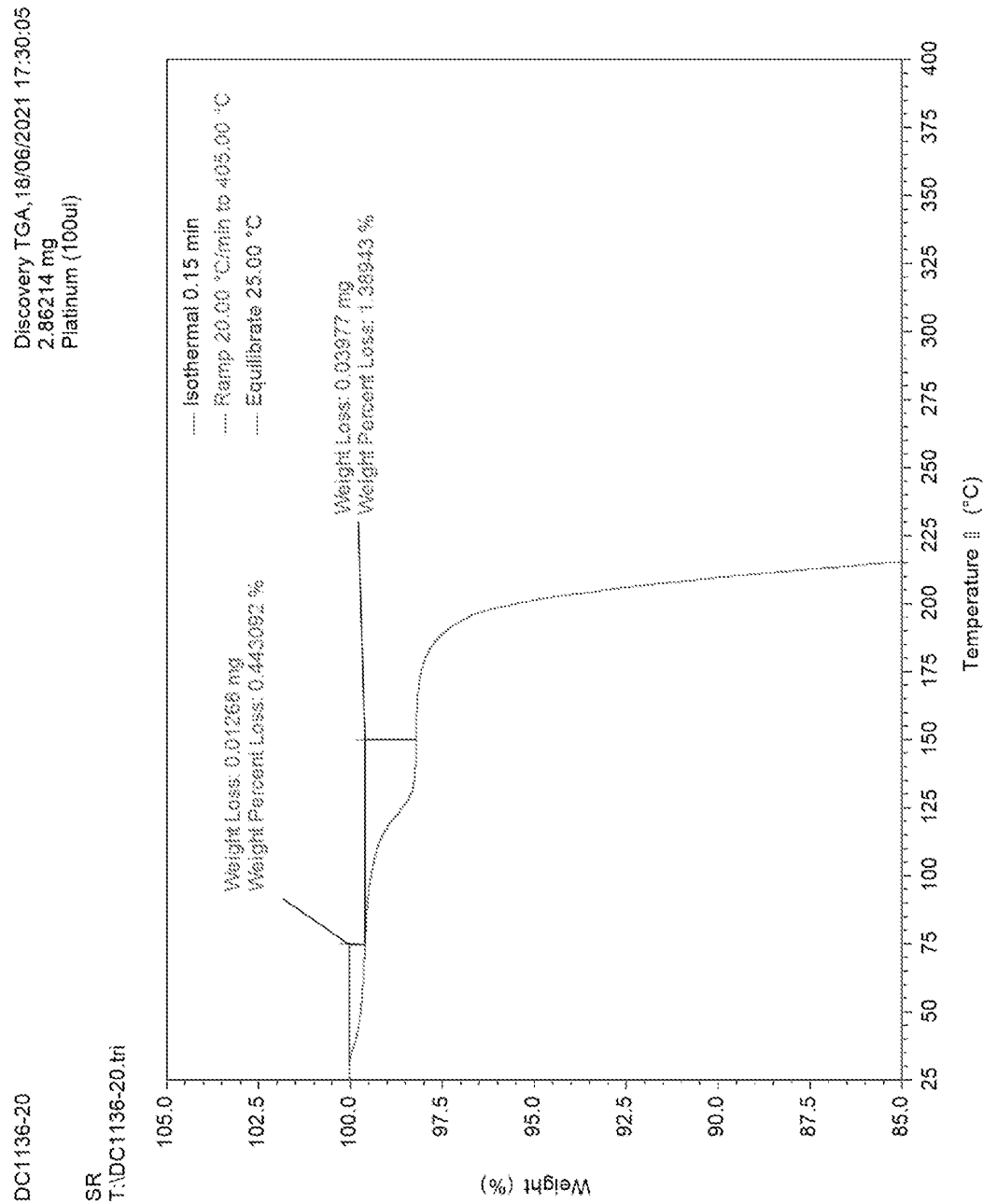


FIGURE 46

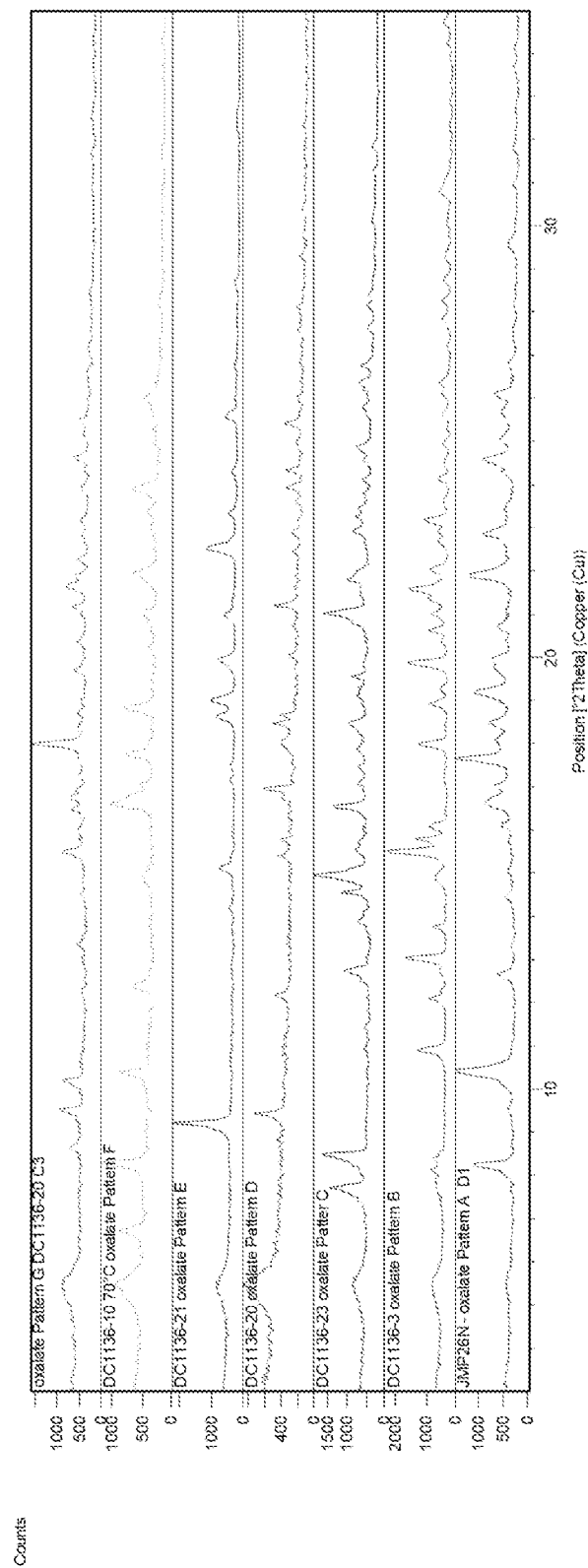


FIGURE 47

45/76

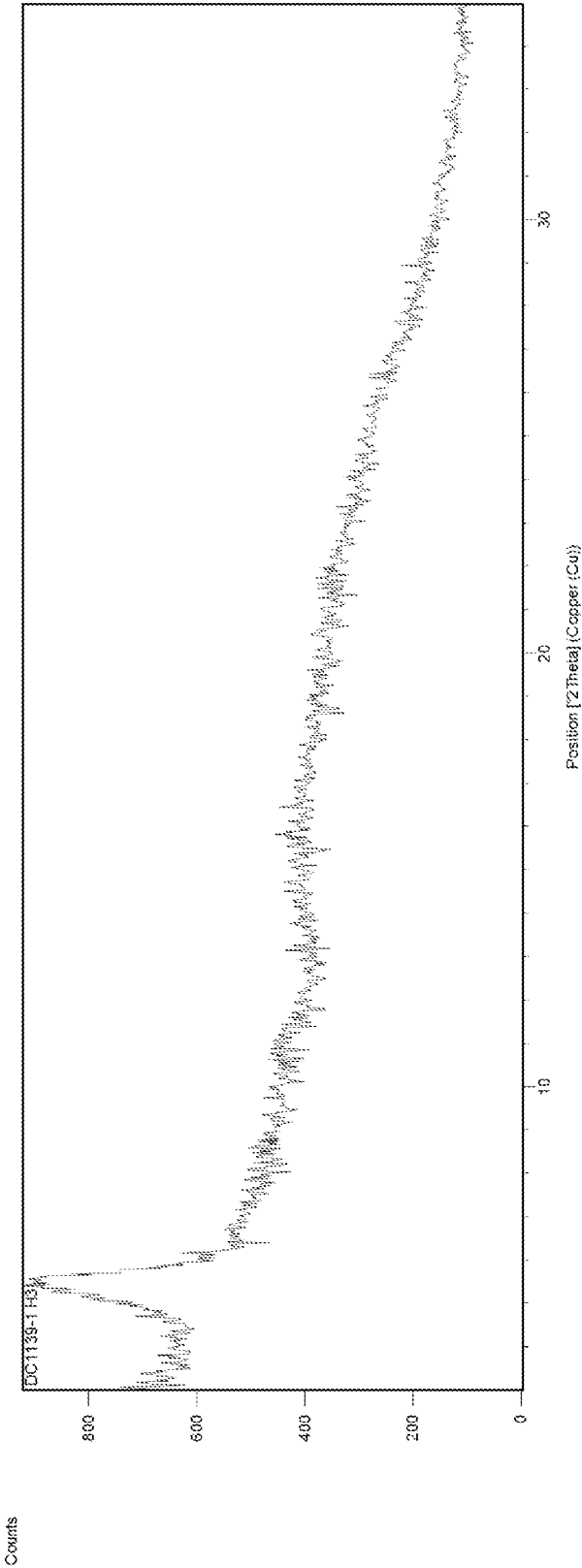


FIGURE 48

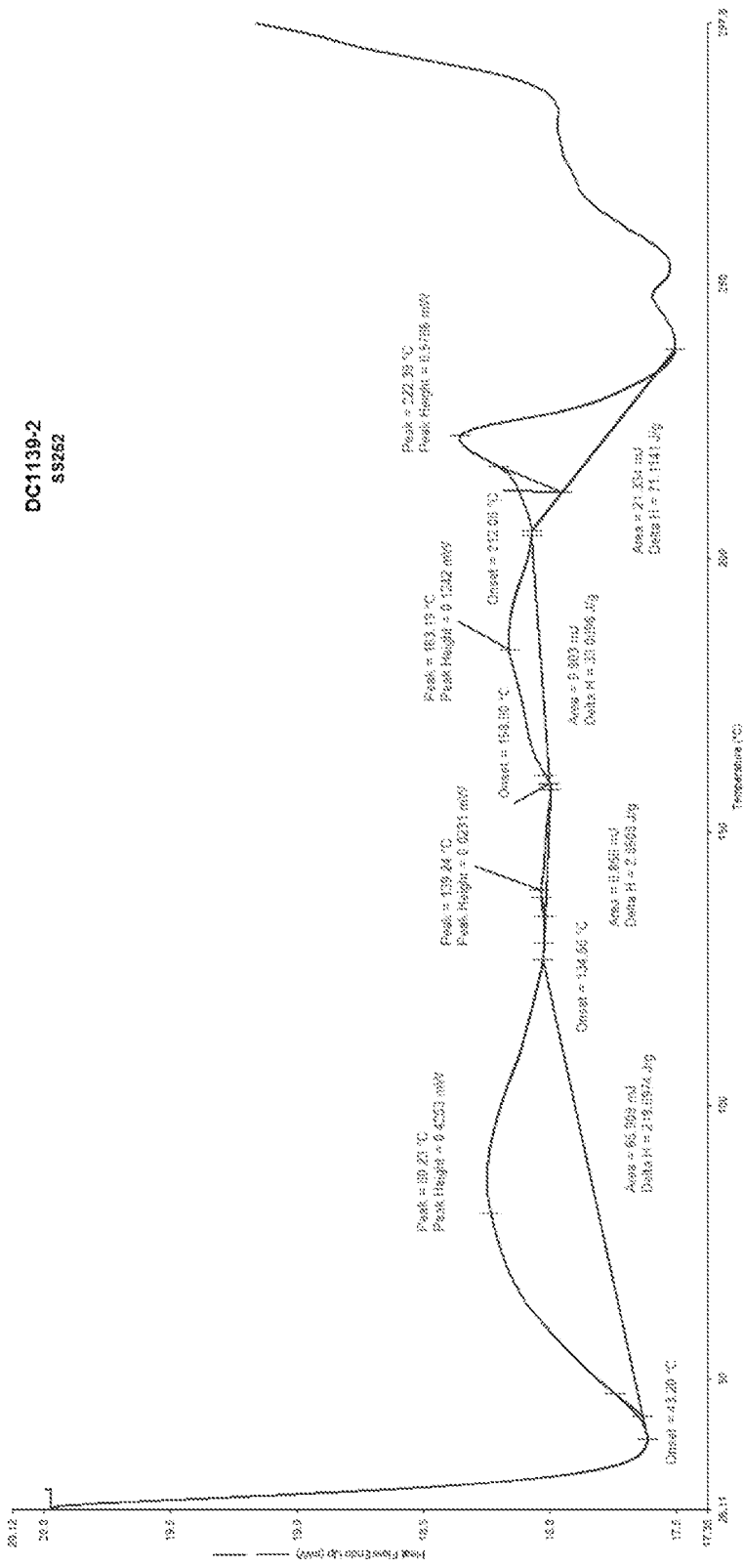


FIGURE 49

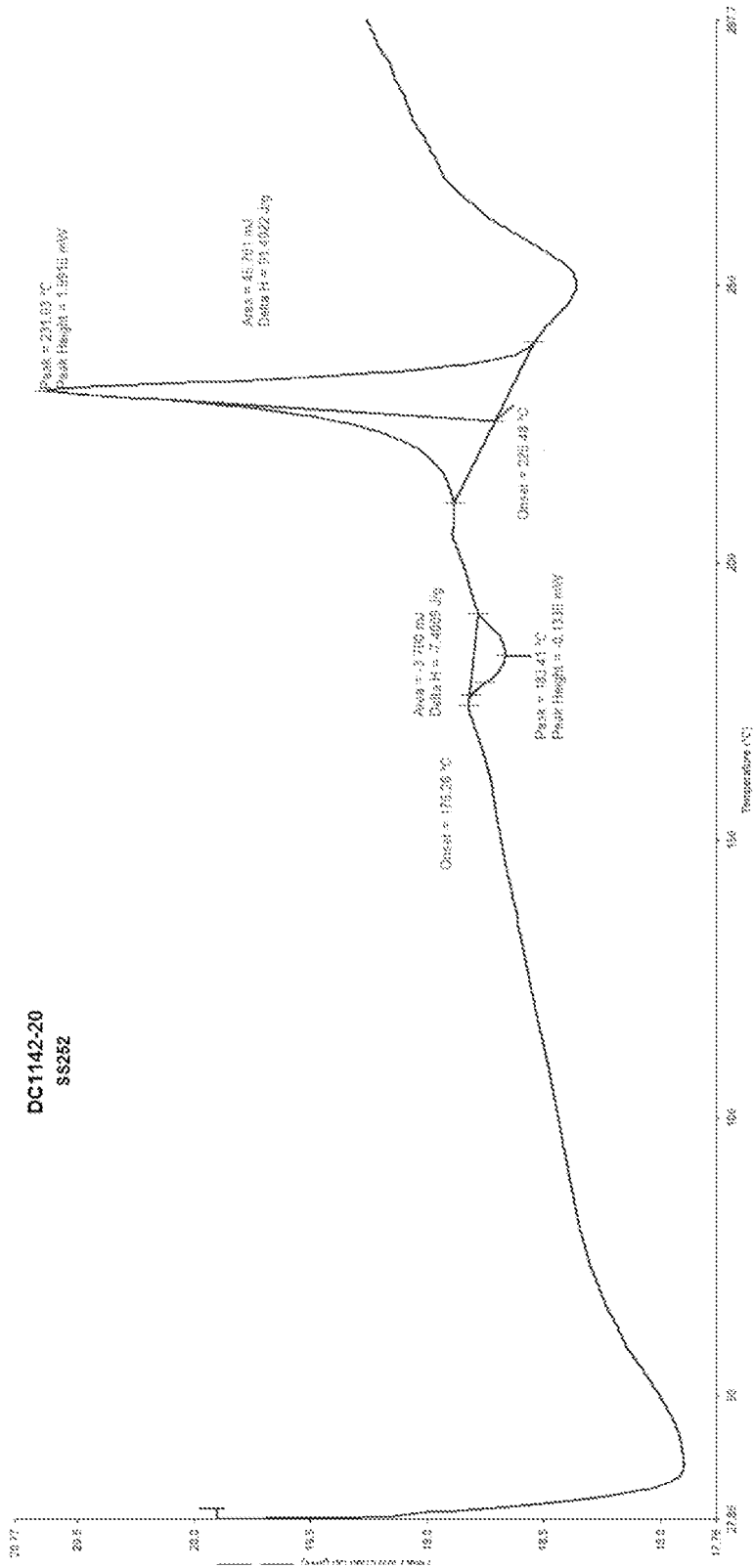


FIGURE 50

FIGURE 51

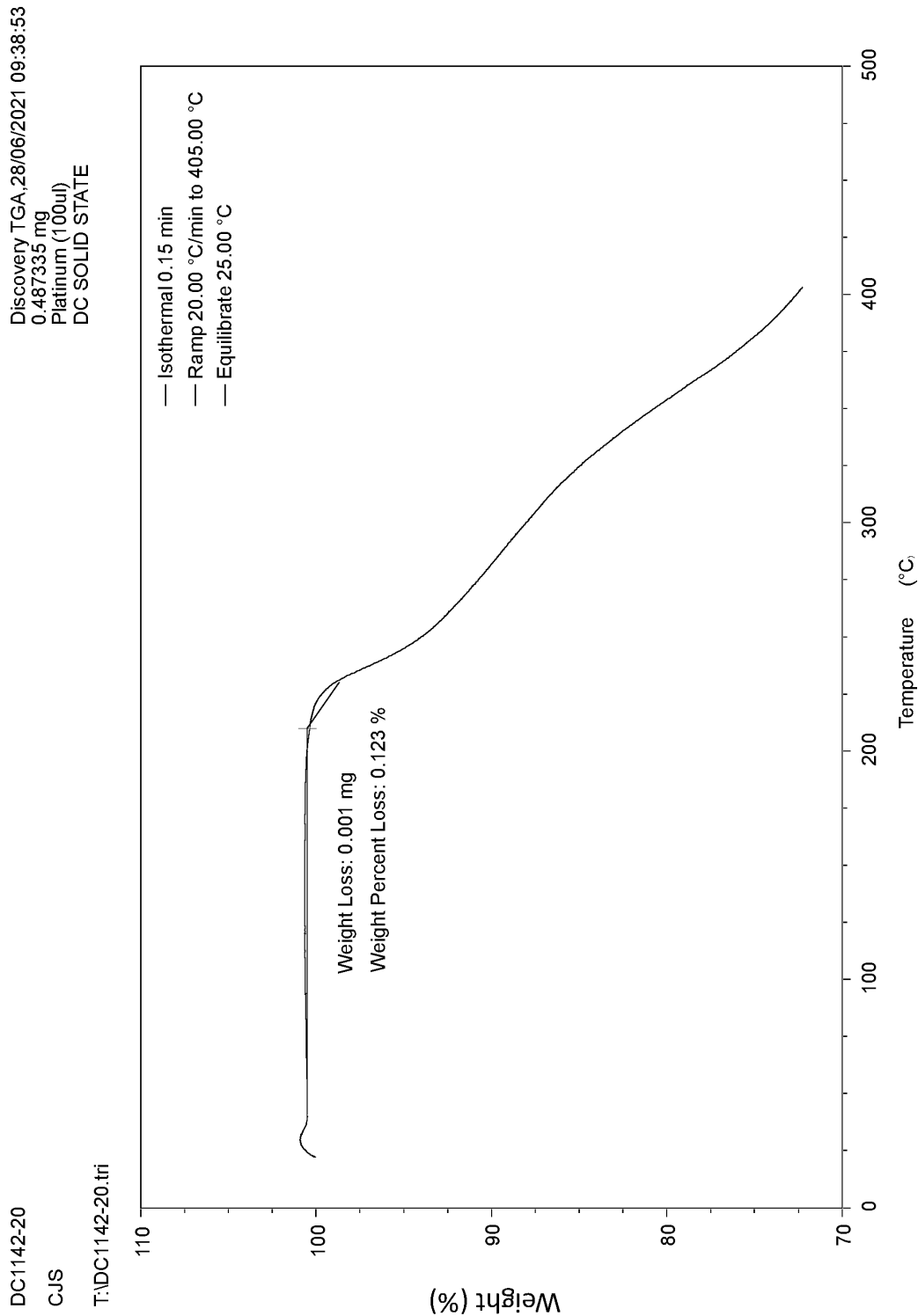
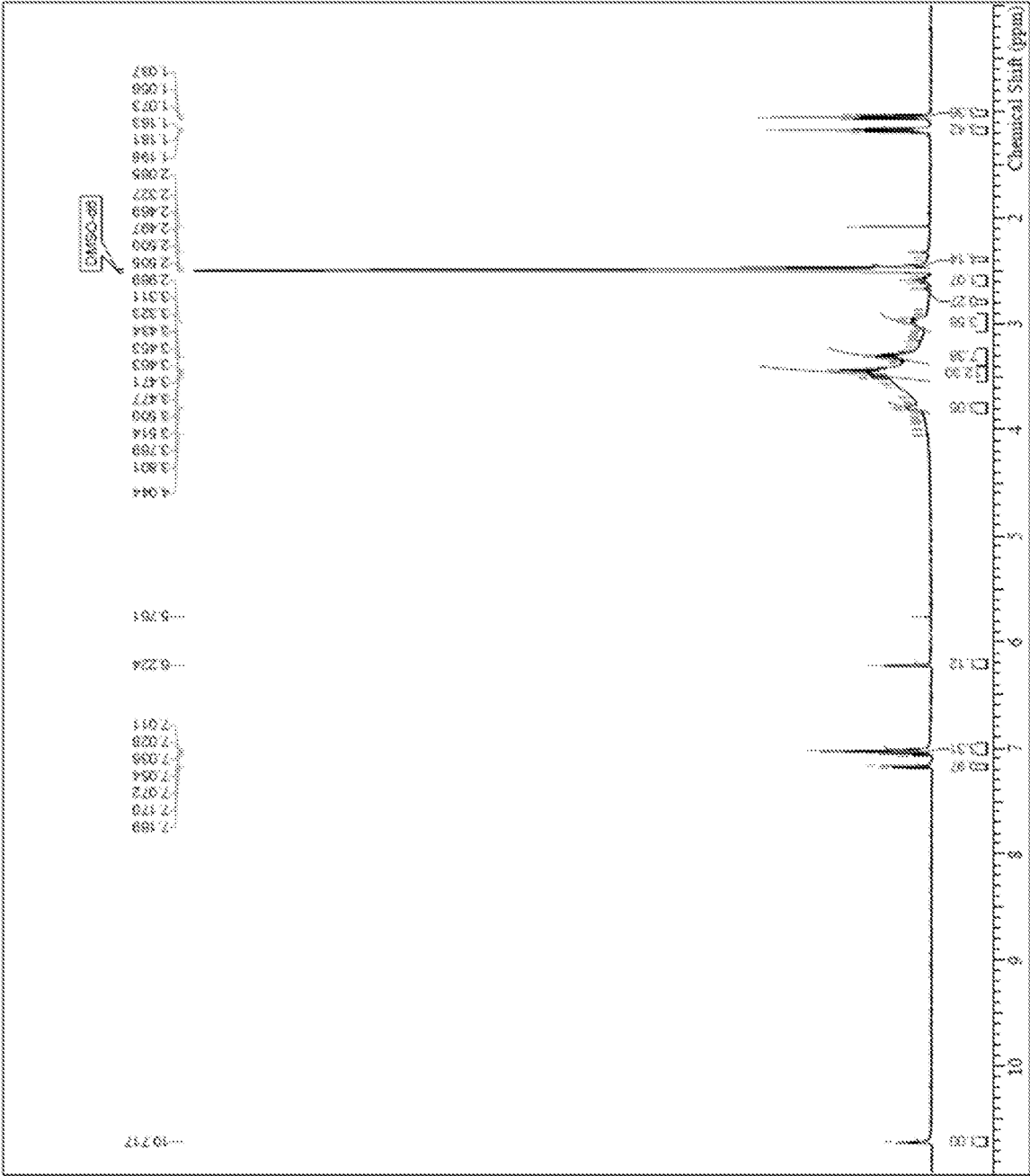


FIGURE 52



49/76

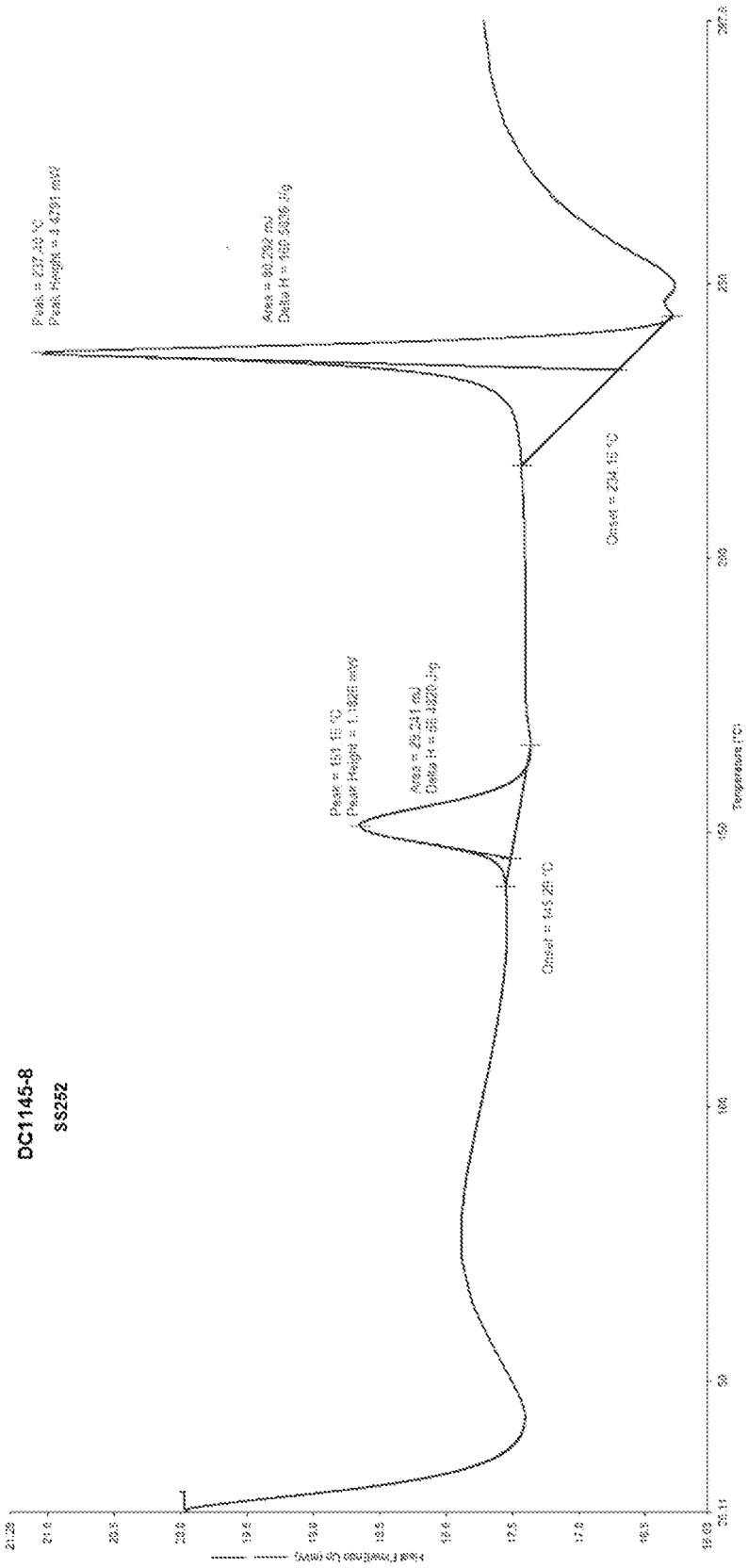


FIGURE 53

FIGURE 54

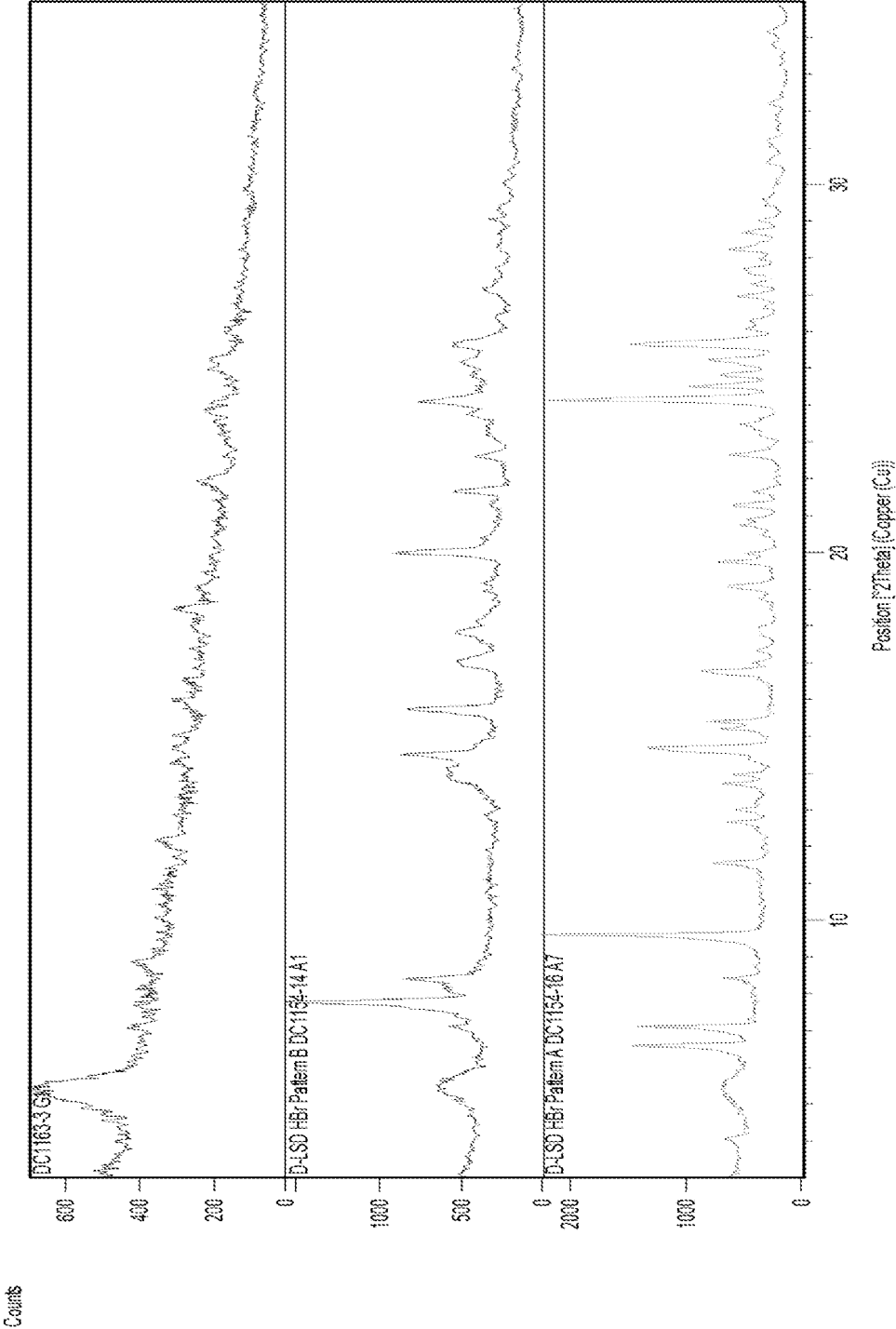
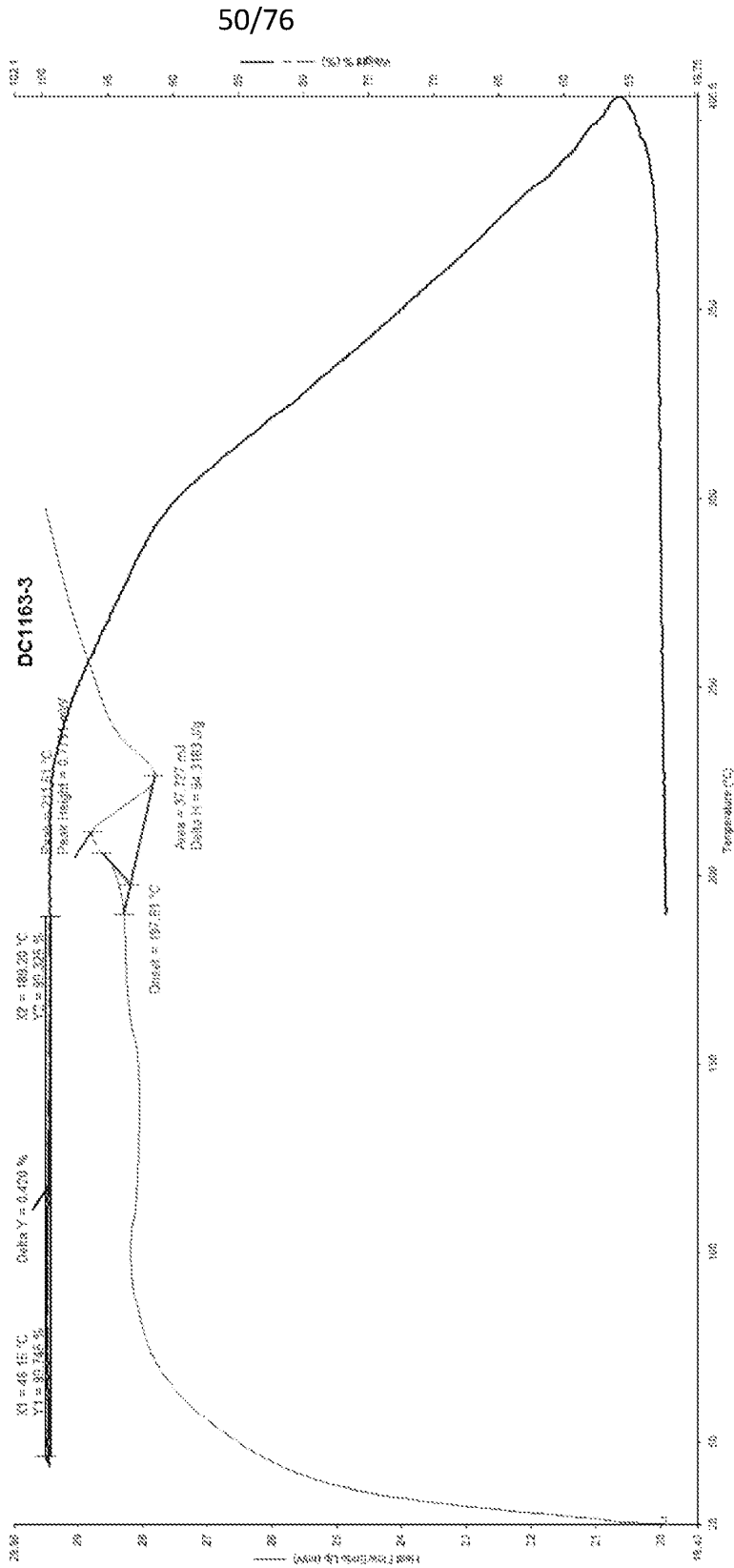


FIGURE 55



51/76

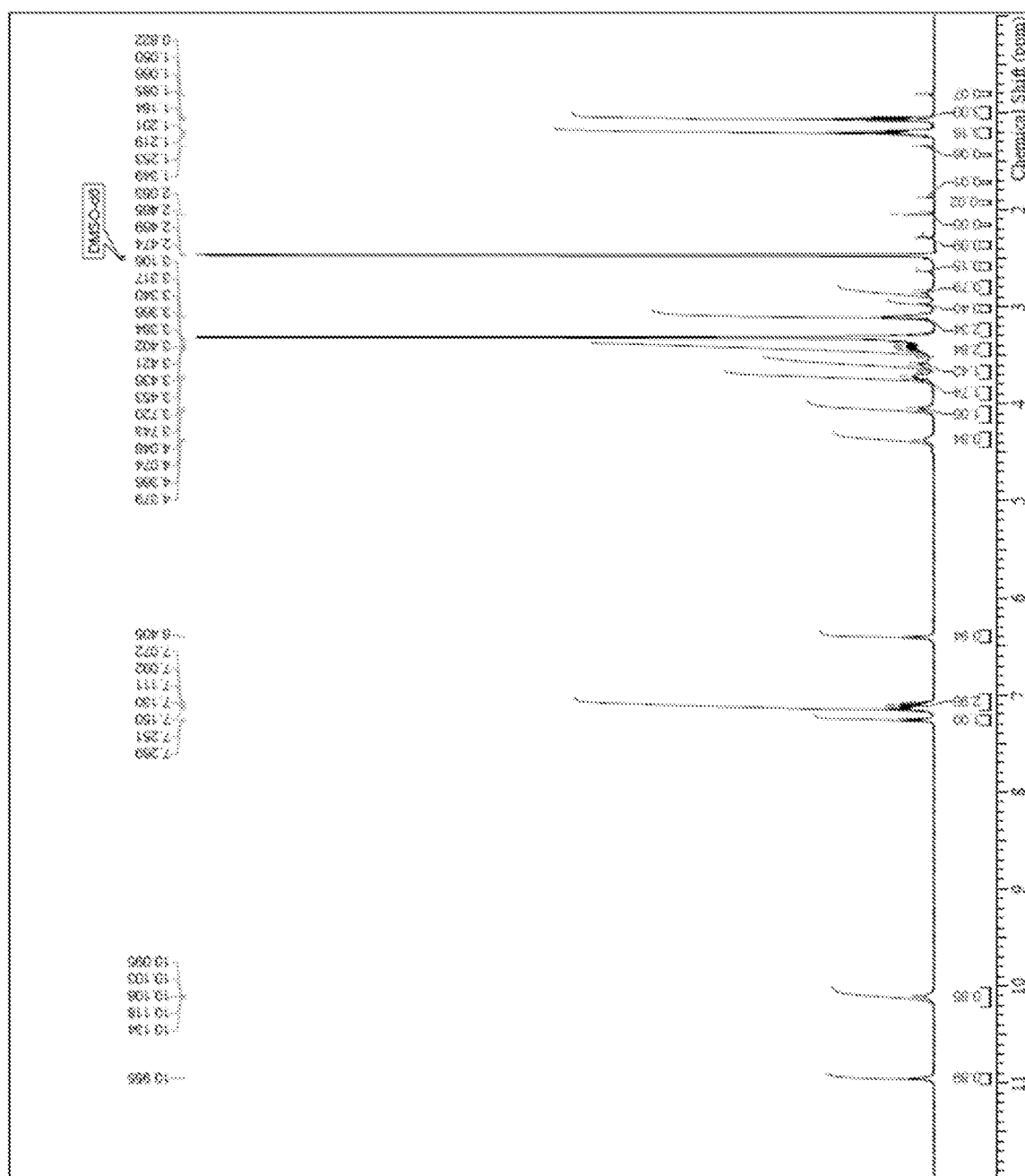


FIGURE 56

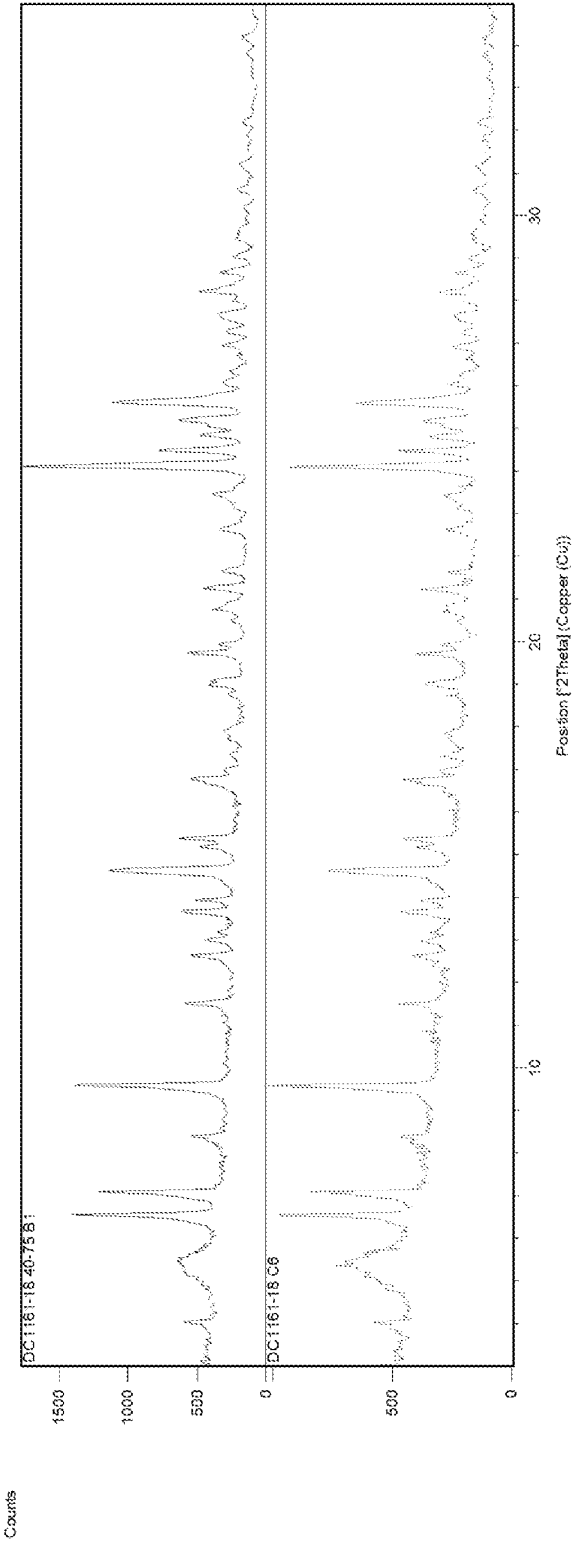


FIGURE 57

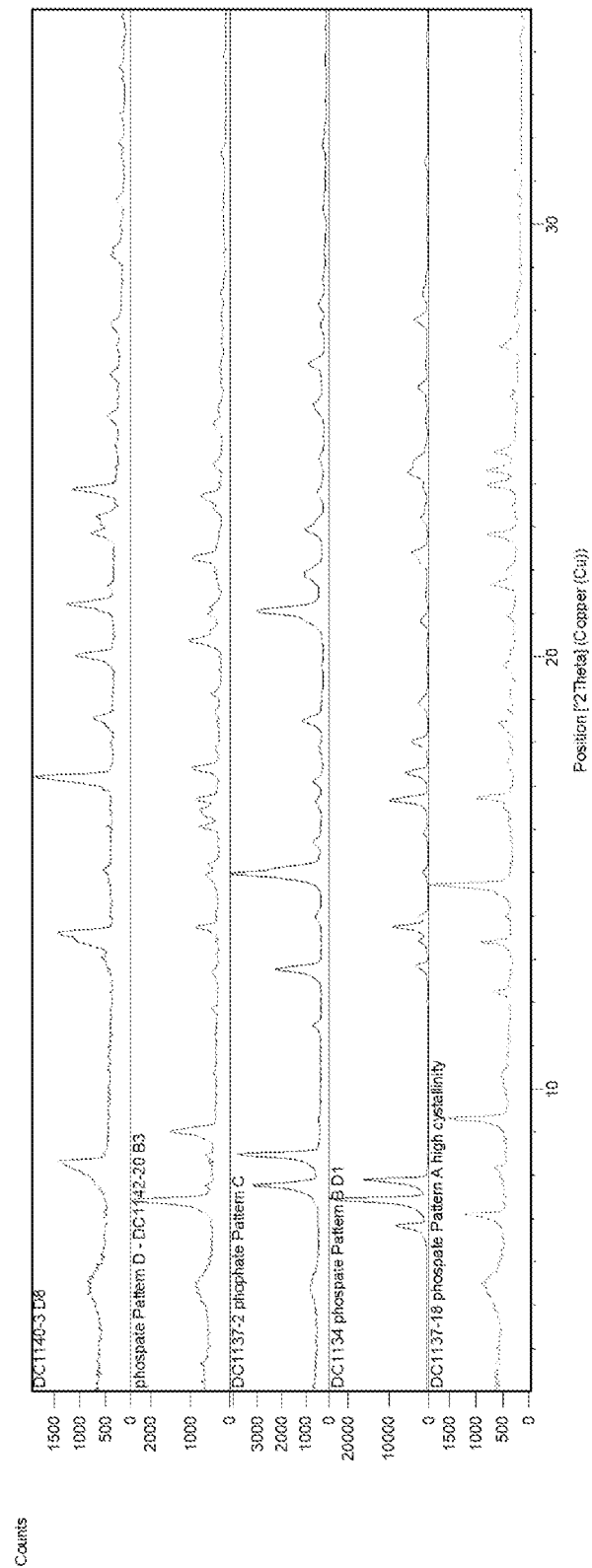


FIGURE 58 - D-LSD Phosphate salt Pattern A (bottom), Pattern B (second), Pattern C (third), Pattern D (fourth), and Pattern E (top)

54/76

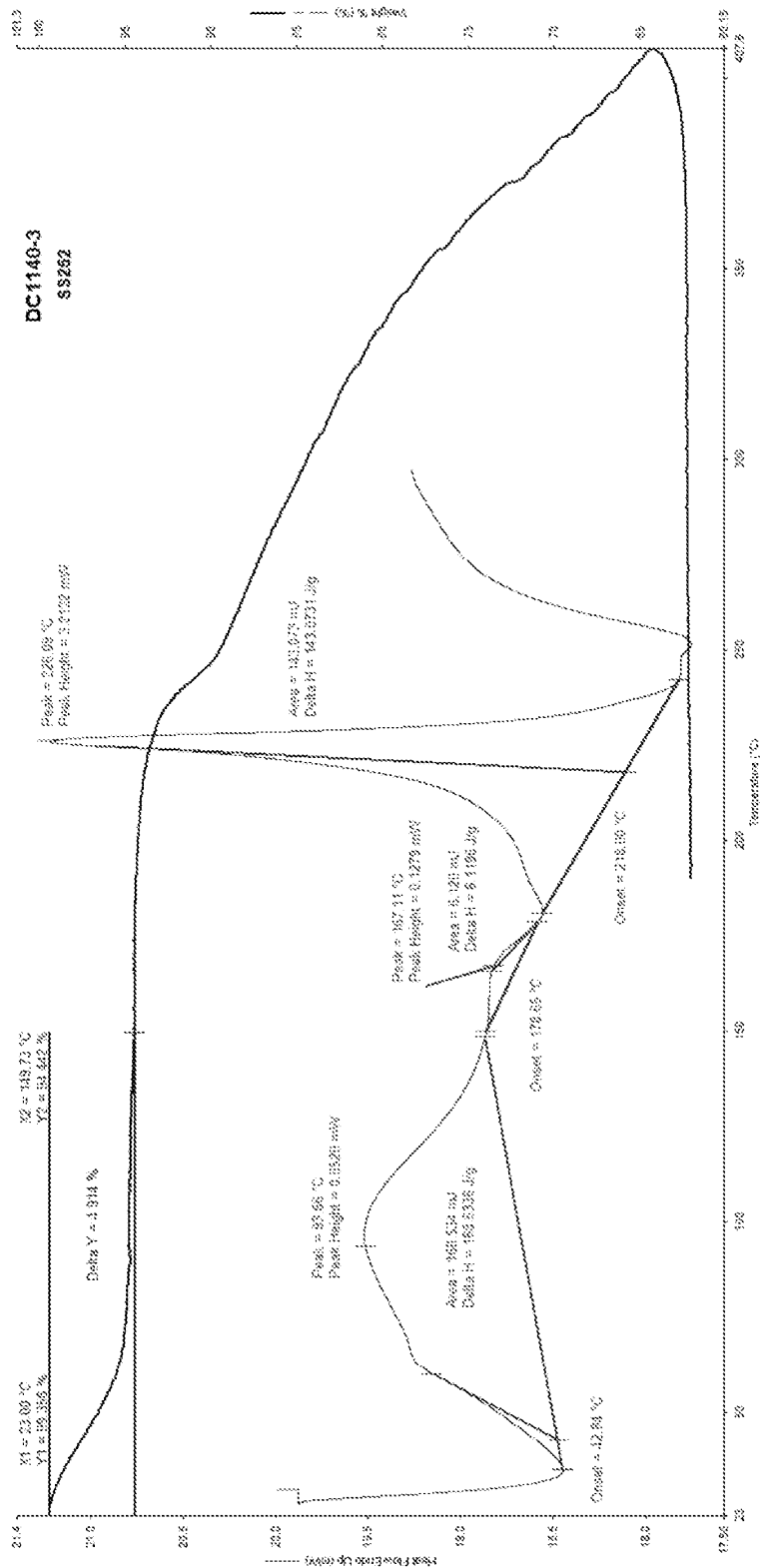
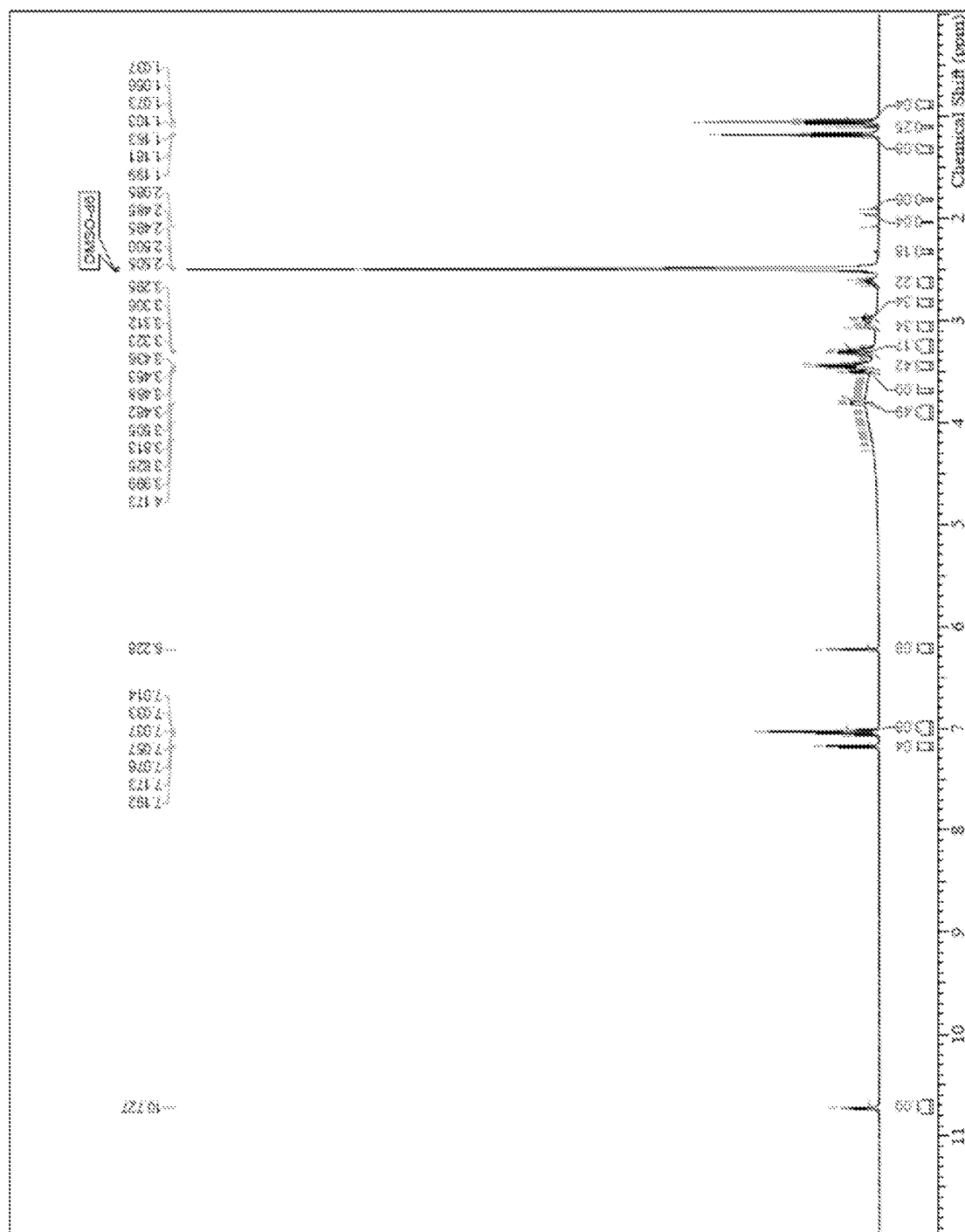


FIGURE 59

FIGURE 60



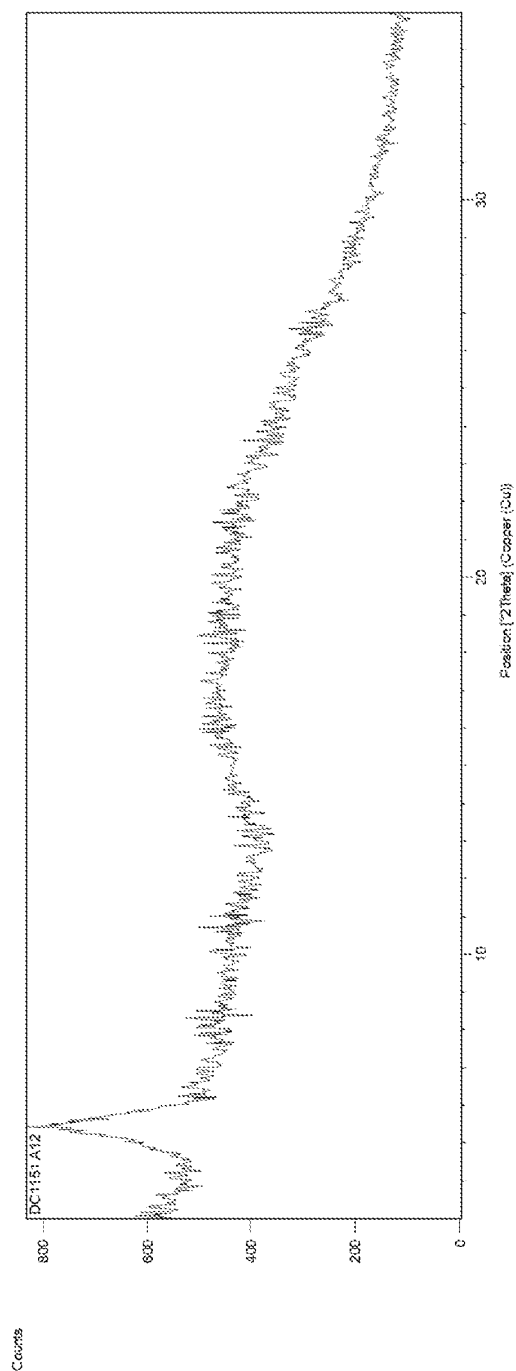
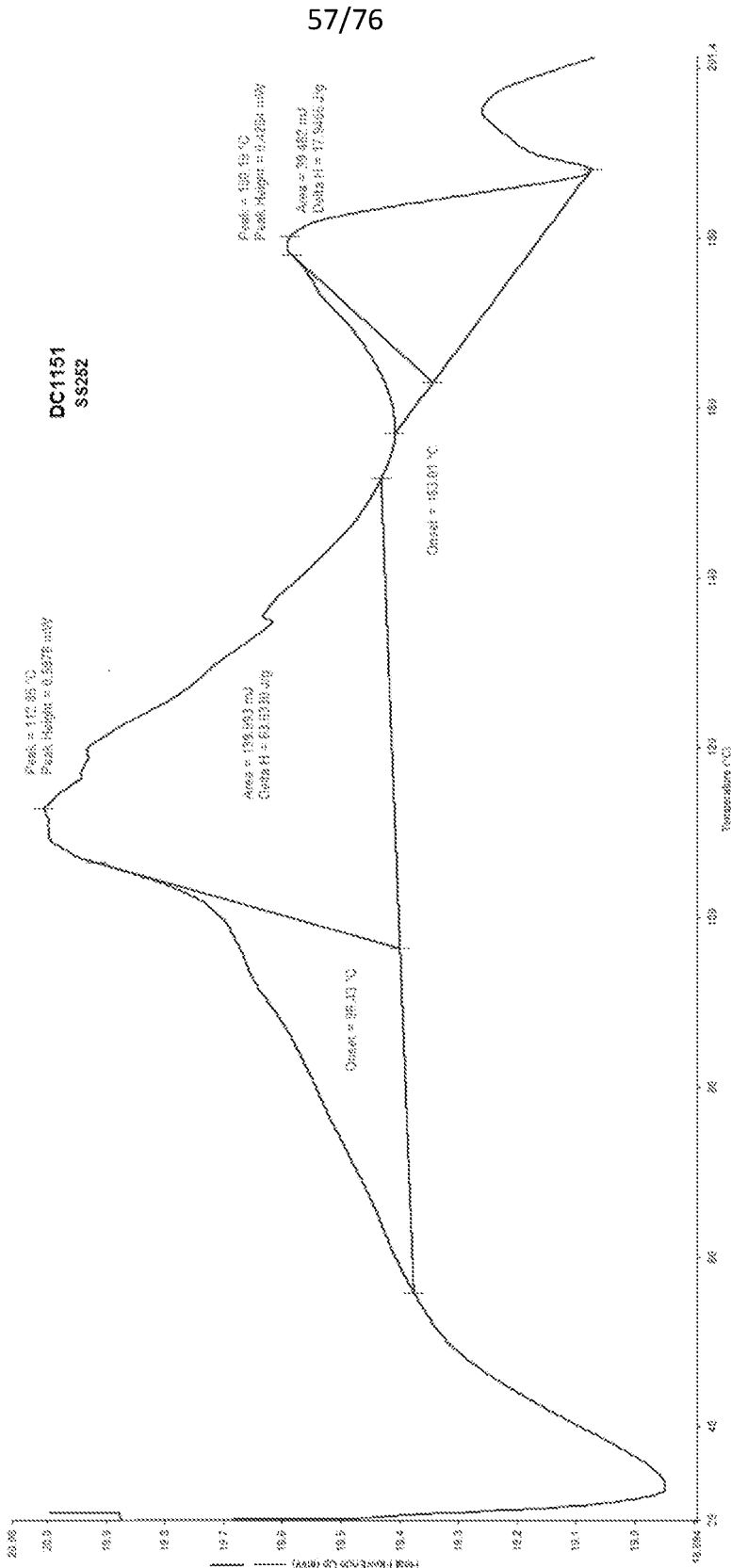
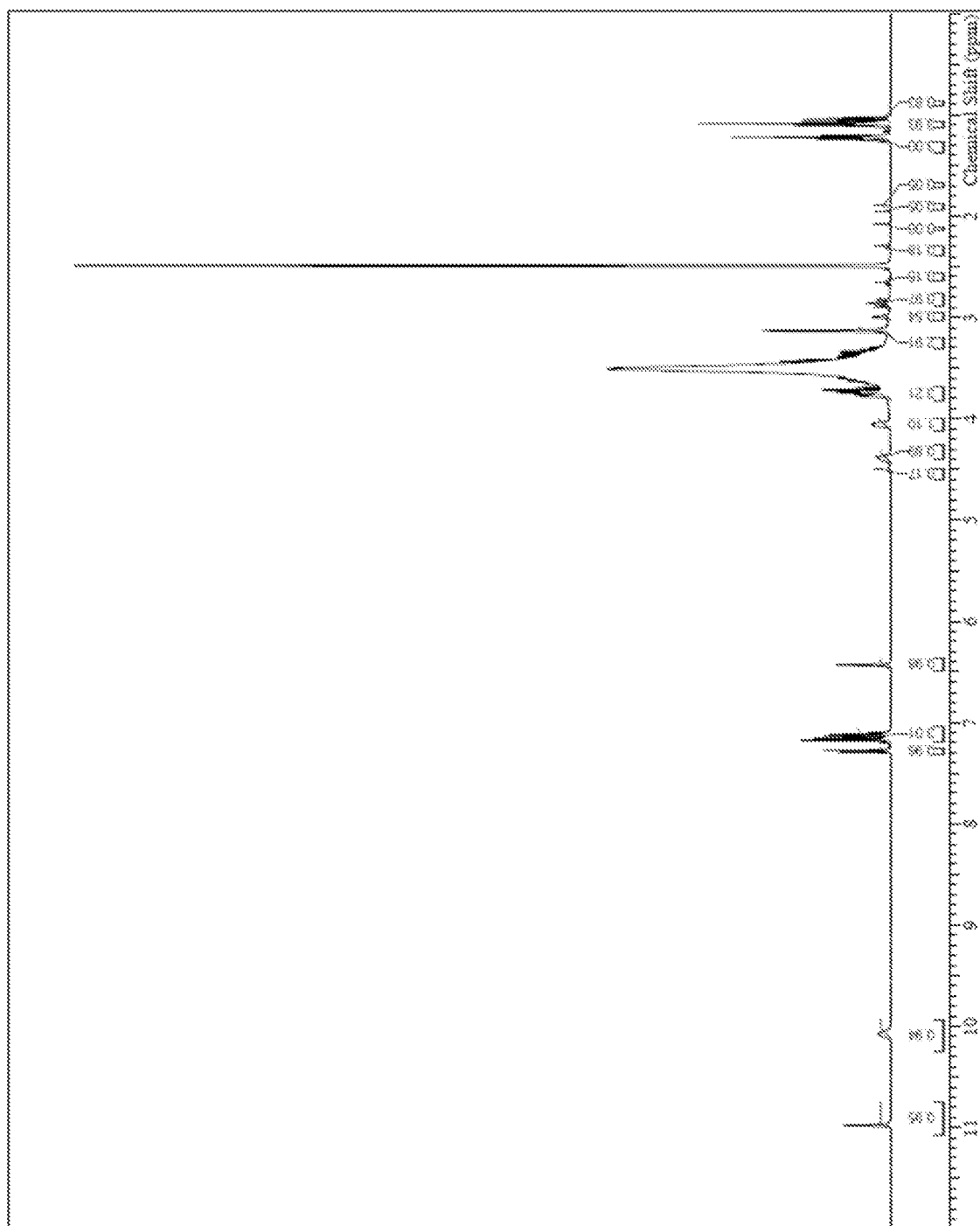


FIGURE 61 - XRPD pattern for D-LSD sulphate amorphous salt

FIGURE 62





58/76

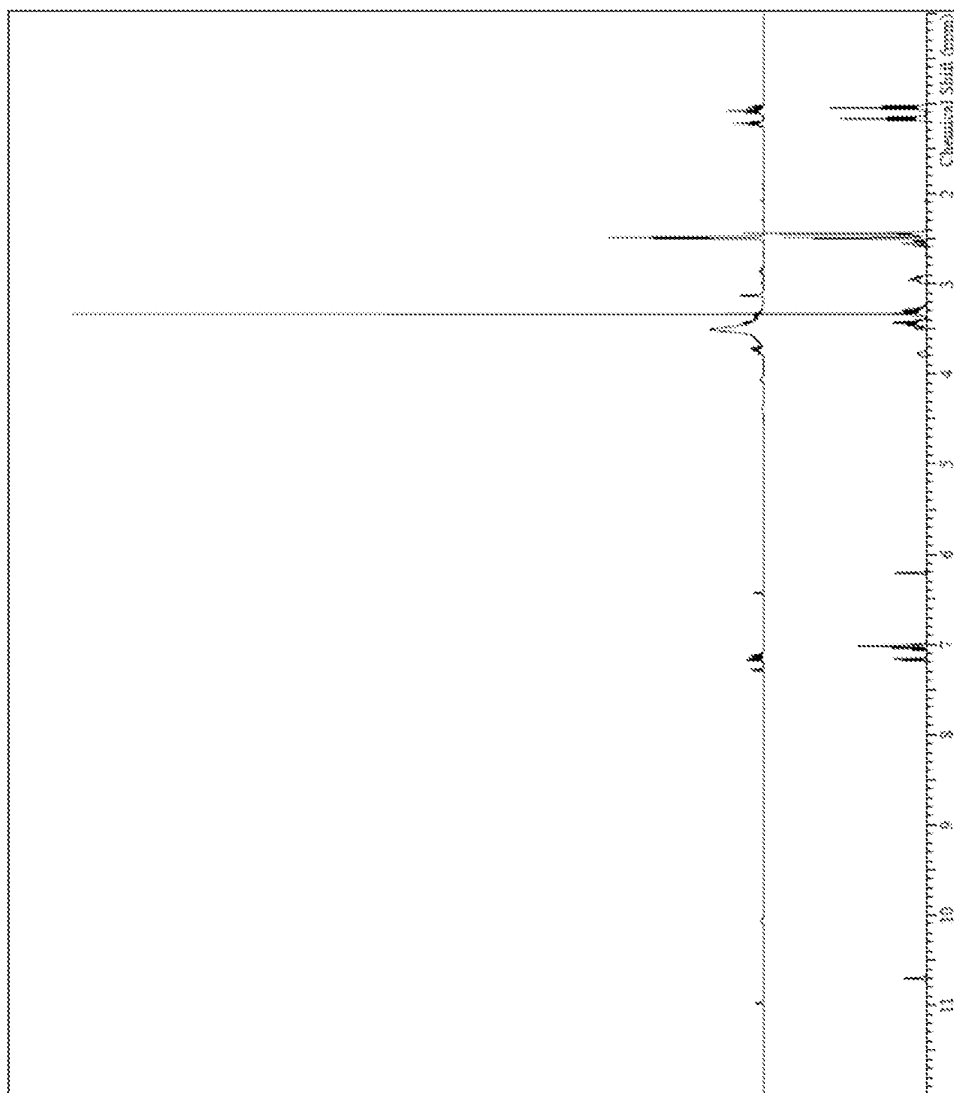


FIGURE 64

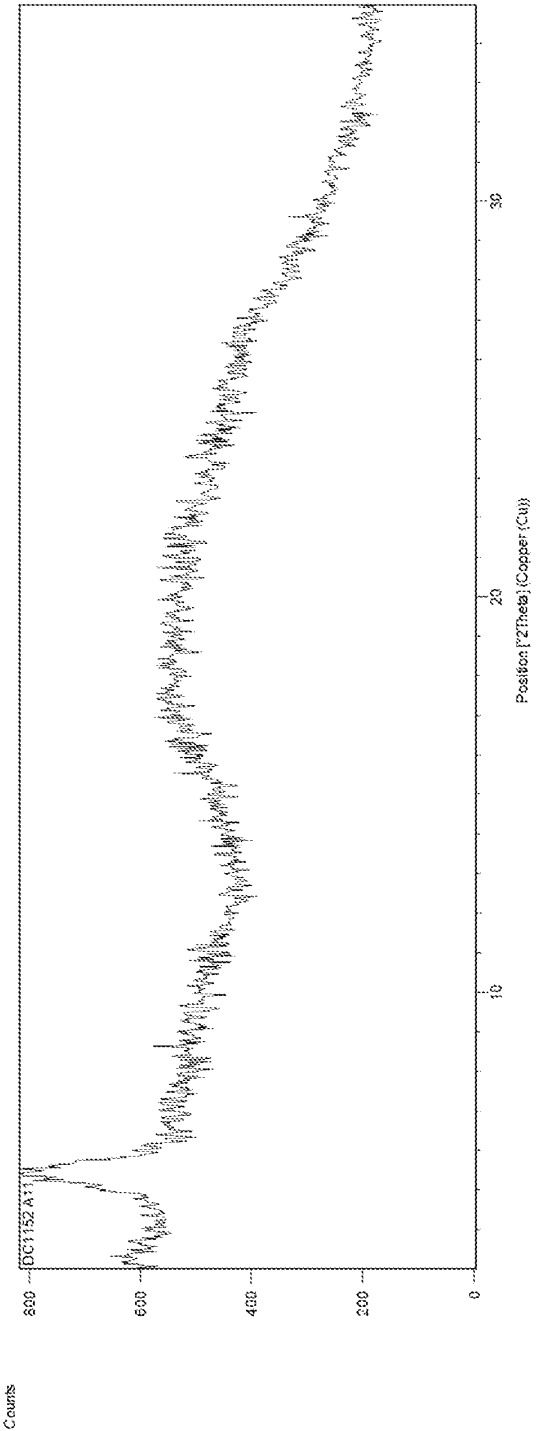
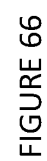


FIGURE 65



61/76

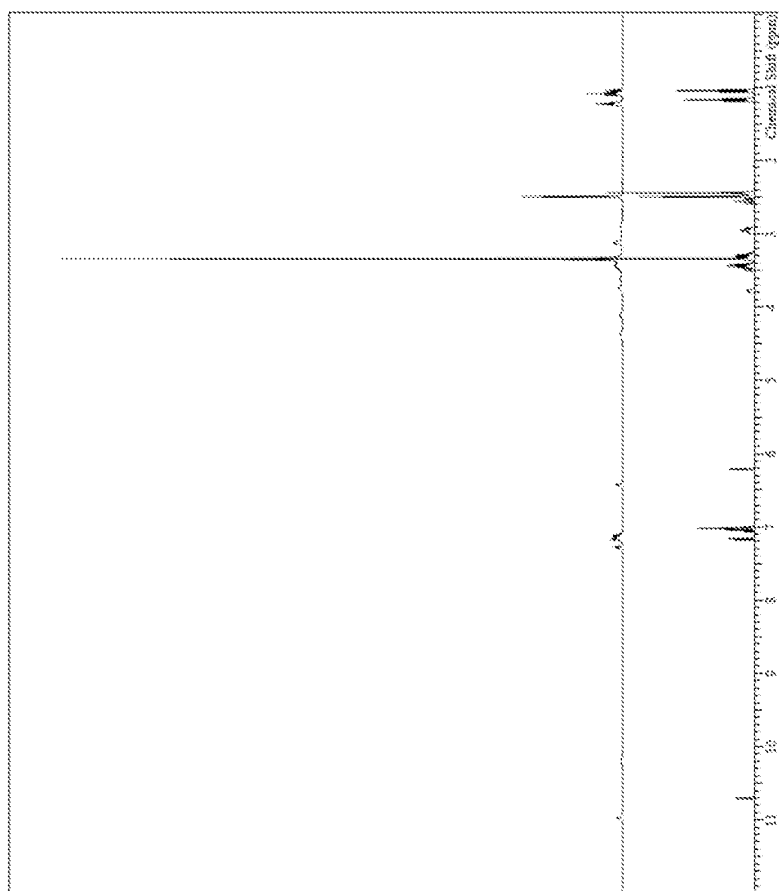
FIGURE 67 -  $^1\text{H}$  NMR overlap between D-LSD Free Base (bottom) and D-LSD Hydrobromic salt (top)

FIGURE 68

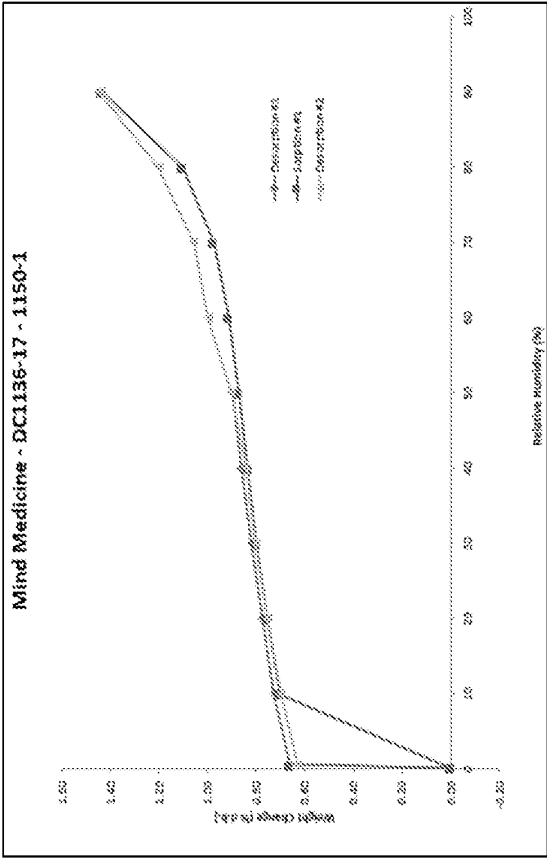
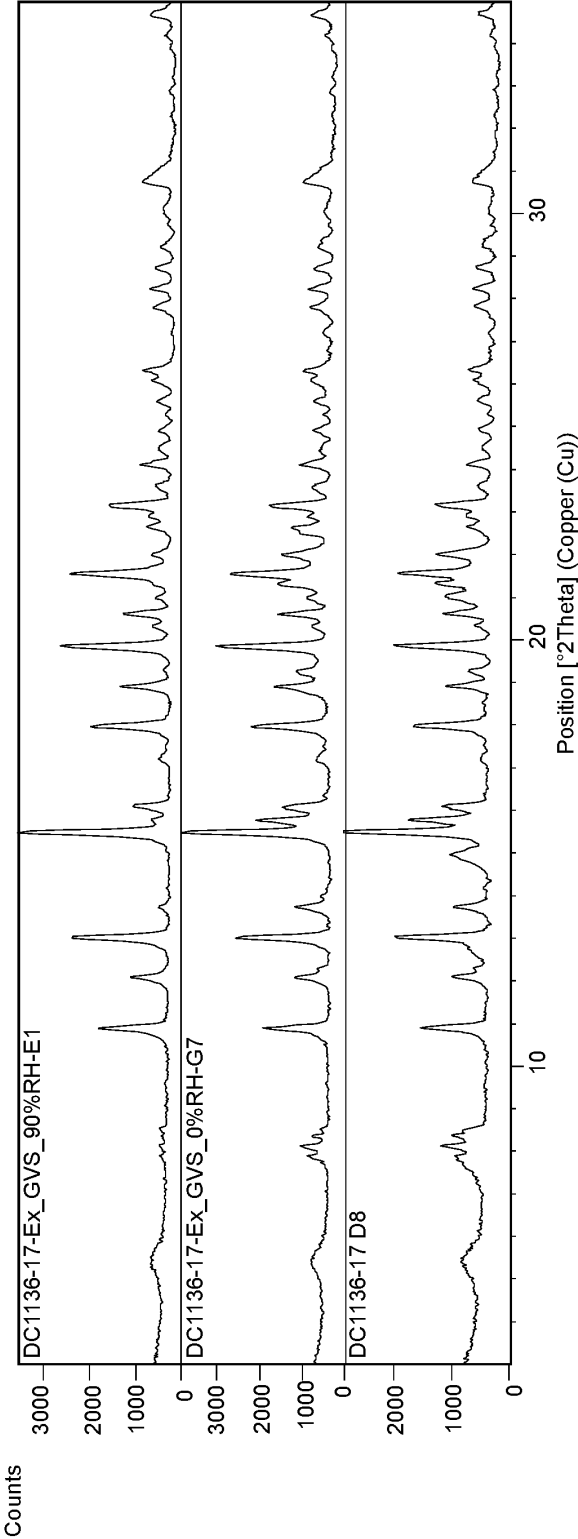


FIGURE 69



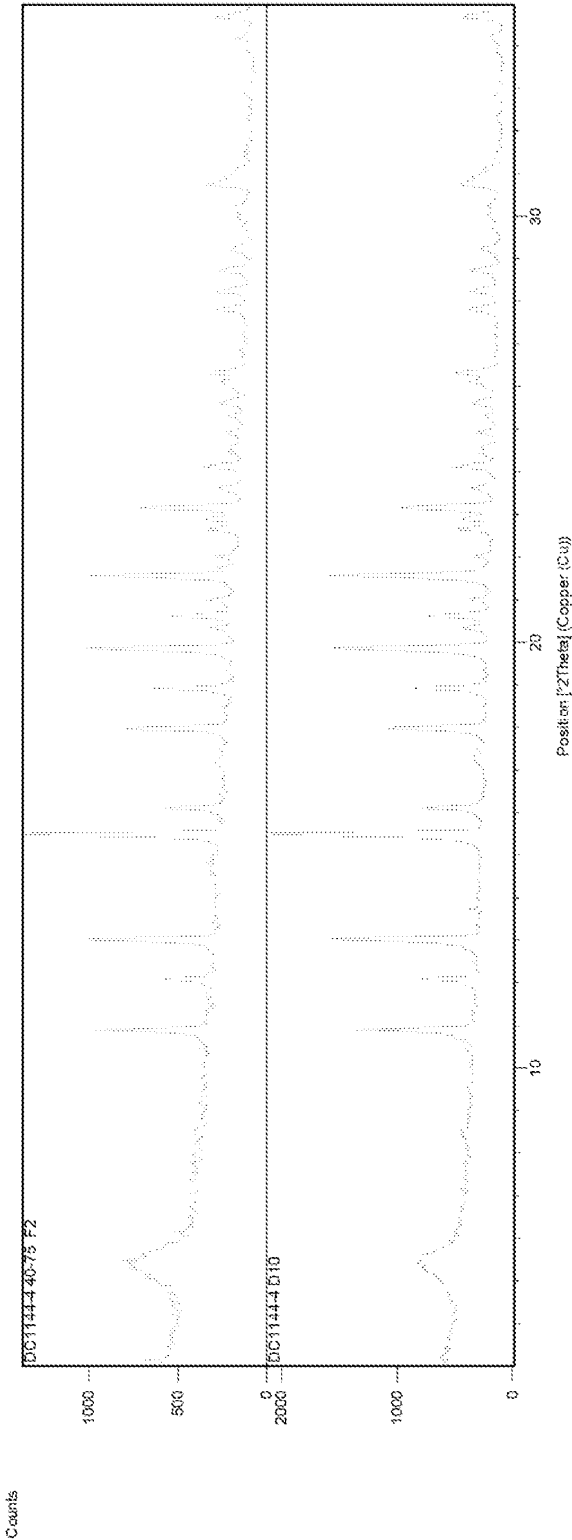


FIGURE 70 XRPD patterns of D-LSD oxalate Pattern B after storage at 40°C/75% RH, (top), versus initial (bottom)

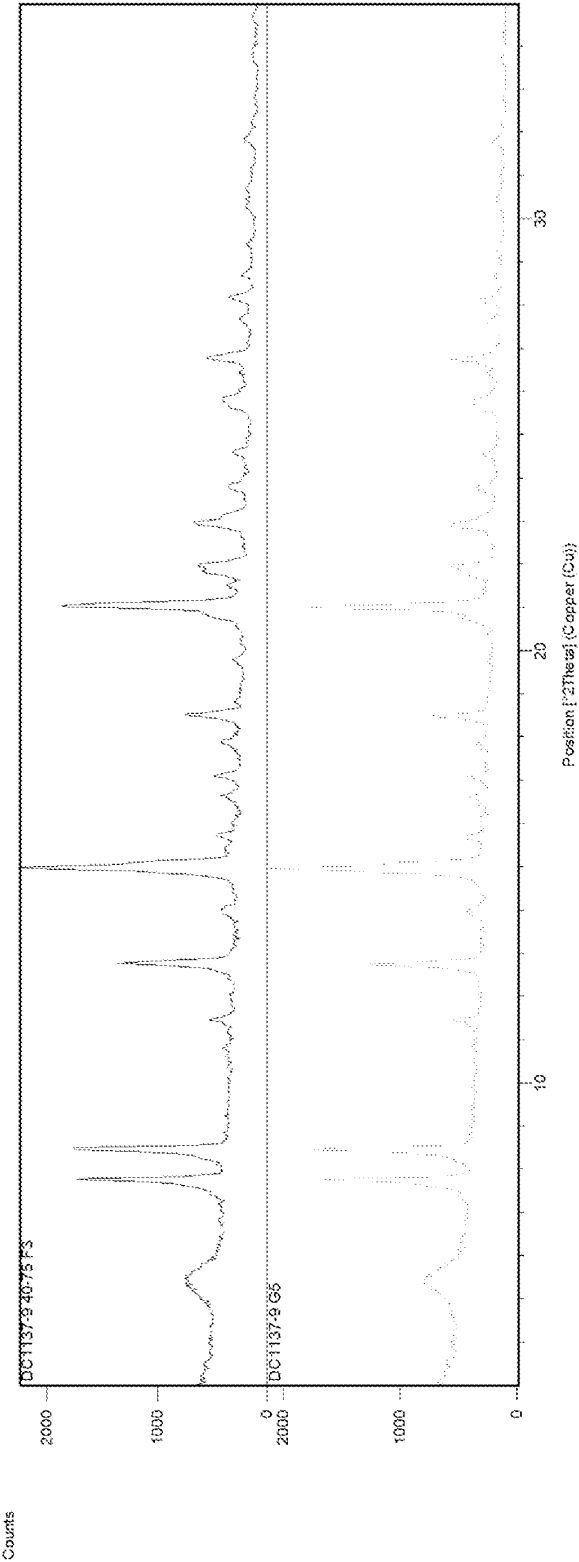


FIGURE 71 -XRPD patterns of D-LSD phosphate Pattern C after storage at 40°C/75% RH (top) versus initial (bottom)

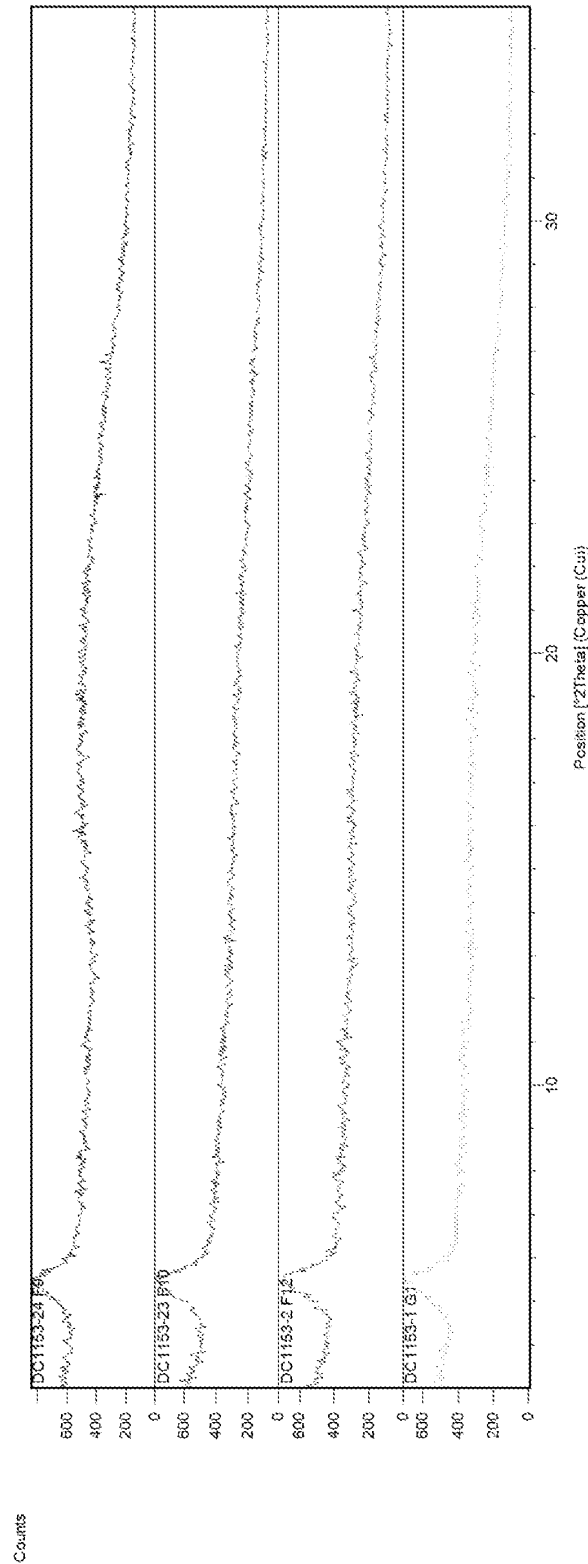


FIGURE 72

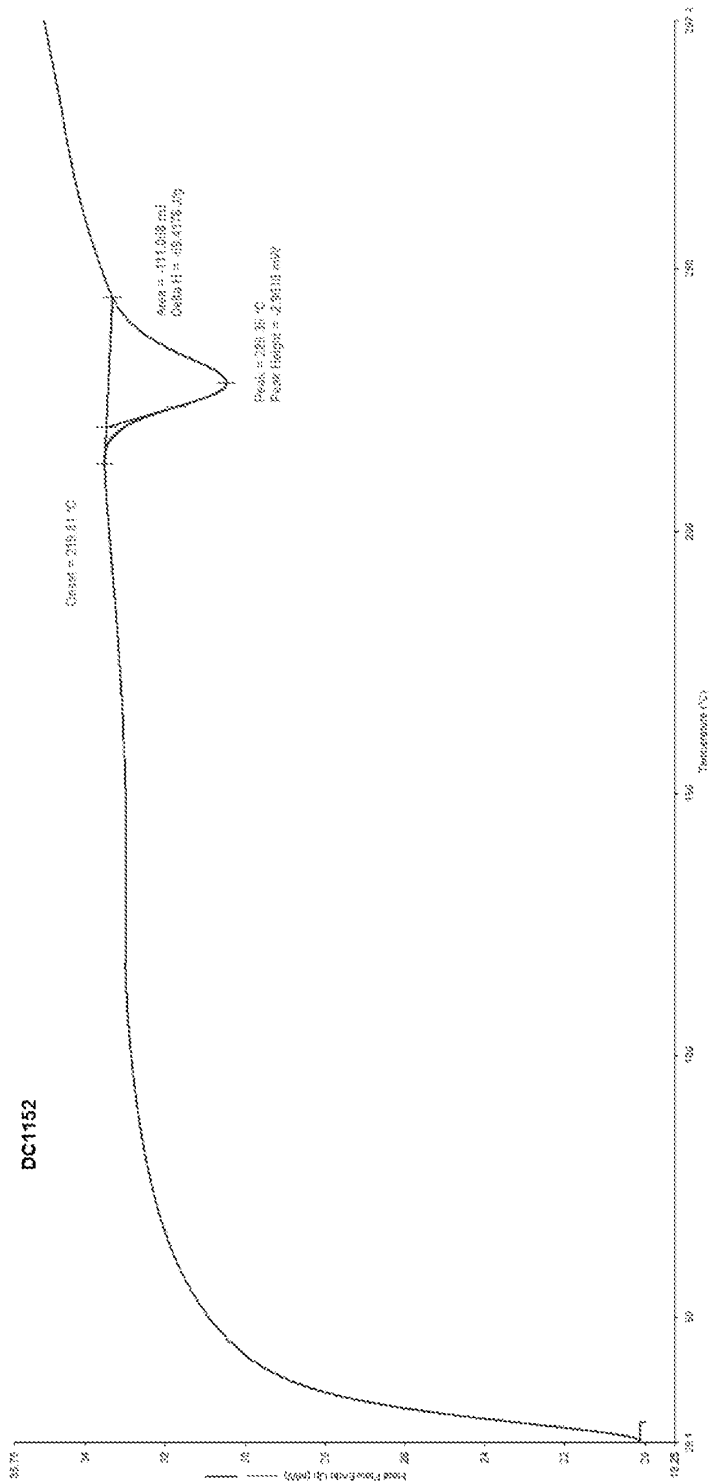


FIGURE 73

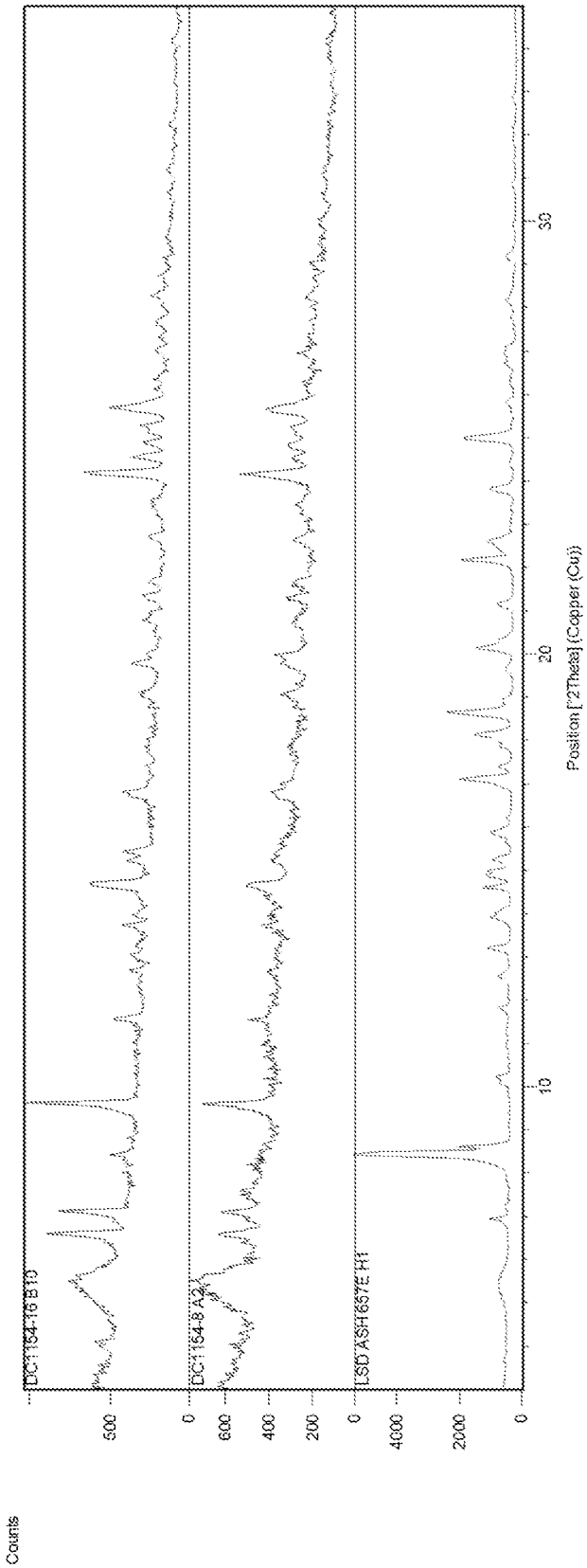


FIGURE 74

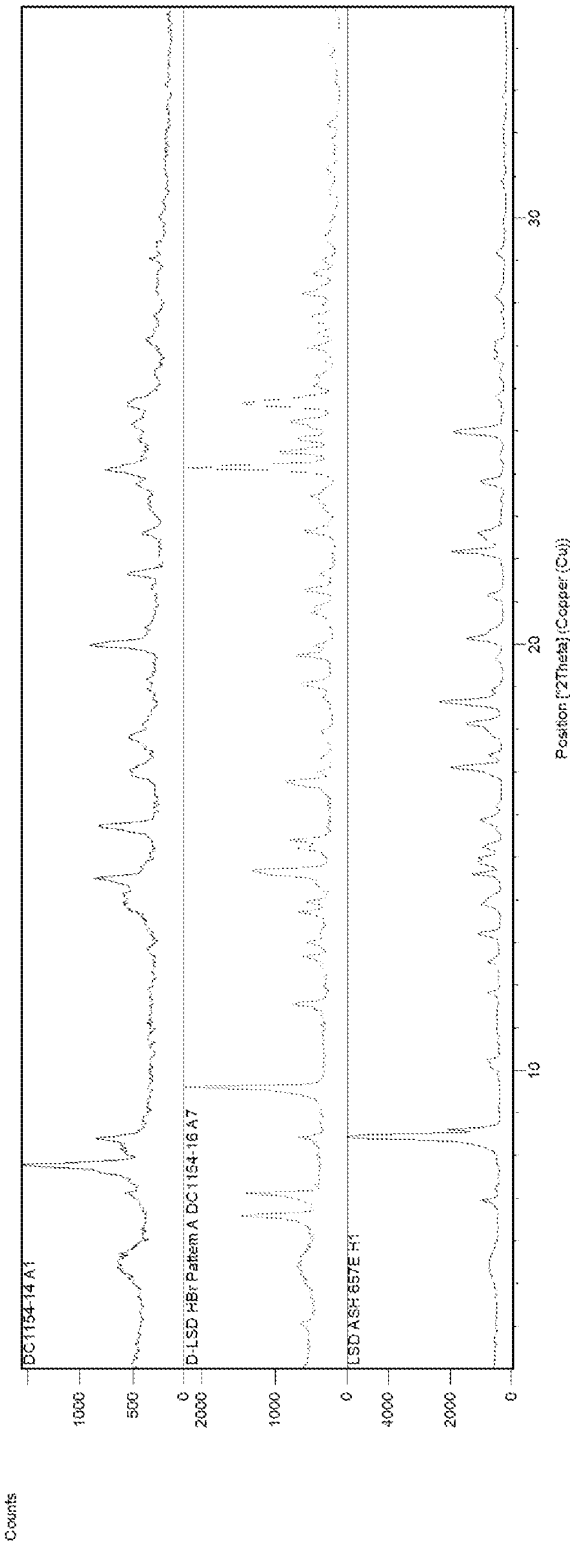


FIGURE 75

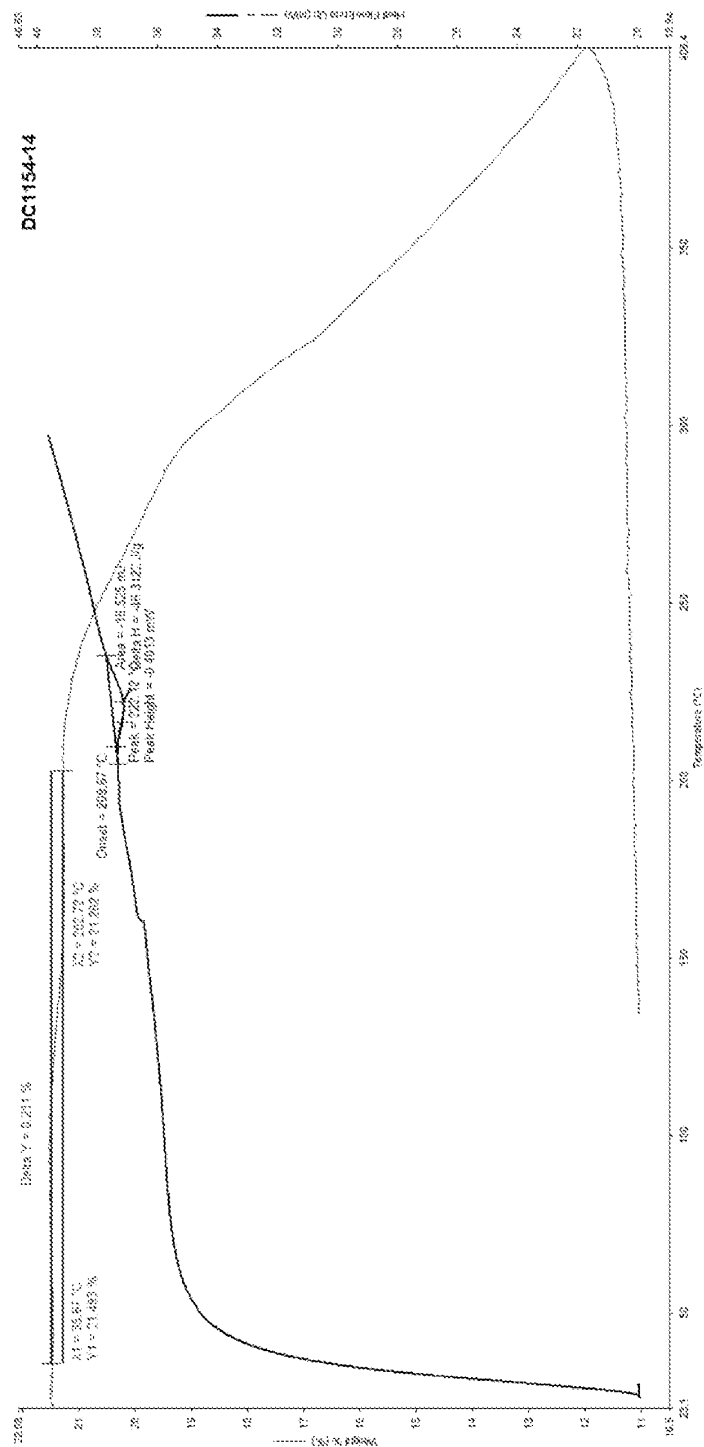


FIGURE 76-DSC/TGA thermograms of D-LSD HBr Pattern B

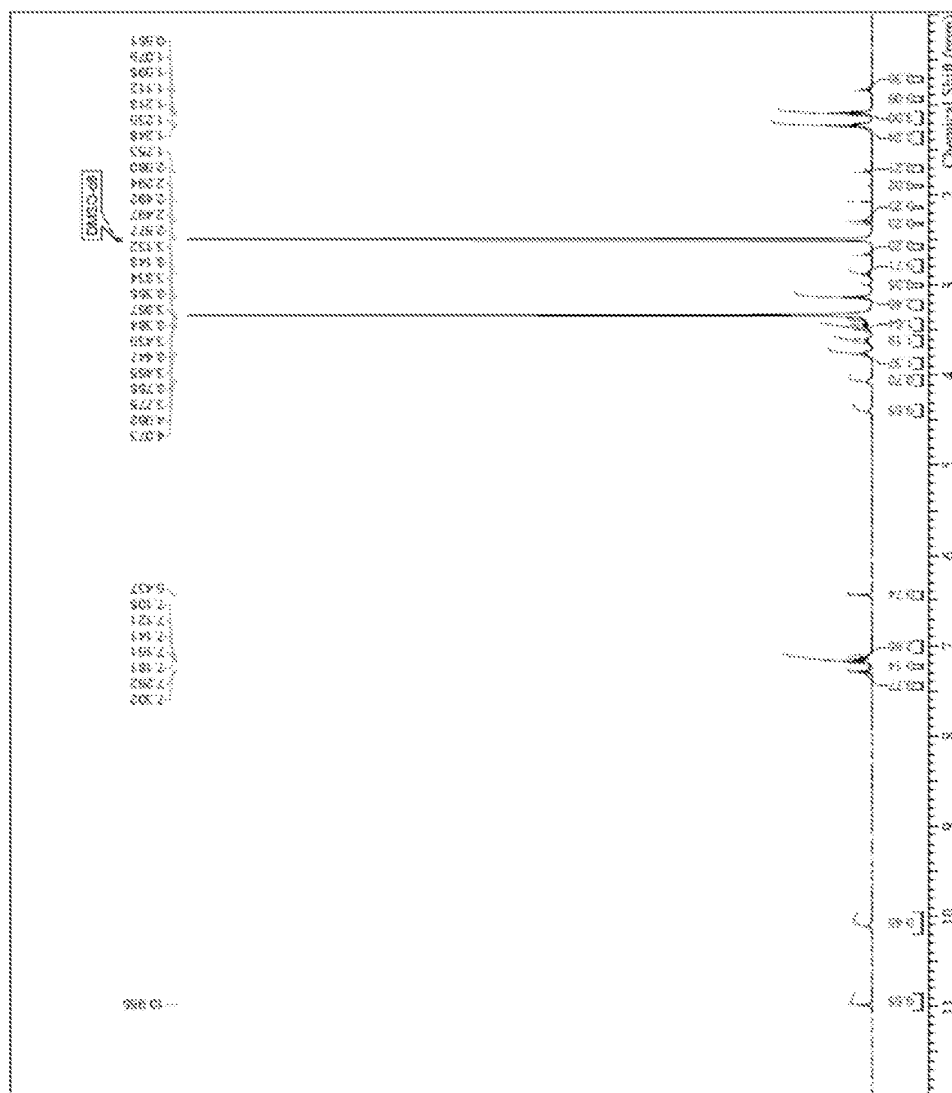


FIGURE 77 -  $^1\text{H}$  NMR of D-LSD HBr Pattern B

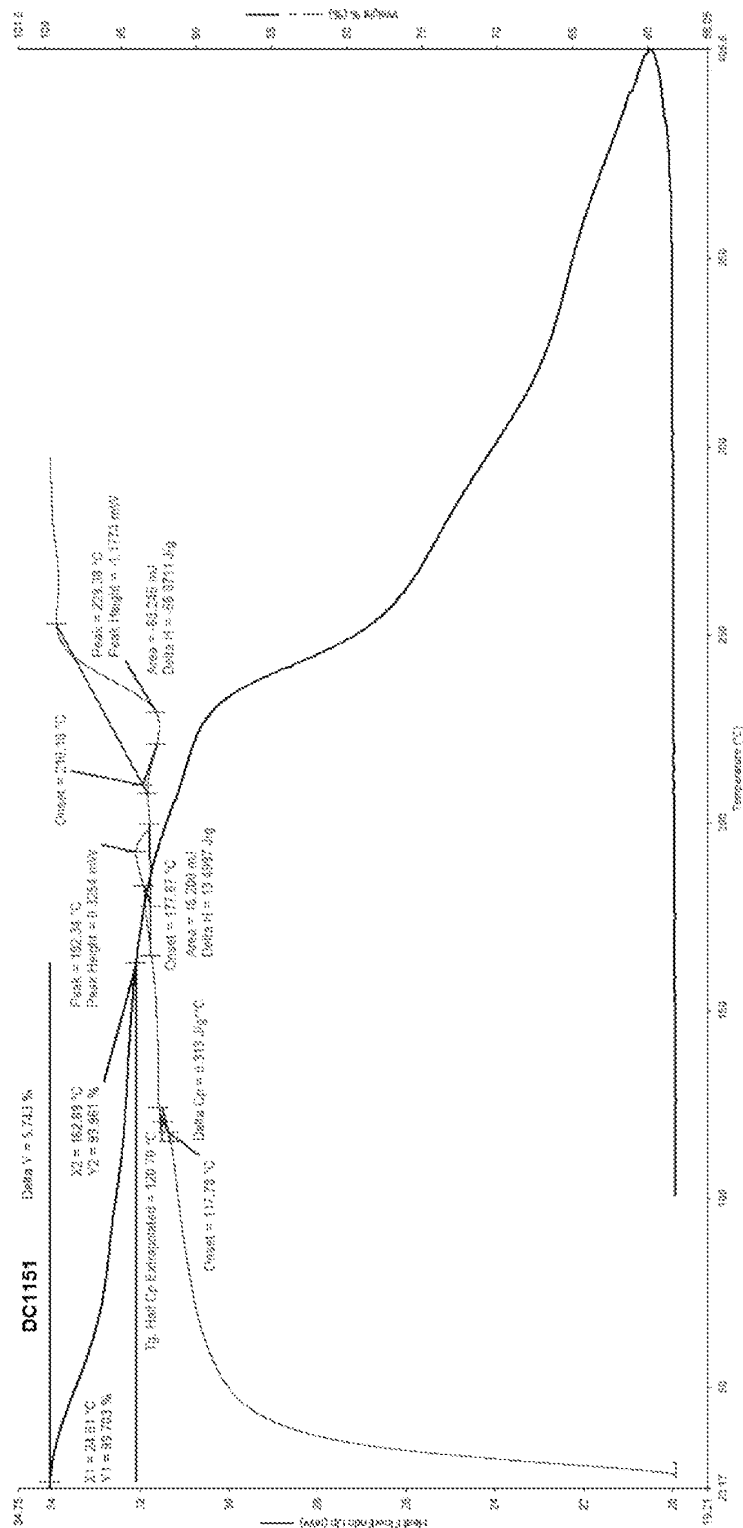


FIGURE 78 -DSC/TGA thermograms of D-LSD sulphate salt

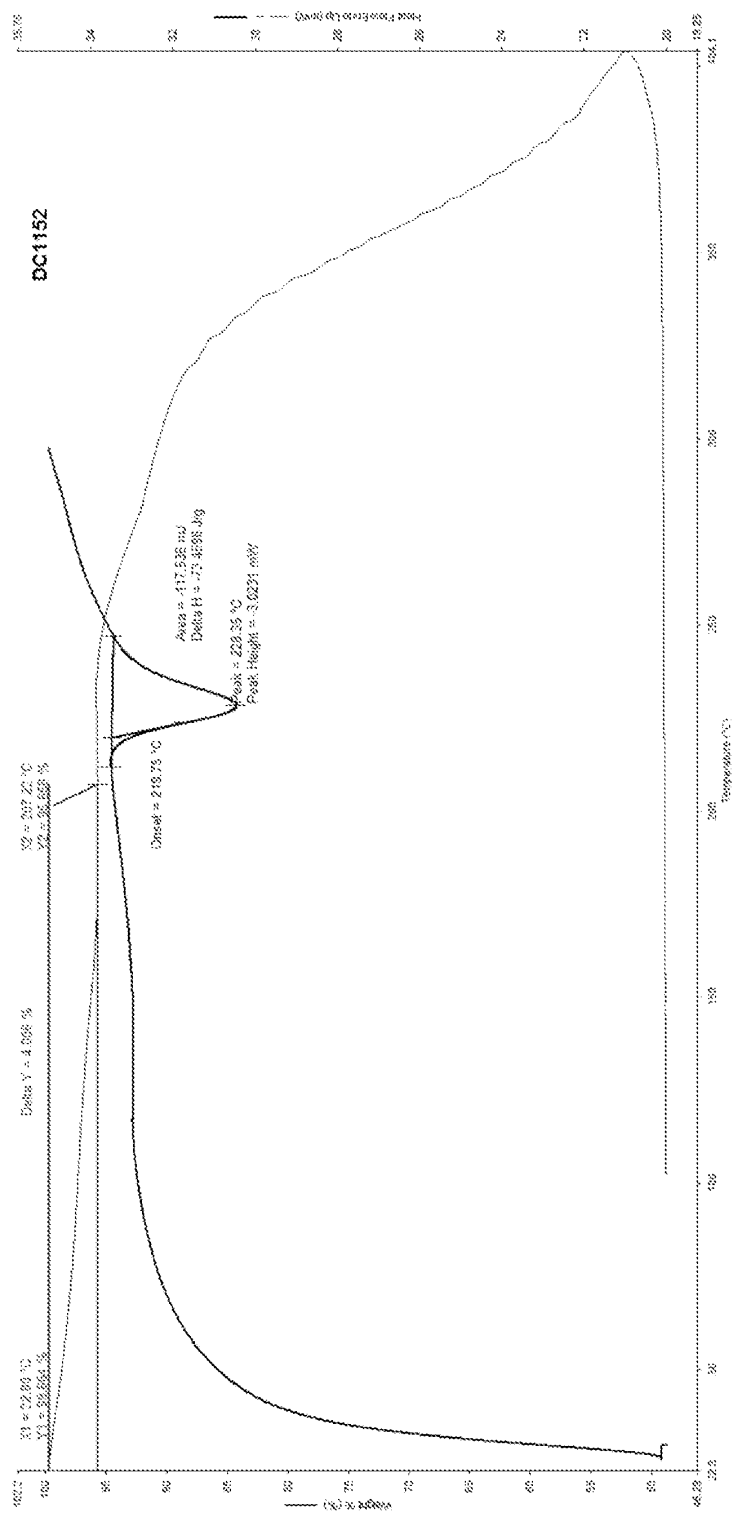


FIGURE 79 - DSC/TGA thermograms of D-LSD HBr amorphous salt

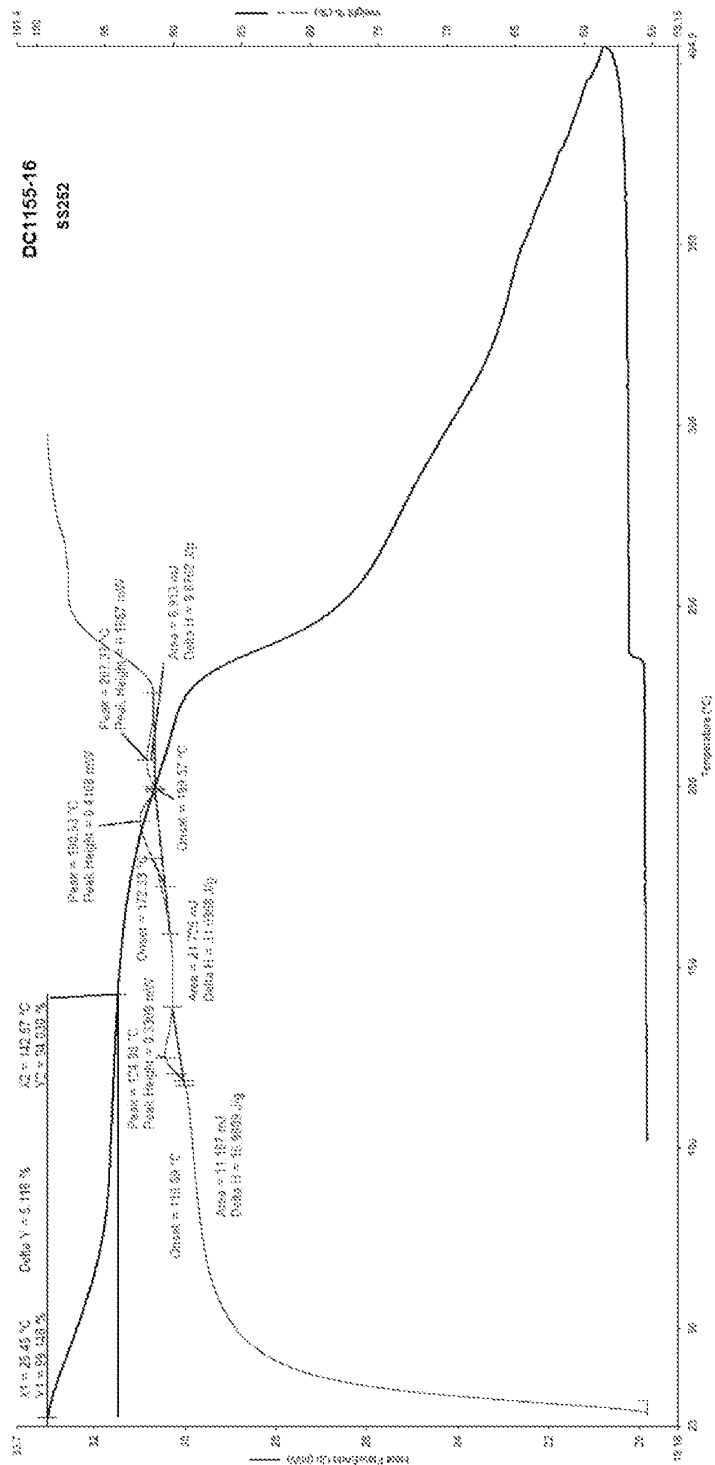
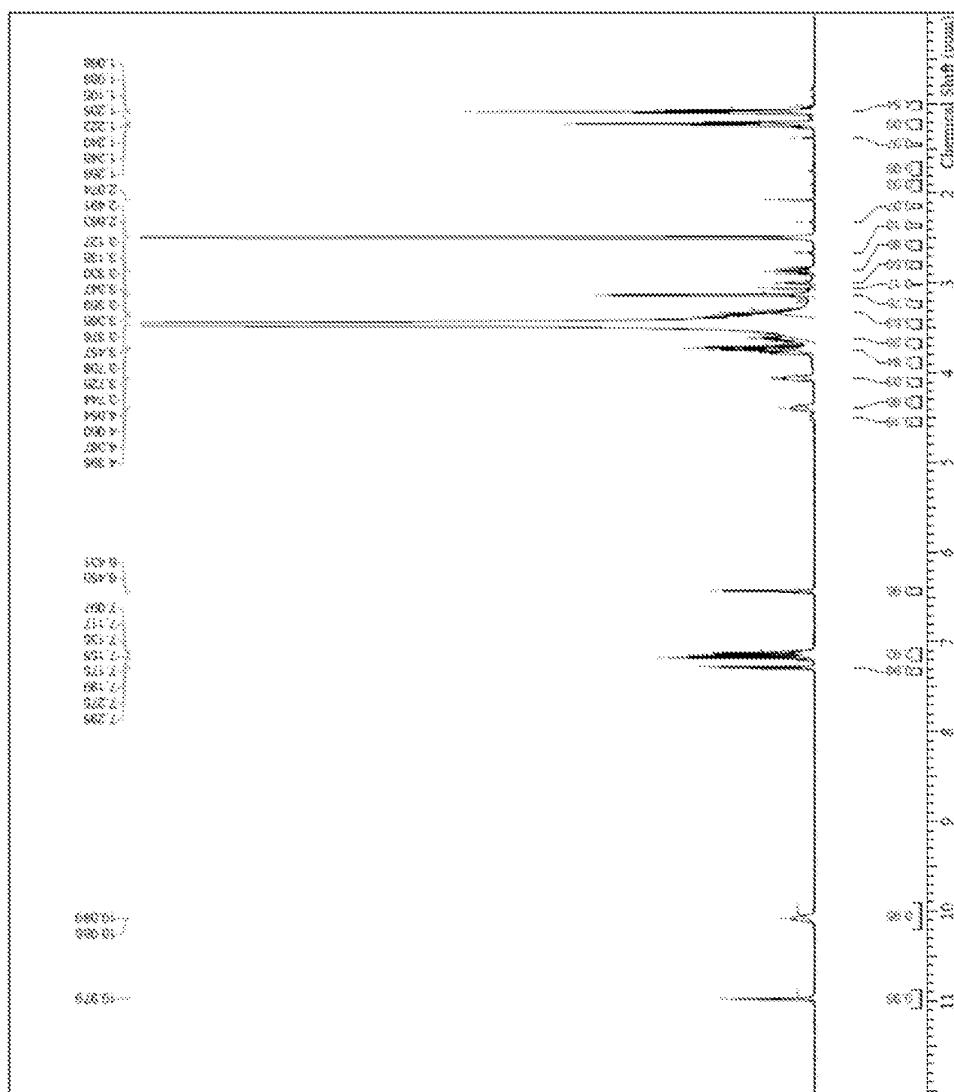


FIGURE 80

FIGURE 81  $^1\text{H}$  NMR spectrum of D-LSD sulphate Pattern A

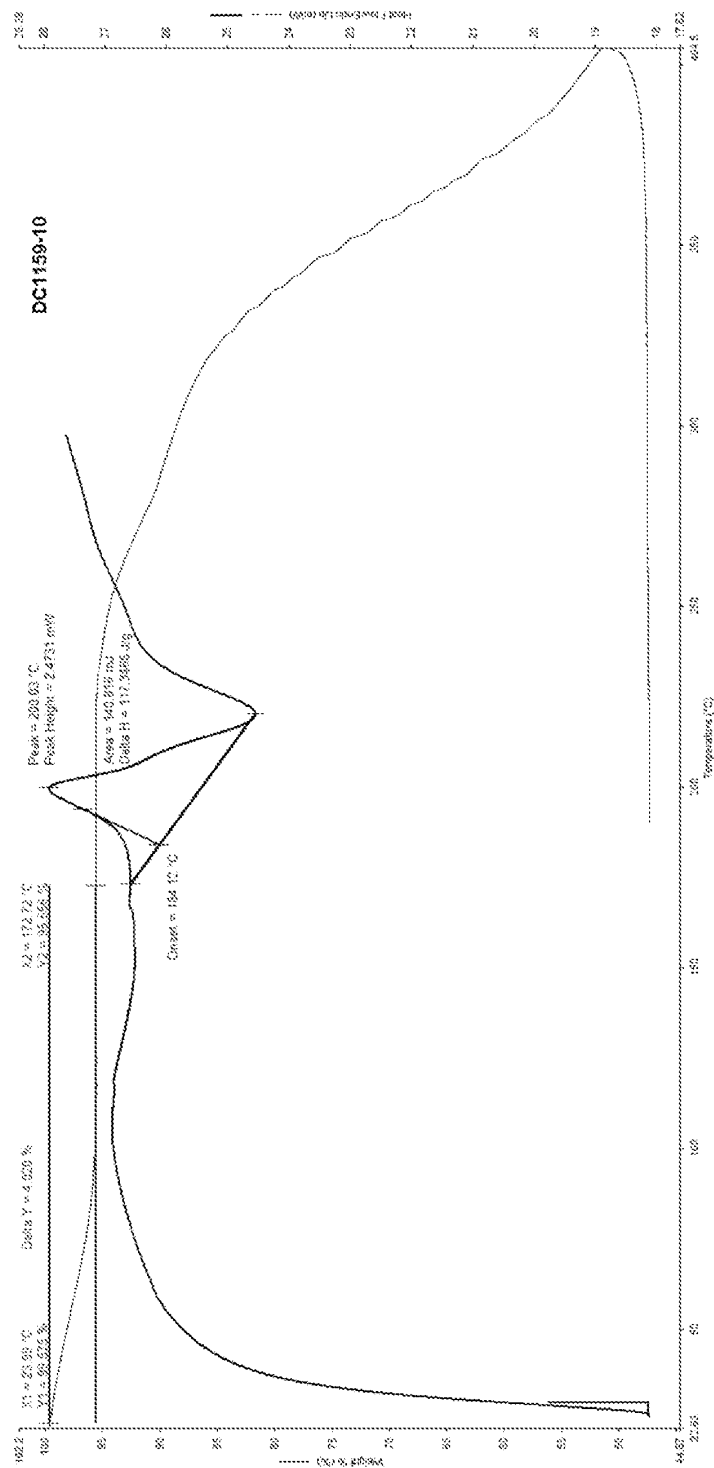


FIGURE 82

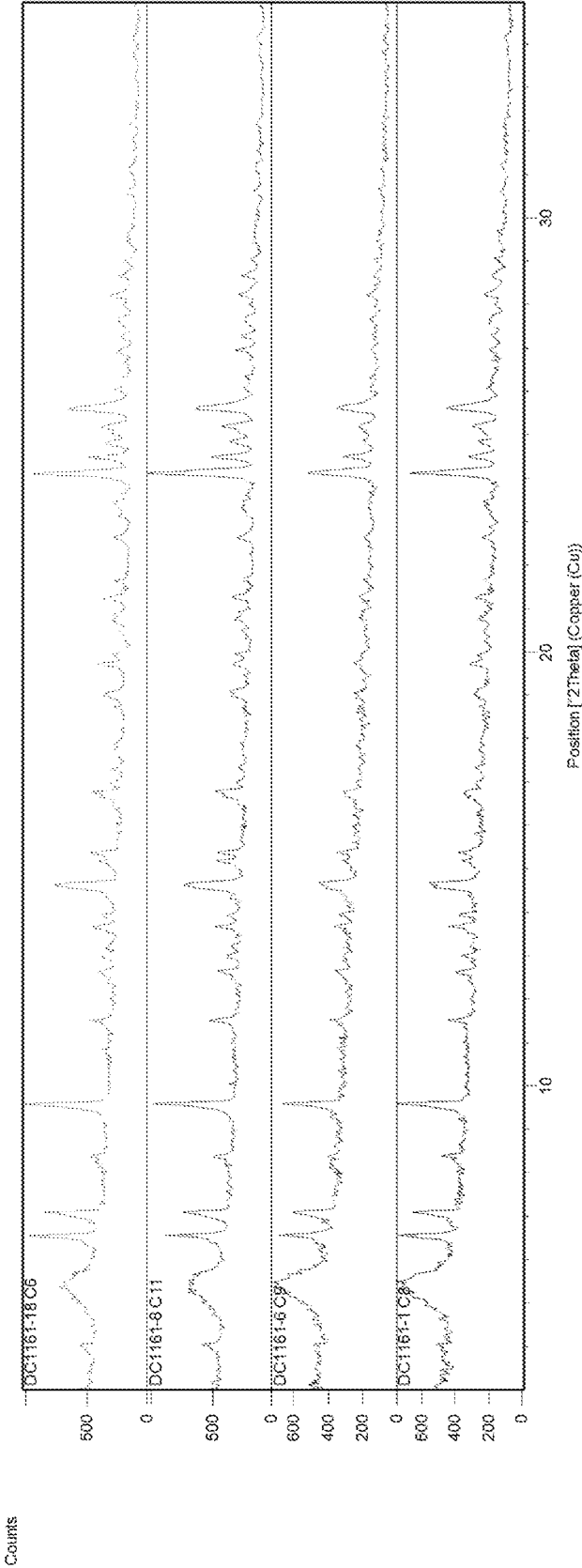


FIGURE 83