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A novel synthesis of 2-alkyl(aryl)pyrrolidines from proline *via* 2,3-diphenylhexahydropyrrolo[2,1-*b*]oxazoles

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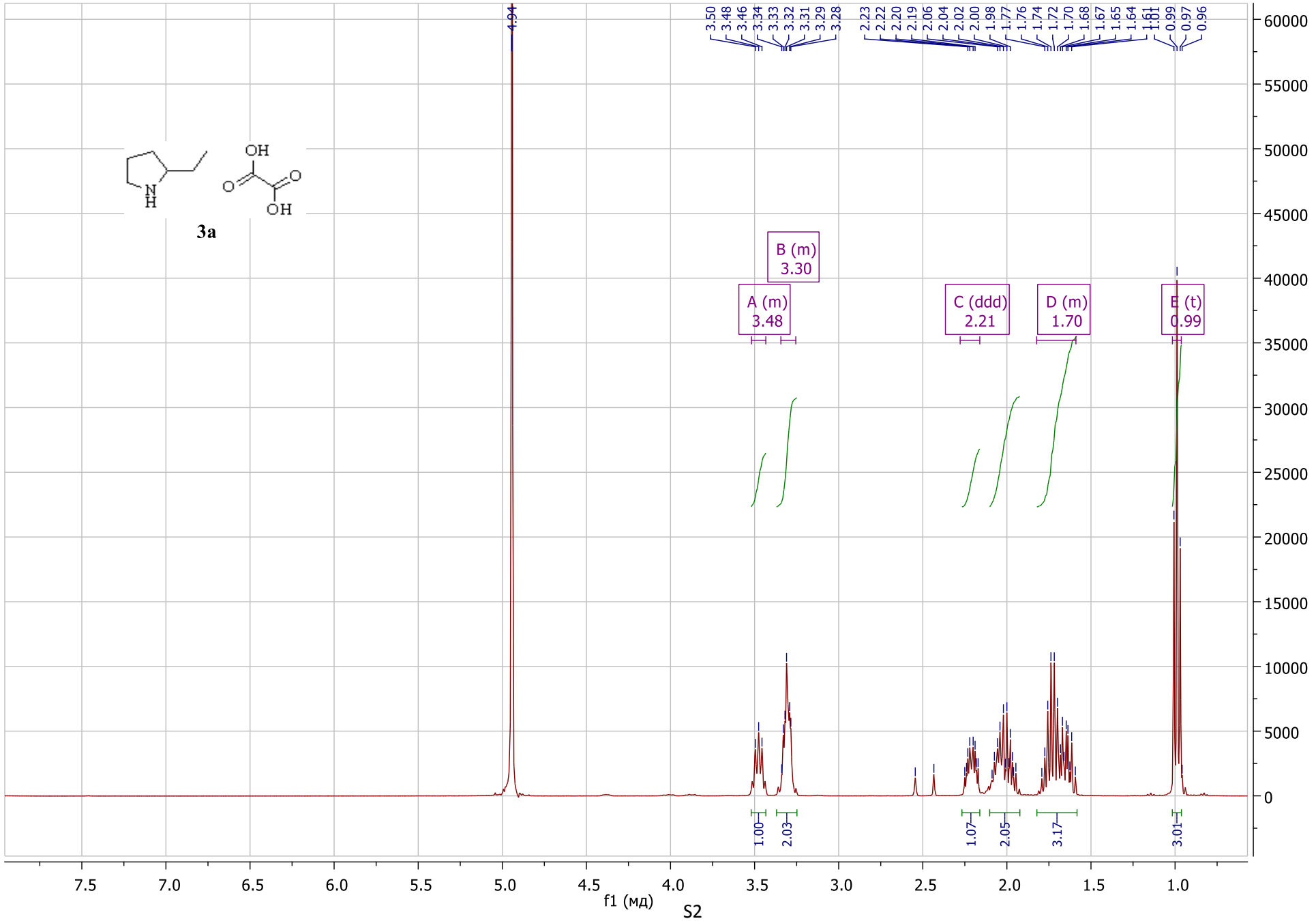
Table S1 Cleavage of aminoalcohols **2** and **2′** (R = Et).

Entry	Conditions	Yield (%)
1	H_2SO_4 (50%), 110 °C, 1 h	0
2	H_2SO_4 (75%), 150 °C, 3 h	traces
3	$K_2Cr_2O_7$, then H_2SO_4 (75%), 170 °C, 8 h	0
4	$(NH_4)_2Ce(NO_3)_6$ (2.05 equiv.), RT	5
5	$Pb(OAc)_4$ (1.35 equiv.), AcOH, RT→80 °C	traces
6	$Pb(OAc)_4$ (1.35 equiv.), CH_2Cl_2, RT	35
7	$Pb(OAc)_4$ (1.35 equiv.), PhMe, RT	36
8	$Pb(OAc)_4$ (1.35 equiv.), PhMe, 0–5 °C	39

NMR spectra were recorded on Bruker DRX-400 (^{1}H – 400 MHz and ^{13}C – 101 MHz) and Bruker Avance III-500 (^{1}H – 500 MHz and ^{13}C – 126 MHz) spectrometers in $CDCl_3$ or D_2O with TMS as an internal standard.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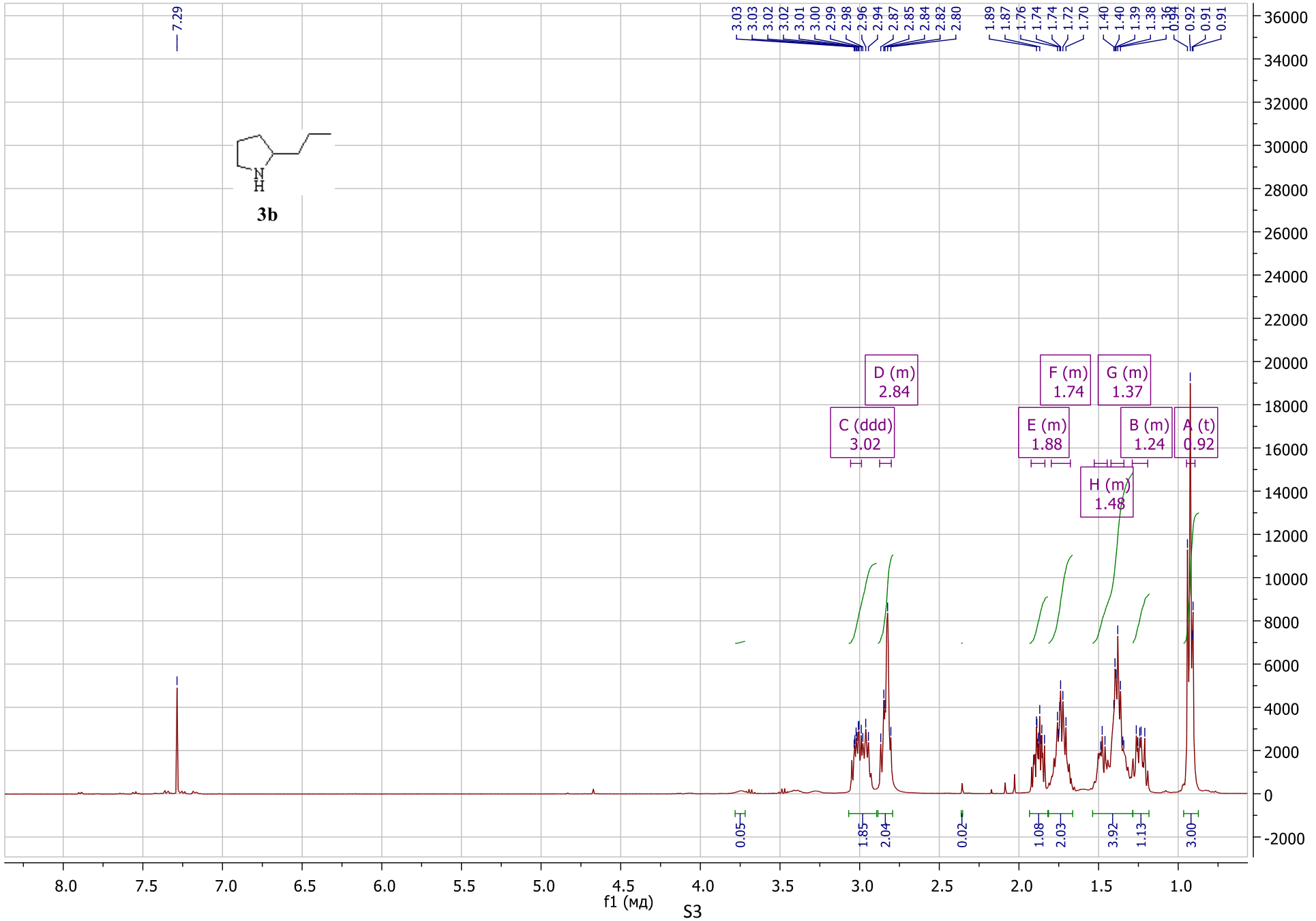
B (m)
3.30
A (m)
3.48
C (ddd)
2.21
D (m)
1.70
E (t)
0.99
4.94
3.50 3.48 3.46 3.34 3.33 3.32 3.31 3.29 3.28
2.23 2.22 2.20 2.19 2.06 2.04 2.02 2.00 1.98 1.77 1.76 1.74 1.72 1.70 1.68 1.67 1.65 1.64 1.61 0.99 0.97 0.96
1.00
2.03
1.07
2.05
3.17
3.01
f1 (мд)
S2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3.03
3.02
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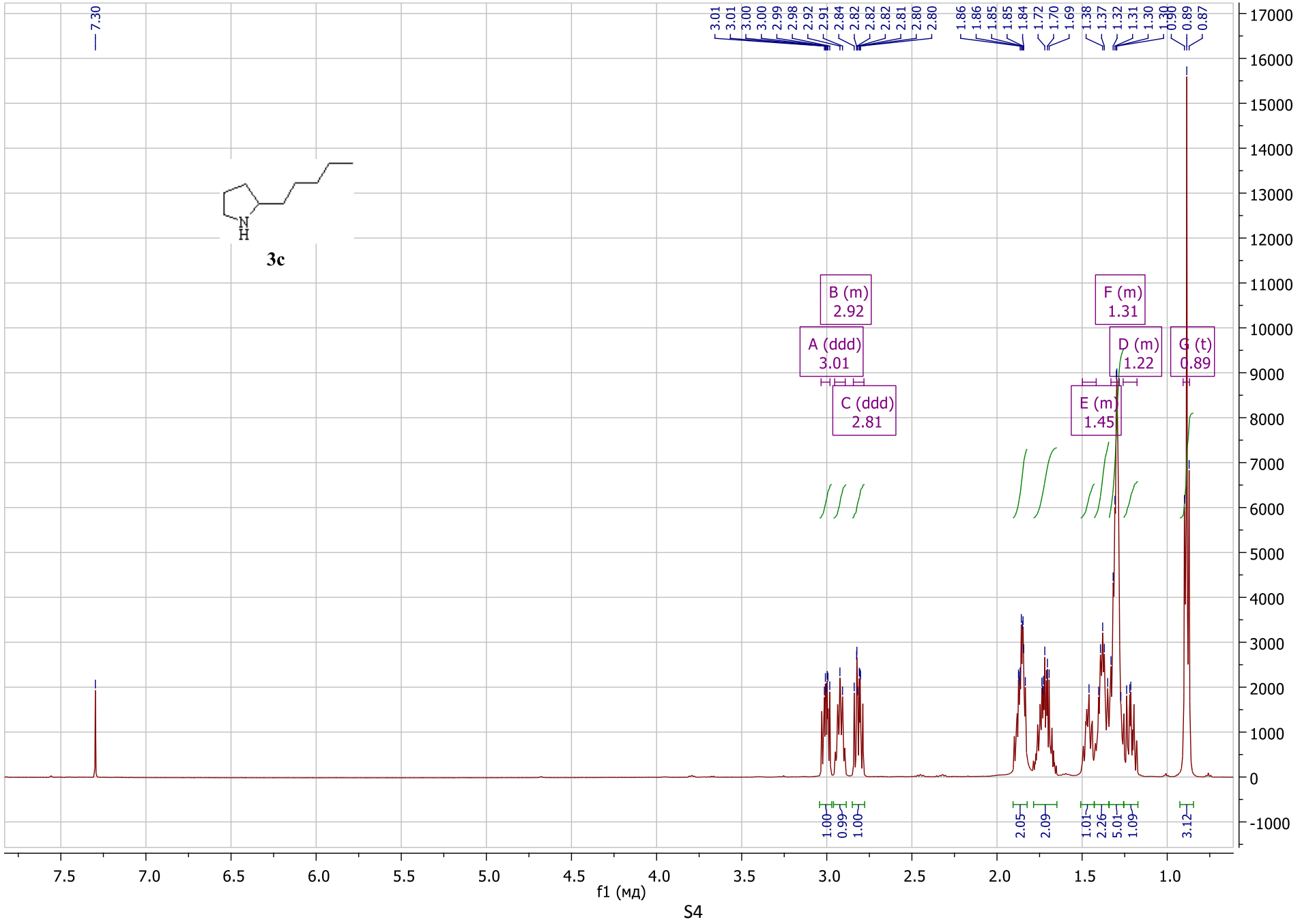
3.01
3.00
2.99
2.98
2.96
2.94
2.87
2.85
2.84
2.82
2.80
1.89
1.87
1.76
1.74
1.74
1.72
1.70
1.40
1.40
1.39
1.38
0.94
0.92
0.91
0.91
N
H
3b
D (m)
2.84
C (ddd)
3.02
F (m)
1.74
G (m)
1.37
E (m)
1.88
B (m)
1.24
A (t)
0.92
H (m)
1.48
0.05
1.85
2.04
0.02
1.08
2.03
3.92
1.13
3.00
f1 (мд)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3.00
3.00
2.99
2.98
2.92
2.91
2.84
2.82
2.82
2.82
2.81
2.80
2.80
1.86
1.86
1.85
1.85
1.84
1.72
1.70
1.69
1.38
1.37
1.32
1.31
1.30
0.90
0.89
0.87
B (m)
2.92
A (ddd)
3.01
C (ddd)
2.81
F (m)
1.31
D (m)
1.22
G (t)
0.89
E (m)
1.45
1.00
0.99
1.00
2.05
2.09
1.01
2.26
5.01
1.09
3.12
17000
16000
15000
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
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7.5
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6.0
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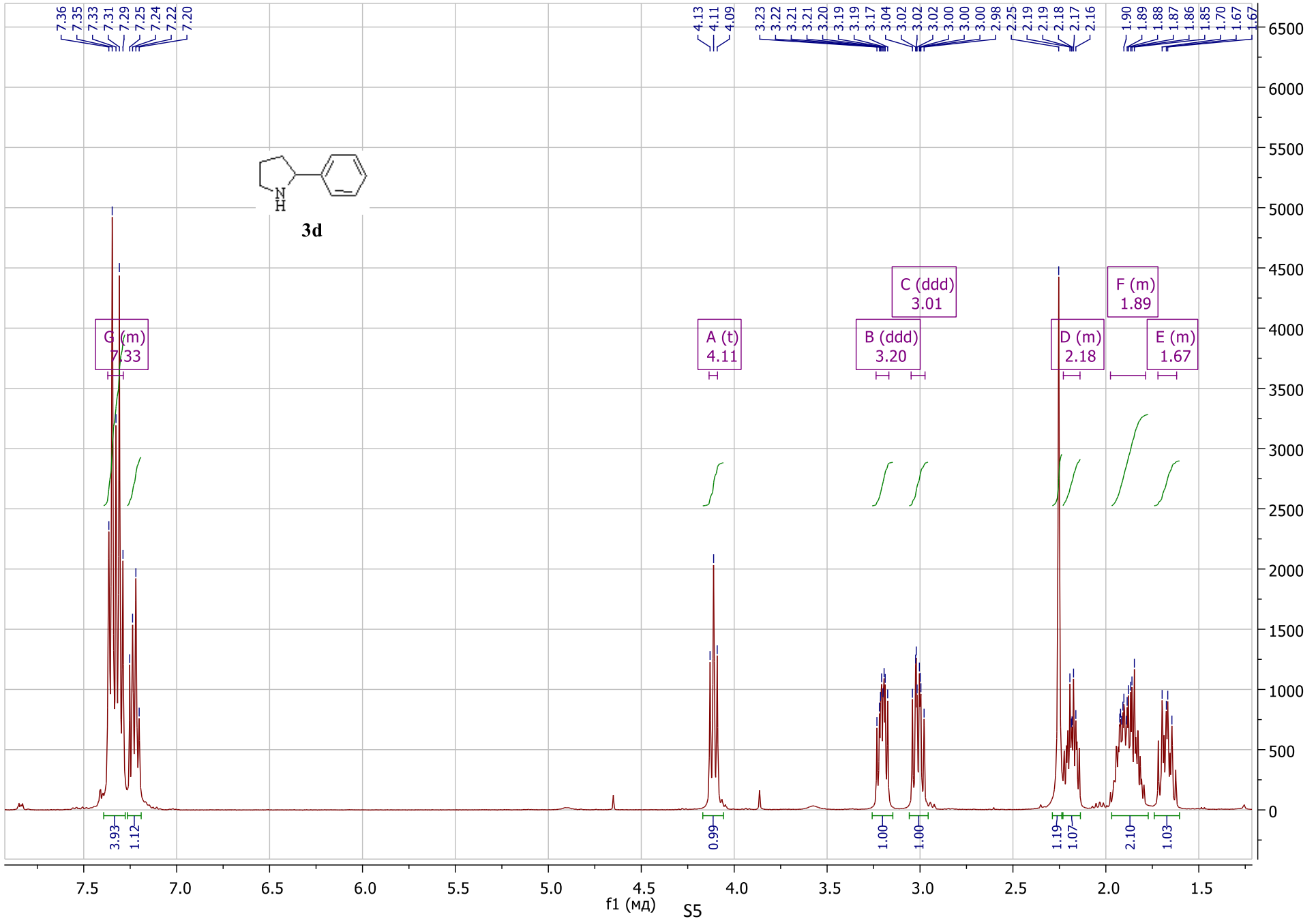
1.5
1.0
f1 (мд)

3c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3.22
3.21
3.21
3.20
3.19
3.19
3.17
3.04
3.02
3.02
3.02
3.00
3.00
3.00
2.98
2.25
2.19
2.19
2.18
2.17
2.16
1.90
1.89
1.88
1.87
1.86
1.85
1.70
1.67
1.67
N
H
3d
G (m)
7.33
A (t)
4.11
C (ddd)
3.01
B (ddd)
3.20
D (m)
2.18
F (m)
1.89
E (m)
1.67
3.93
1.12
0.99
1.00
1.00
1.19
1.07
2.10
1.03
6500
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
7.5
7.0
6.5
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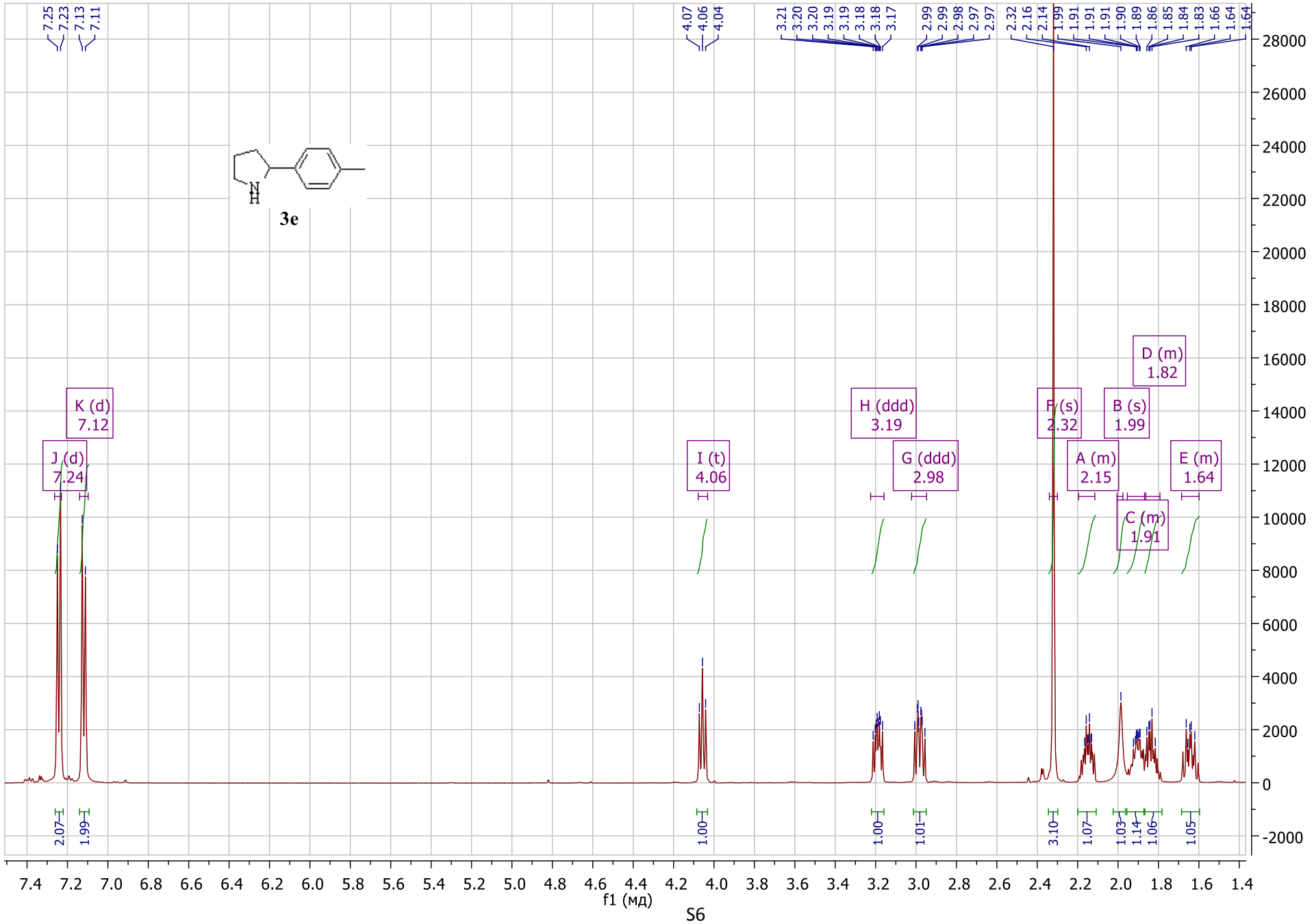
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
f1 (мд)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7.13
7.11
4.07
4.06
4.04
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3.18
3.17
2.99
2.99
2.98
2.97
2.97
2.32
2.16
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1.91
1.91
1.91
1.90
1.89
1.86
1.85
1.84
1.83
1.66
1.64
1.64
3e
K (d)
7.12
J (d)
7.24
I (t)
4.06
H (ddd)
3.19
G (ddd)
2.98
F (s)
2.32
A (m)
2.15
B (s)
1.99
D (m)
1.82
C (m)
1.91
E (m)
1.64
2.07
1.99
1.00
1.00
1.01
3.10
1.07
1.03
1.14
1.06
1.05
f1 (мд)