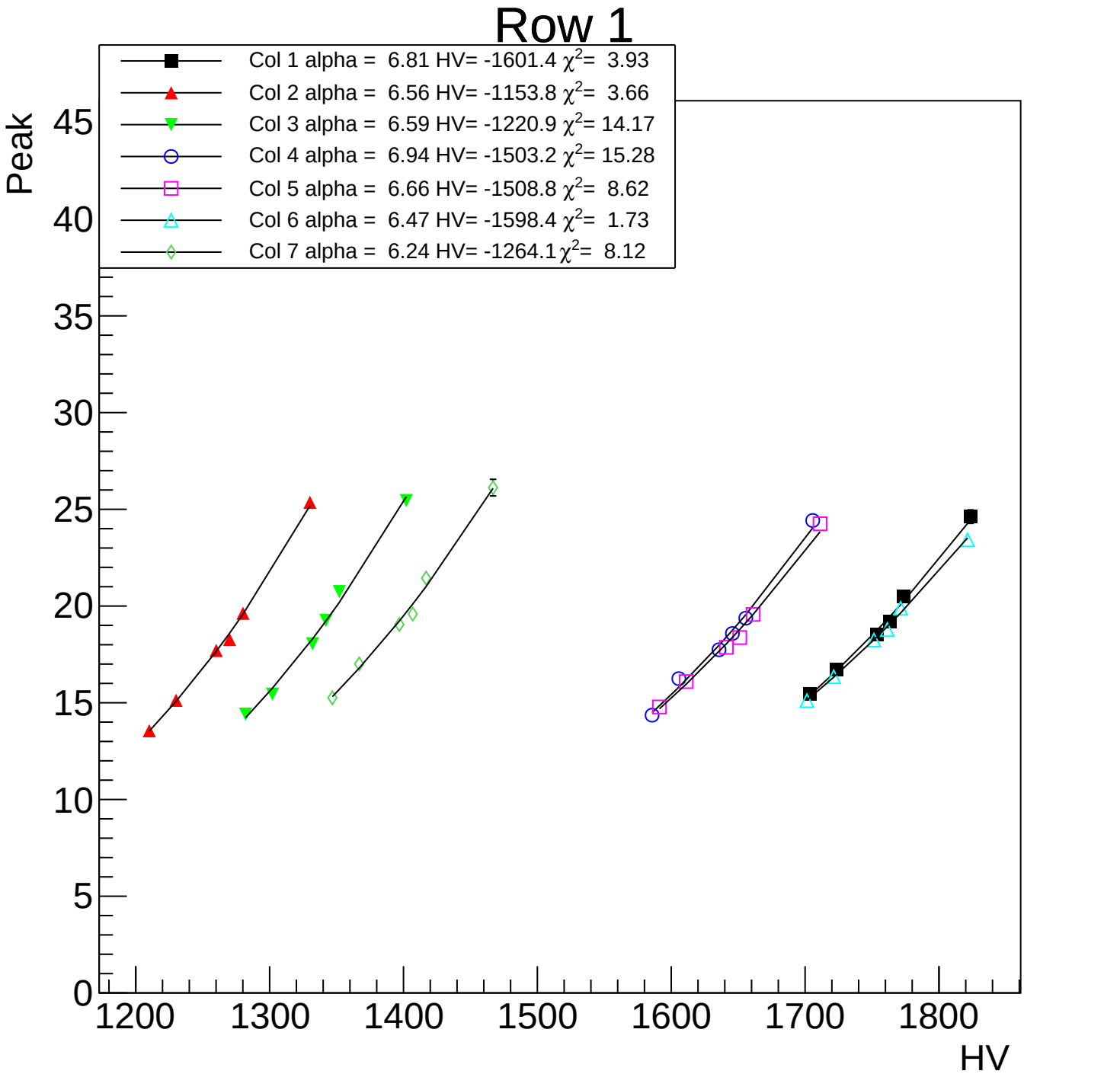
Row 1
Col 1 alpha = 6.81 HV= -1601.4 χ2= 3.93
Col 2 alpha = 6.56 HV= -1153.8 χ2= 3.66
Col 3 alpha = 6.59 HV= -1220.9 χ2= 14.17
Col 4 alpha = 6.94 HV= -1503.2 χ2= 15.28
Col 5 alpha = 6.66 HV= -1508.8 χ2= 8.62
Col 6 alpha = 6.47 HV= -1598.4 χ2= 1.73
Col 7 alpha = 6.24 HV= -1264.1 χ2= 8.12
Peak
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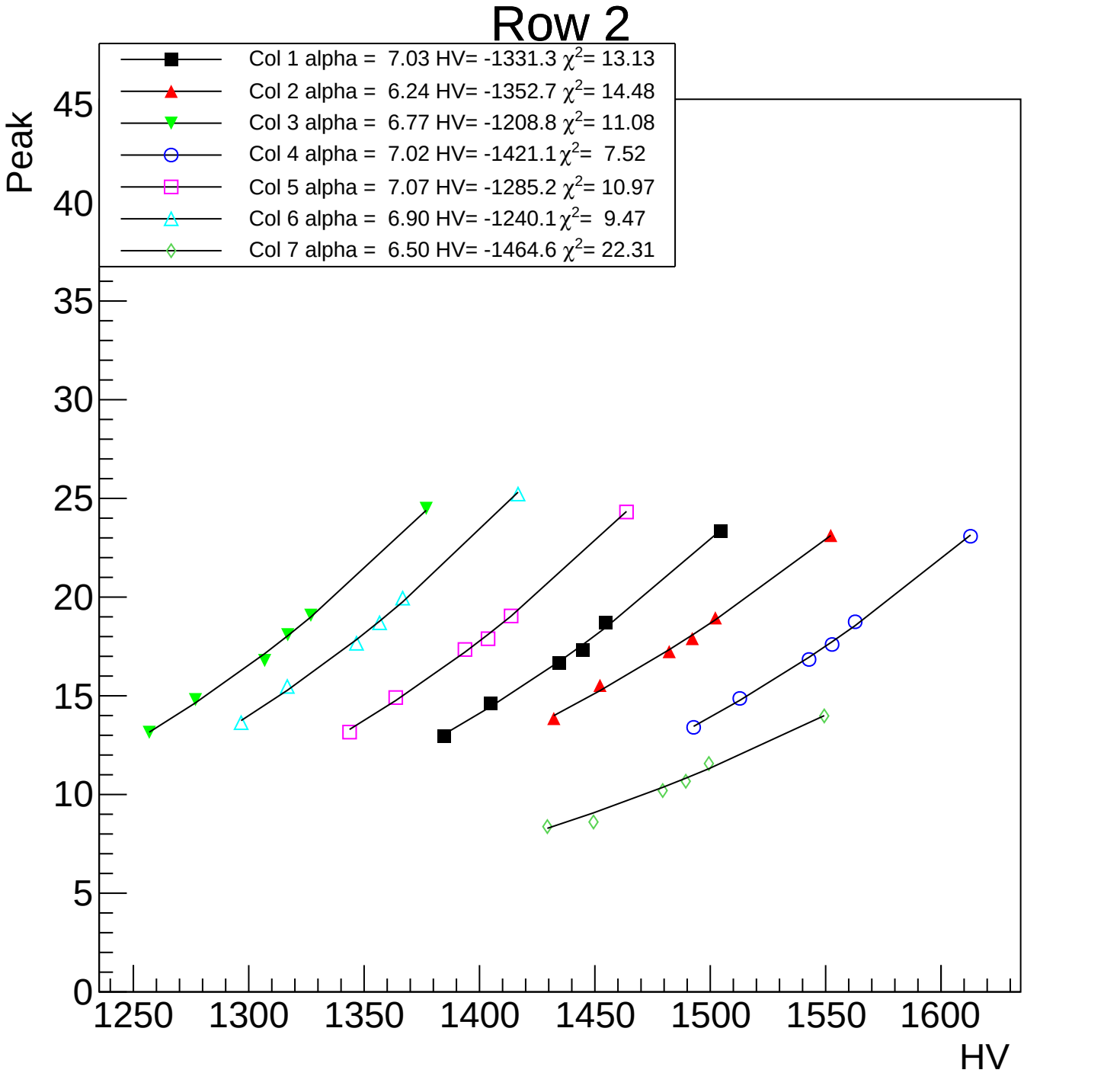
Row 2
Col 1 alpha = 7.03 HV= -1331.3 χ²= 13.13
Col 2 alpha = 6.24 HV= -1352.7 χ²= 14.48
Col 3 alpha = 6.77 HV= -1208.8 χ²= 11.08
Col 4 alpha = 7.02 HV= -1421.1 χ²= 7.52
Col 5 alpha = 7.07 HV= -1285.2 χ²= 10.97
Col 6 alpha = 6.90 HV= -1240.1 χ²= 9.47
Col 7 alpha = 6.50 HV= -1464.6 χ²= 22.31
Peak
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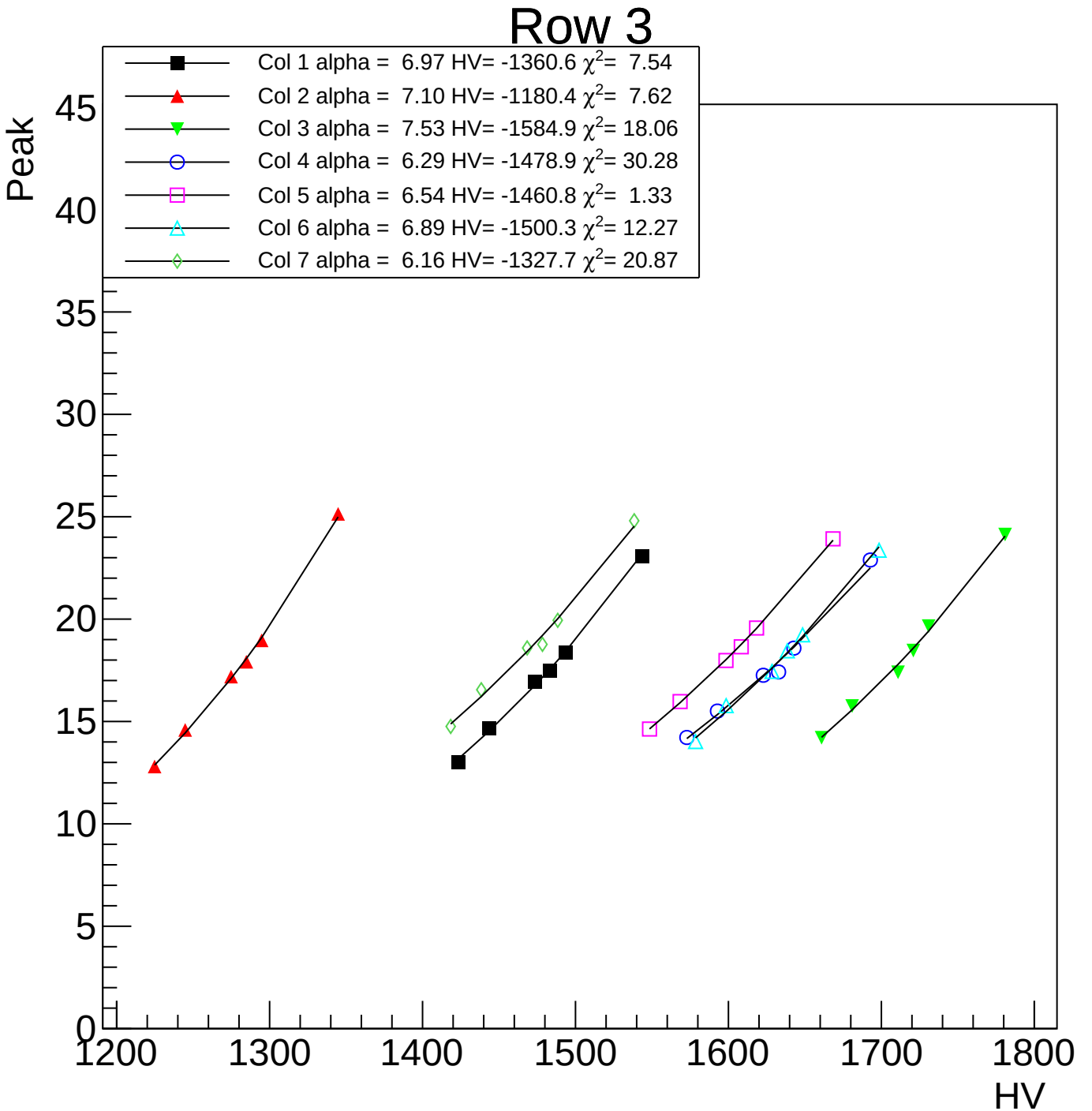
Row 3
Col 1 alpha = 6.97 HV= -1360.6 χ2= 7.54
Col 2 alpha = 7.10 HV= -1180.4 χ2= 7.62
Col 3 alpha = 7.53 HV= -1584.9 χ2= 18.06
Col 4 alpha = 6.29 HV= -1478.9 χ2= 30.28
Col 5 alpha = 6.54 HV= -1460.8 χ2= 1.33
Col 6 alpha = 6.89 HV= -1500.3 χ2= 12.27
Col 7 alpha = 6.16 HV= -1327.7 χ2= 20.87
Peak
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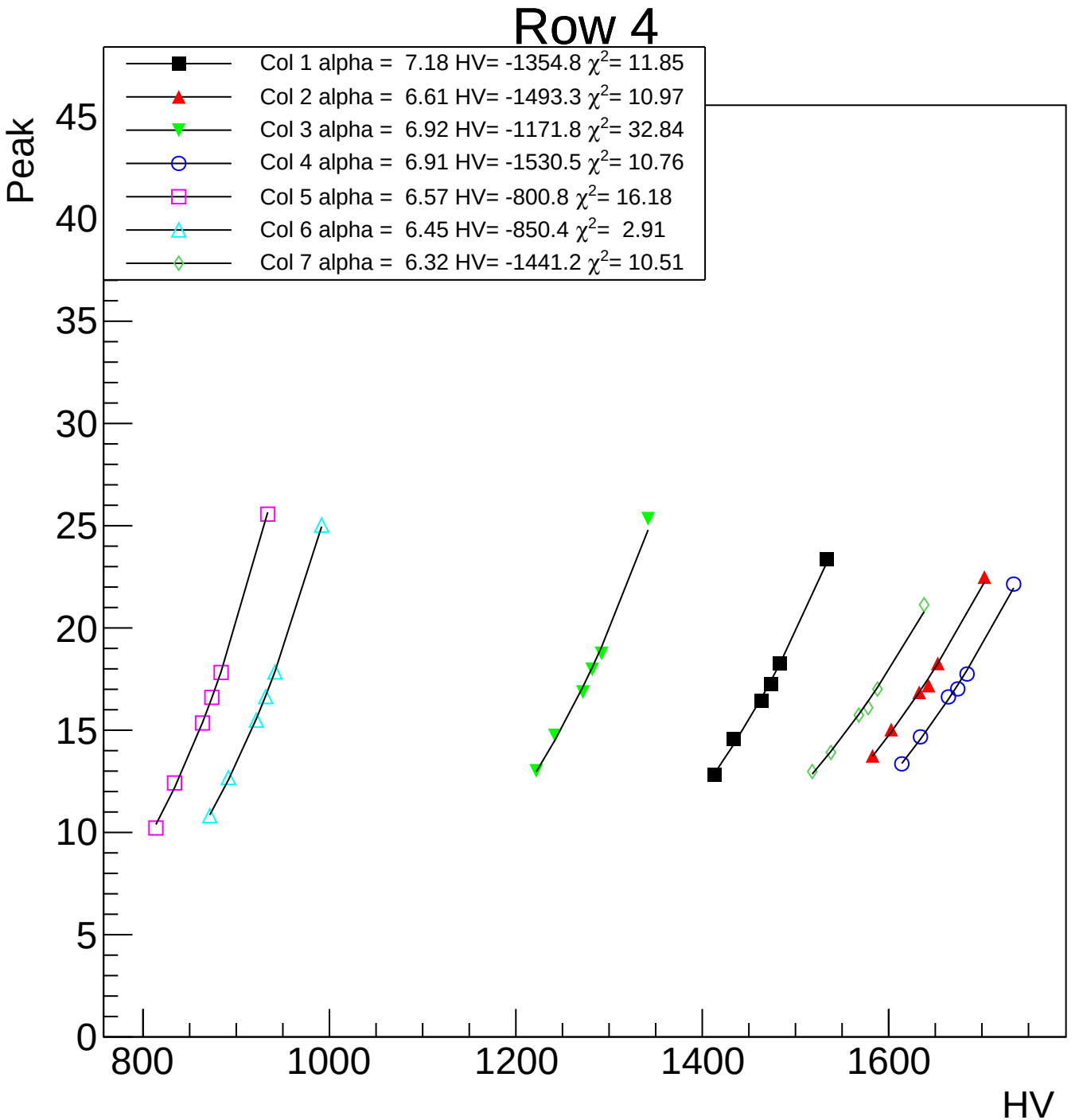
Row 4
Col 1 alpha = 7.18 HV= -1354.8 χ²= 11.85
Col 2 alpha = 6.61 HV= -1493.3 χ²= 10.97
Col 3 alpha = 6.92 HV= -1171.8 χ²= 32.84
Col 4 alpha = 6.91 HV= -1530.5 χ²= 10.76
Col 5 alpha = 6.57 HV= -800.8 χ²= 16.18
Col 6 alpha = 6.45 HV= -850.4 χ²= 2.91
Col 7 alpha = 6.32 HV= -1441.2 χ²= 10.51
Peak
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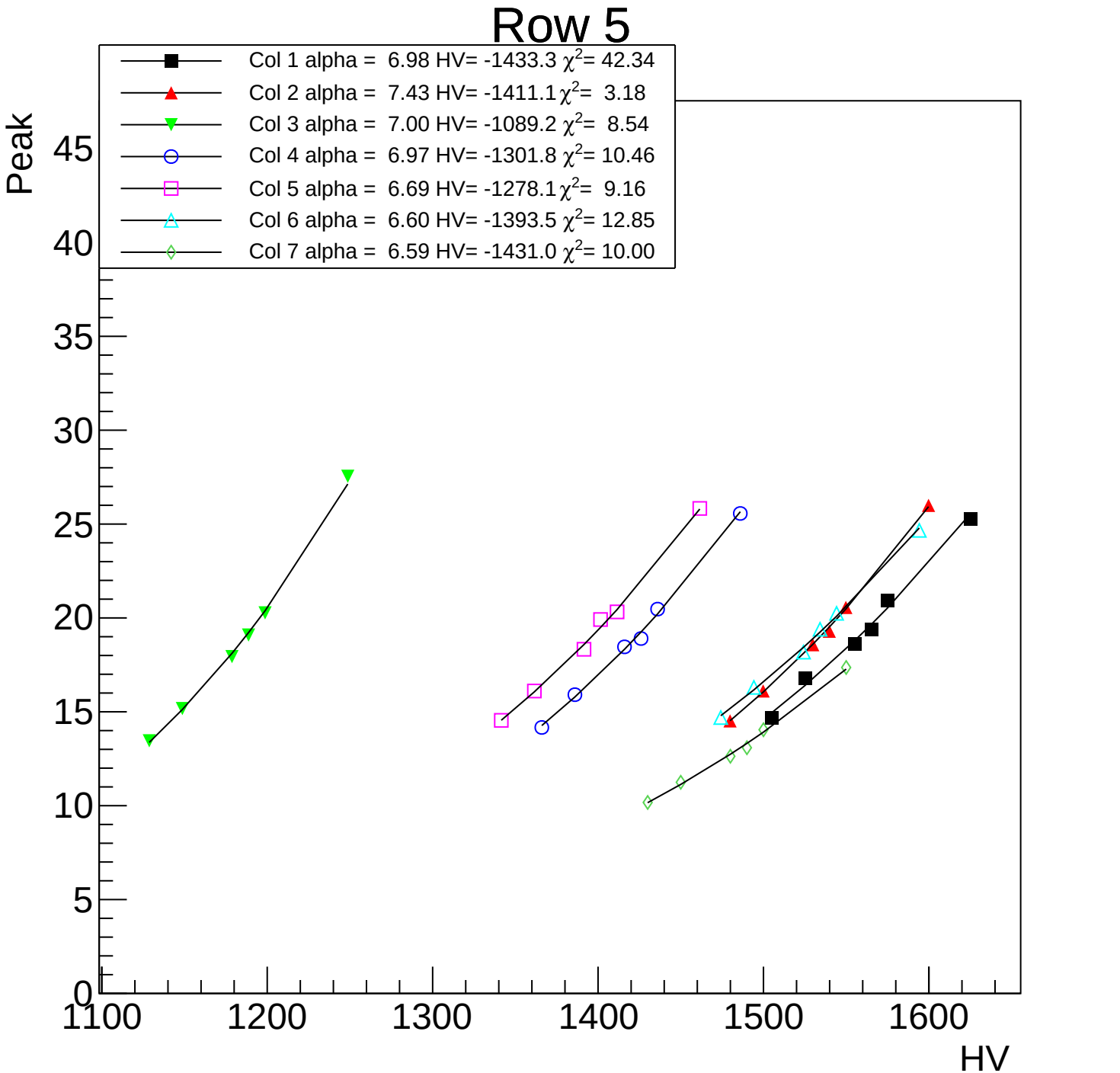
Row 5
Col 1 alpha = 6.98 HV= -1433.3 χ²= 42.34
Col 2 alpha = 7.43 HV= -1411.1 χ²= 3.18
Col 3 alpha = 7.00 HV= -1089.2 χ²= 8.54
Col 4 alpha = 6.97 HV= -1301.8 χ²= 10.46
Col 5 alpha = 6.69 HV= -1278.1 χ²= 9.16
Col 6 alpha = 6.60 HV= -1393.5 χ²= 12.85
Col 7 alpha = 6.59 HV= -1431.0 χ²= 10.00
Peak
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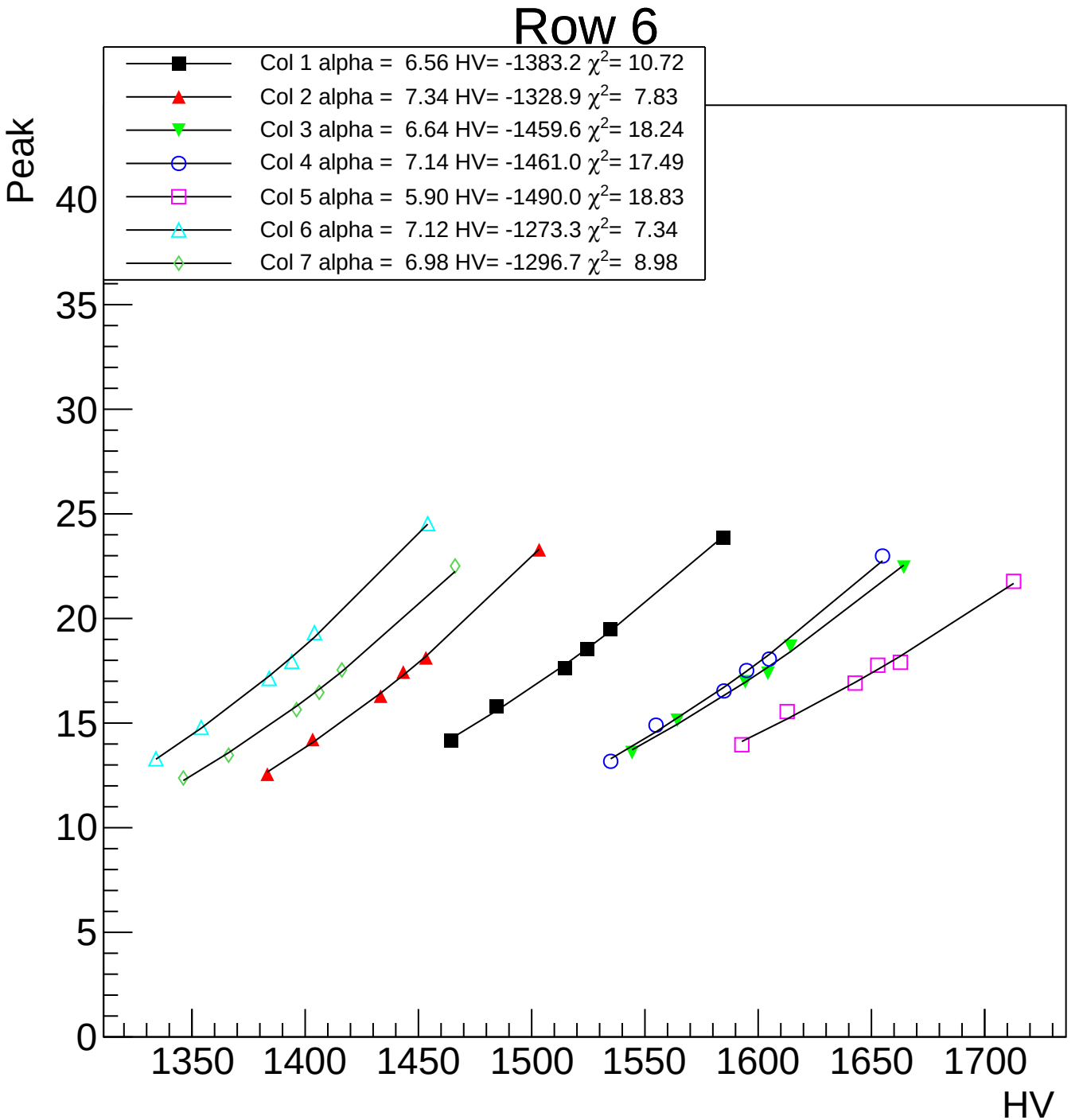
Row 6
Col 1 alpha = 6.56 HV= -1383.2 χ²= 10.72
Col 2 alpha = 7.34 HV= -1328.9 χ²= 7.83
Col 3 alpha = 6.64 HV= -1459.6 χ²= 18.24
Col 4 alpha = 7.14 HV= -1461.0 χ²= 17.49
Col 5 alpha = 5.90 HV= -1490.0 χ²= 18.83
Col 6 alpha = 7.12 HV= -1273.3 χ²= 7.34
Col 7 alpha = 6.98 HV= -1296.7 χ²= 8.98
Peak
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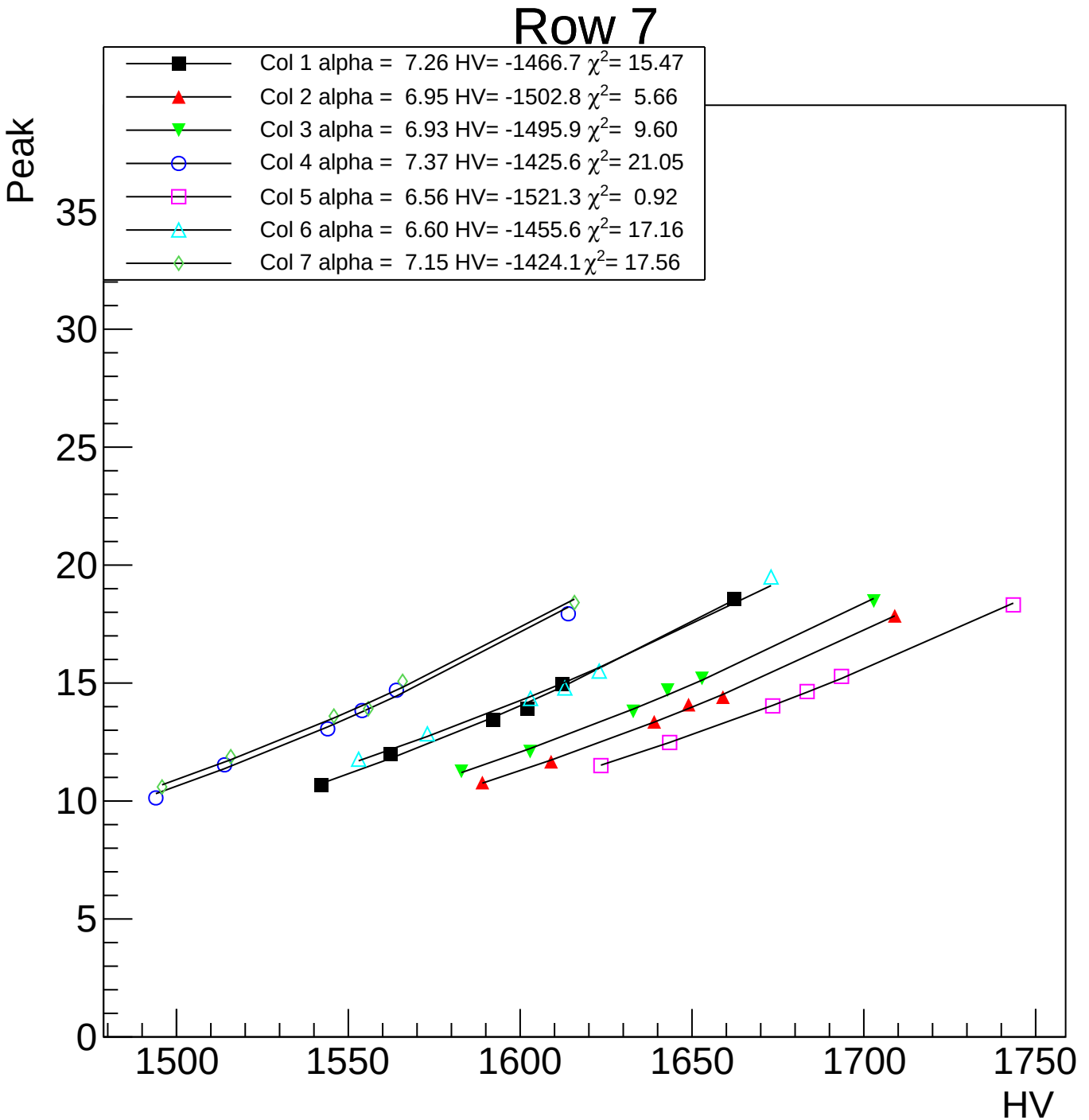
Row 7
Col 1 alpha = 7.26 HV= -1466.7 χ2= 15.47
Col 2 alpha = 6.95 HV= -1502.8 χ2= 5.66
Col 3 alpha = 6.93 HV= -1495.9 χ2= 9.60
Col 4 alpha = 7.37 HV= -1425.6 χ2= 21.05
Col 5 alpha = 6.56 HV= -1521.3 χ2= 0.92
Col 6 alpha = 6.60 HV= -1455.6 χ2= 17.16
Col 7 alpha = 7.15 HV= -1424.1 χ2= 17.56
Peak
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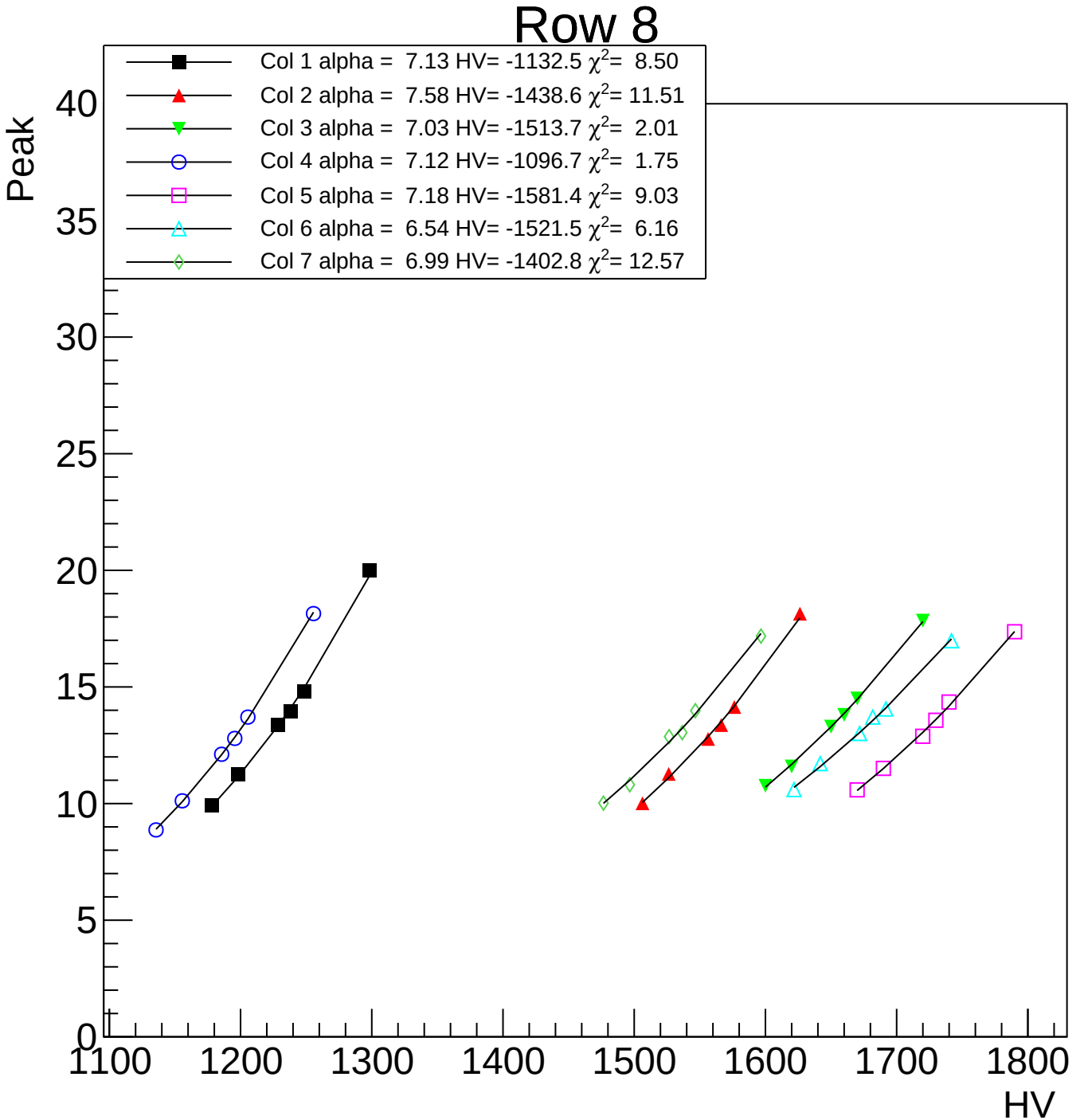
HV


Row 8
Col 1 alpha = 7.13 HV= -1132.5 χ²= 8.50
Col 2 alpha = 7.58 HV= -1438.6 χ²= 11.51
Col 3 alpha = 7.03 HV= -1513.7 χ²= 2.01
Col 4 alpha = 7.12 HV= -1096.7 χ²= 1.75
Col 5 alpha = 7.18 HV= -1581.4 χ²= 9.03
Col 6 alpha = 6.54 HV= -1521.5 χ²= 6.16
Col 7 alpha = 6.99 HV= -1402.8 χ²= 12.57
Peak
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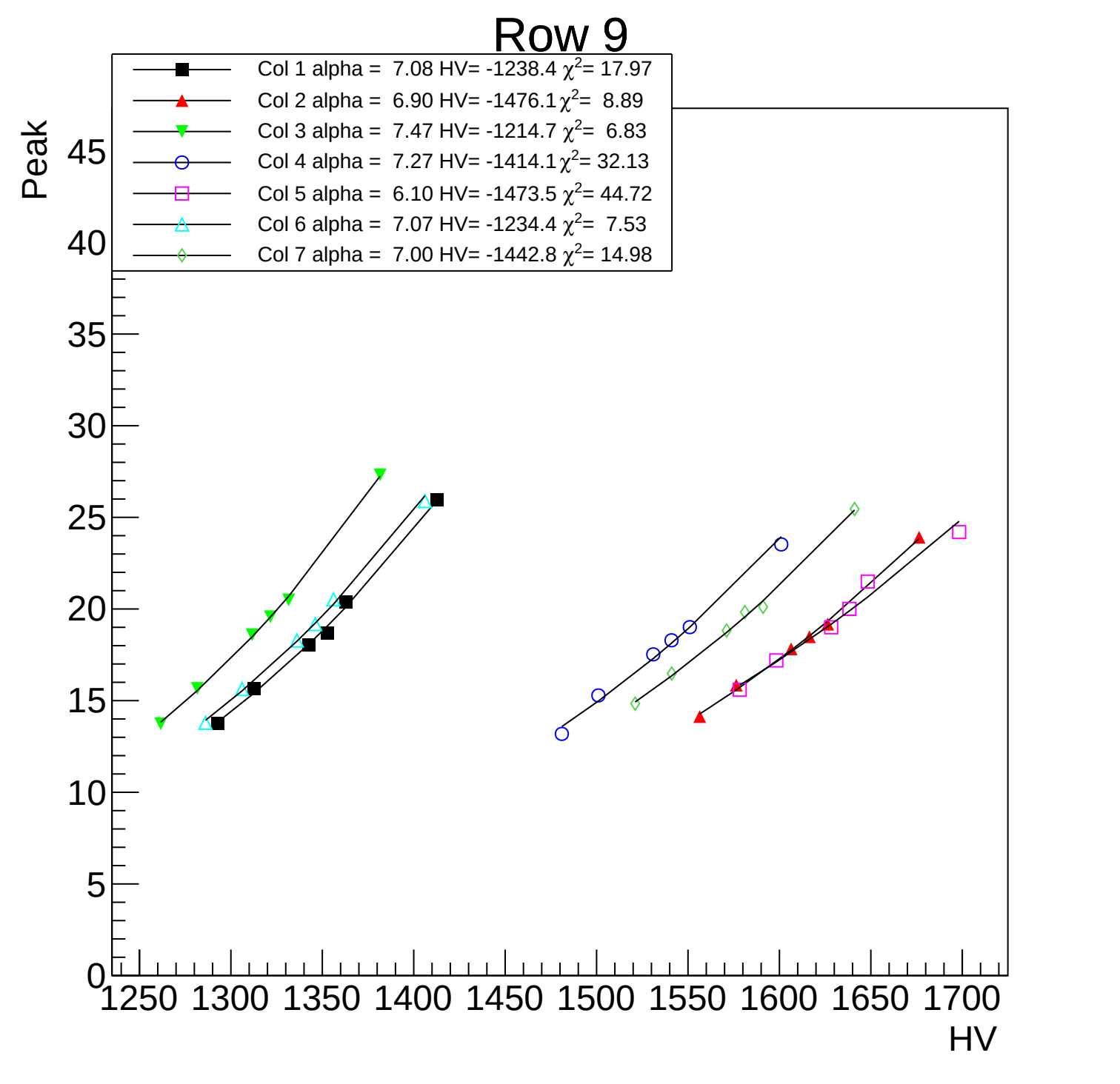
Row 9
Col 1 alpha = 7.08 HV= -1238.4 χ2= 17.97
Col 2 alpha = 6.90 HV= -1476.1 χ2= 8.89
Col 3 alpha = 7.47 HV= -1214.7 χ2= 6.83
Col 4 alpha = 7.27 HV= -1414.1 χ2= 32.13
Col 5 alpha = 6.10 HV= -1473.5 χ2= 44.72
Col 6 alpha = 7.07 HV= -1234.4 χ2= 7.53
Col 7 alpha = 7.00 HV= -1442.8 χ2= 14.98
Peak
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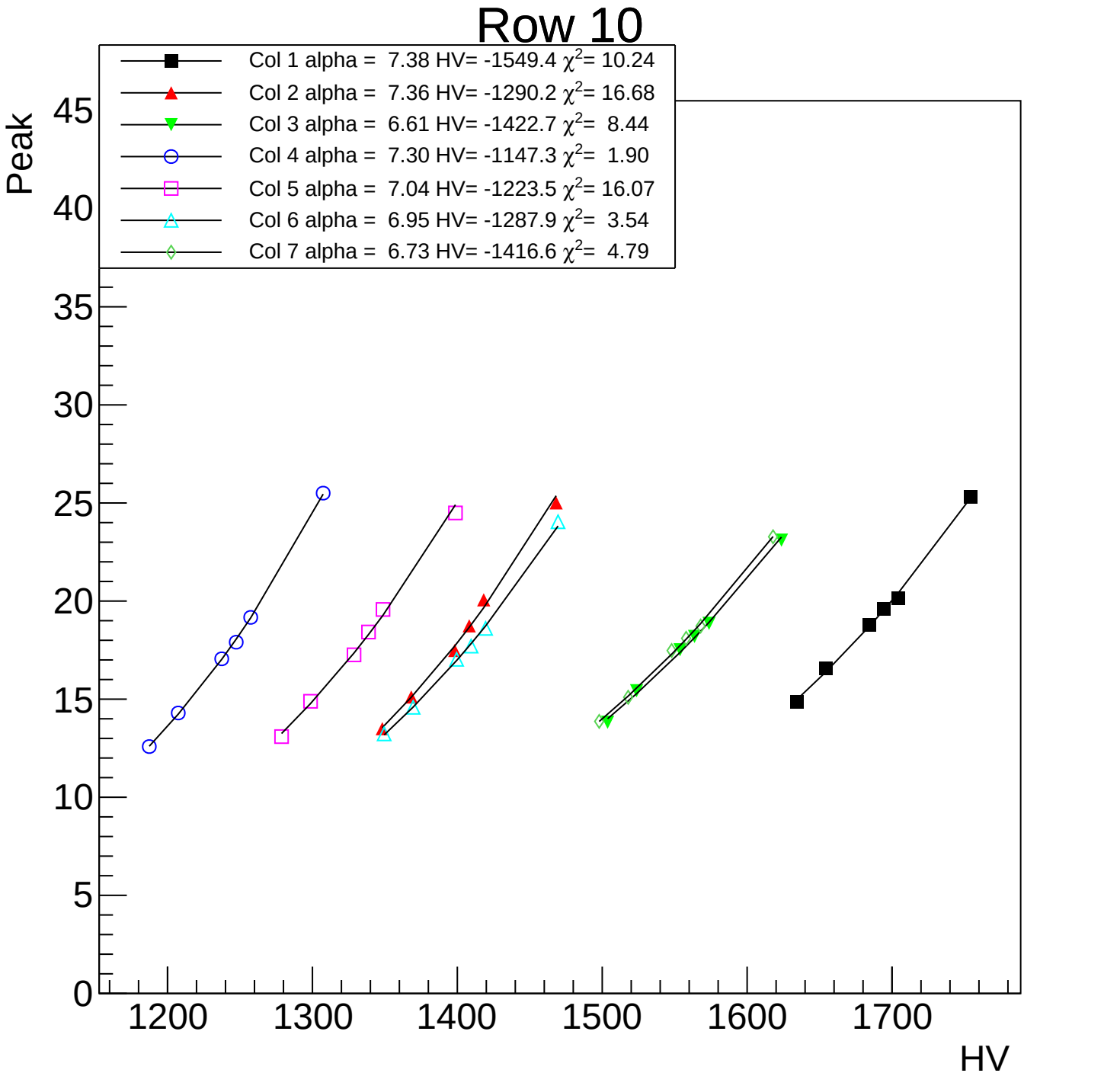
Row 10
Col 1 alpha = 7.38 HV= -1549.4 χ2= 10.24
Col 2 alpha = 7.36 HV= -1290.2 χ2= 16.68
Col 3 alpha = 6.61 HV= -1422.7 χ2= 8.44
Col 4 alpha = 7.30 HV= -1147.3 χ2= 1.90
Col 5 alpha = 7.04 HV= -1223.5 χ2= 16.07
Col 6 alpha = 6.95 HV= -1287.9 χ2= 3.54
Col 7 alpha = 6.73 HV= -1416.6 χ2= 4.79
Peak
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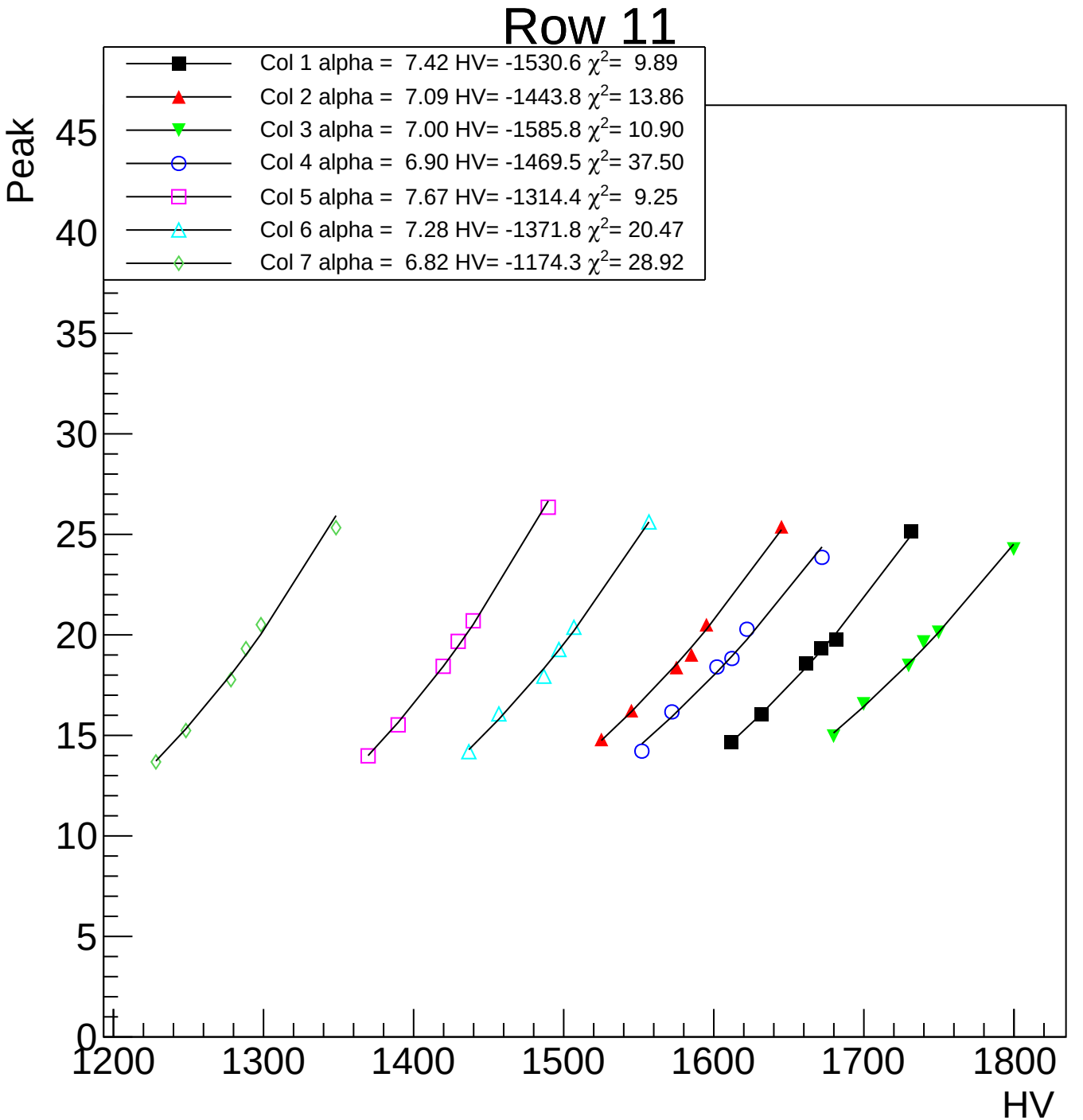
Row 11
Col 1 alpha = 7.42 HV= -1530.6 χ2= 9.89
Col 2 alpha = 7.09 HV= -1443.8 χ2= 13.86
Col 3 alpha = 7.00 HV= -1585.8 χ2= 10.90
Col 4 alpha = 6.90 HV= -1469.5 χ2= 37.50
Col 5 alpha = 7.67 HV= -1314.4 χ2= 9.25
Col 6 alpha = 7.28 HV= -1371.8 χ2= 20.47
Col 7 alpha = 6.82 HV= -1174.3 χ2= 28.92
Peak
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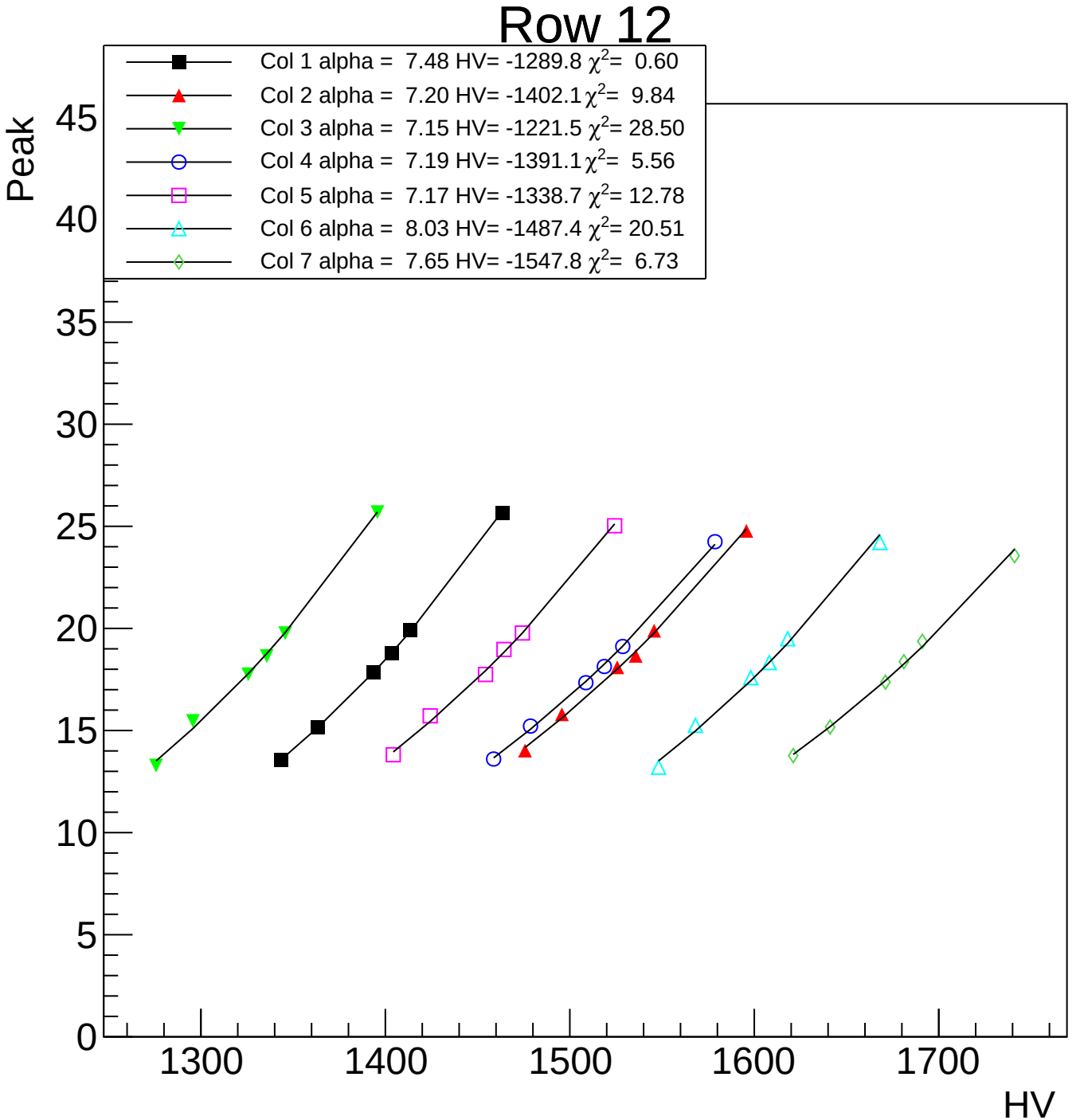
Row 12
Col 1 alpha = 7.48 HV= -1289.8 χ²= 0.60
Col 2 alpha = 7.20 HV= -1402.1 χ²= 9.84
Col 3 alpha = 7.15 HV= -1221.5 χ²= 28.50
Col 4 alpha = 7.19 HV= -1391.1 χ²= 5.56
Col 5 alpha = 7.17 HV= -1338.7 χ²= 12.78
Col 6 alpha = 8.03 HV= -1487.4 χ²= 20.51
Col 7 alpha = 7.65 HV= -1547.8 χ²= 6.73
Peak
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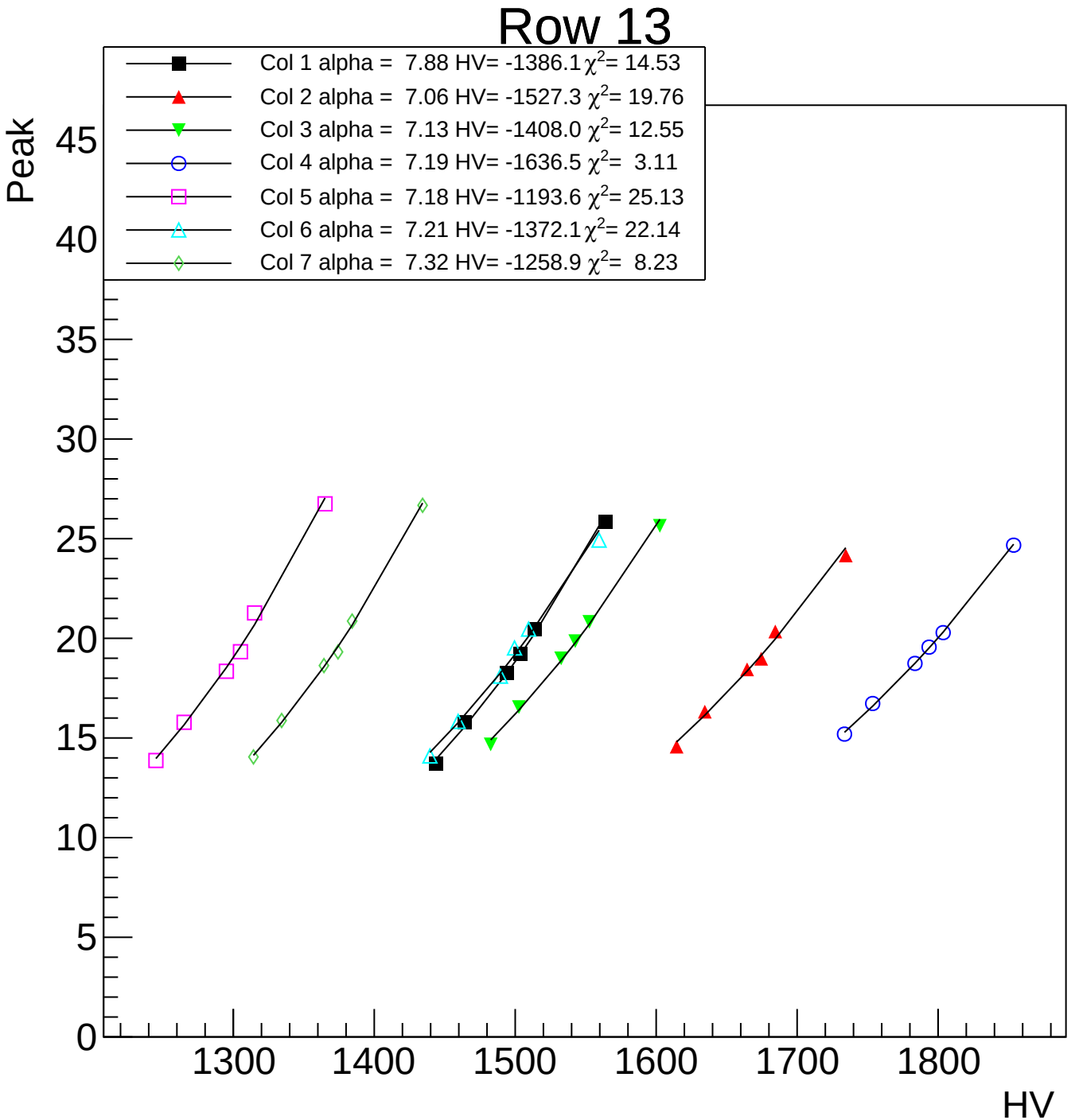
Row 13
Col 1 alpha = 7.88 HV= -1386.1 χ2= 14.53
Col 2 alpha = 7.06 HV= -1527.3 χ2= 19.76
Col 3 alpha = 7.13 HV= -1408.0 χ2= 12.55
Col 4 alpha = 7.19 HV= -1636.5 χ2= 3.11
Col 5 alpha = 7.18 HV= -1193.6 χ2= 25.13
Col 6 alpha = 7.21 HV= -1372.1 χ2= 22.14
Col 7 alpha = 7.32 HV= -1258.9 χ2= 8.23
Peak
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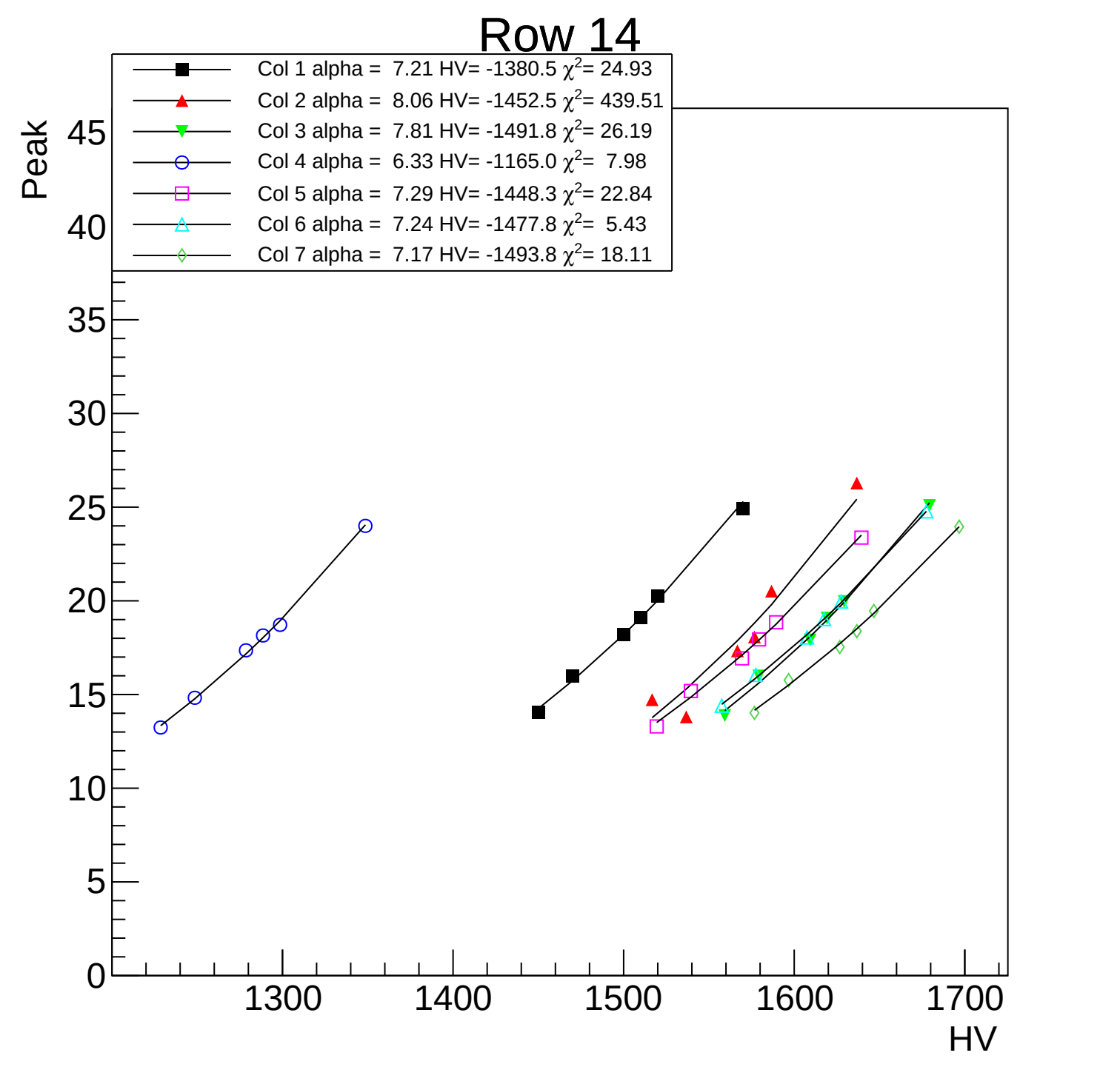
Row 14
Col 1 alpha = 7.21 HV= -1380.5 χ2= 24.93
Col 2 alpha = 8.06 HV= -1452.5 χ2= 439.51
Col 3 alpha = 7.81 HV= -1491.8 χ2= 26.19
Col 4 alpha = 6.33 HV= -1165.0 χ2= 7.98
Col 5 alpha = 7.29 HV= -1448.3 χ2= 22.84
Col 6 alpha = 7.24 HV= -1477.8 χ2= 5.43
Col 7 alpha = 7.17 HV= -1493.8 χ2= 18.11
Peak
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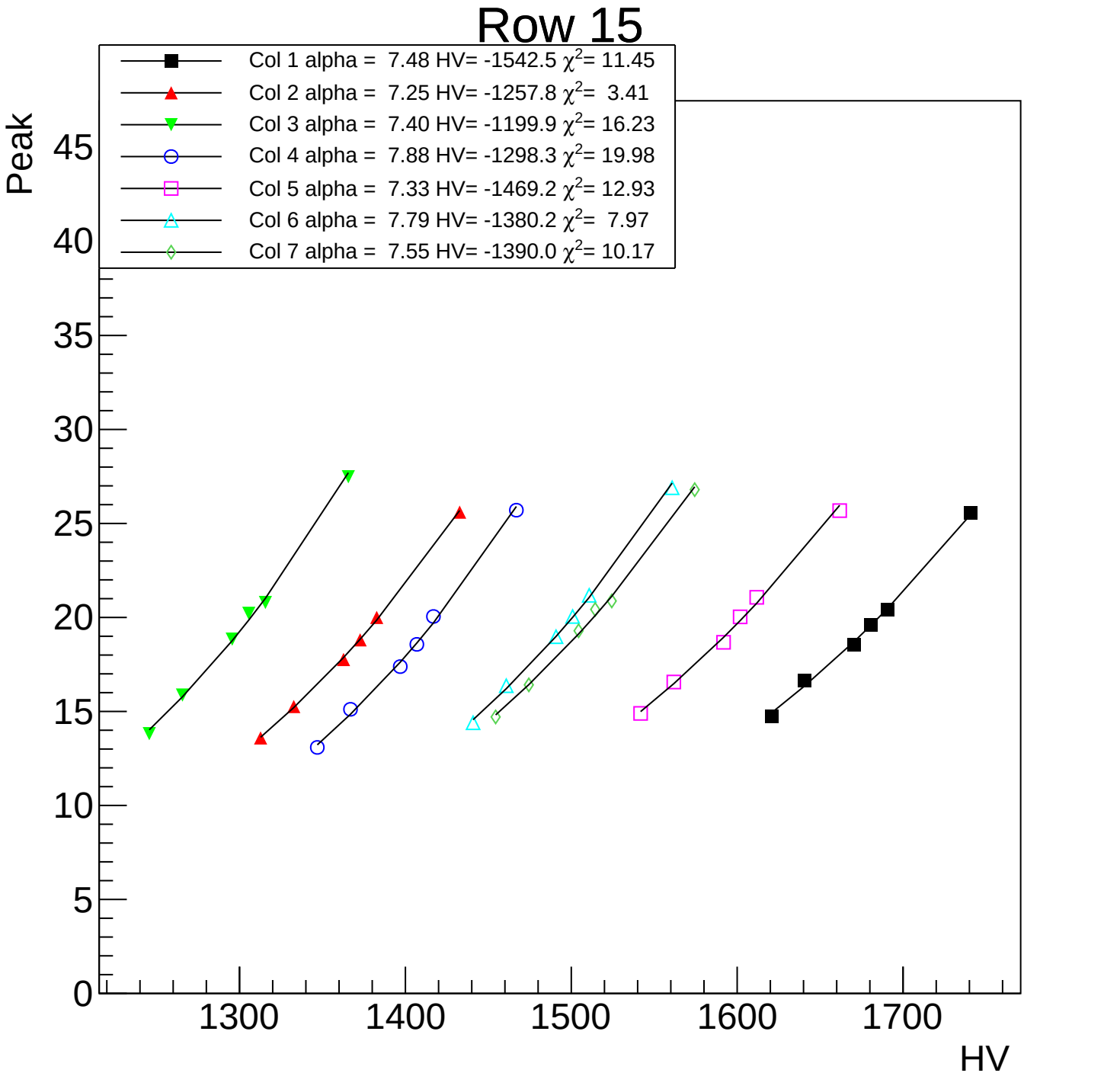
HV


Row 15
Col 1 alpha = 7.48 HV= -1542.5 χ2= 11.45
Col 2 alpha = 7.25 HV= -1257.8 χ2= 3.41
Col 3 alpha = 7.40 HV= -1199.9 χ2= 16.23
Col 4 alpha = 7.88 HV= -1298.3 χ2= 19.98
Col 5 alpha = 7.33 HV= -1469.2 χ2= 12.93
Col 6 alpha = 7.79 HV= -1380.2 χ2= 7.97
Col 7 alpha = 7.55 HV= -1390.0 χ2= 10.17
Peak
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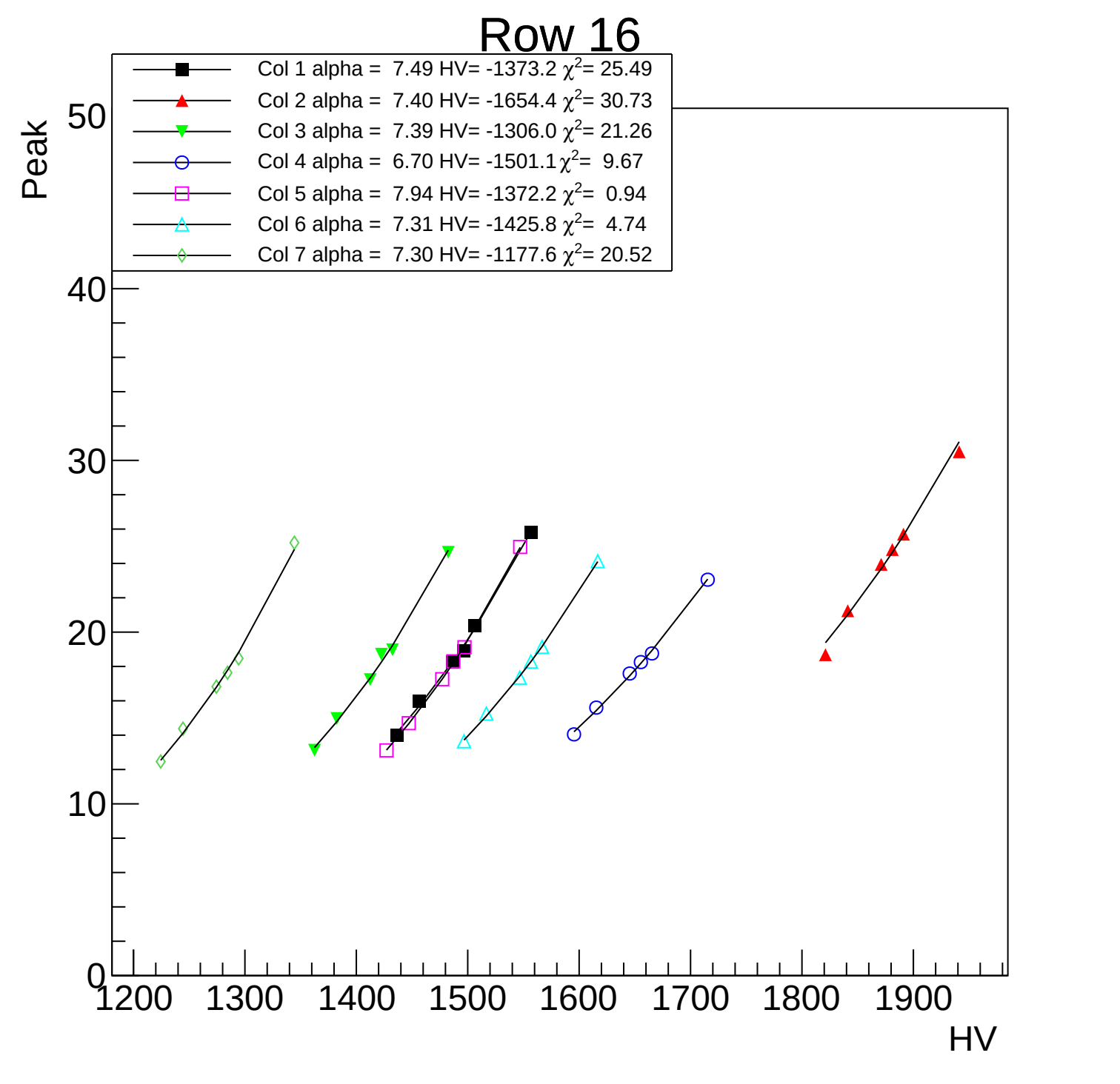
HV


Row 16
Col 1 alpha = 7.49 HV= -1373.2 χ2= 25.49
Col 2 alpha = 7.40 HV= -1654.4 χ2= 30.73
Col 3 alpha = 7.39 HV= -1306.0 χ2= 21.26
Col 4 alpha = 6.70 HV= -1501.1 χ2= 9.67
Col 5 alpha = 7.94 HV= -1372.2 χ2= 0.94
Col 6 alpha = 7.31 HV= -1425.8 χ2= 4.74
Col 7 alpha = 7.30 HV= -1177.6 χ2= 20.52
Peak
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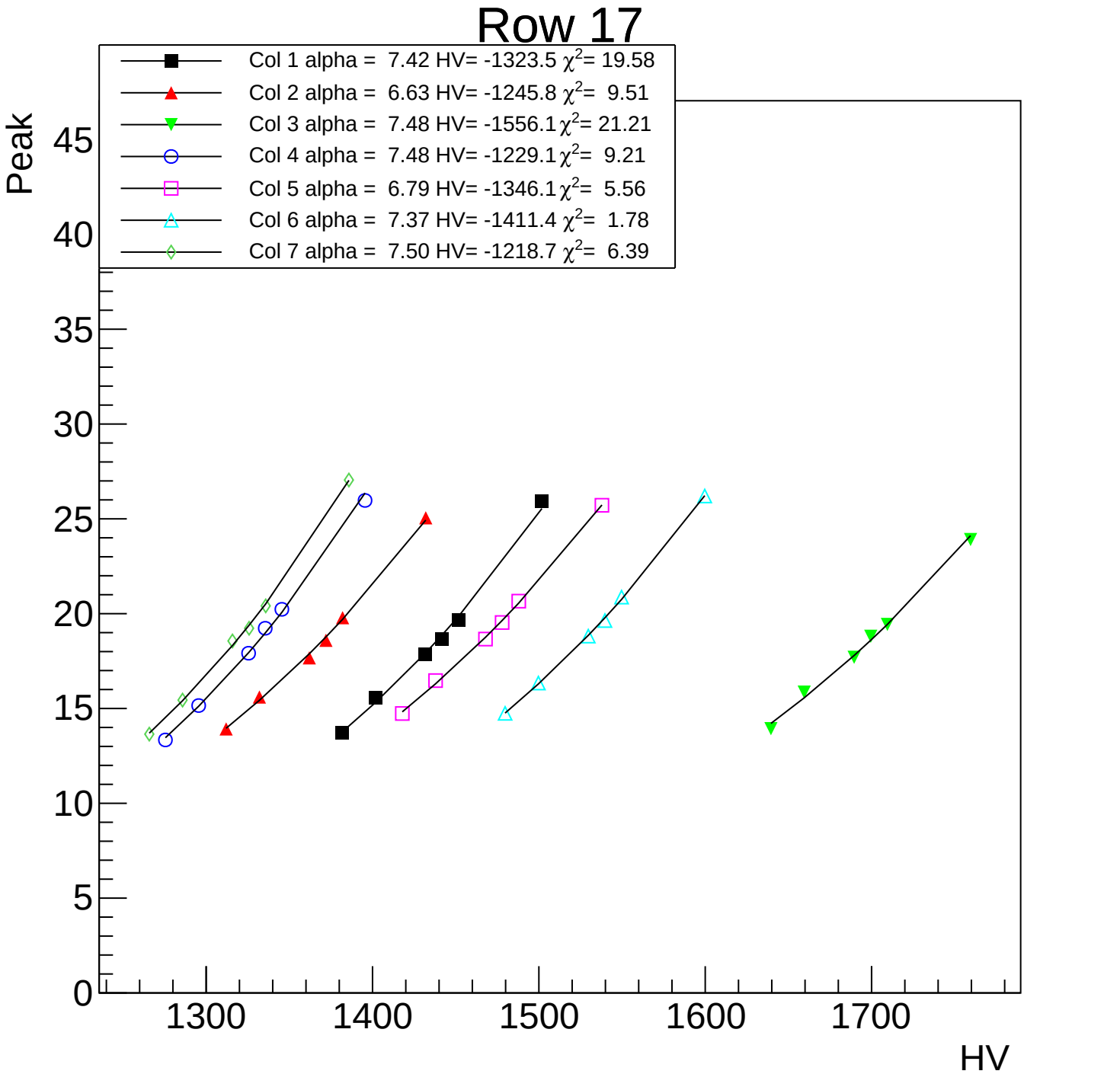
HV


Row 17
Col 1 alpha = 7.42 HV= -1323.5 χ2= 19.58
Col 2 alpha = 6.63 HV= -1245.8 χ2= 9.51
Col 3 alpha = 7.48 HV= -1556.1 χ2= 21.21
Col 4 alpha = 7.48 HV= -1229.1 χ2= 9.21
Col 5 alpha = 6.79 HV= -1346.1 χ2= 5.56
Col 6 alpha = 7.37 HV= -1411.4 χ2= 1.78
Col 7 alpha = 7.50 HV= -1218.7 χ2= 6.39
Peak
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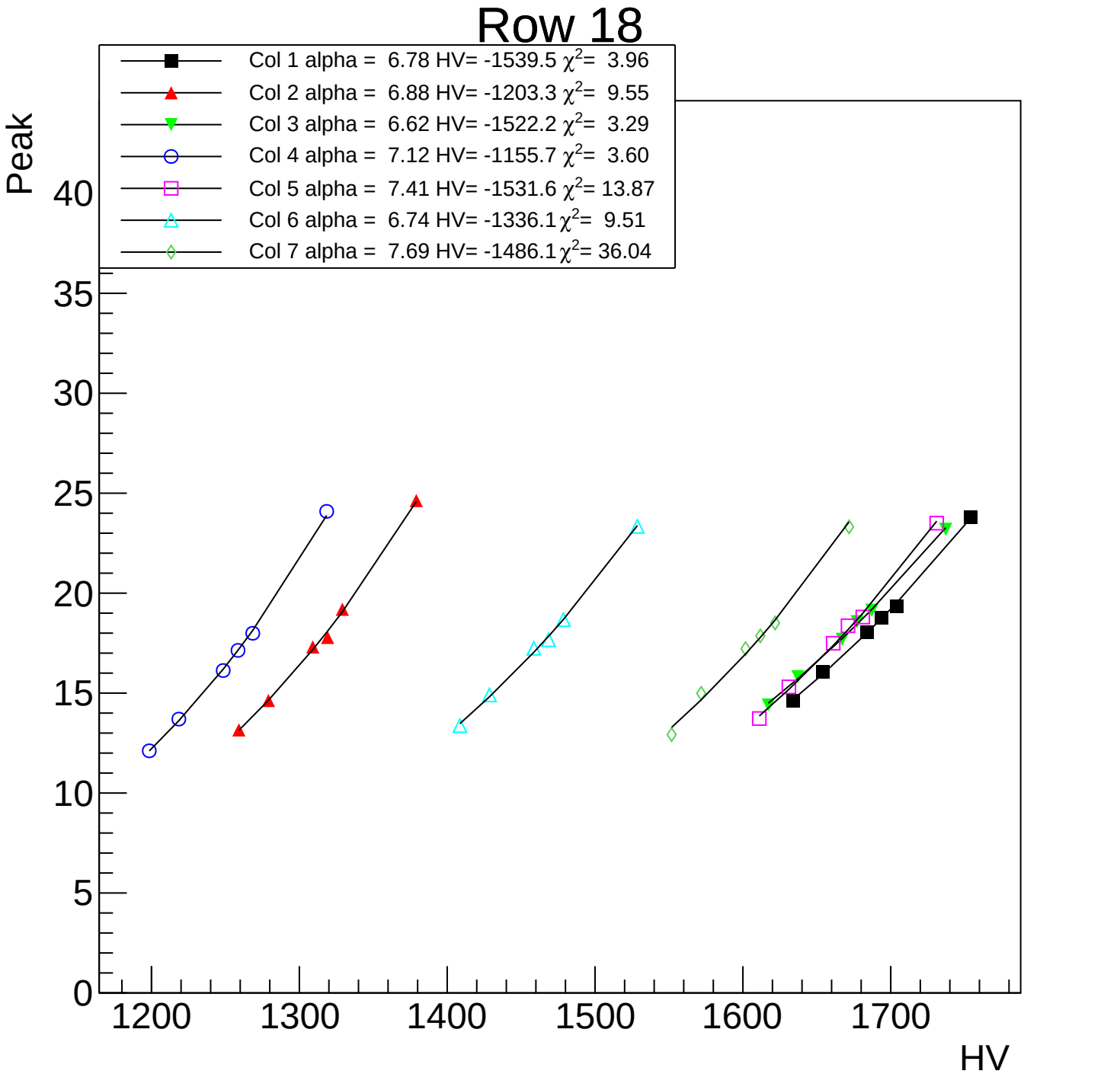
Row 18
Col 1 alpha = 6.78 HV= -1539.5 χ2= 3.96
Col 2 alpha = 6.88 HV= -1203.3 χ2= 9.55
Col 3 alpha = 6.62 HV= -1522.2 χ2= 3.29
Col 4 alpha = 7.12 HV= -1155.7 χ2= 3.60
Col 5 alpha = 7.41 HV= -1531.6 χ2= 13.87
Col 6 alpha = 6.74 HV= -1336.1 χ2= 9.51
Col 7 alpha = 7.69 HV= -1486.1 χ2= 36.04
Peak
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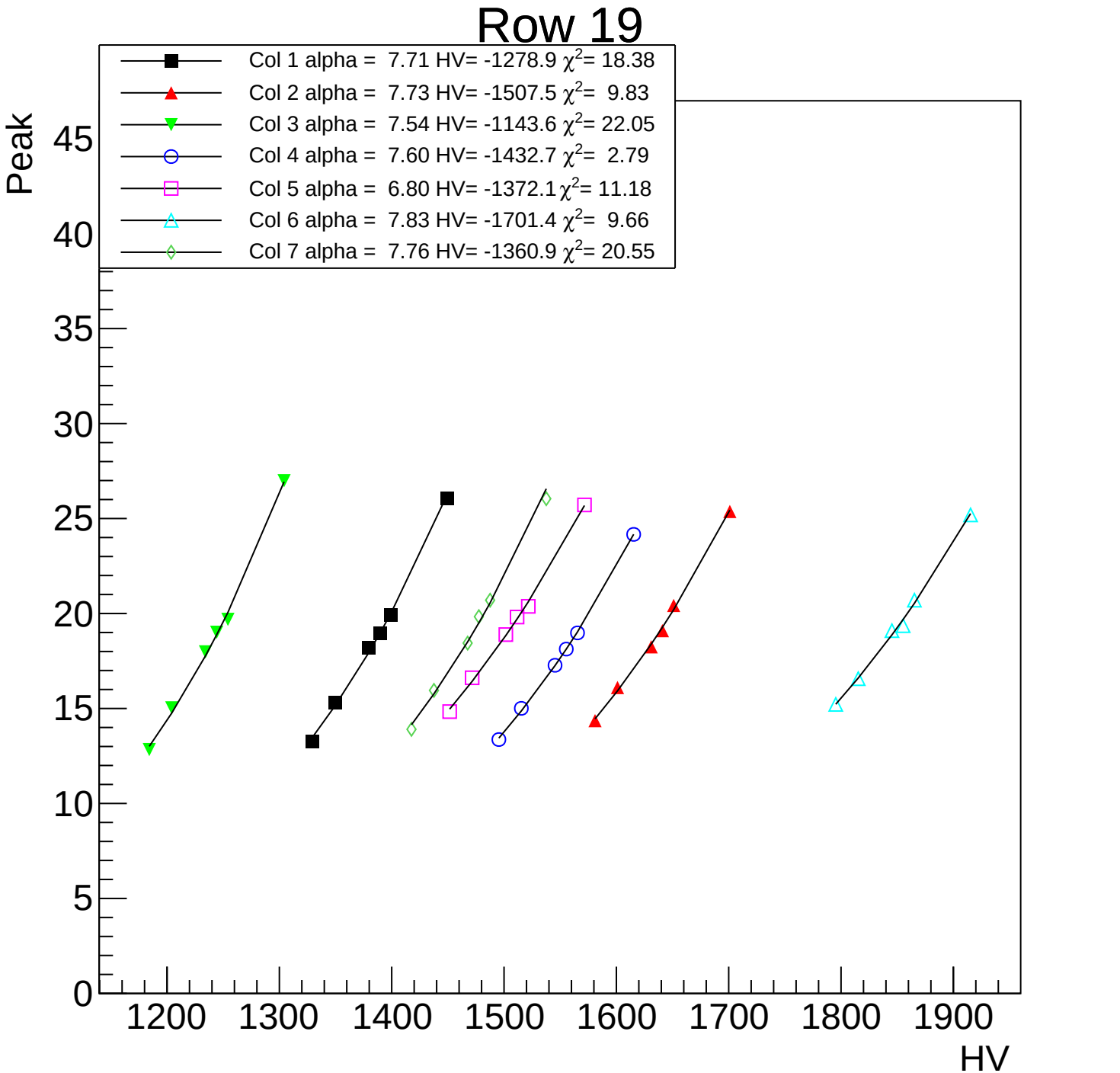
HV


Row 19
Col 1 alpha = 7.71 HV= -1278.9 χ²= 18.38
Col 2 alpha = 7.73 HV= -1507.5 χ²= 9.83
Col 3 alpha = 7.54 HV= -1143.6 χ²= 22.05
Col 4 alpha = 7.60 HV= -1432.7 χ²= 2.79
Col 5 alpha = 6.80 HV= -1372.1 χ²= 11.18
Col 6 alpha = 7.83 HV= -1701.4 χ²= 9.66
Col 7 alpha = 7.76 HV= -1360.9 χ²= 20.55
Peak
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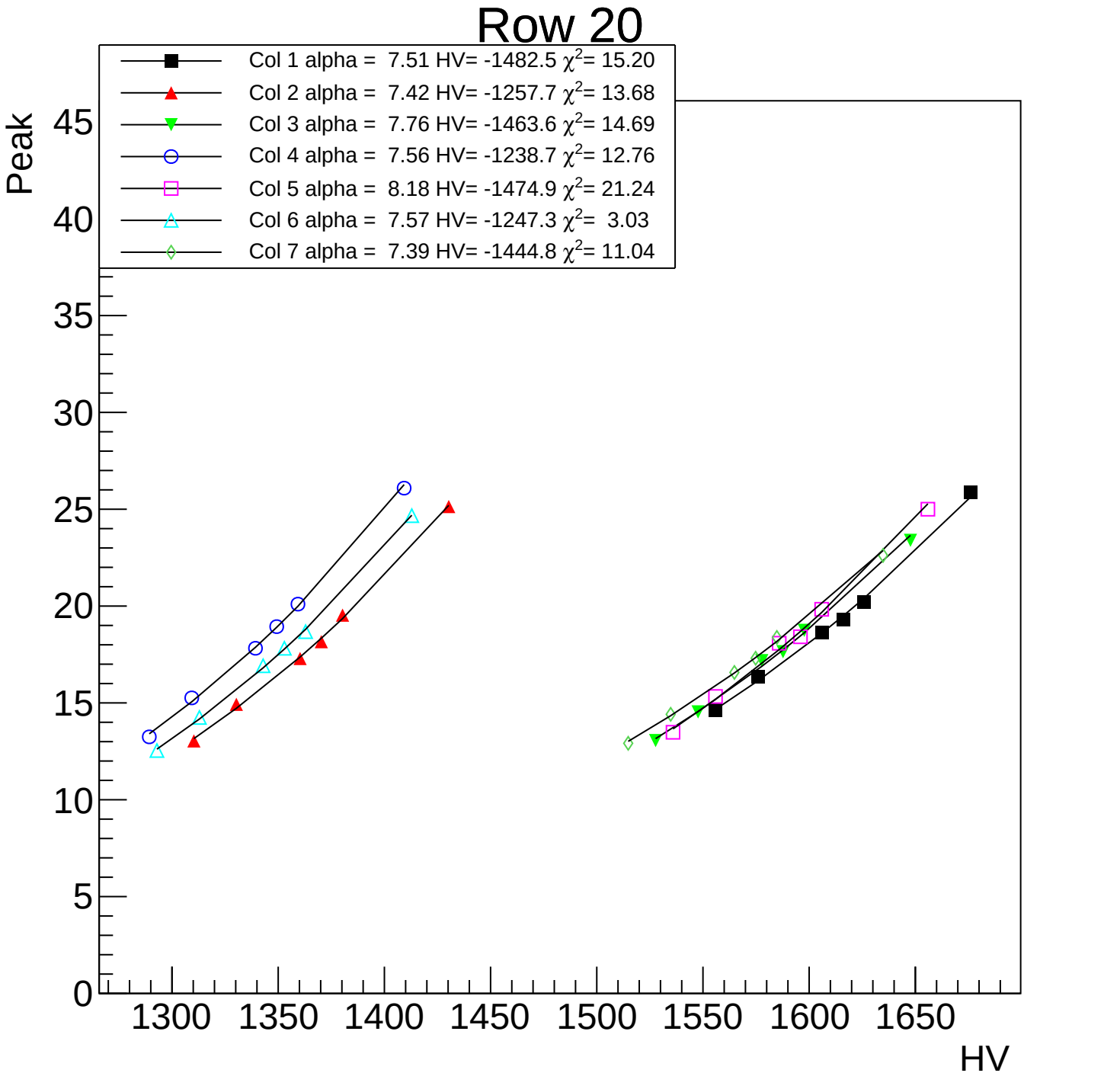
HV


Row 20
Col 1 alpha = 7.51 HV= -1482.5 χ²= 15.20
Col 2 alpha = 7.42 HV= -1257.7 χ²= 13.68
Col 3 alpha = 7.76 HV= -1463.6 χ²= 14.69
Col 4 alpha = 7.56 HV= -1238.7 χ²= 12.76
Col 5 alpha = 8.18 HV= -1474.9 χ²= 21.24
Col 6 alpha = 7.57 HV= -1247.3 χ²= 3.03
Col 7 alpha = 7.39 HV= -1444.8 χ²= 11.04
Peak
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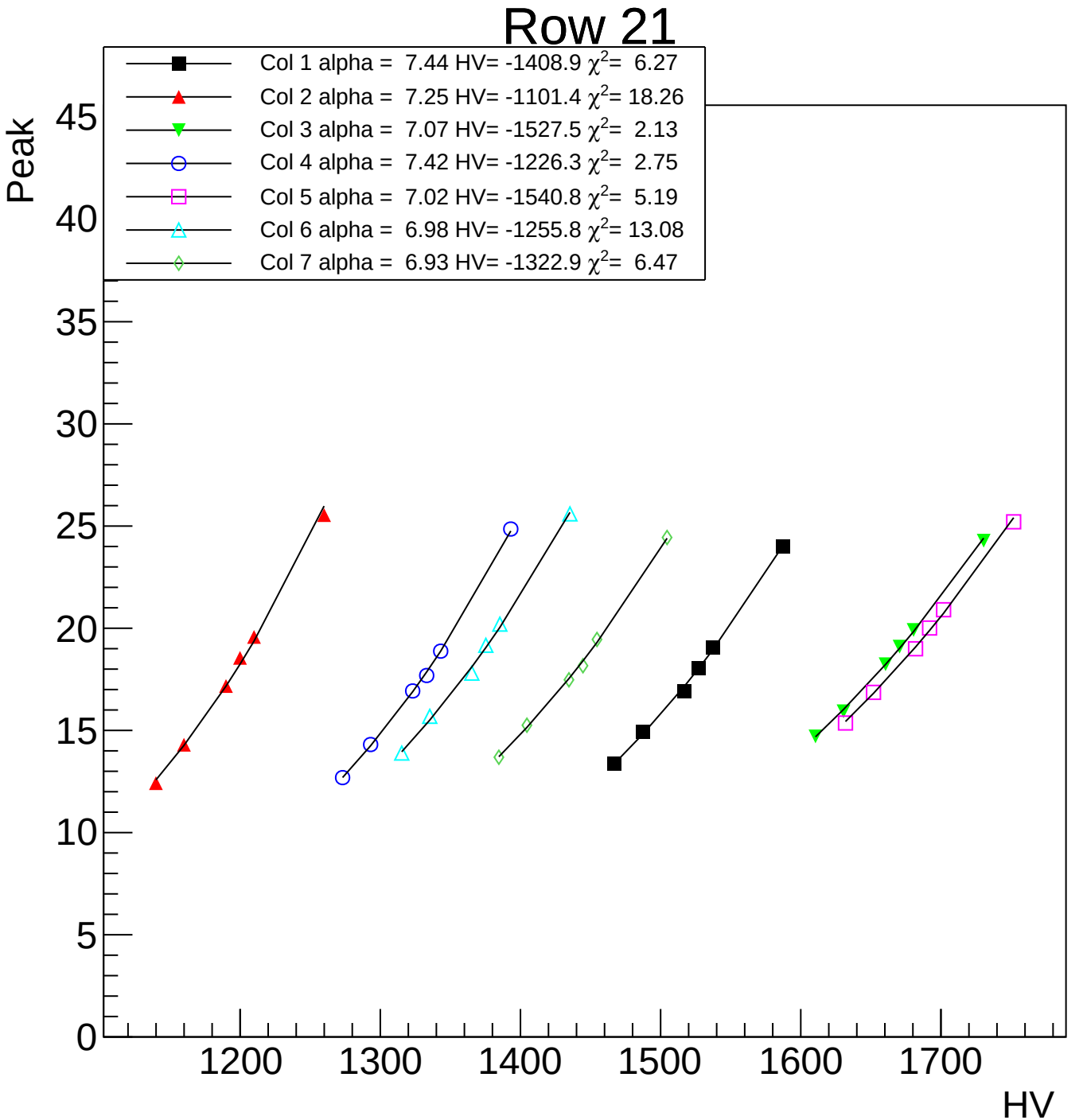
HV


Row 21
Col 1 alpha = 7.44 HV= -1408.9 χ2= 6.27
Col 2 alpha = 7.25 HV= -1101.4 χ2= 18.26
Col 3 alpha = 7.07 HV= -1527.5 χ2= 2.13
Col 4 alpha = 7.42 HV= -1226.3 χ2= 2.75
Col 5 alpha = 7.02 HV= -1540.8 χ2= 5.19
Col 6 alpha = 6.98 HV= -1255.8 χ2= 13.08
Col 7 alpha = 6.93 HV= -1322.9 χ2= 6.47
Peak
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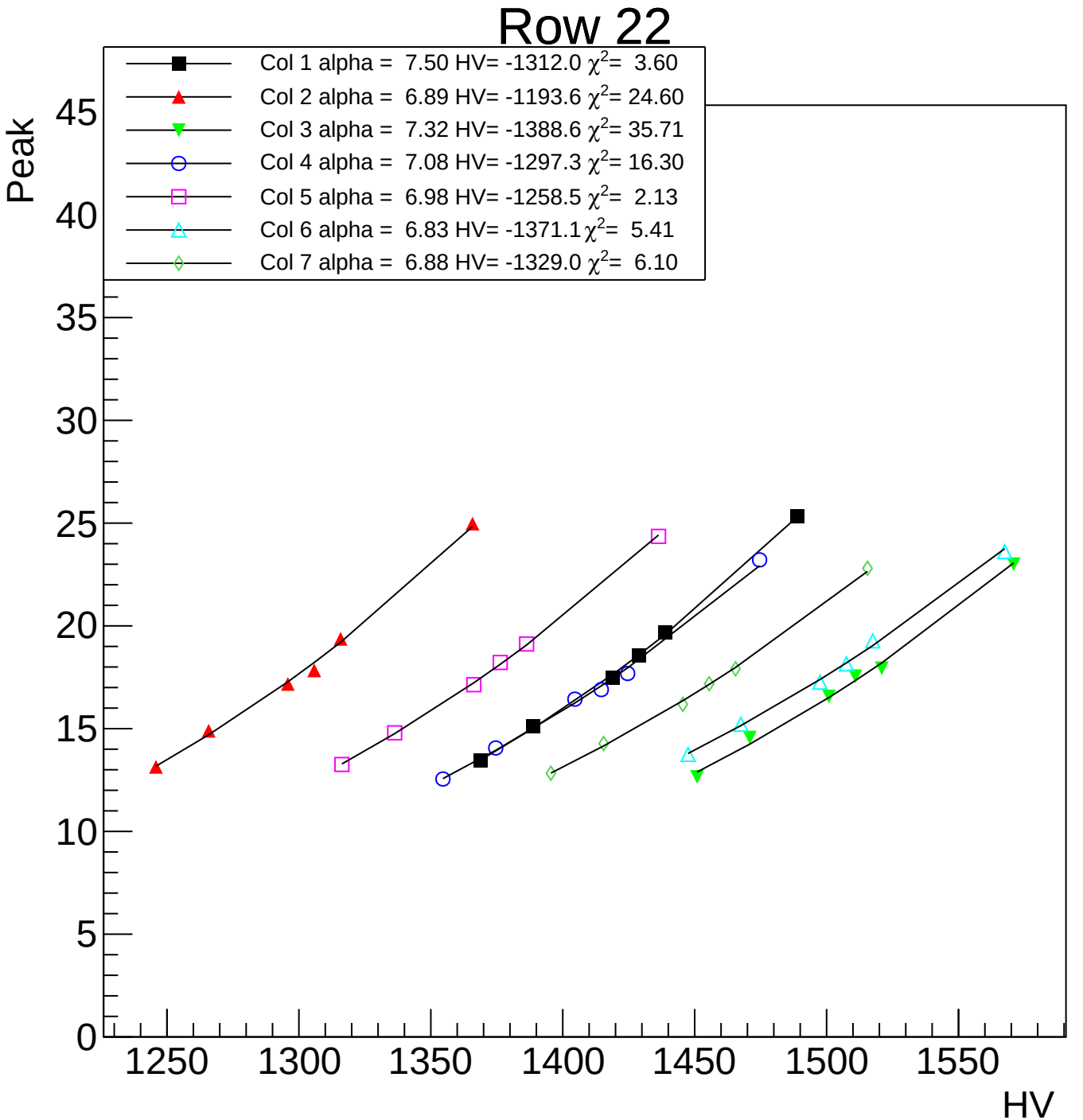
HV


Row 22
Col 1 alpha = 7.50 HV= -1312.0 χ²= 3.60
Col 2 alpha = 6.89 HV= -1193.6 χ²= 24.60
Col 3 alpha = 7.32 HV= -1388.6 χ²= 35.71
Col 4 alpha = 7.08 HV= -1297.3 χ²= 16.30
Col 5 alpha = 6.98 HV= -1258.5 χ²= 2.13
Col 6 alpha = 6.83 HV= -1371.1 χ²= 5.41
Col 7 alpha = 6.88 HV= -1329.0 χ²= 6.10
Peak
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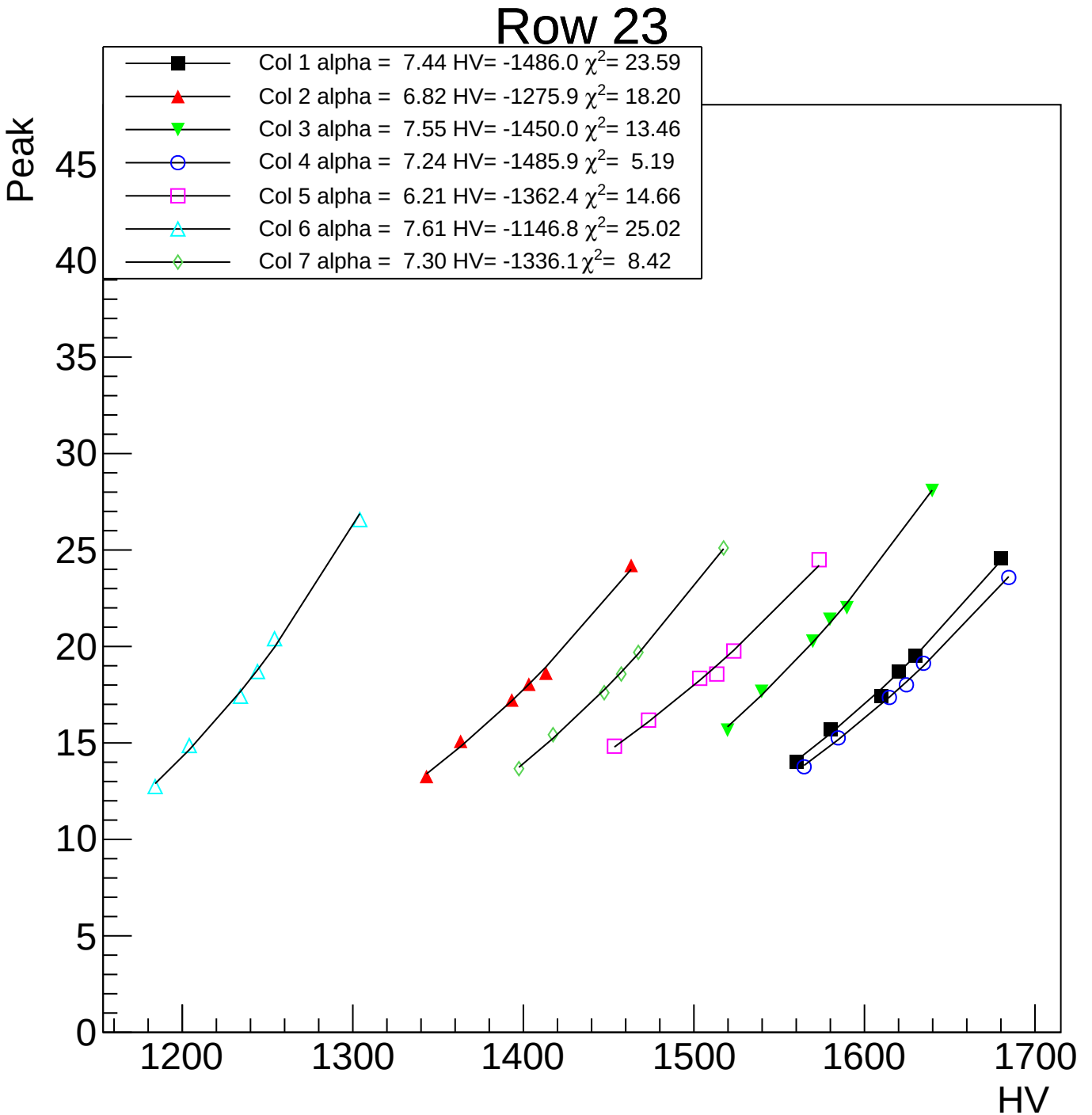
HV


Row 23
Col 1 alpha = 7.44 HV= -1486.0 χ2= 23.59
Col 2 alpha = 6.82 HV= -1275.9 χ2= 18.20
Col 3 alpha = 7.55 HV= -1450.0 χ2= 13.46
Col 4 alpha = 7.24 HV= -1485.9 χ2= 5.19
Col 5 alpha = 6.21 HV= -1362.4 χ2= 14.66
Col 6 alpha = 7.61 HV= -1146.8 χ2= 25.02
Col 7 alpha = 7.30 HV= -1336.1 χ2= 8.42
Peak
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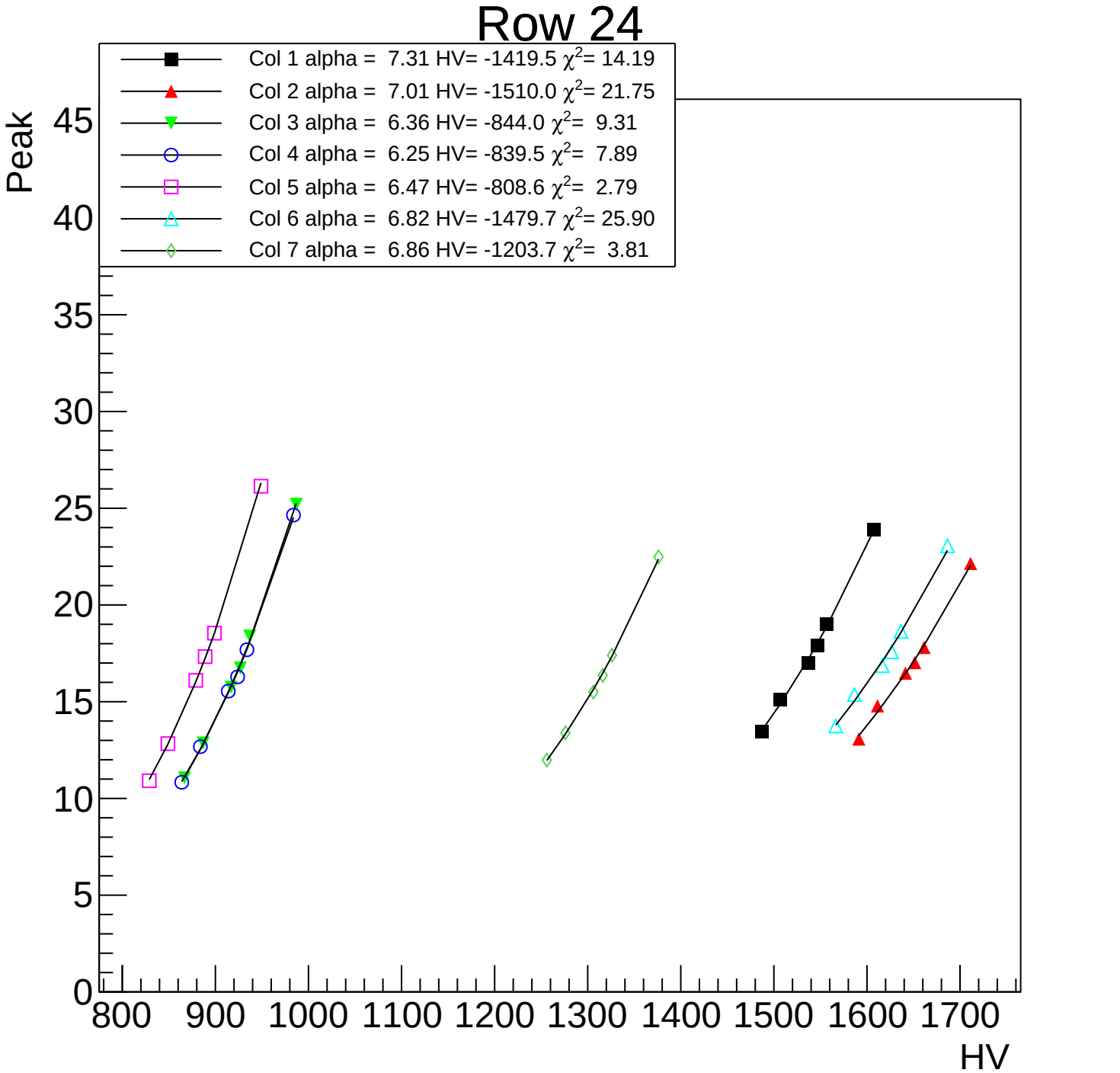
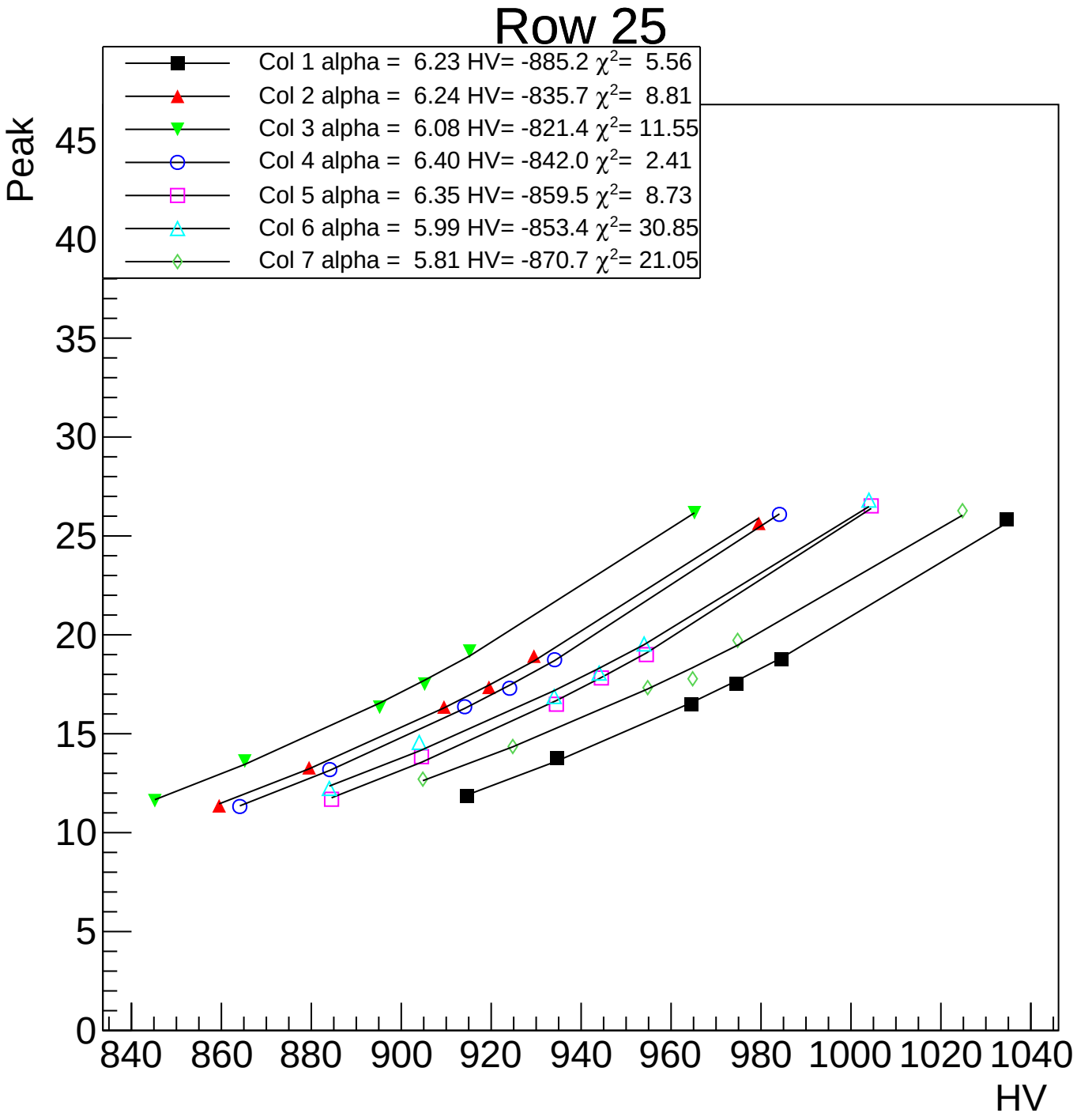
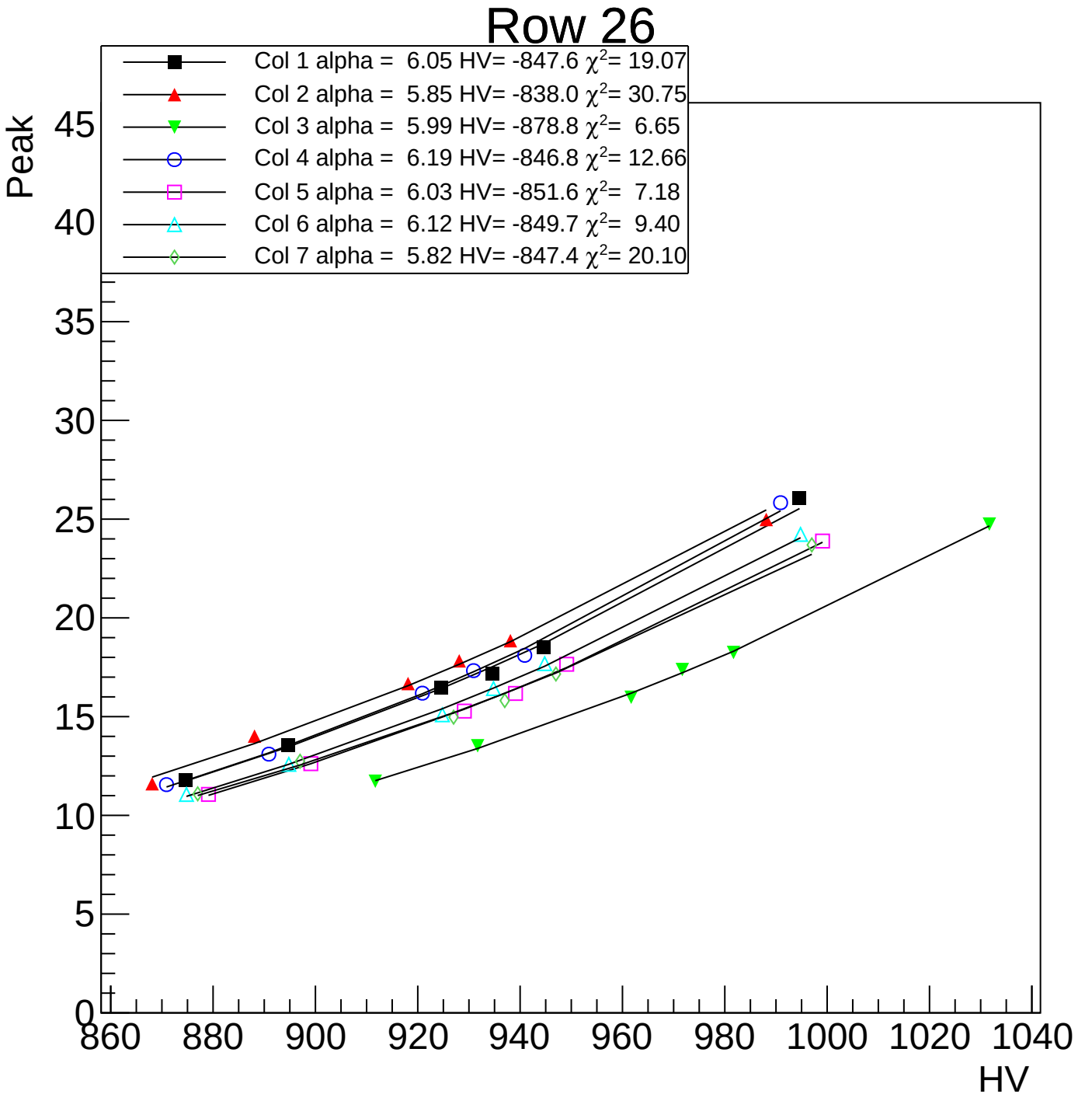
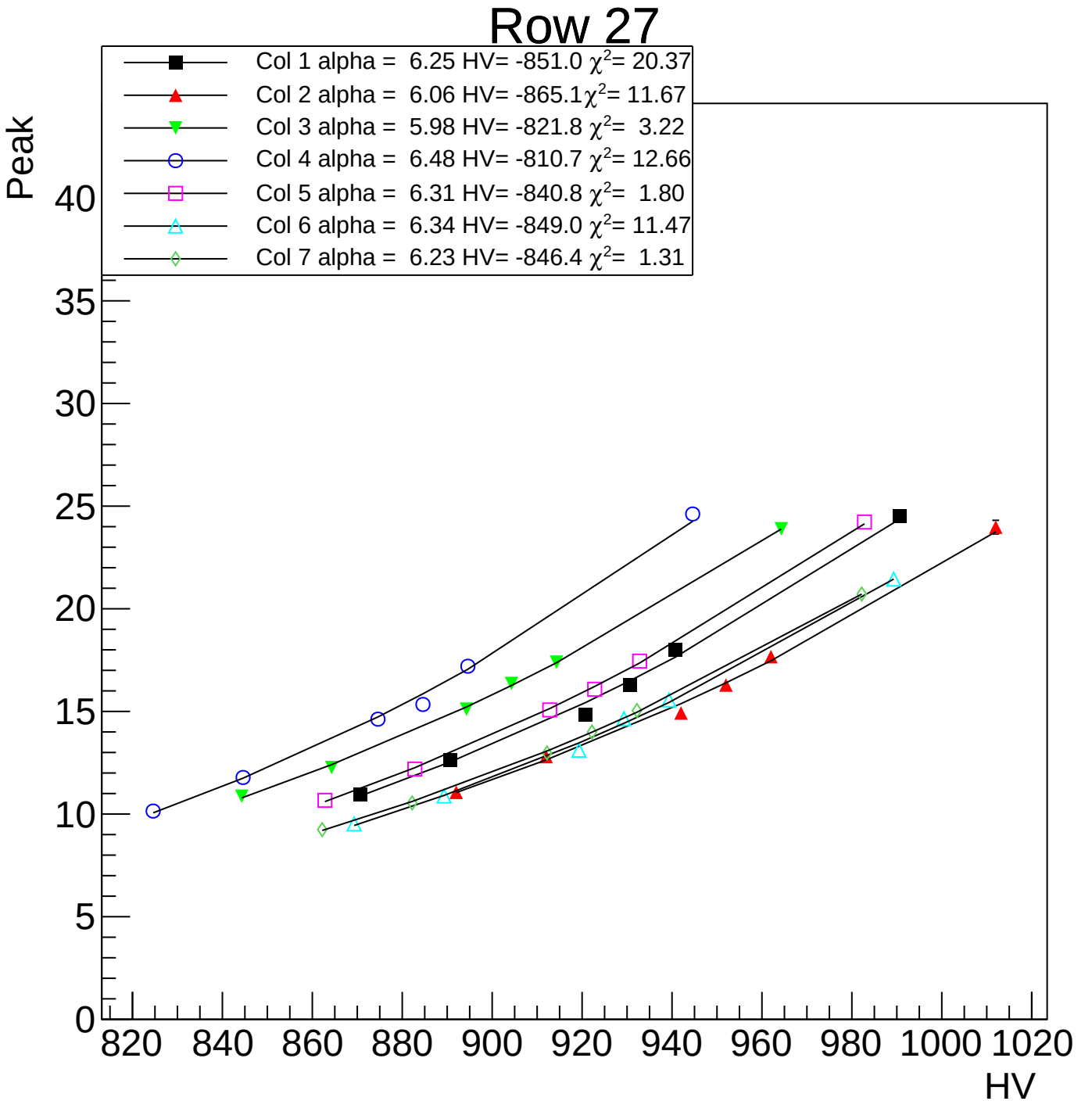
15
20
25
30
35
40
45
1200
1300
1400
1500
1600
1700
HV


Row 24
Col 1 alpha = 7.31 HV= -1419.5 χ2= 14.19
Col 2 alpha = 7.01 HV= -1510.0 χ2= 21.75
Col 3 alpha = 6.36 HV= -844.0 χ2= 9.31
Col 4 alpha = 6.25 HV= -839.5 χ2= 7.89
Col 5 alpha = 6.47 HV= -808.6 χ2= 2.79
Col 6 alpha = 6.82 HV= -1479.7 χ2= 25.90
Col 7 alpha = 6.86 HV= -1203.7 χ2= 3.81
Peak
0
5
10
15
20
25
30
35
40
45
800
900
1000
1100
1200
1300
1400
1500
1600
1700
HV


Row 25
Col 1 alpha = 6.23 HV= -885.2 χ²= 5.56
Col 2 alpha = 6.24 HV= -835.7 χ²= 8.81
Col 3 alpha = 6.08 HV= -821.4 χ²= 11.55
Col 4 alpha = 6.40 HV= -842.0 χ²= 2.41
Col 5 alpha = 6.35 HV= -859.5 χ²= 8.73
Col 6 alpha = 5.99 HV= -853.4 χ²= 30.85
Col 7 alpha = 5.81 HV= -870.7 χ²= 21.05
Peak
0
5
10
15
20
25
30
35
40
45
840
860
880
900
920
940
960
980
1000
1020
1040
HV


Row 26
Col 1 alpha = 6.05 HV= -847.6 χ²= 19.07
Col 2 alpha = 5.85 HV= -838.0 χ²= 30.75
Col 3 alpha = 5.99 HV= -878.8 χ²= 6.65
Col 4 alpha = 6.19 HV= -846.8 χ²= 12.66
Col 5 alpha = 6.03 HV= -851.6 χ²= 7.18
Col 6 alpha = 6.12 HV= -849.7 χ²= 9.40
Col 7 alpha = 5.82 HV= -847.4 χ²= 20.10
Peak
0
5
10
15
20
25
30
35
40
45
860
880
900
920
940
960
980
1000
1020
1040
HV


Row 27
Col 1 alpha = 6.25 HV= -851.0 χ²= 20.37
Col 2 alpha = 6.06 HV= -865.1 χ²= 11.67
Col 3 alpha = 5.98 HV= -821.8 χ²= 3.22
Col 4 alpha = 6.48 HV= -810.7 χ²= 12.66
Col 5 alpha = 6.31 HV= -840.8 χ²= 1.80
Col 6 alpha = 6.34 HV= -849.0 χ²= 11.47
Col 7 alpha = 6.23 HV= -846.4 χ²= 1.31
Peak
0
5
10
15
20
25
30
35
40
820
840
860
880
900
920
940
960
980
1000
1020
HV