

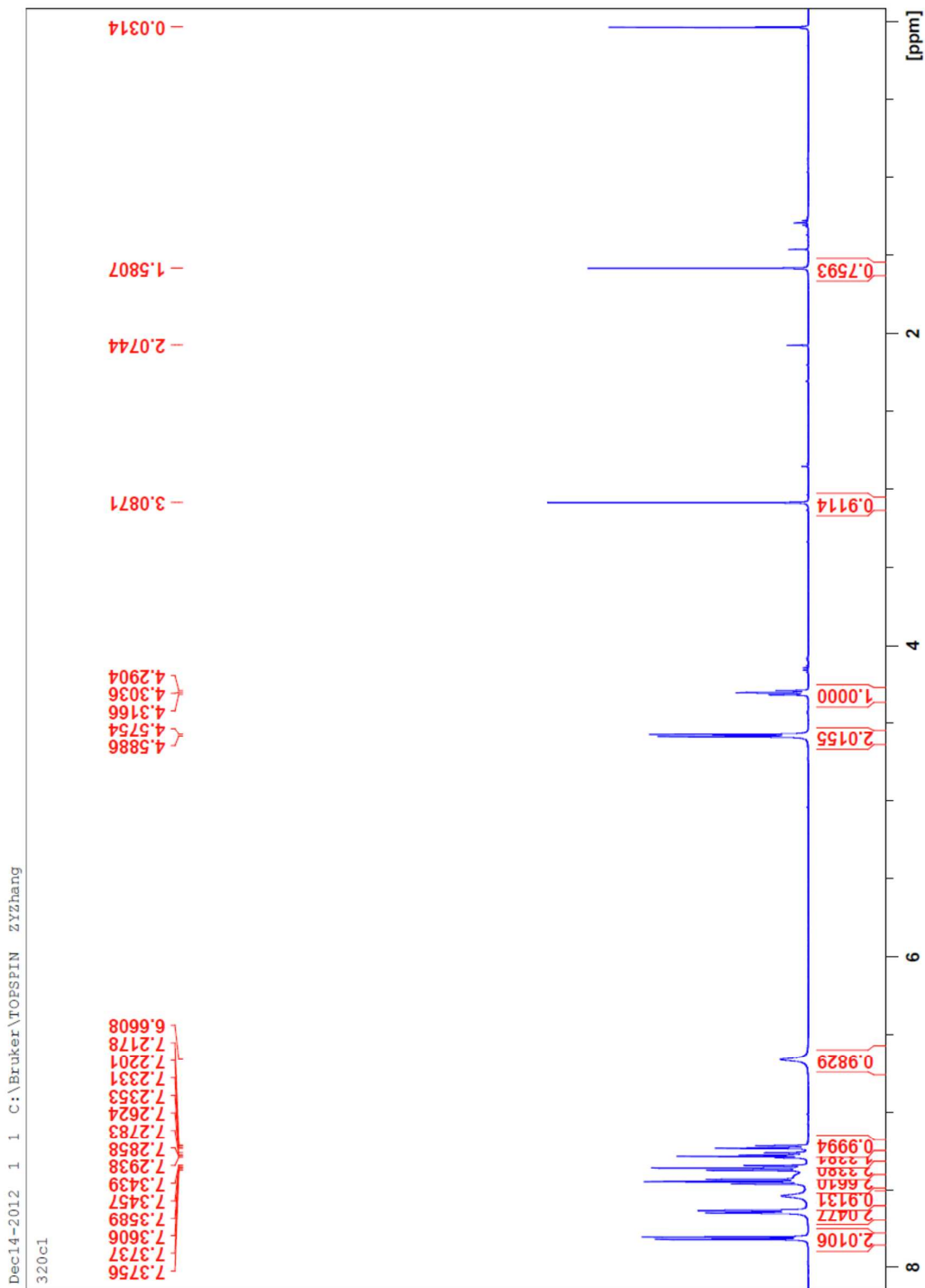
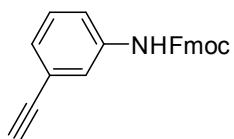
Supporting Information

Therapeutic potential of targeting the oncogenic SHP2 phosphatase

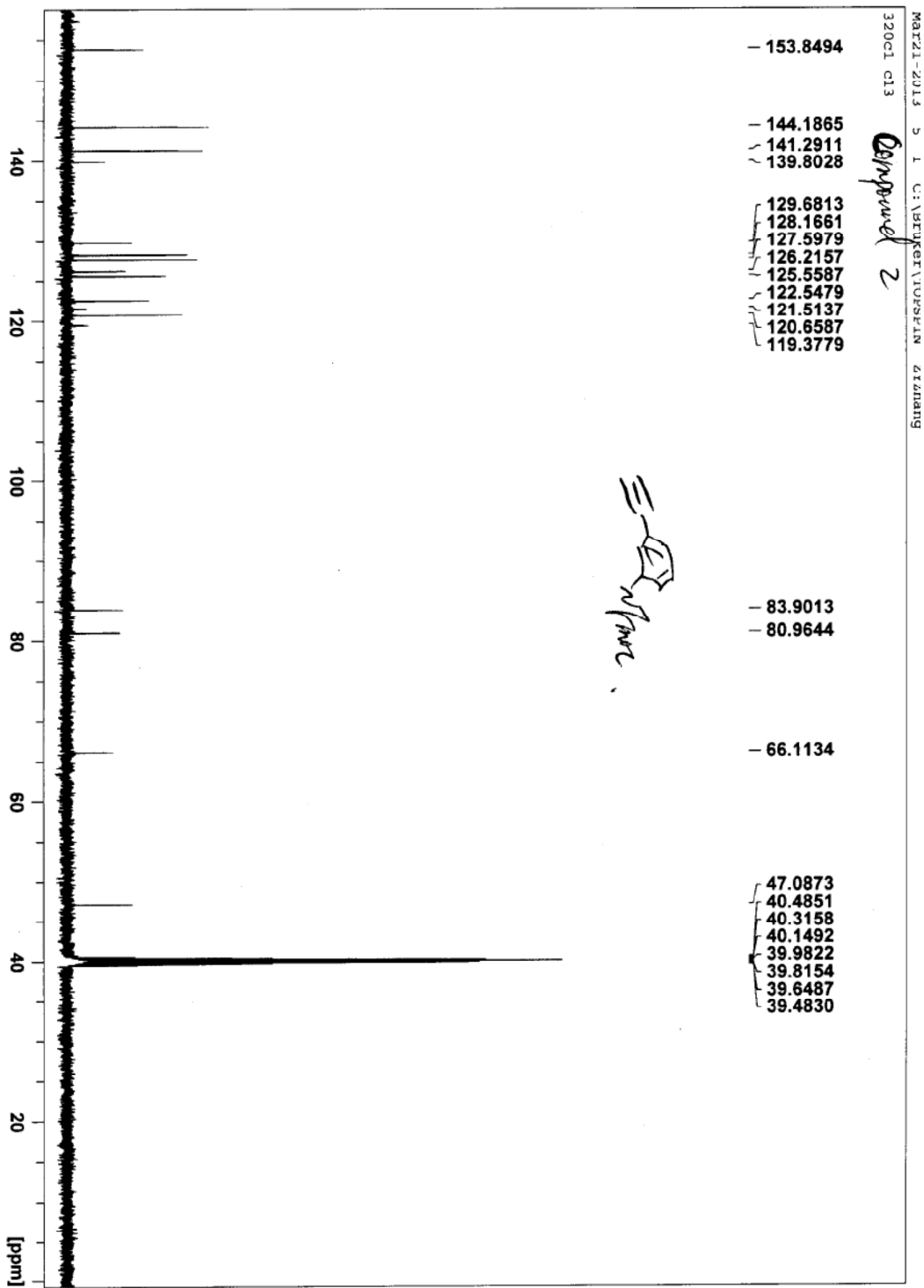
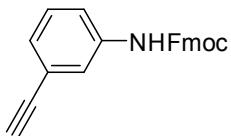
Li-Fan Zeng[#], Ruo-Yu Zhang[#], Zhi-Hong Yu[#], Sijiu Liu[#], Li Wu[‡], Andrea M. Gunawan[‡], Brandon S. Lane[#], Raghuveer S. Mali["], Xingjun Li["], Rebecca J. Chan["], Reuben Kapur["], Clark D. Wells[#],
and Zhong-Yin Zhang^{#‡*}

[#]Department of Biochemistry and Molecular Biology, ["]Herman B Wells Center for Pediatric Research, and [‡]Chemical Genomics Core Facility, Indiana University School of Medicine, 635 Barnhill Drive, Indianapolis, Indiana 46202 USA

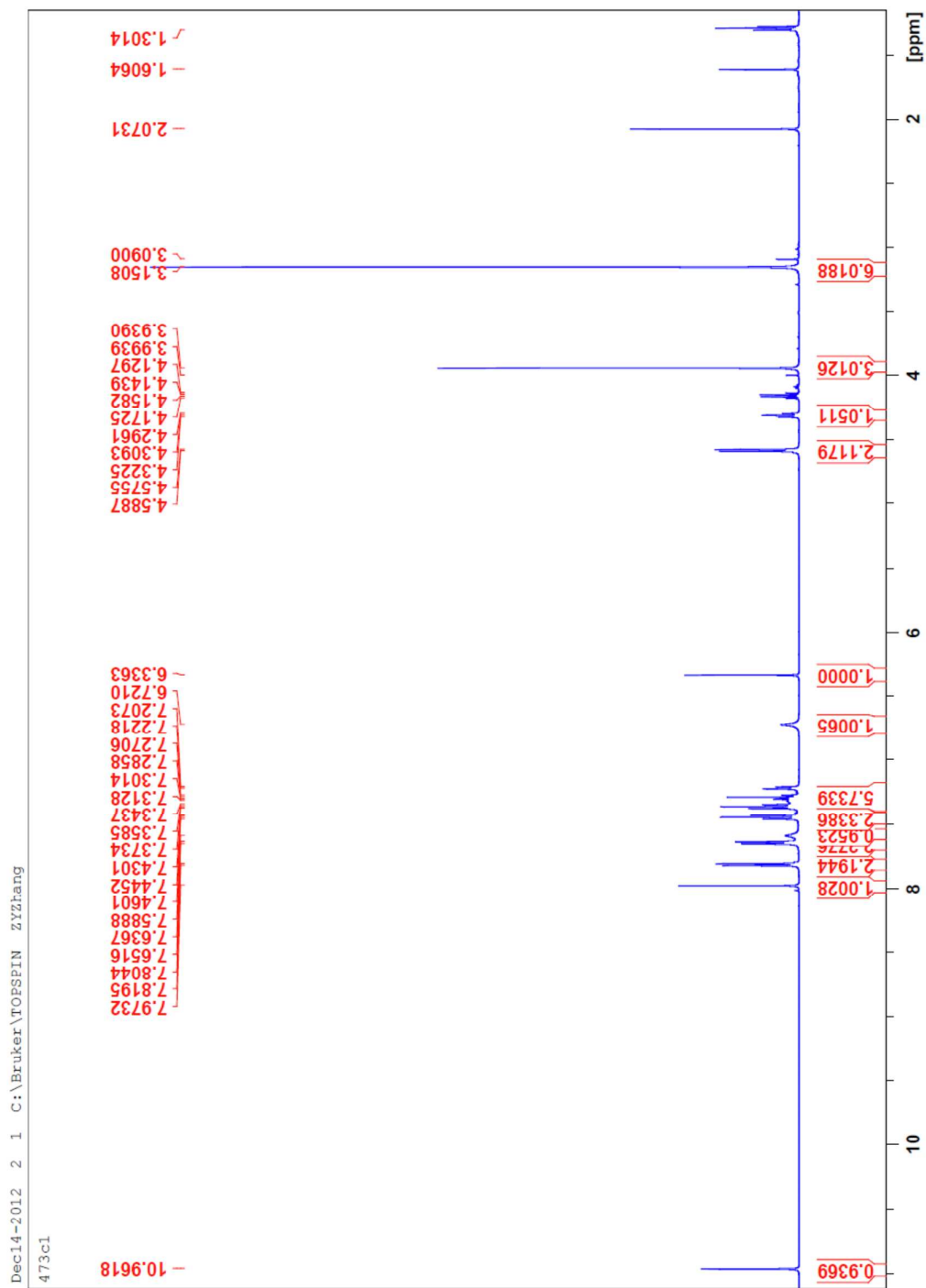
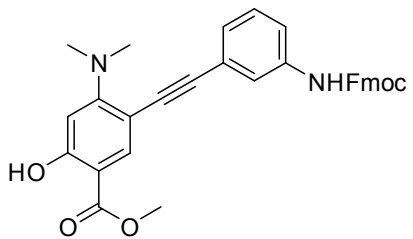
¹H NMR for compound 2



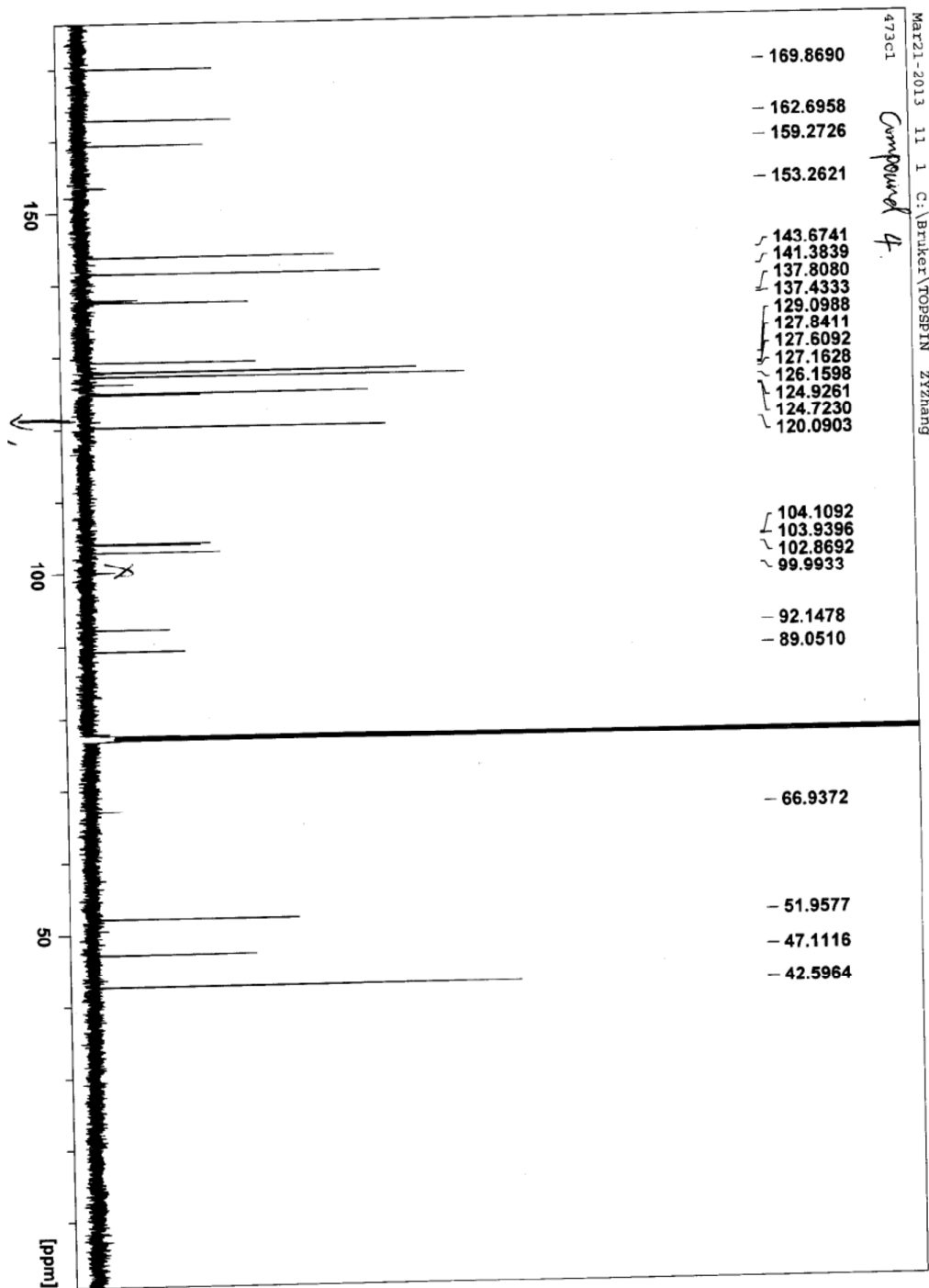
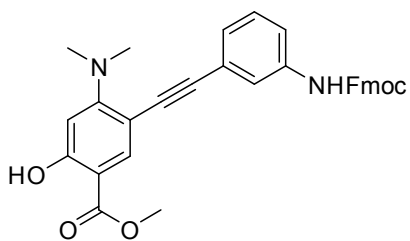
¹³C NMR for compound 2



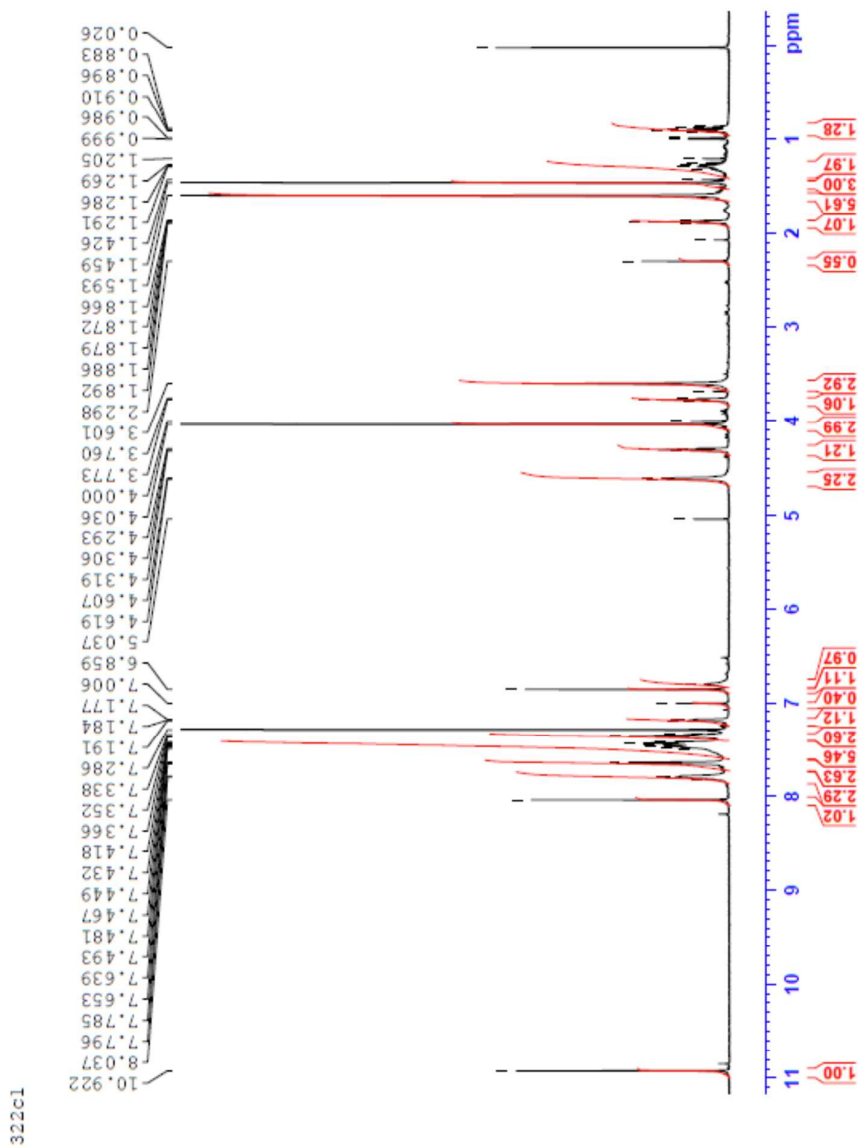
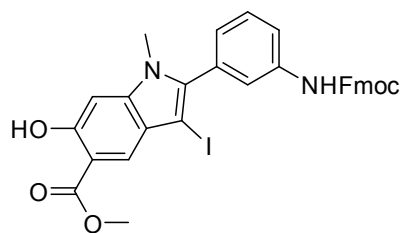
H NMR for compound 4



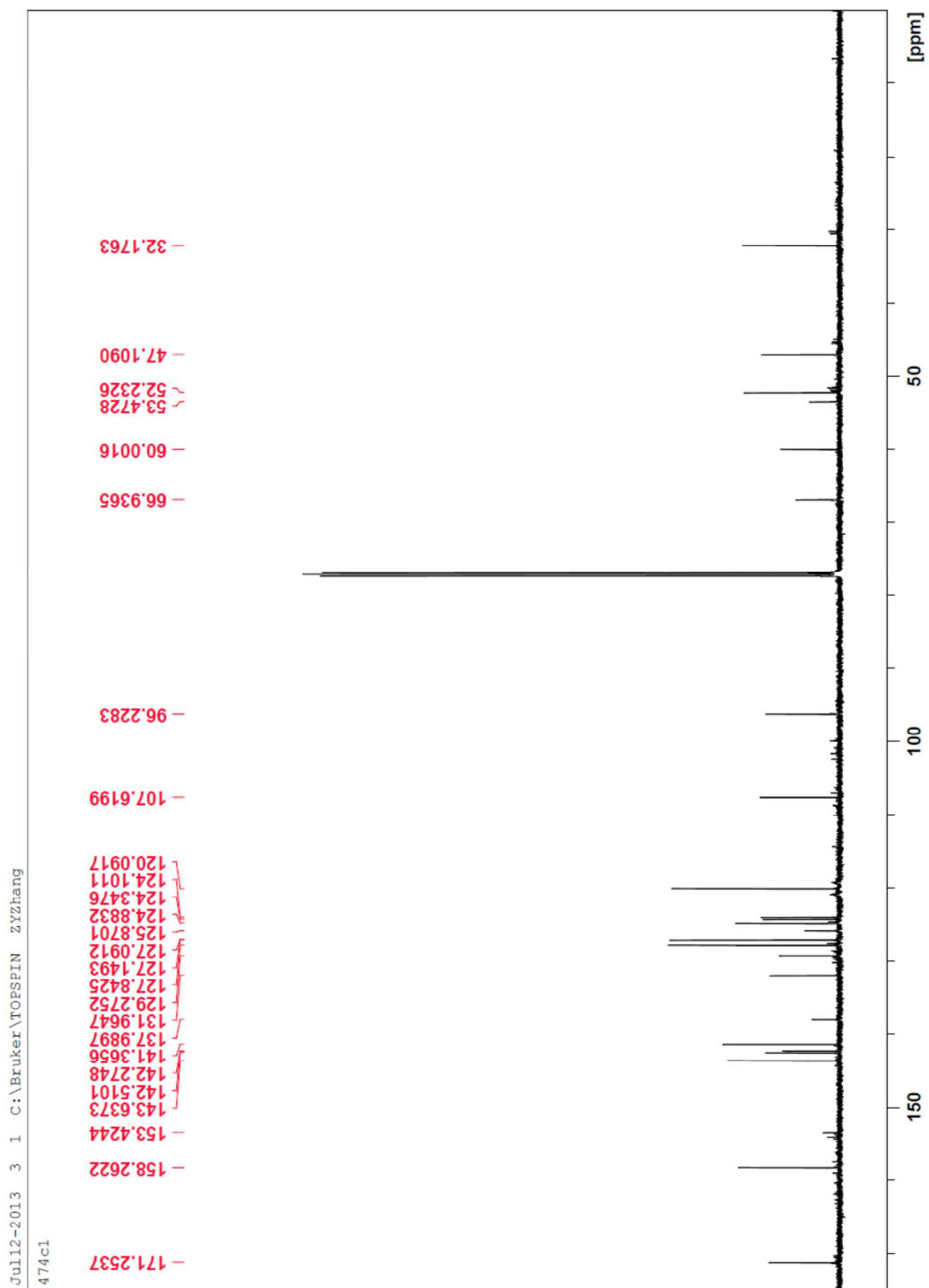
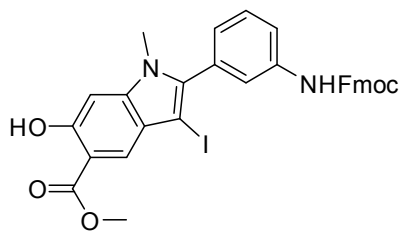
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1H NMR for compound 5



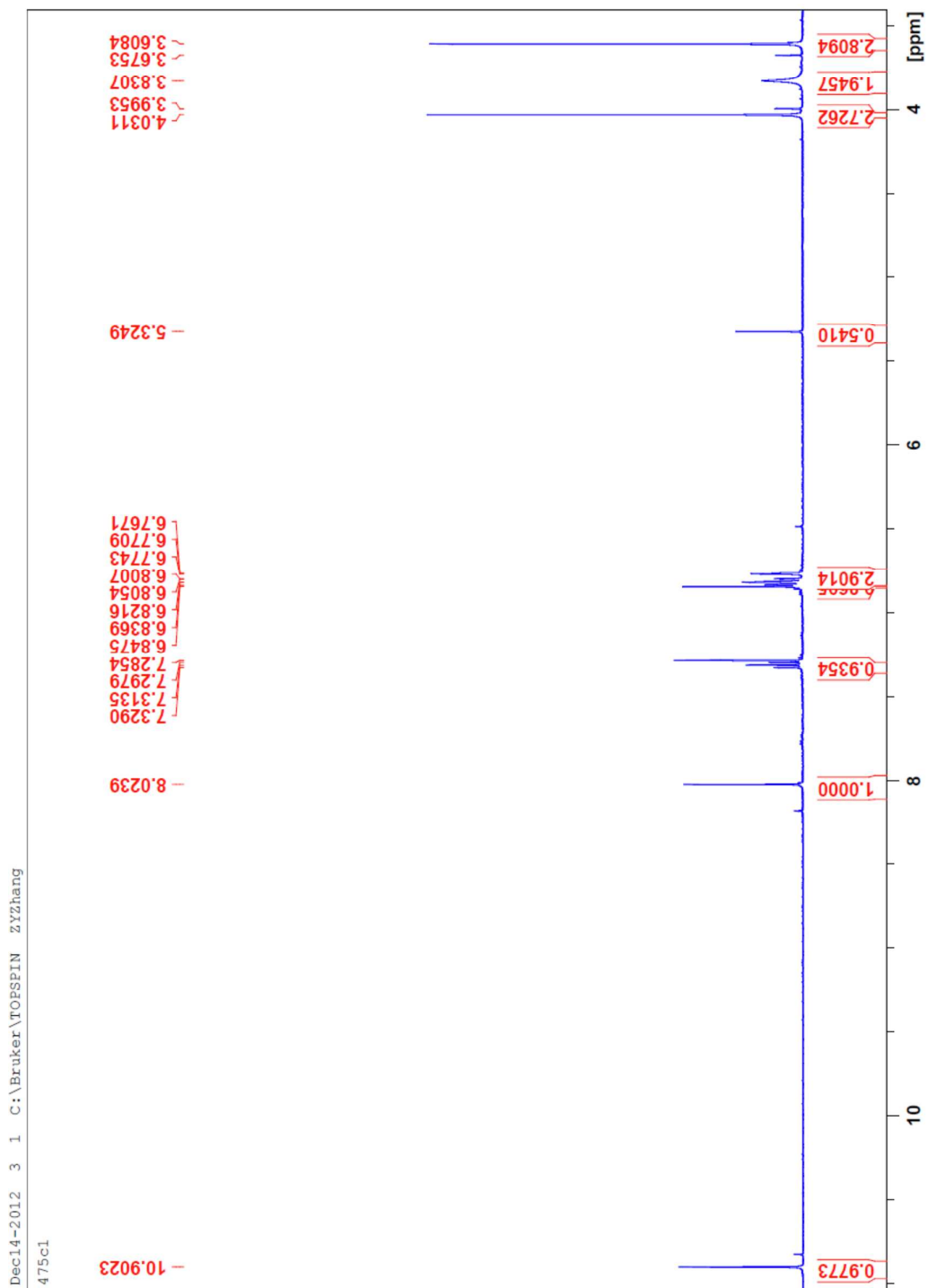
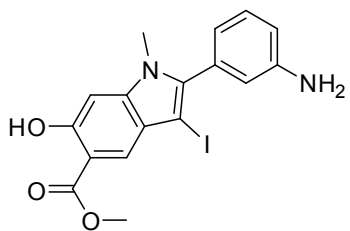
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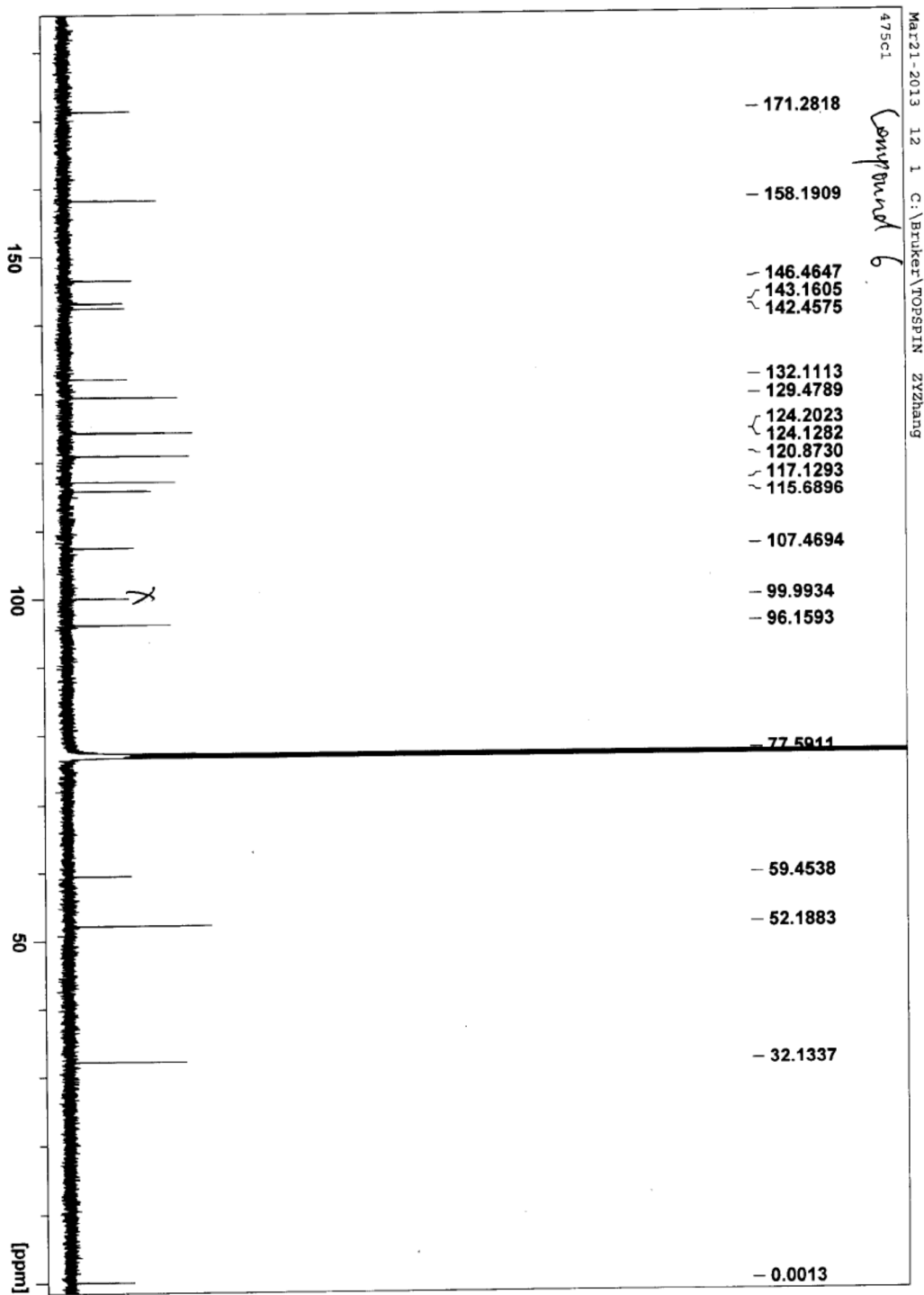
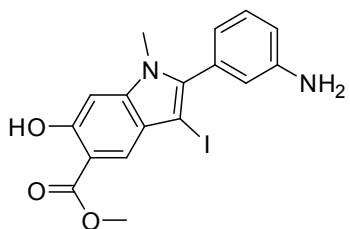
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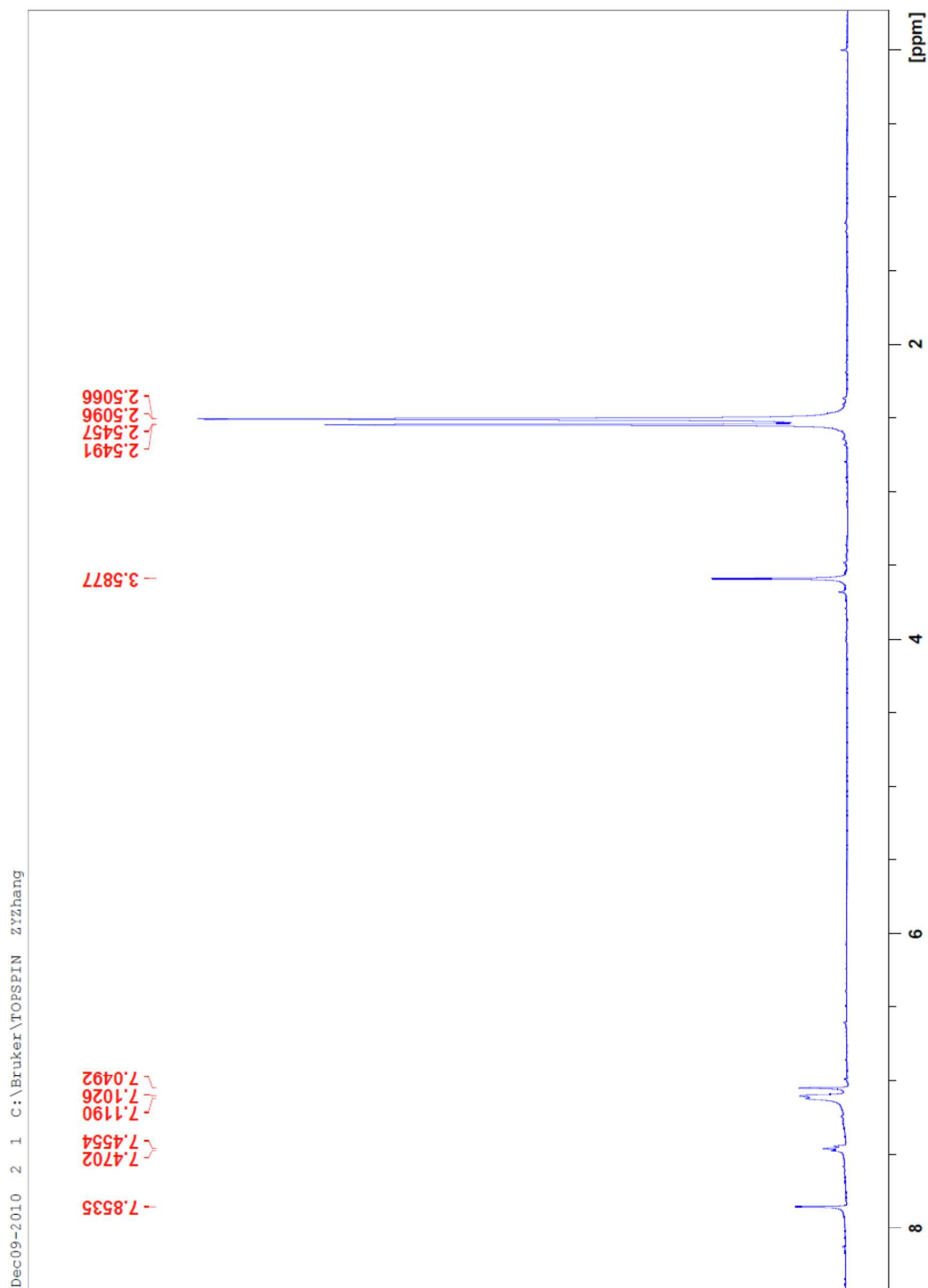
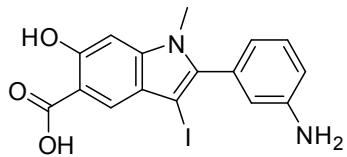
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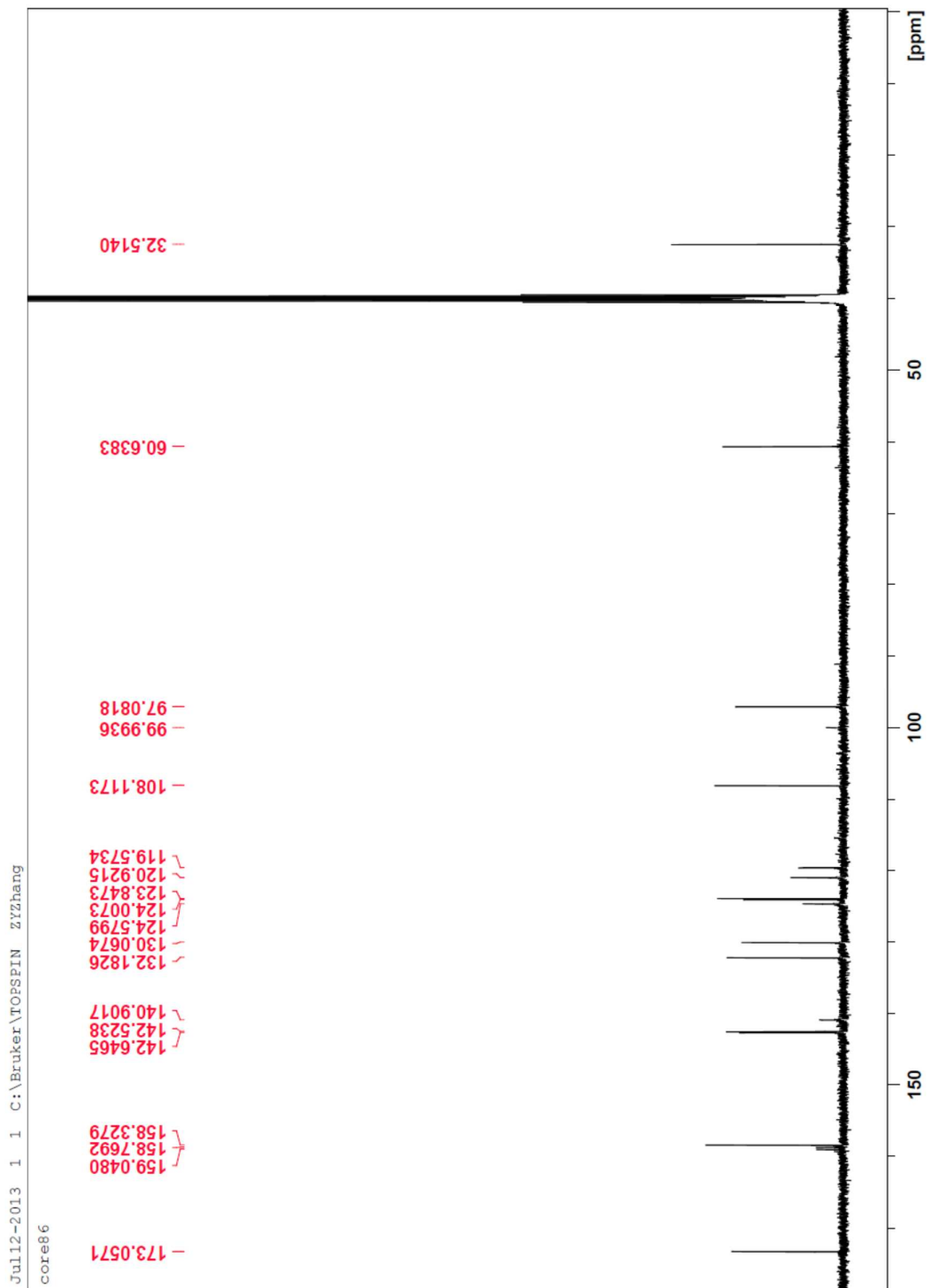
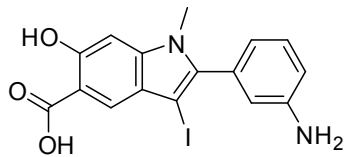
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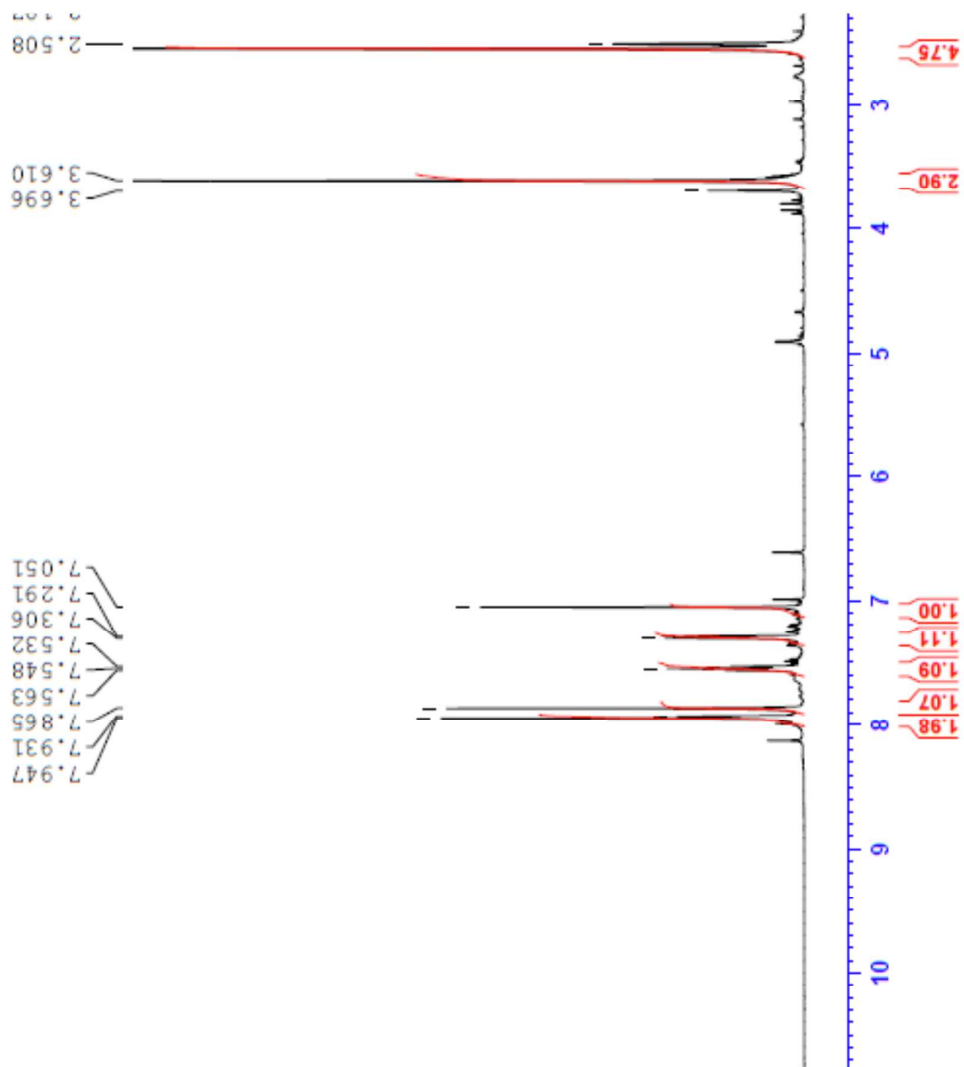
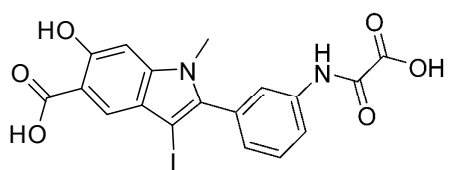
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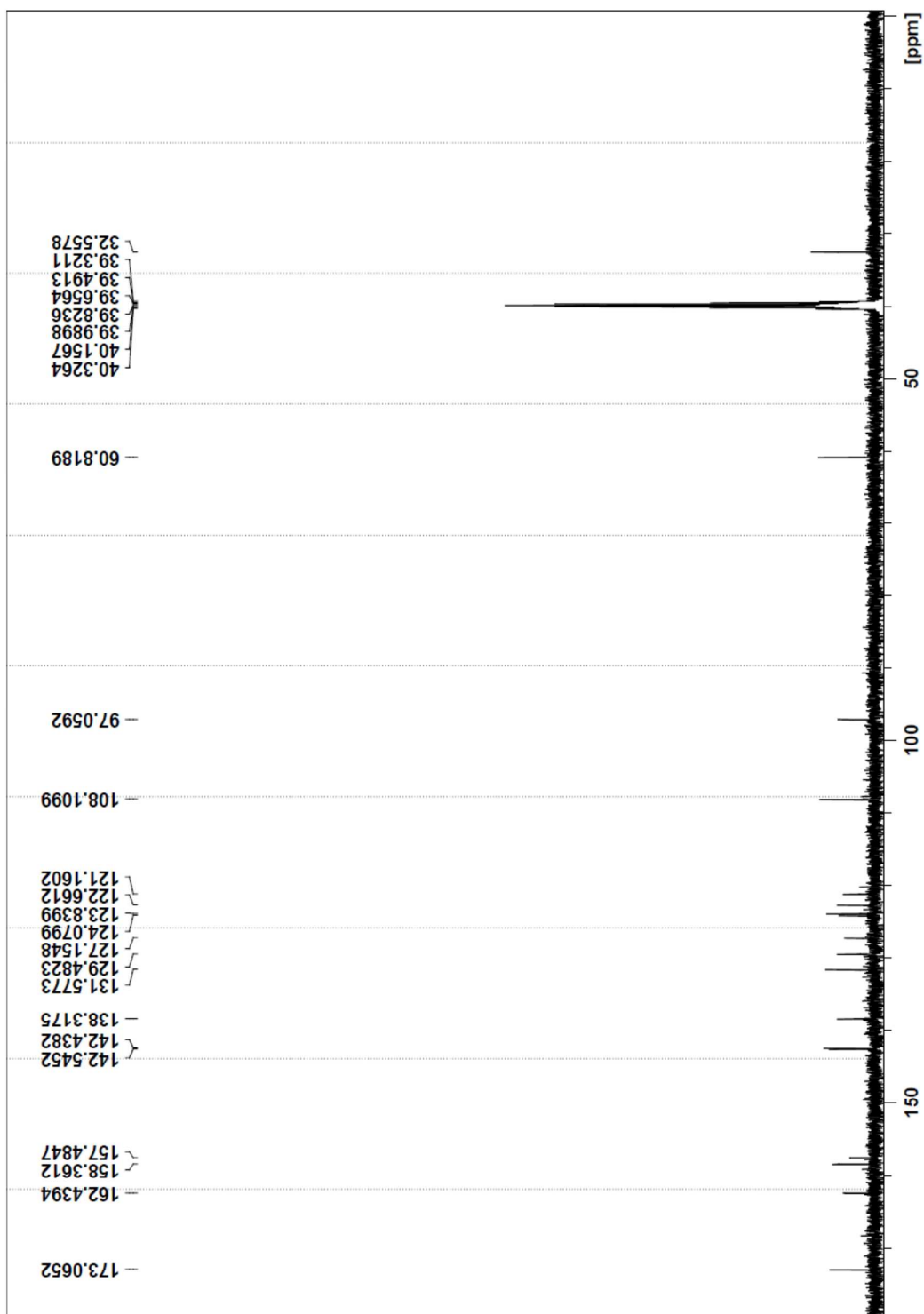
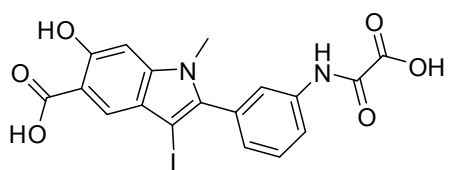
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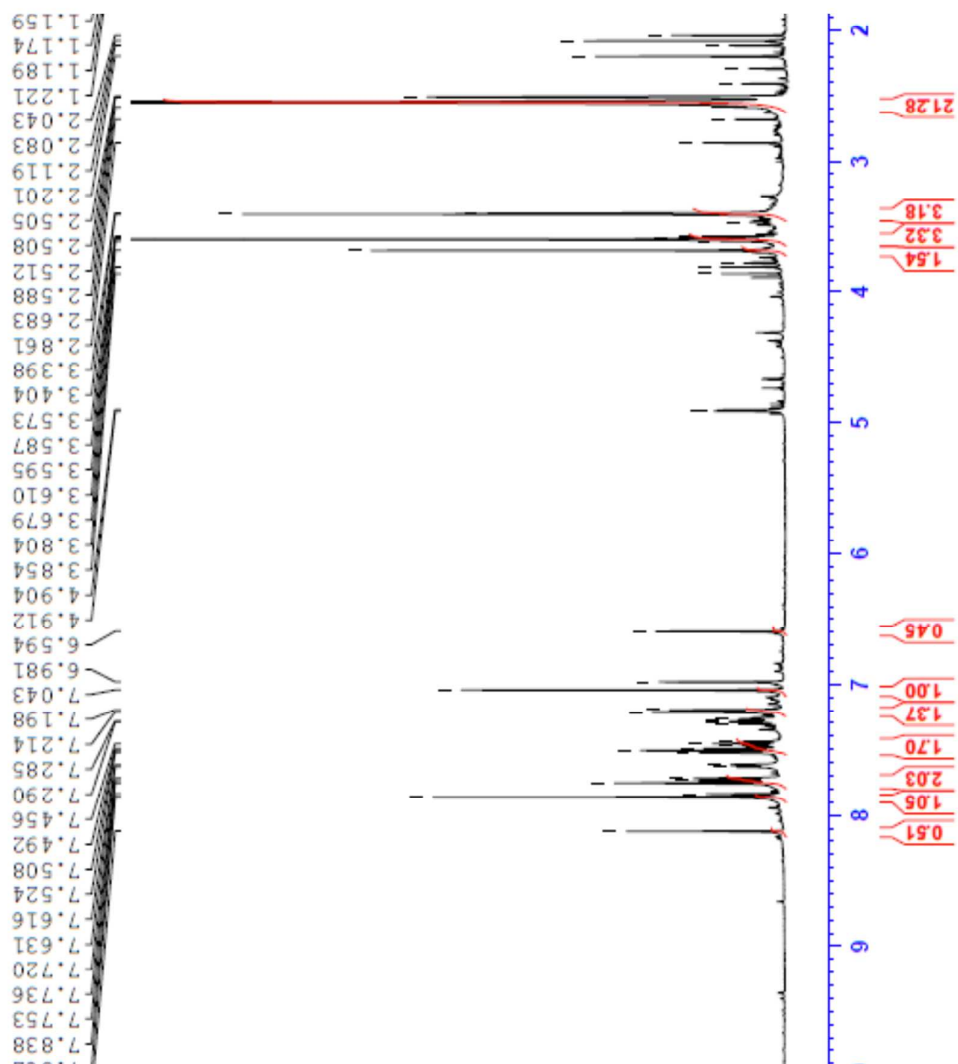
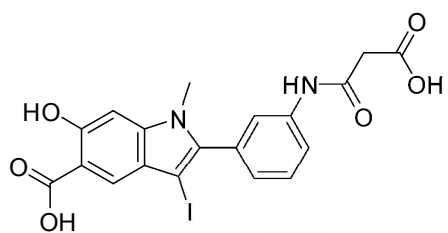
1H NMR for compound 10a



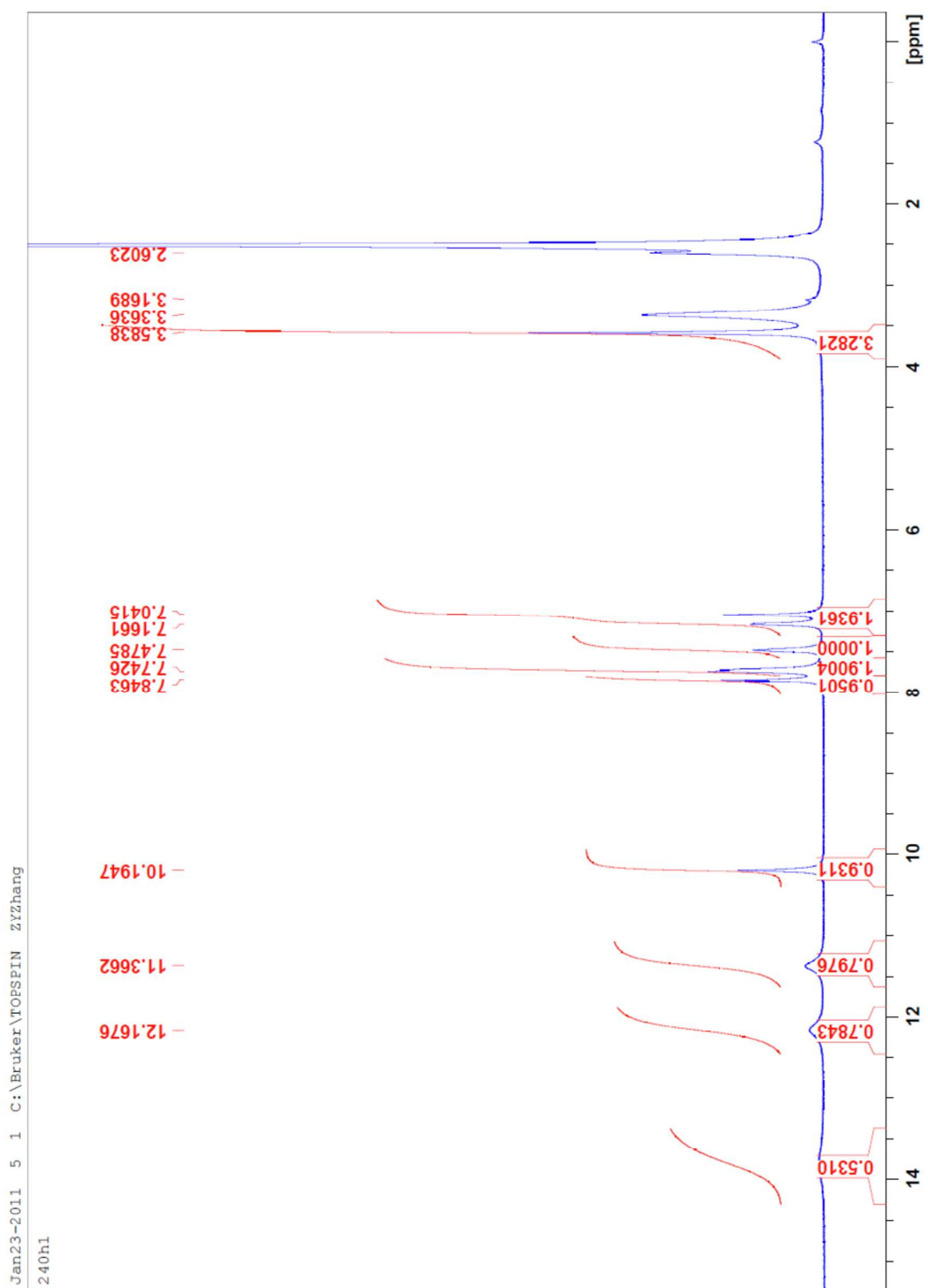
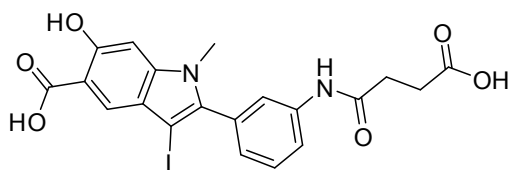
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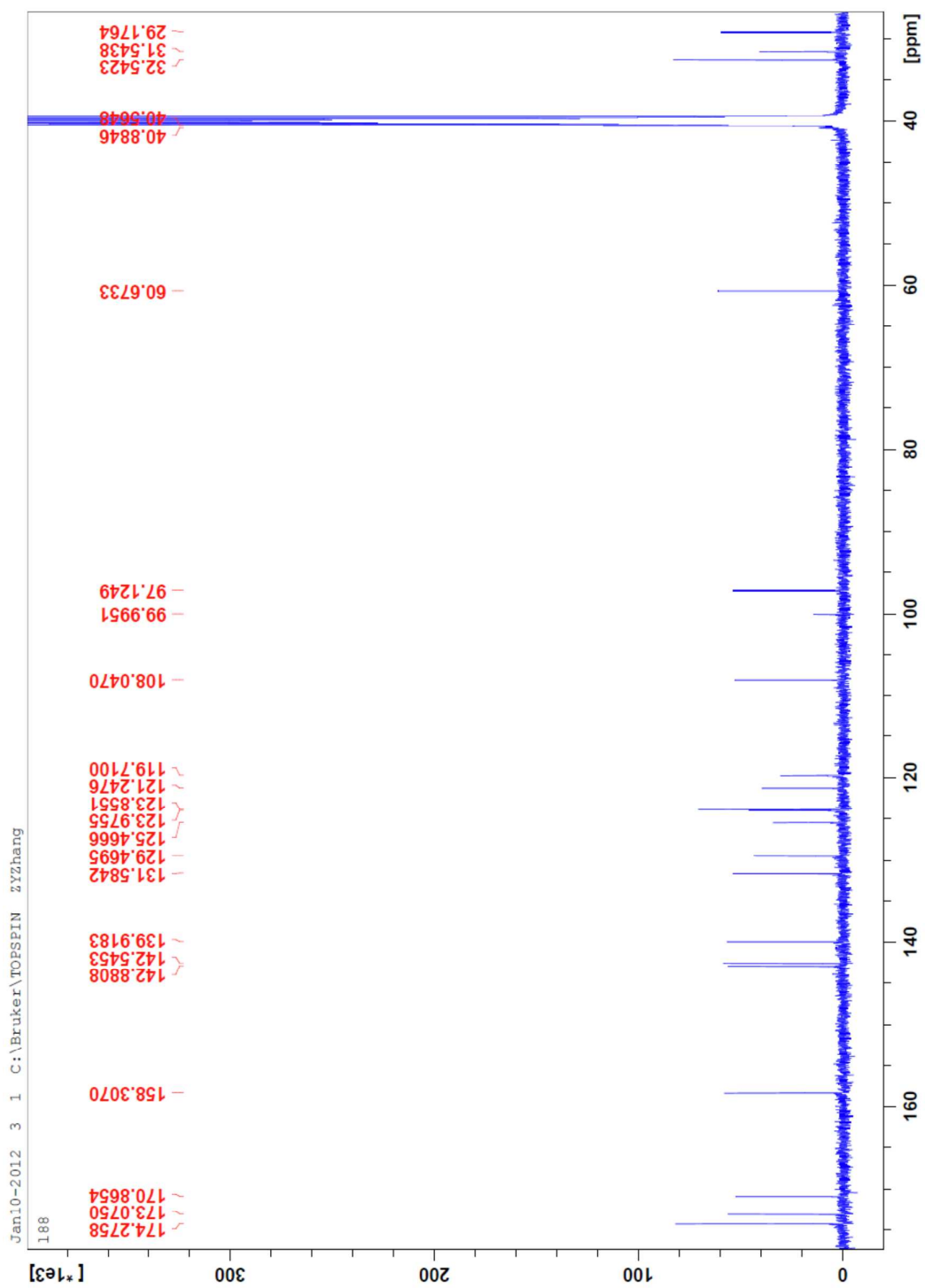
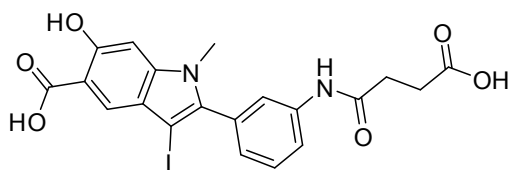
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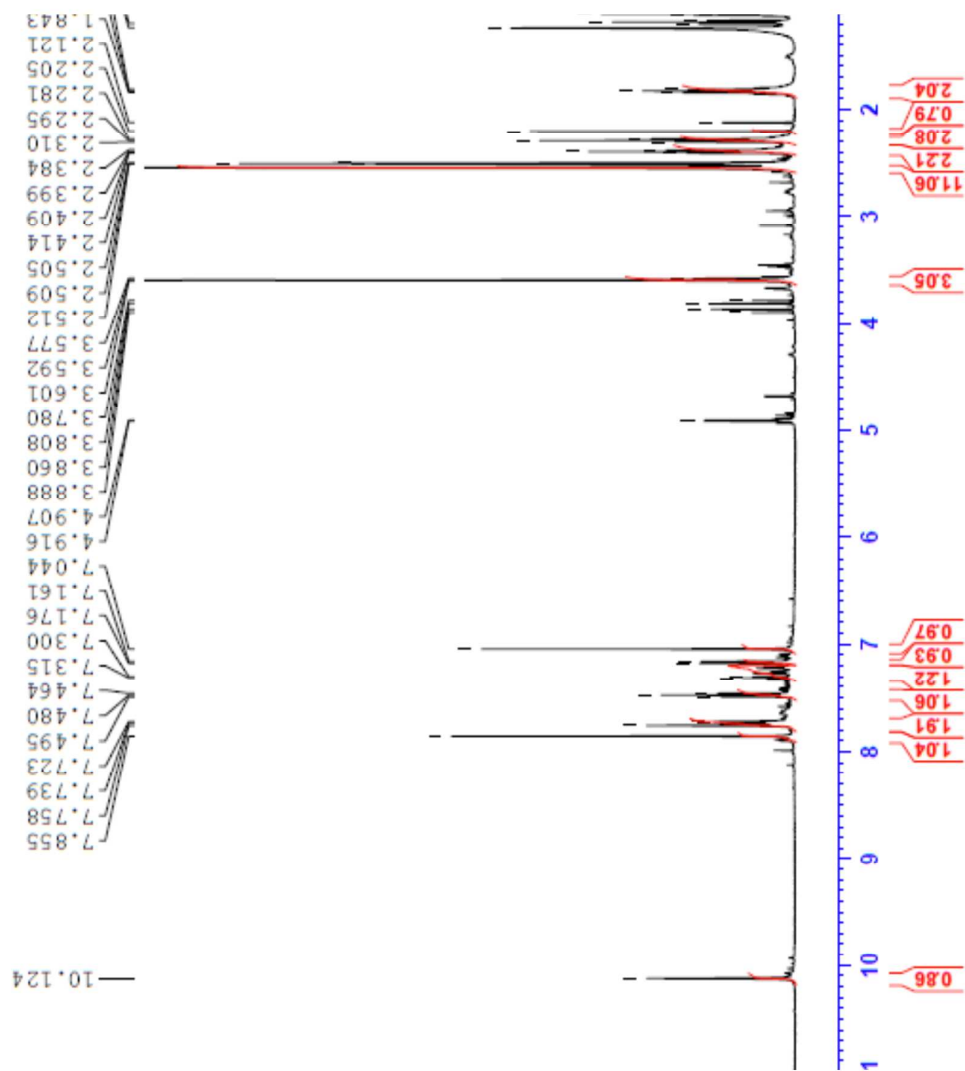
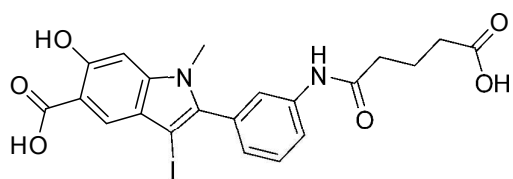
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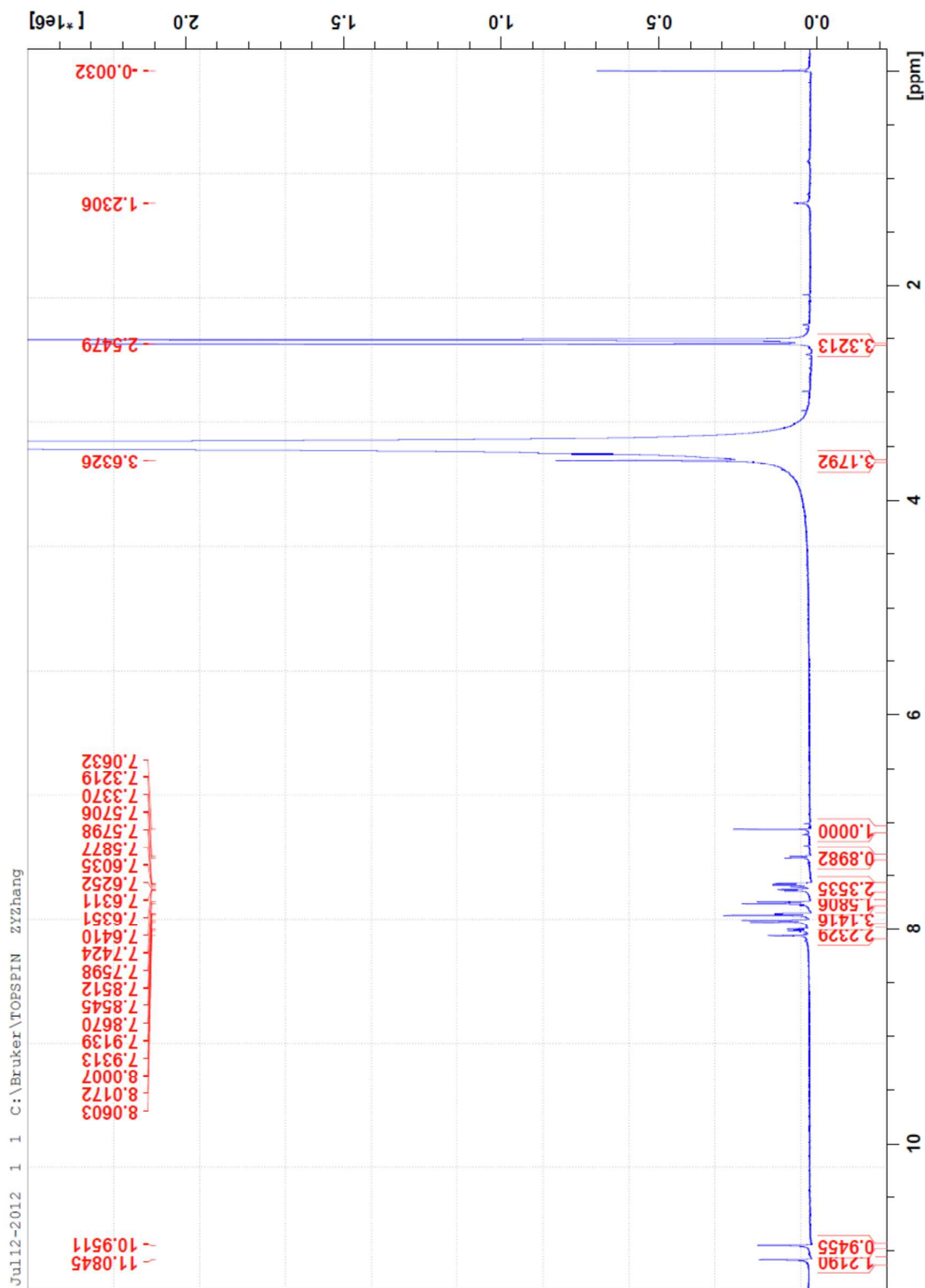
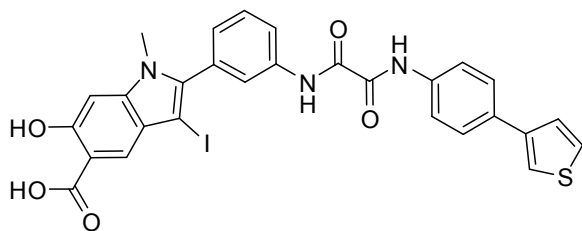
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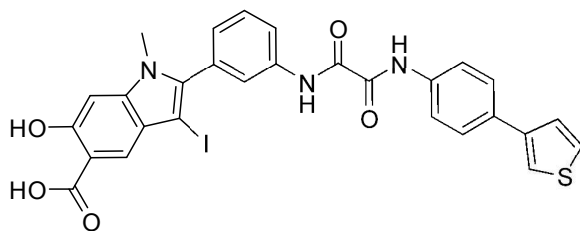
1H NMR for compound 10d



¹H NMR for compound 11a-1

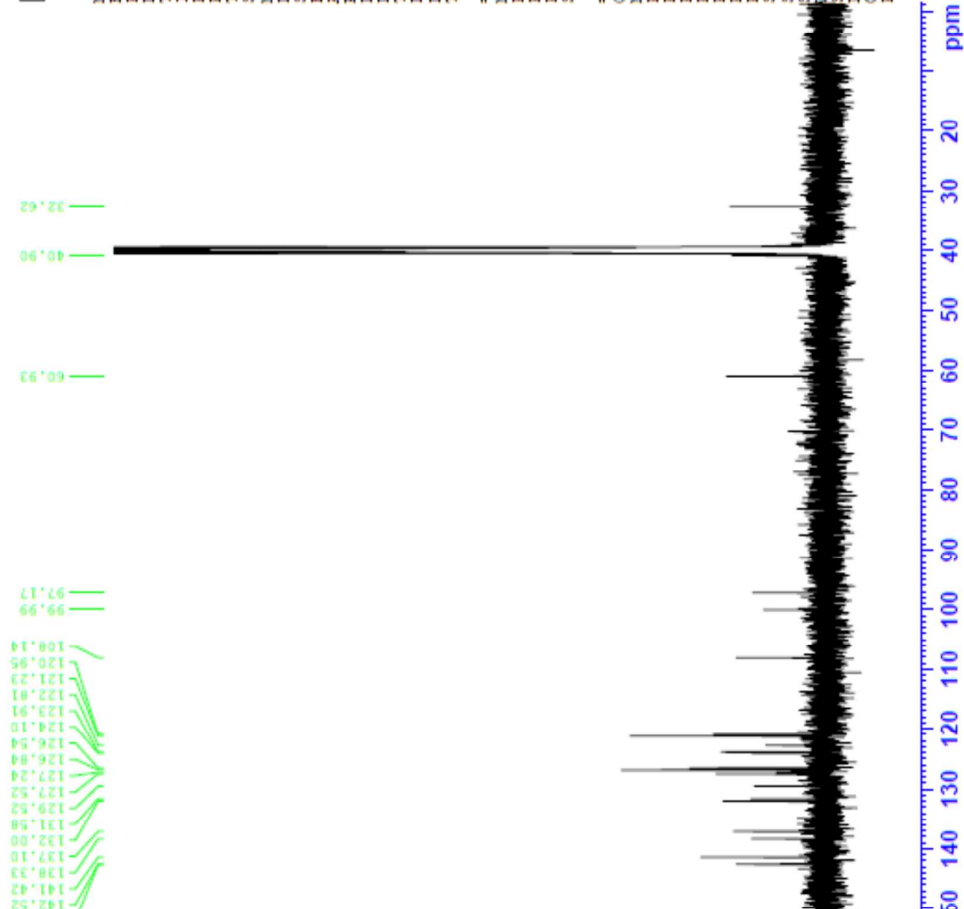


13C NMR for compound 11a-1



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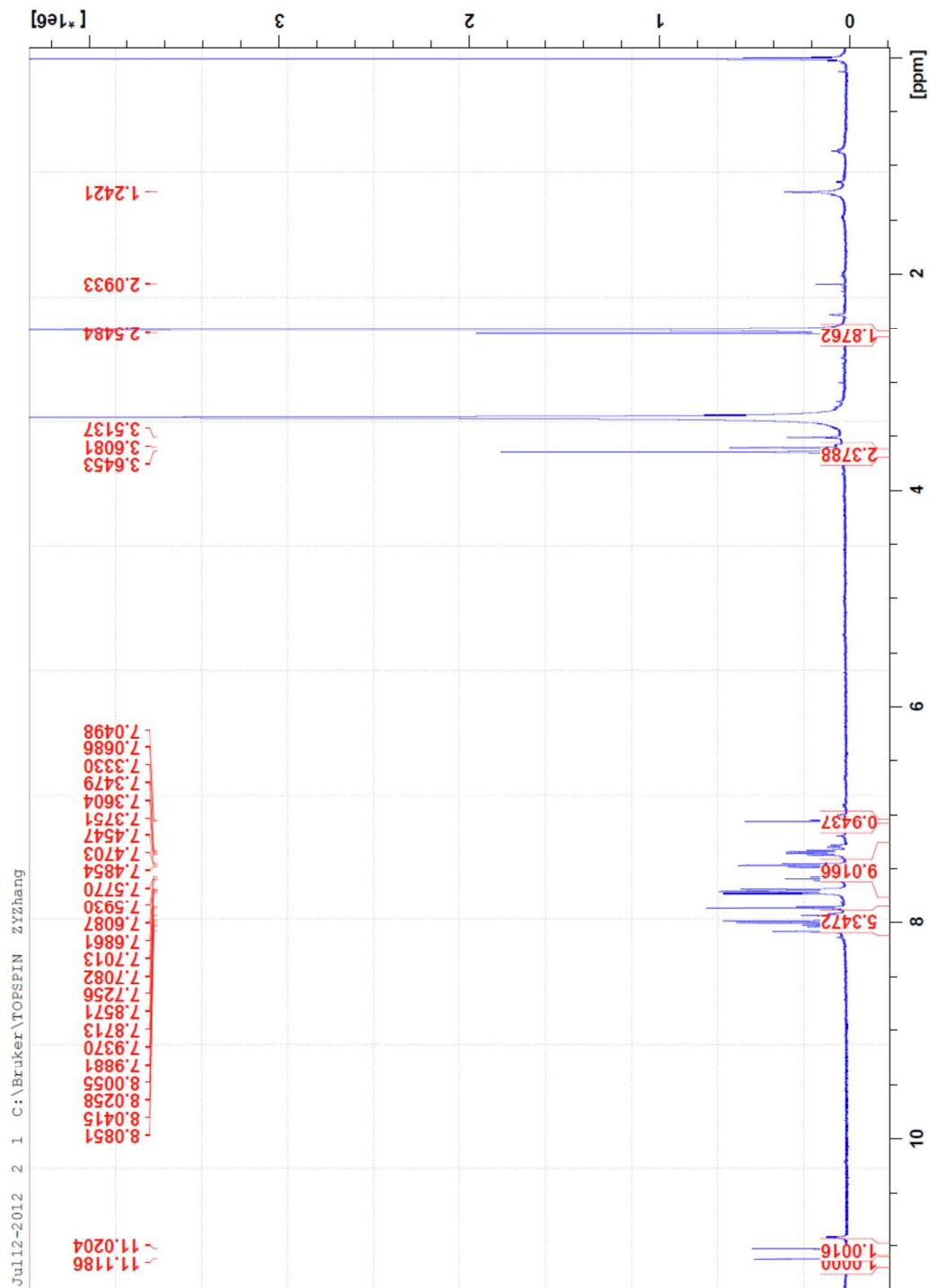
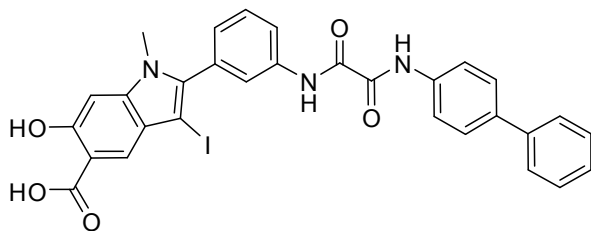
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PROCNO        1
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PULPROG       zgpg30
SOLVENT       DMSO
NS            2048
DS            4
SWH           12500.000
FIDRES       0.18000000
AQ           0.20000000
RG           655.36
DW           0.00000000
DE           0.00000000
TE           300.2
D1           2.00000000
D11          0.05000000
TD0          65536
===== CHANNEL f1 =====
NUC1          13C
P1           12.00
PL1          0.00
SFO1         100.625
SF01         125.130
===== CHANNEL f2 =====
CEDEPRG2     zgpg30
NUC2          13C
PCPD2        12.00
P2           12.00
PL2          0.00
P12         25.00
PL12        0.00
P13         25.00
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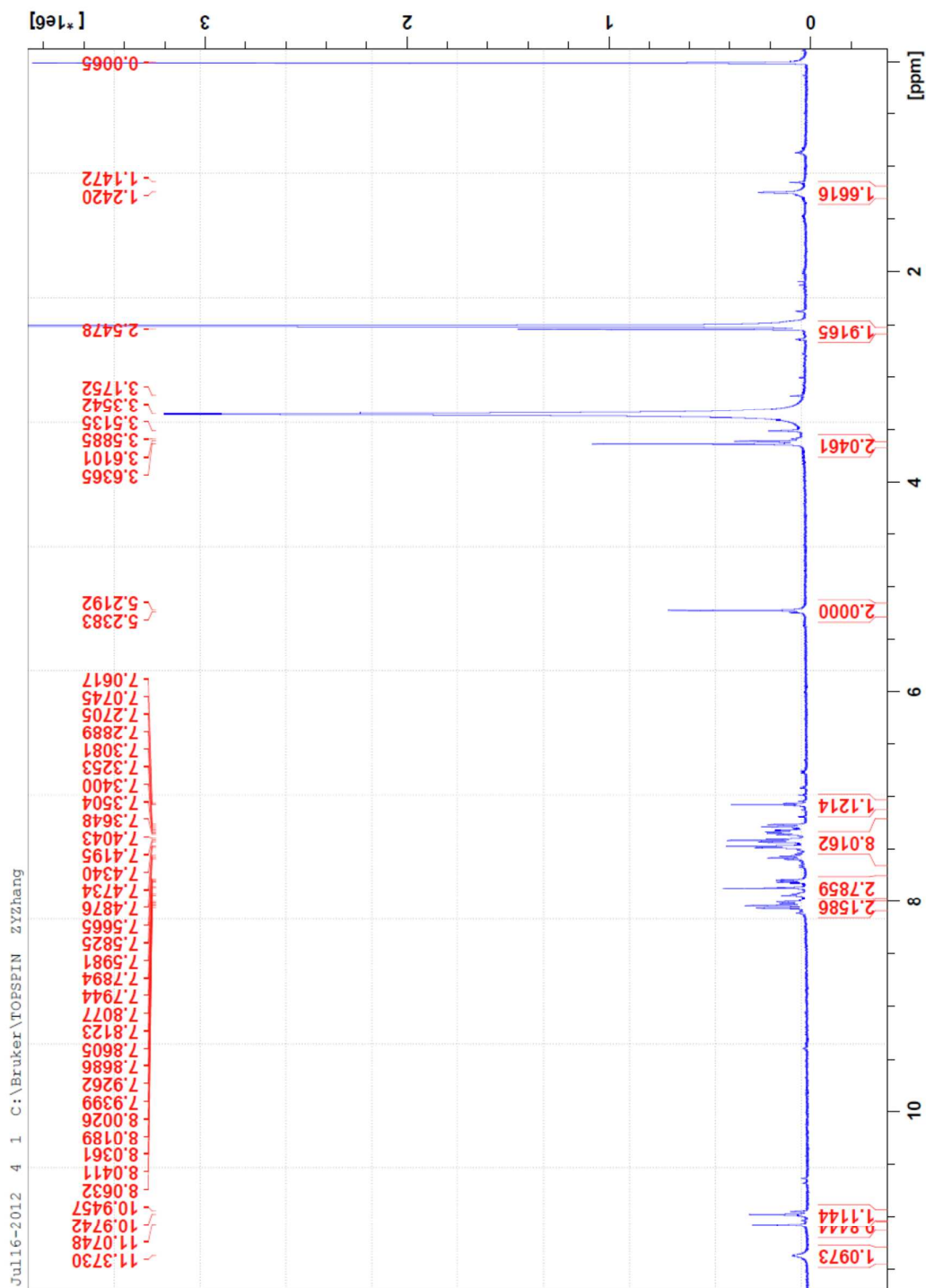
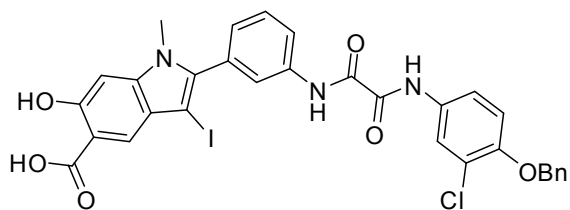
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50 140 130 110 100 90 80 70 60 50 40 30 20 ppm

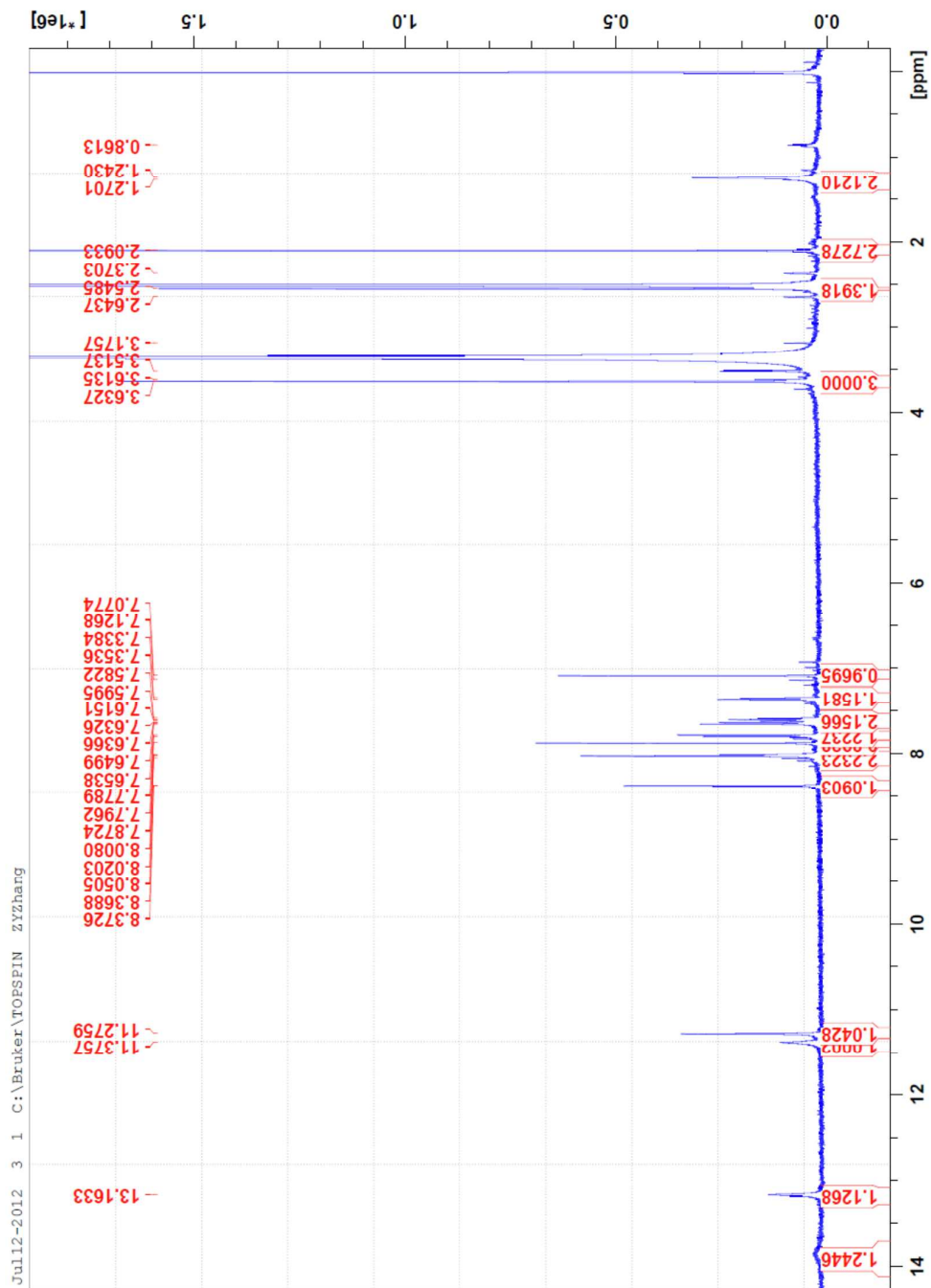
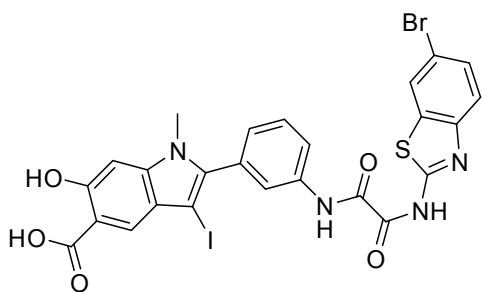
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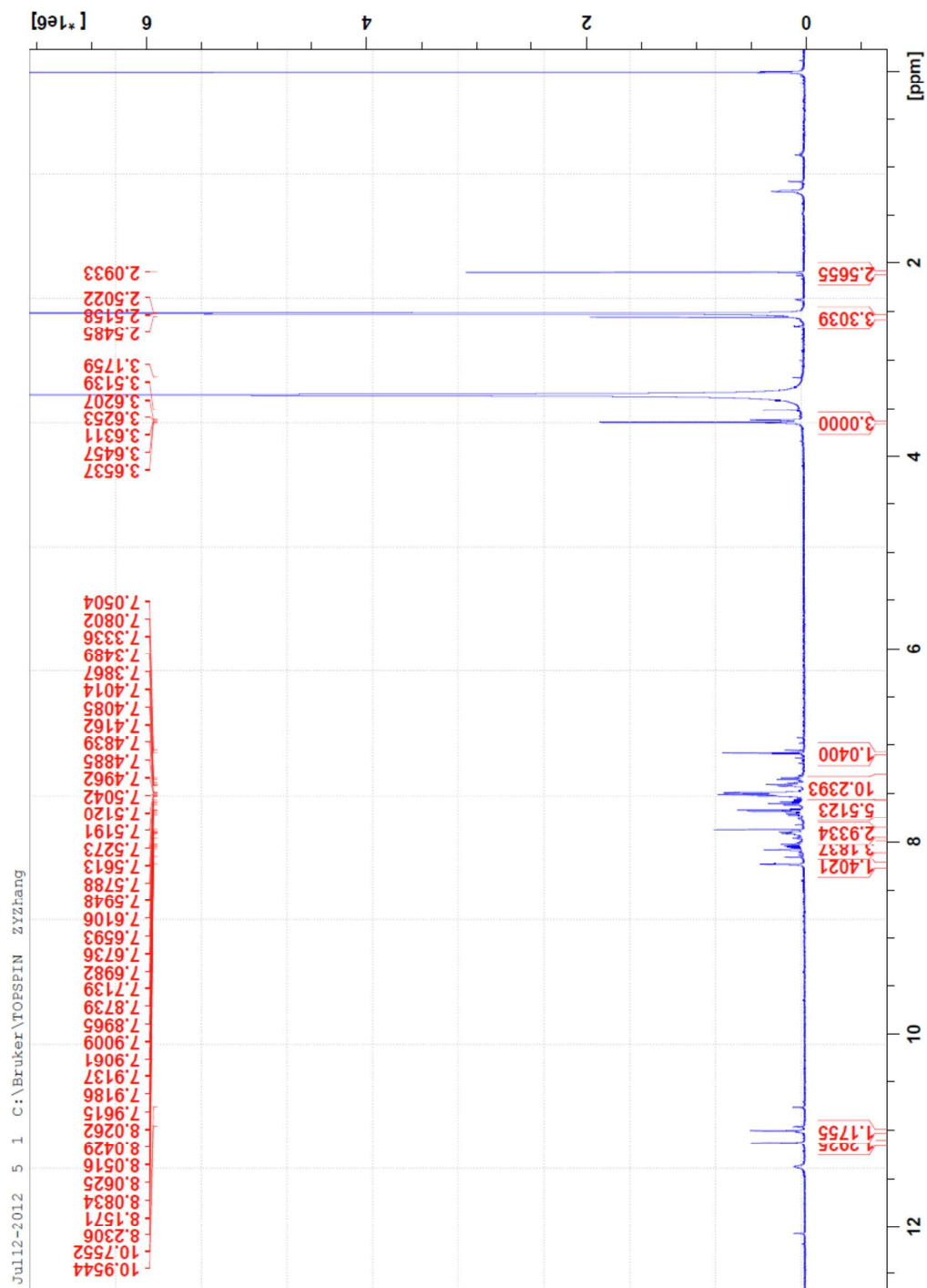
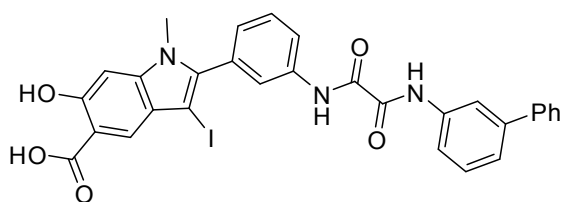
¹H NMR for compound 11a-3



1H NMR for compound 11a-4

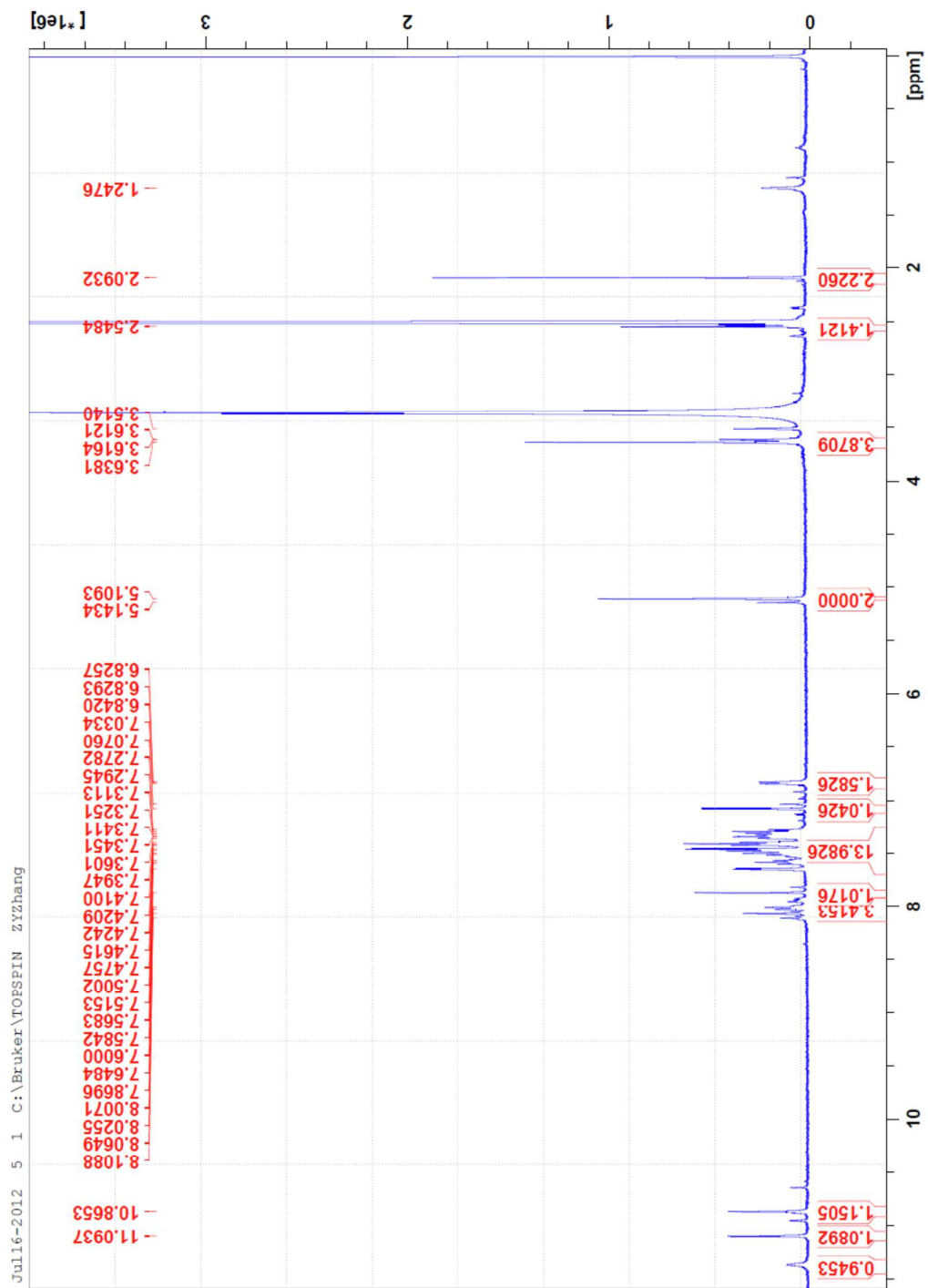
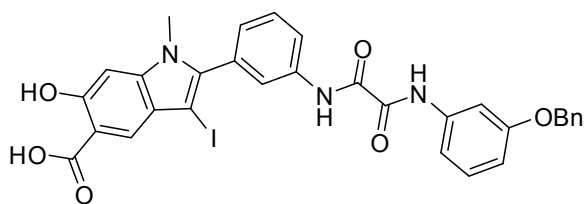


1H NMR for compound 11a-5

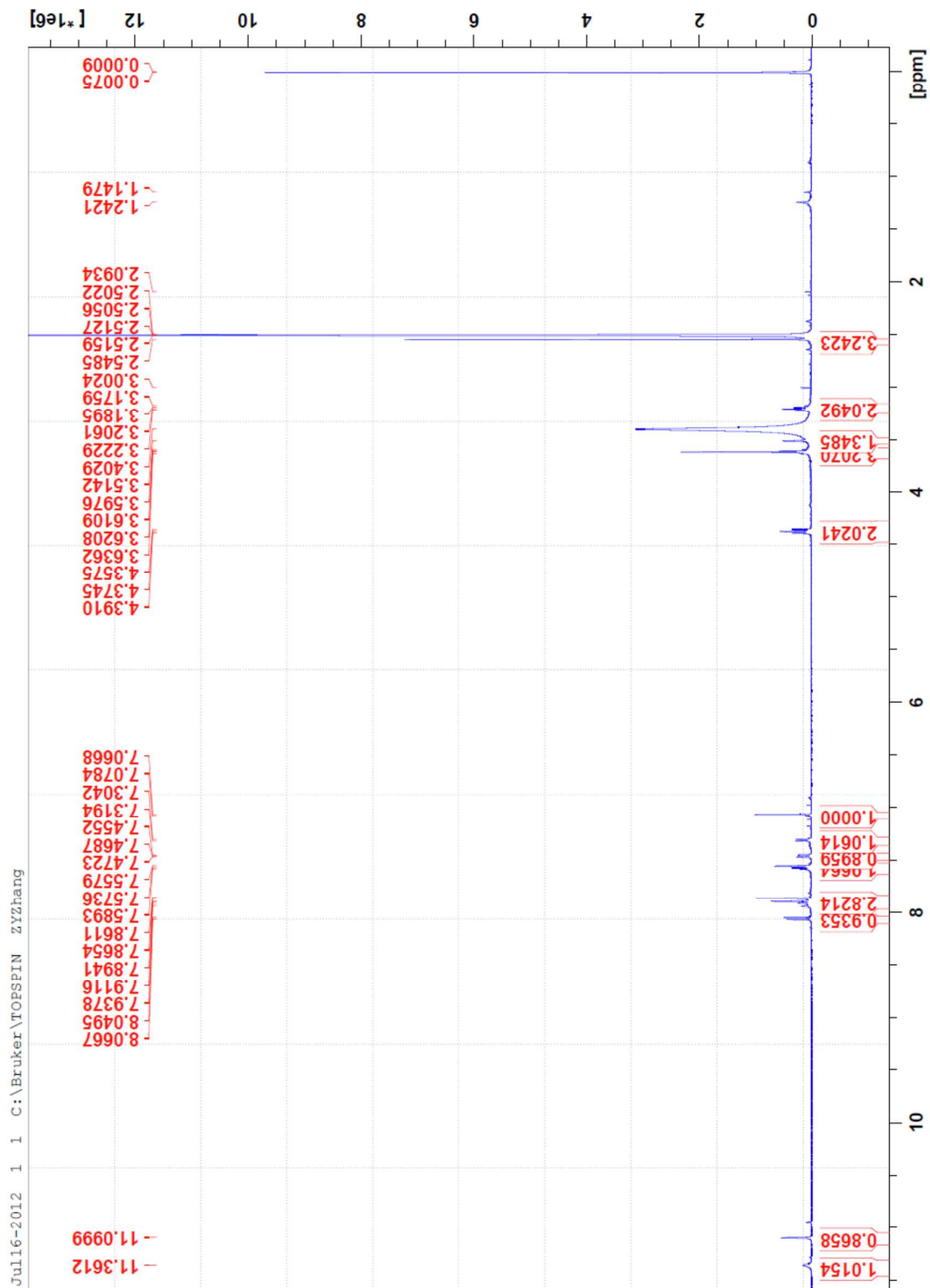
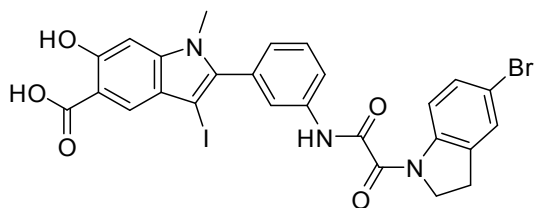


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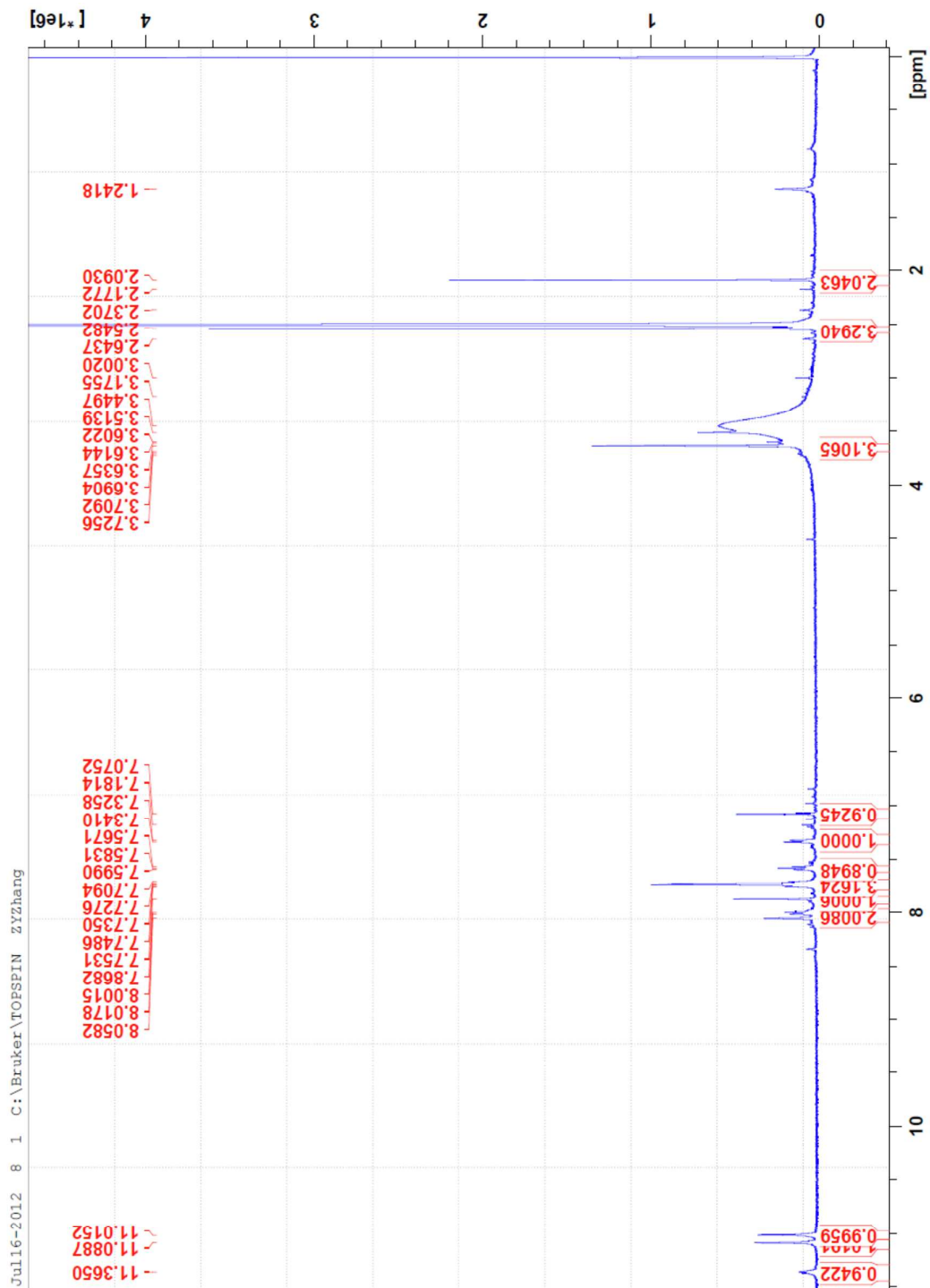
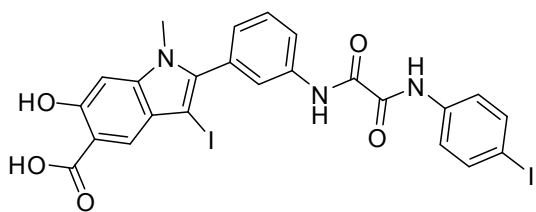
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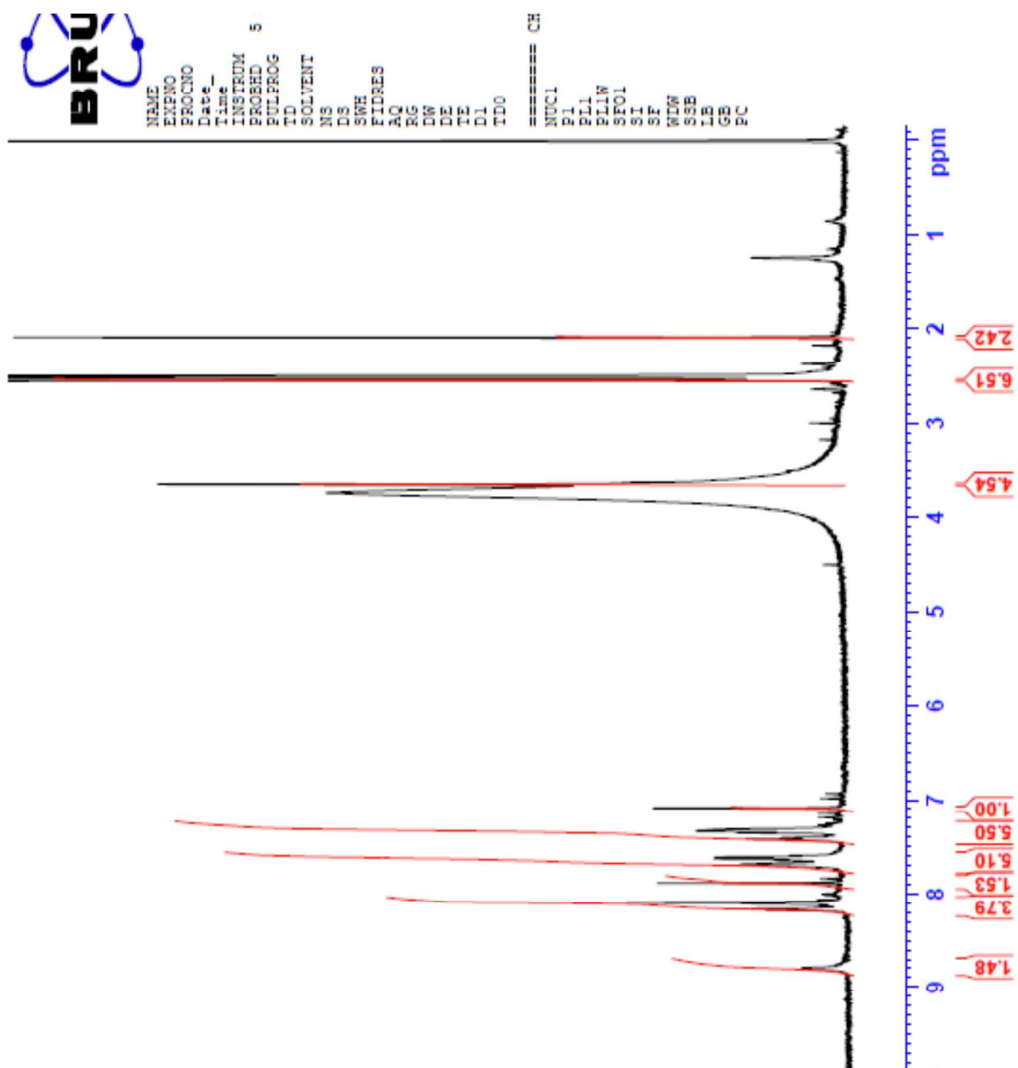
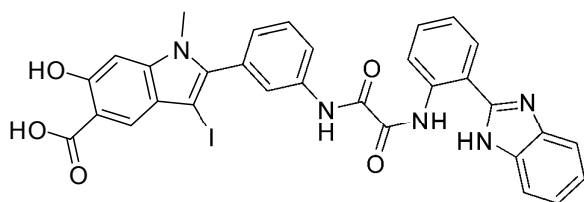
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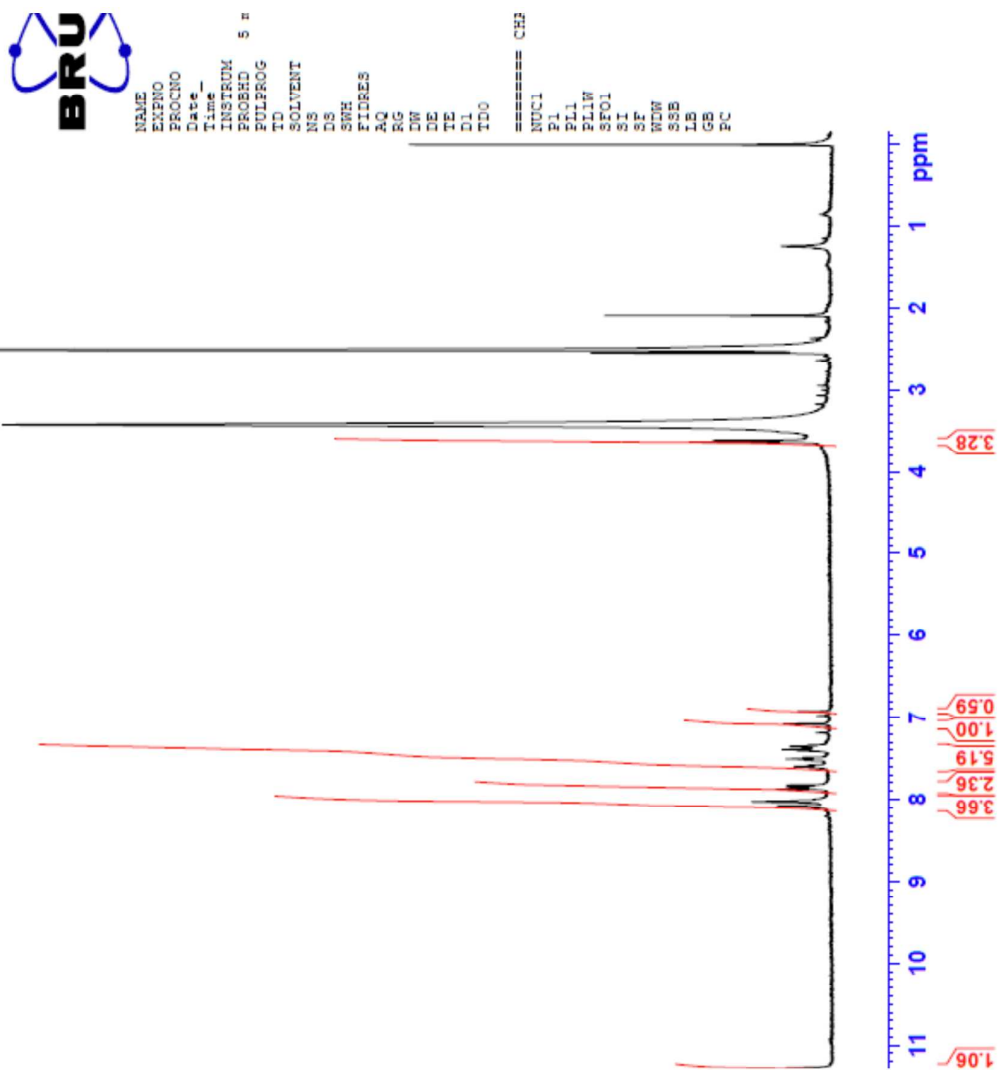
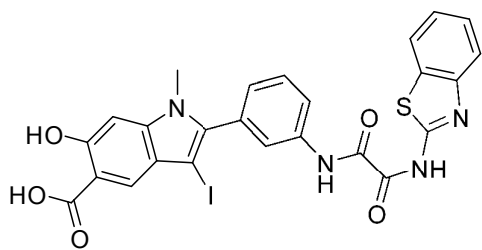
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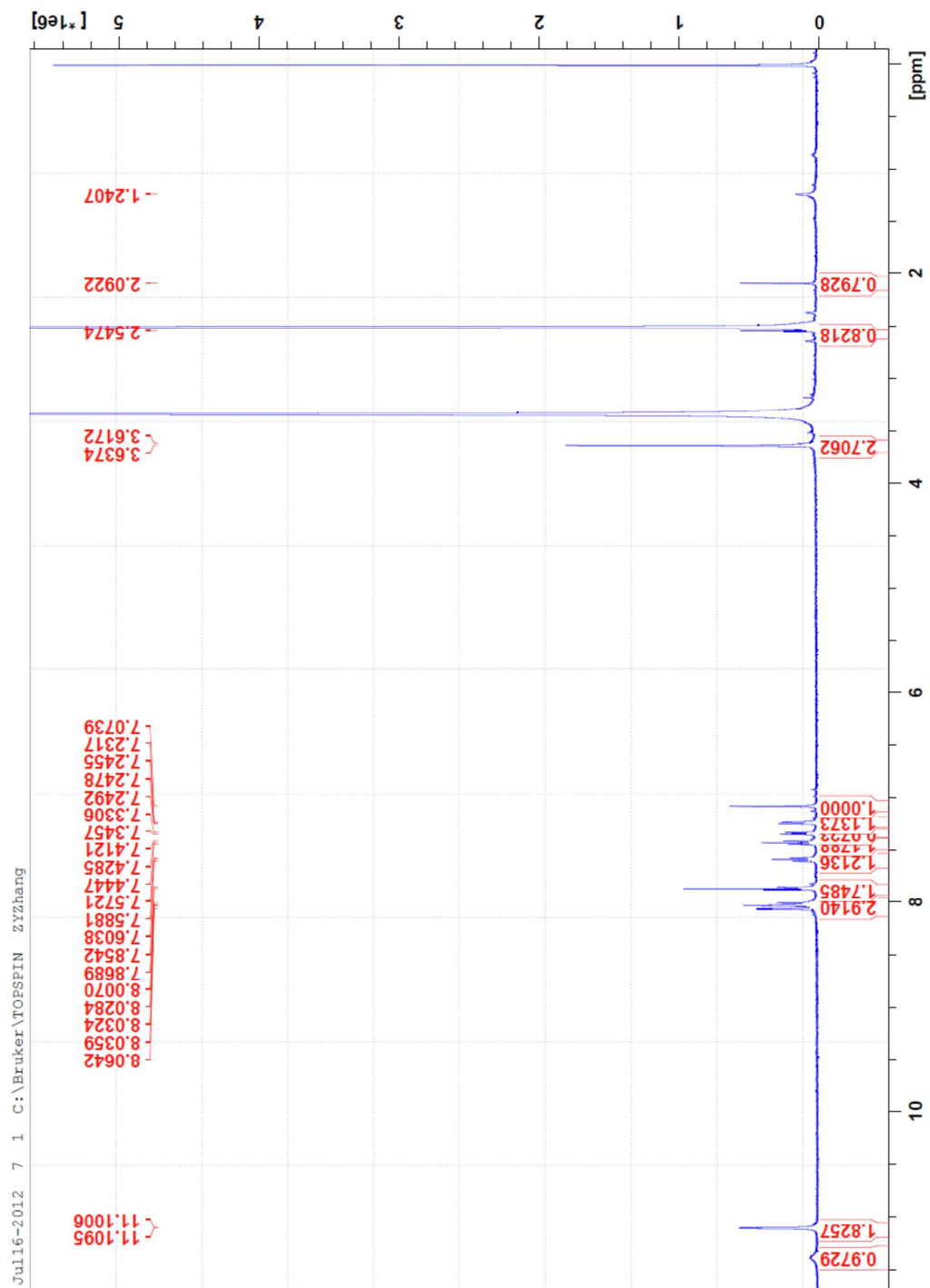
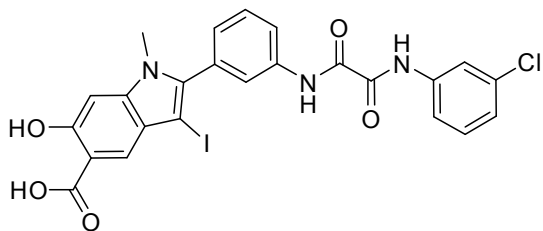
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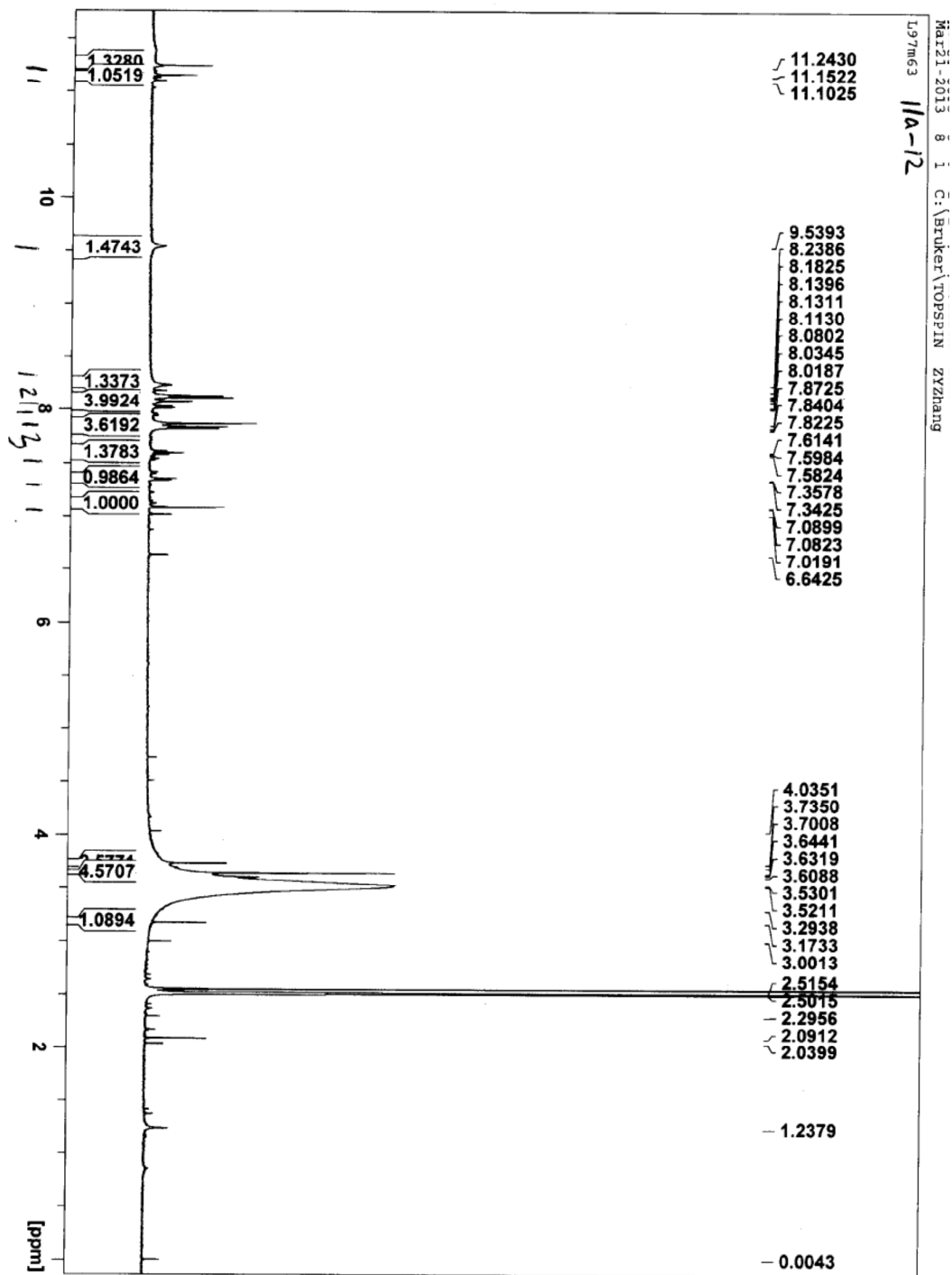
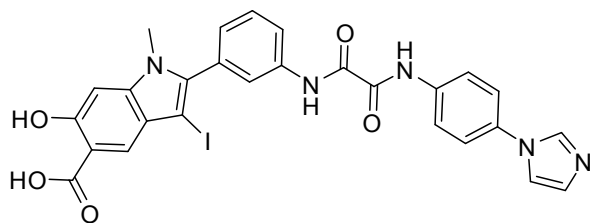
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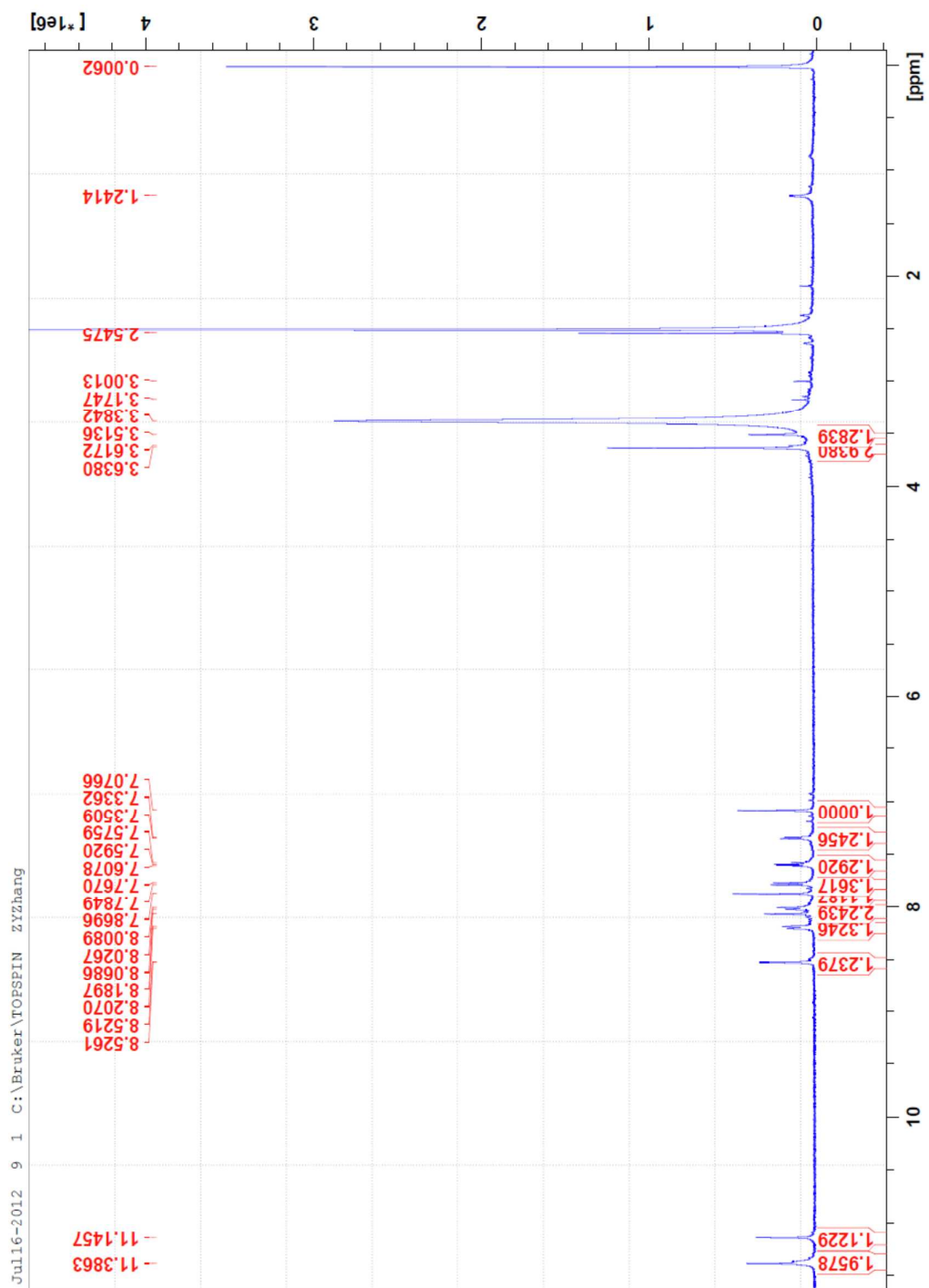
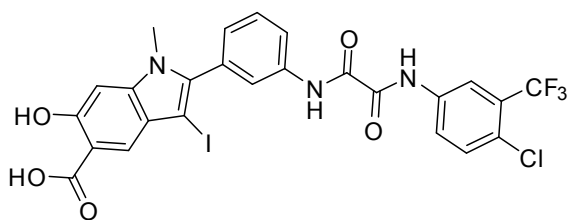
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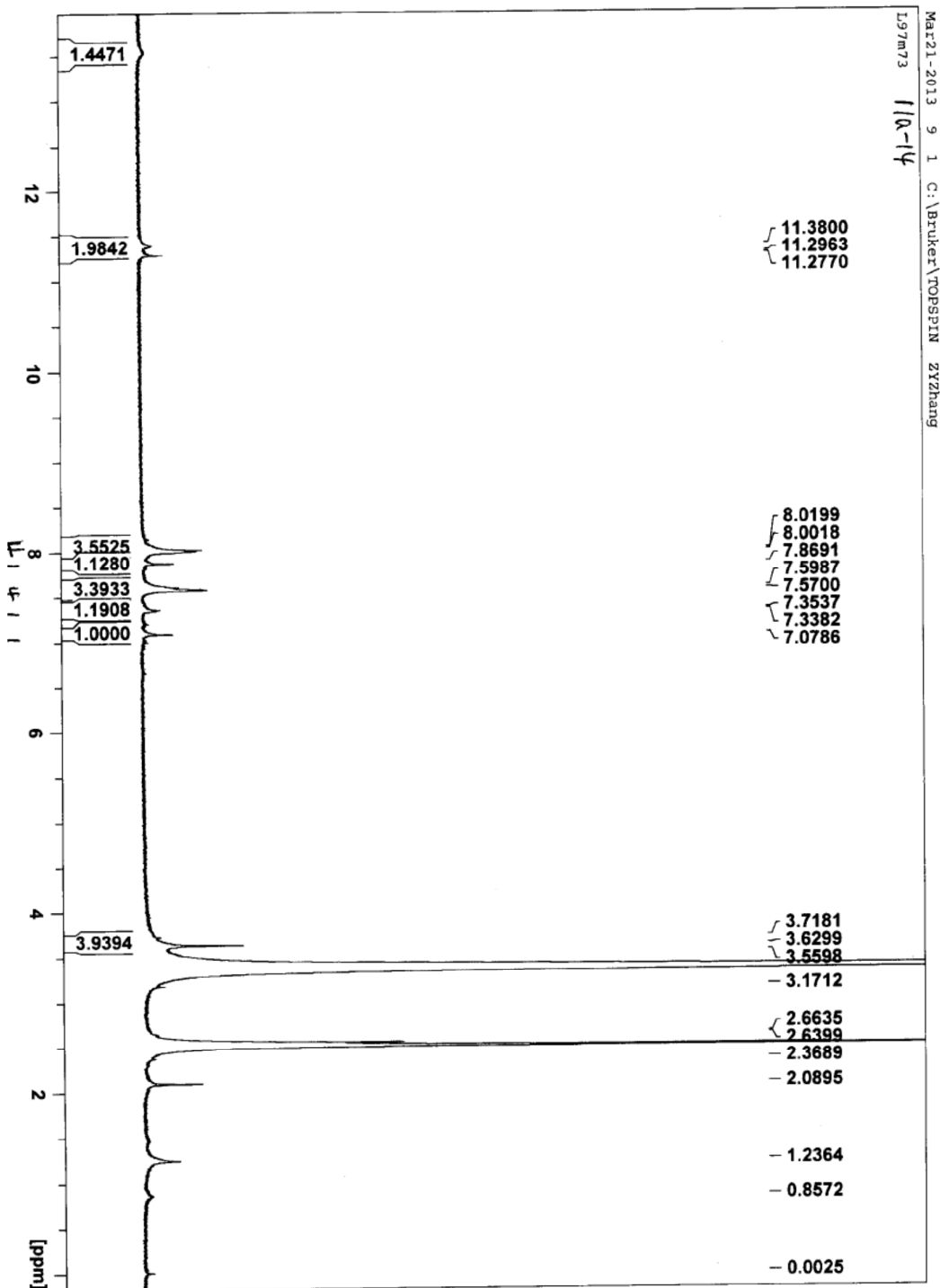
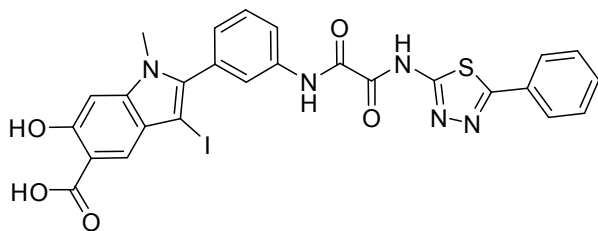
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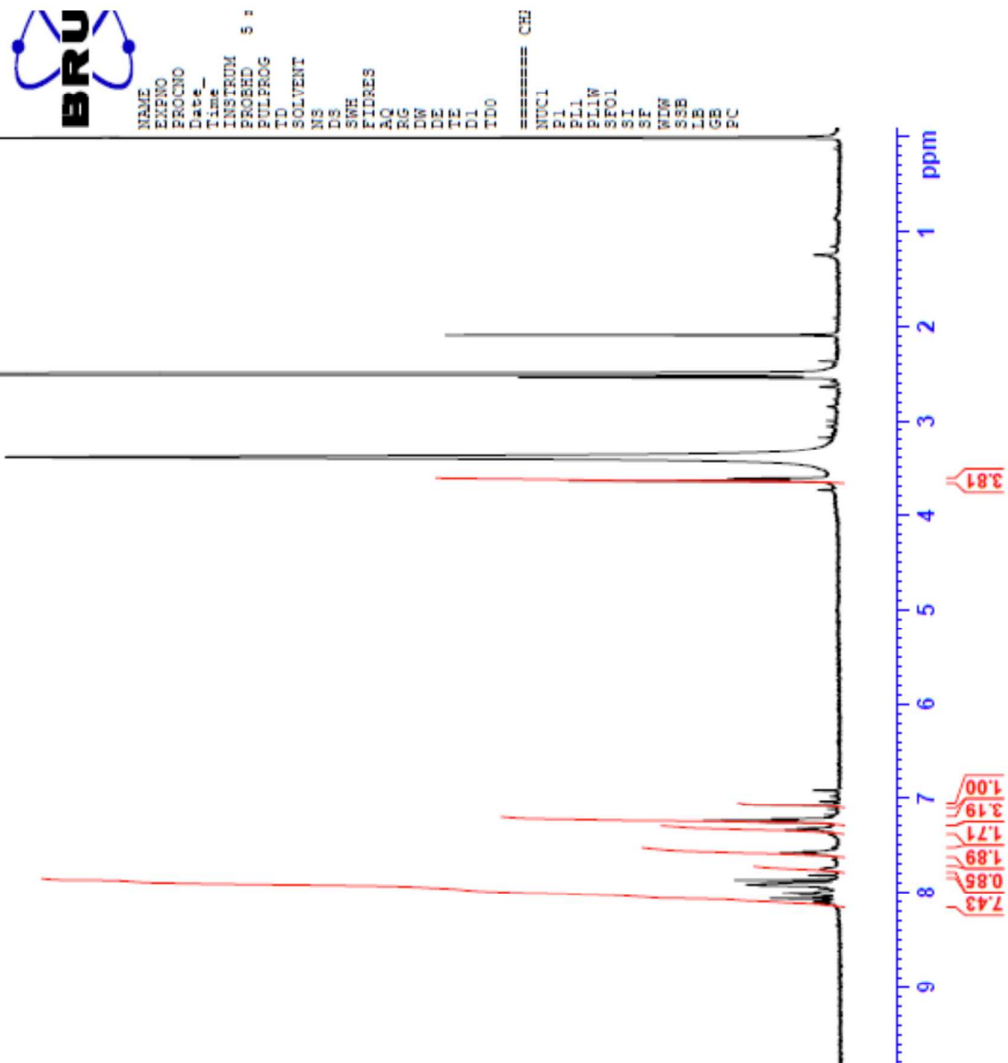
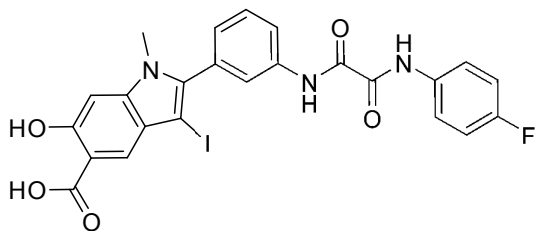
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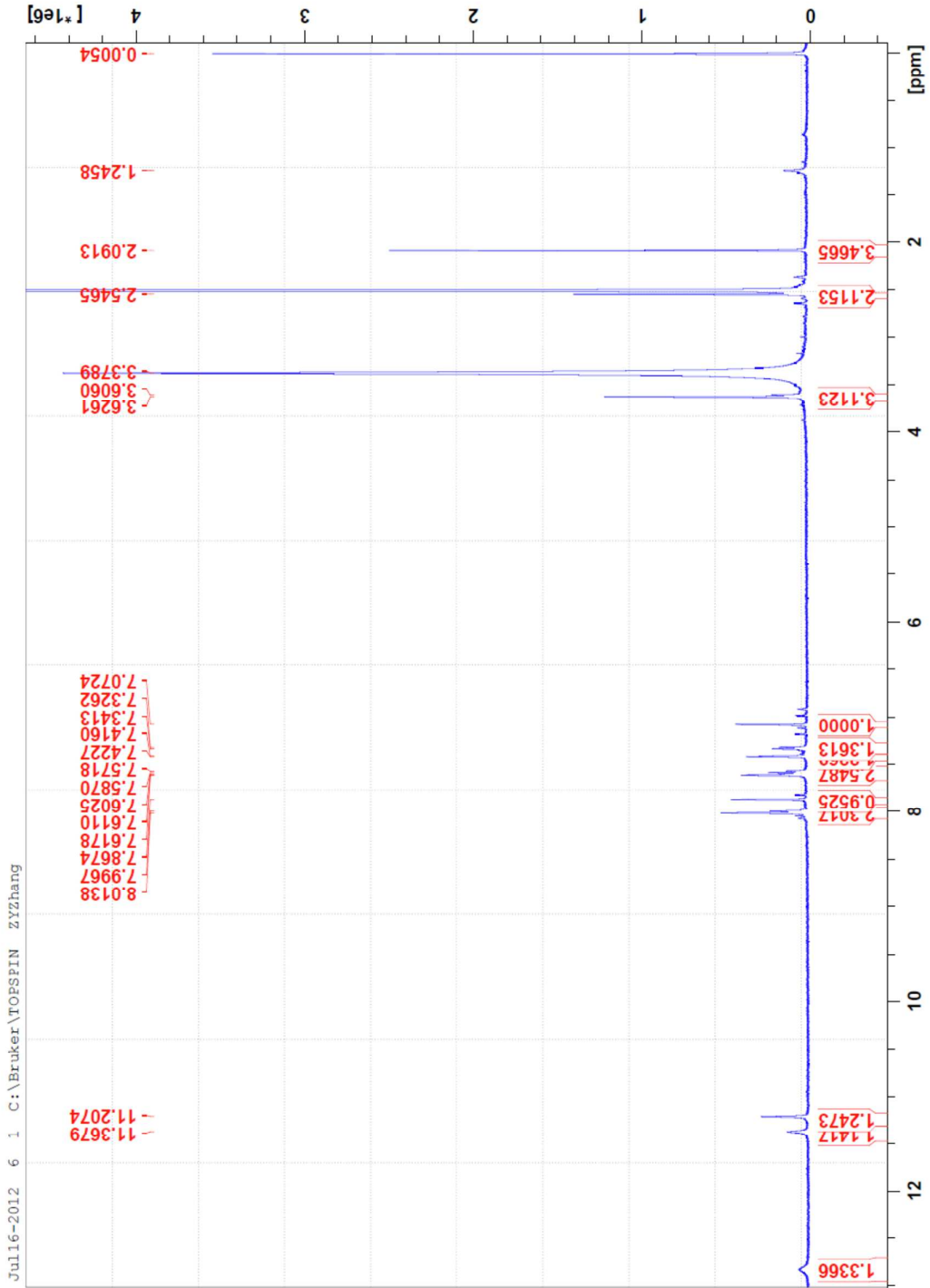
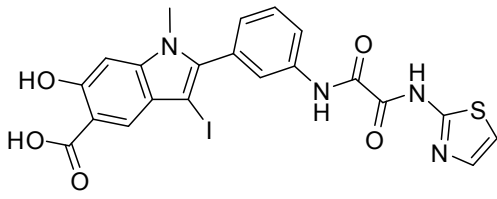
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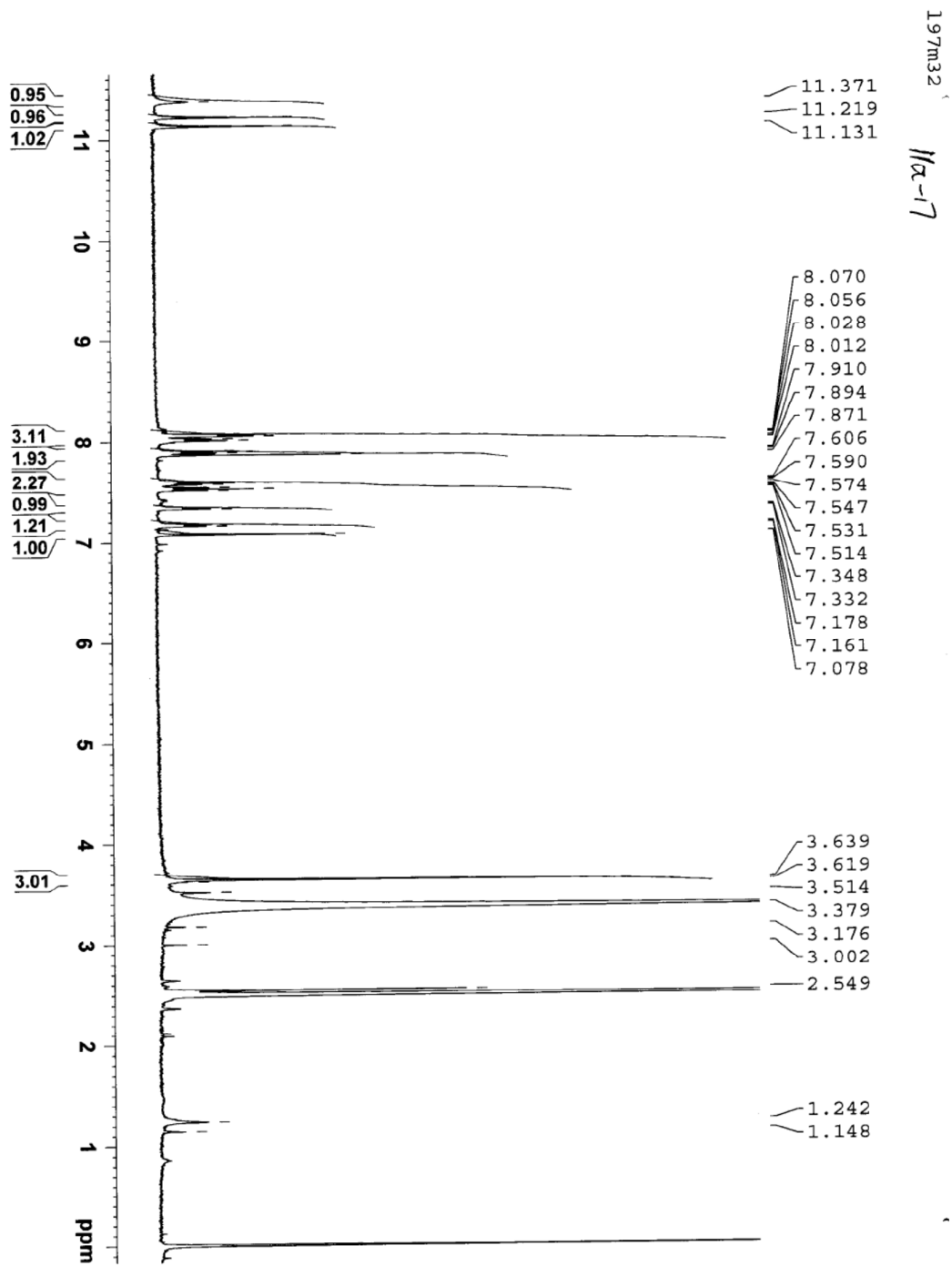
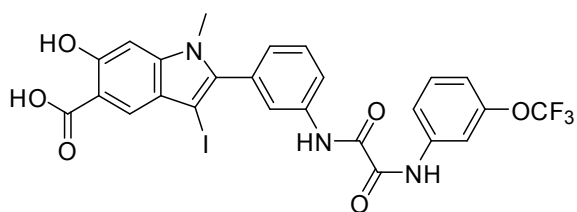
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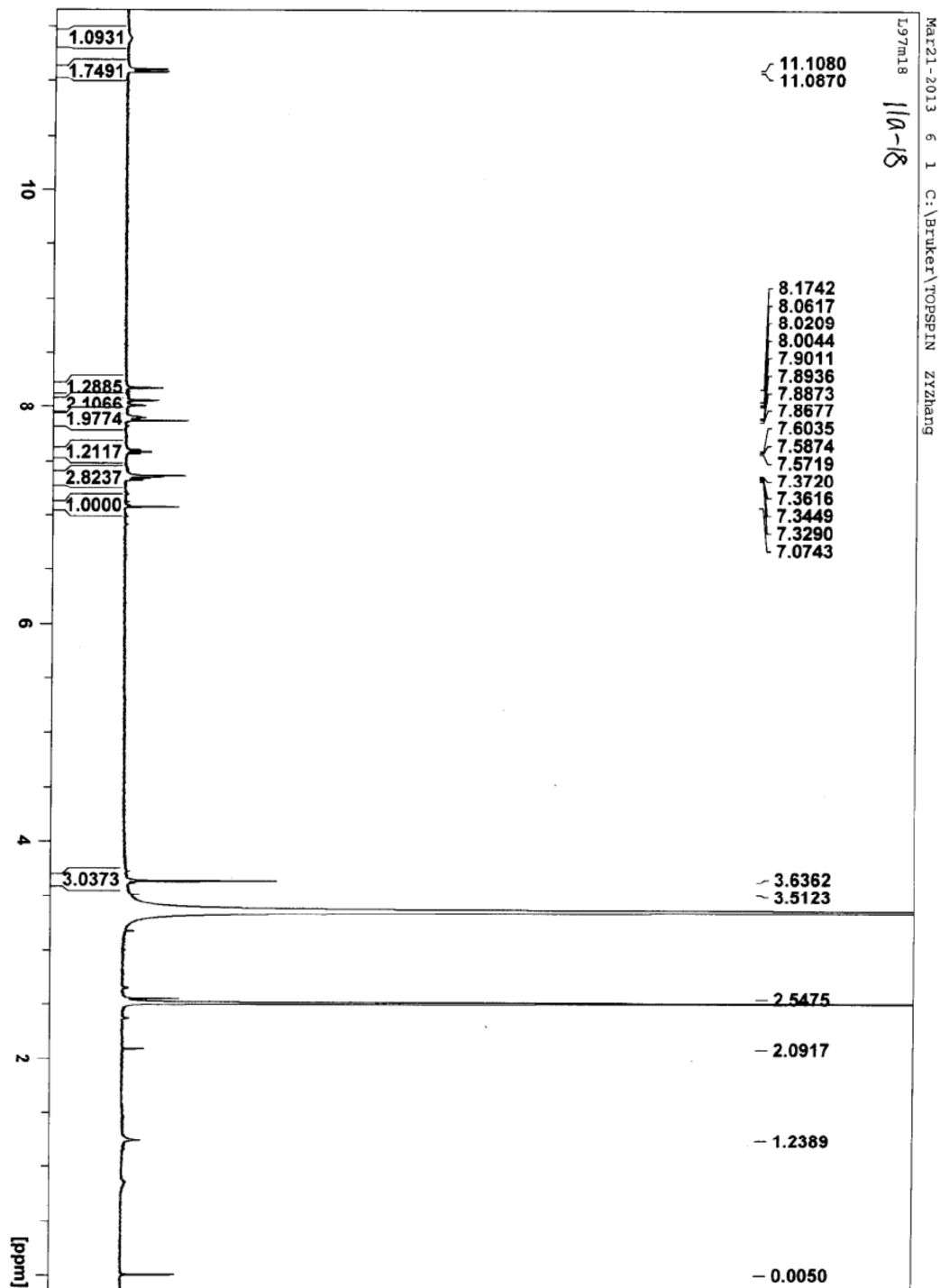
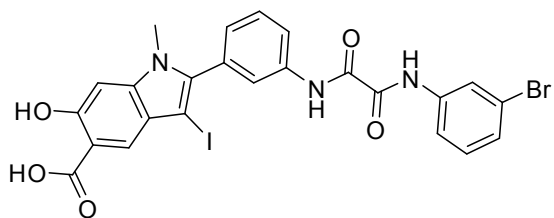
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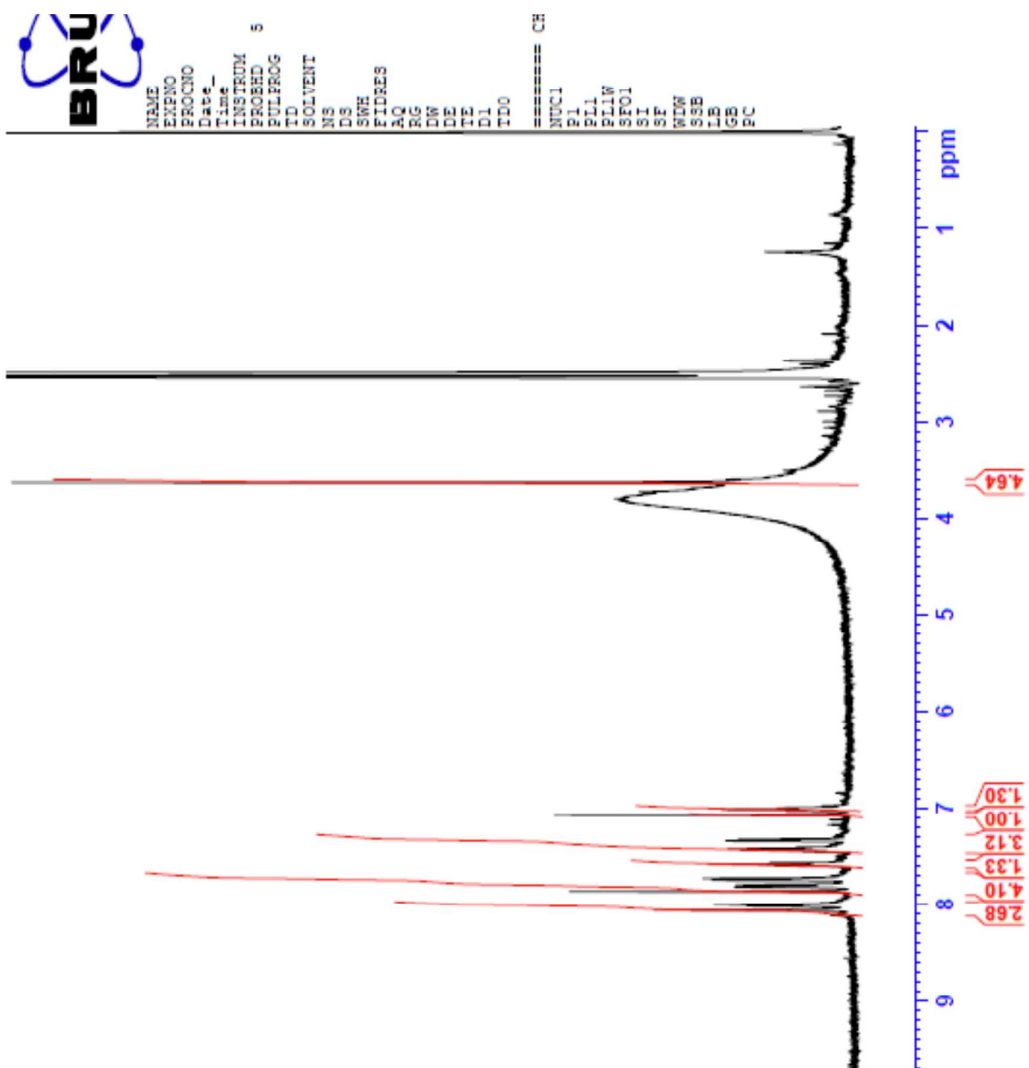
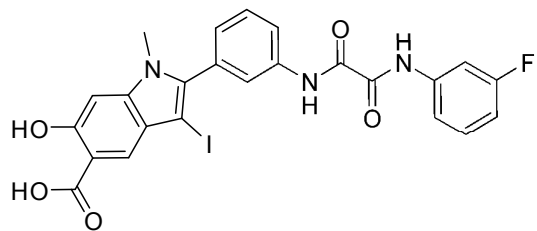
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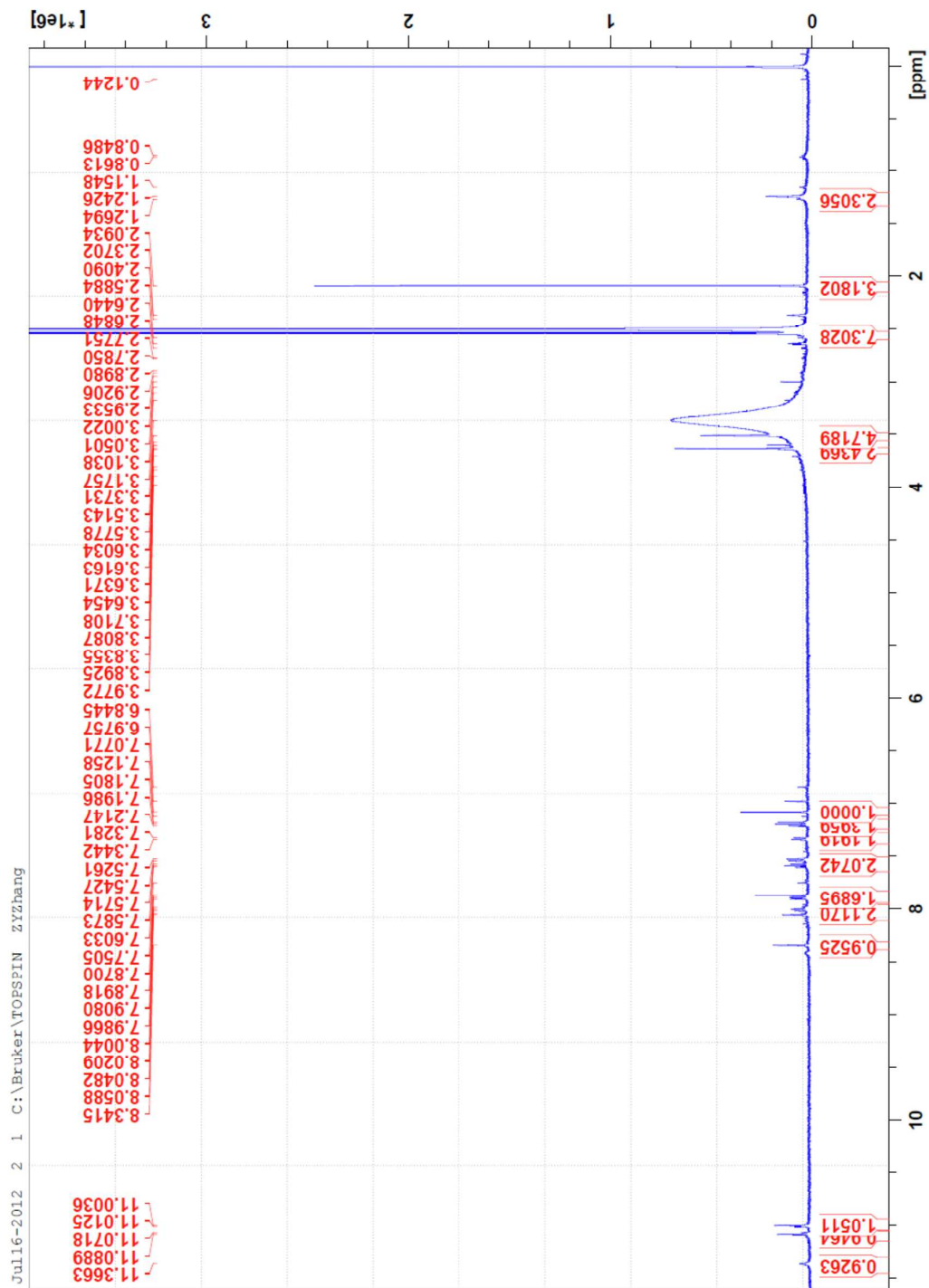
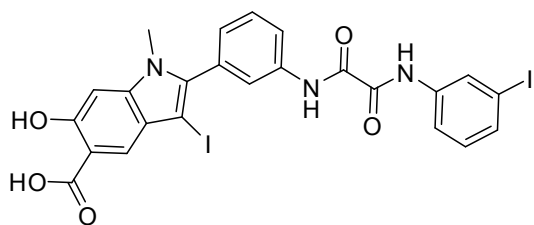
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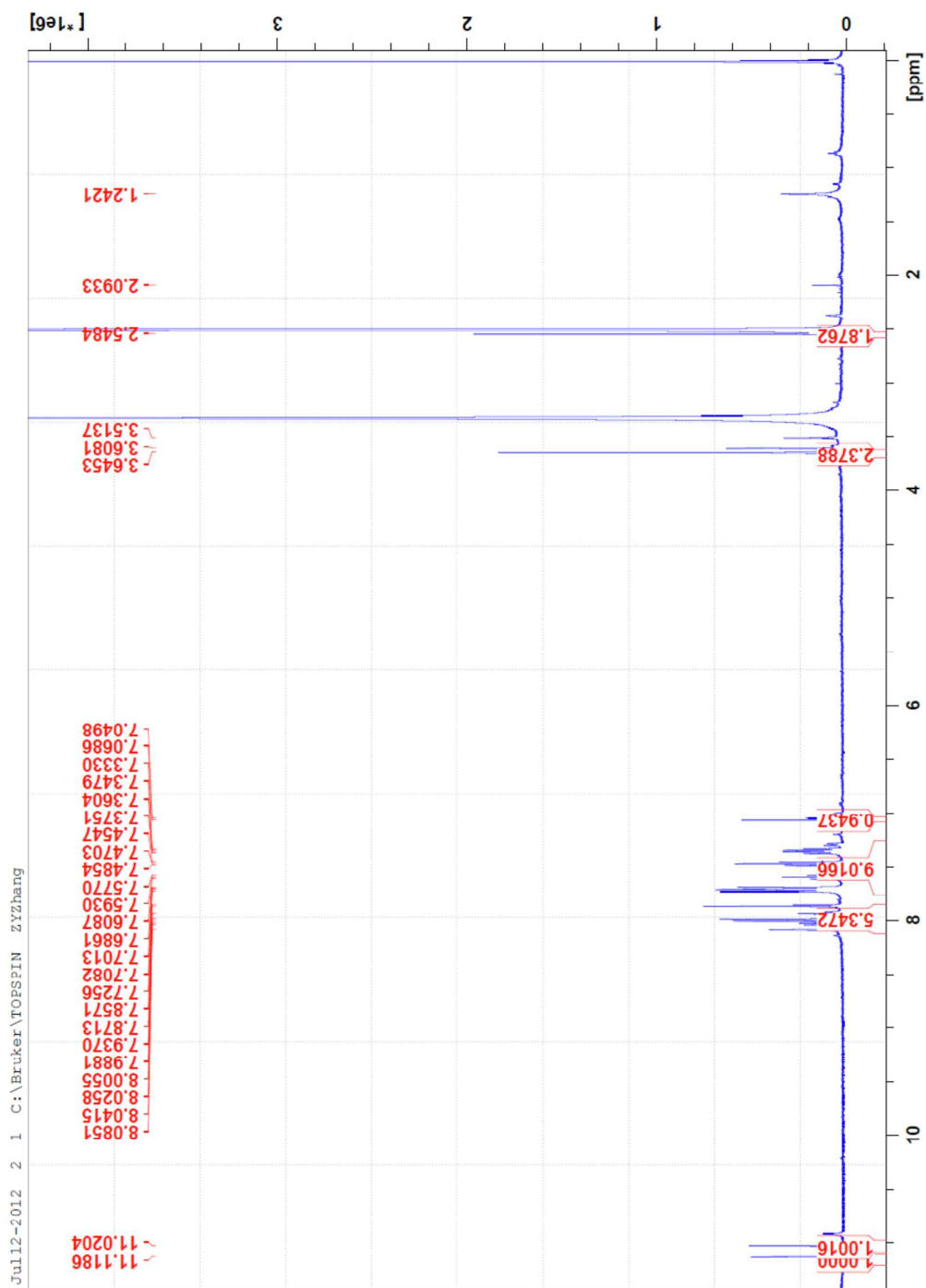
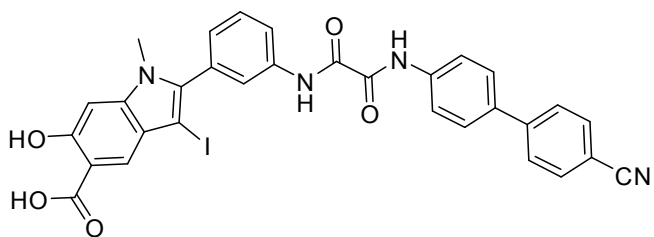
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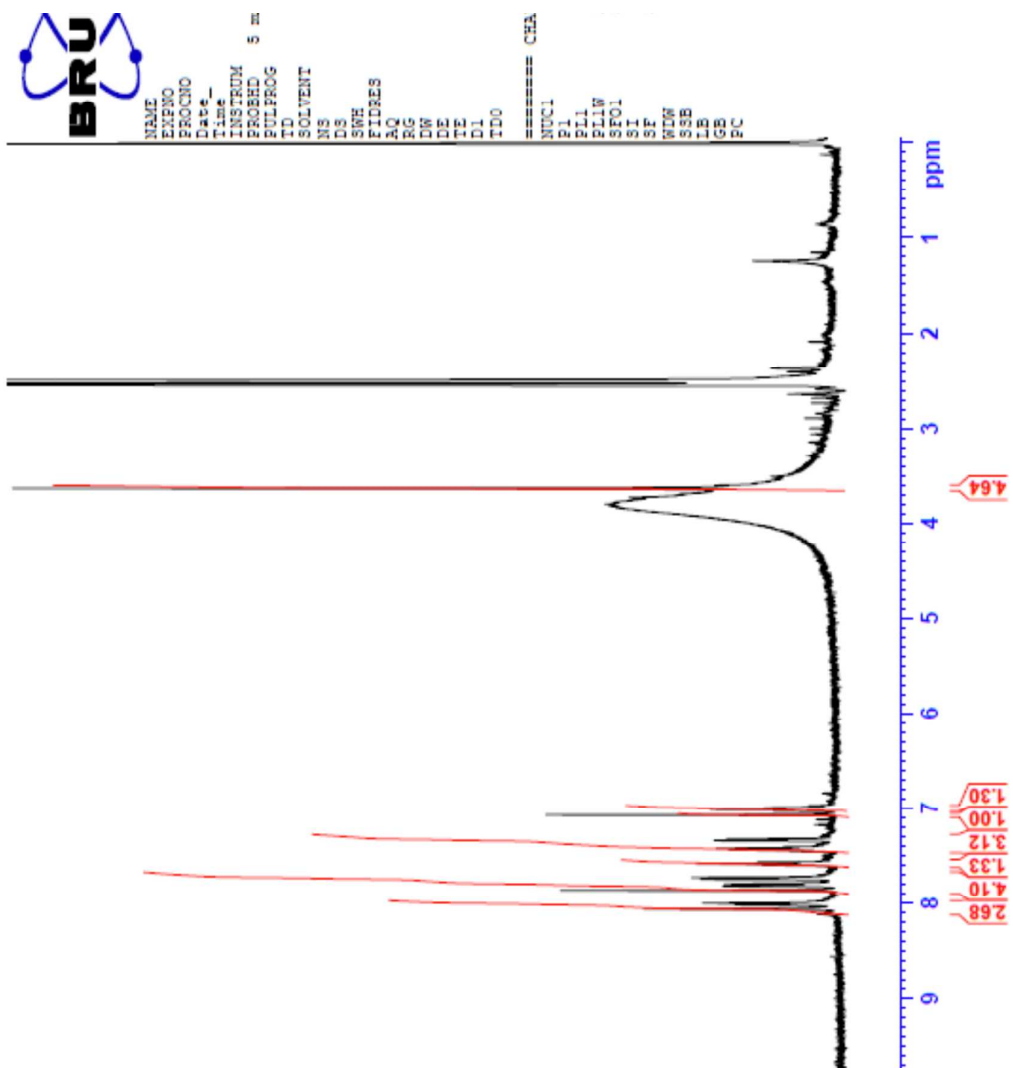
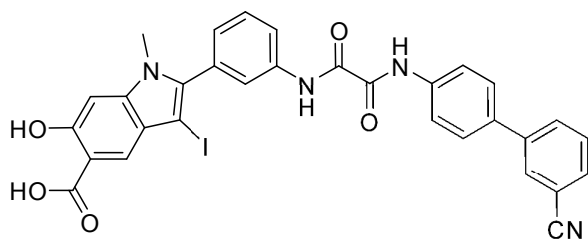
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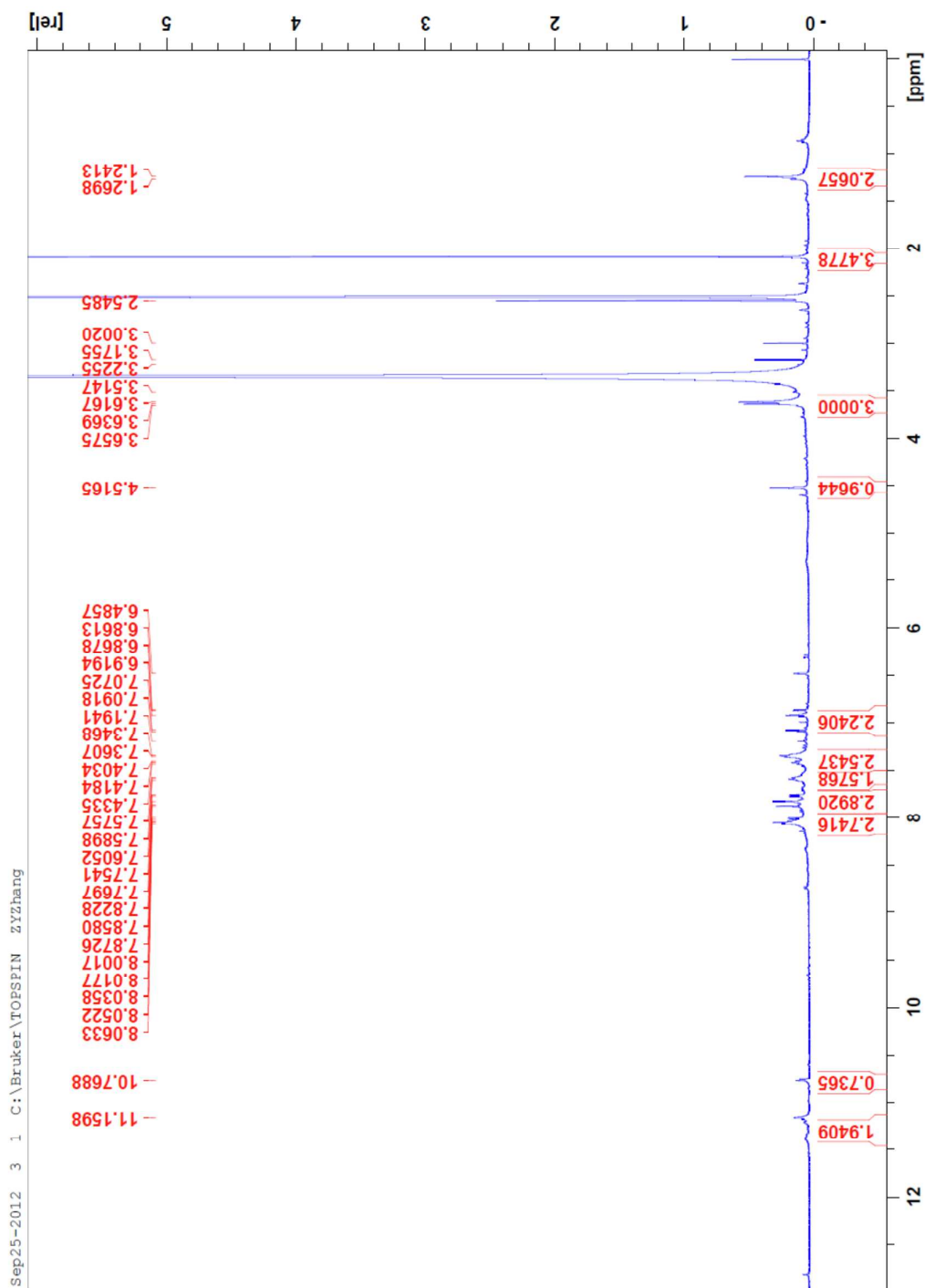
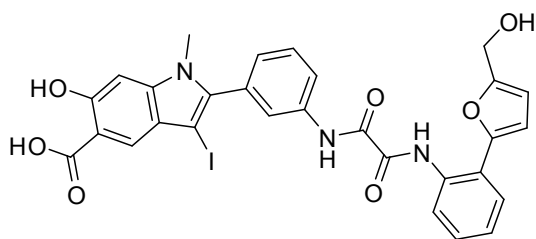
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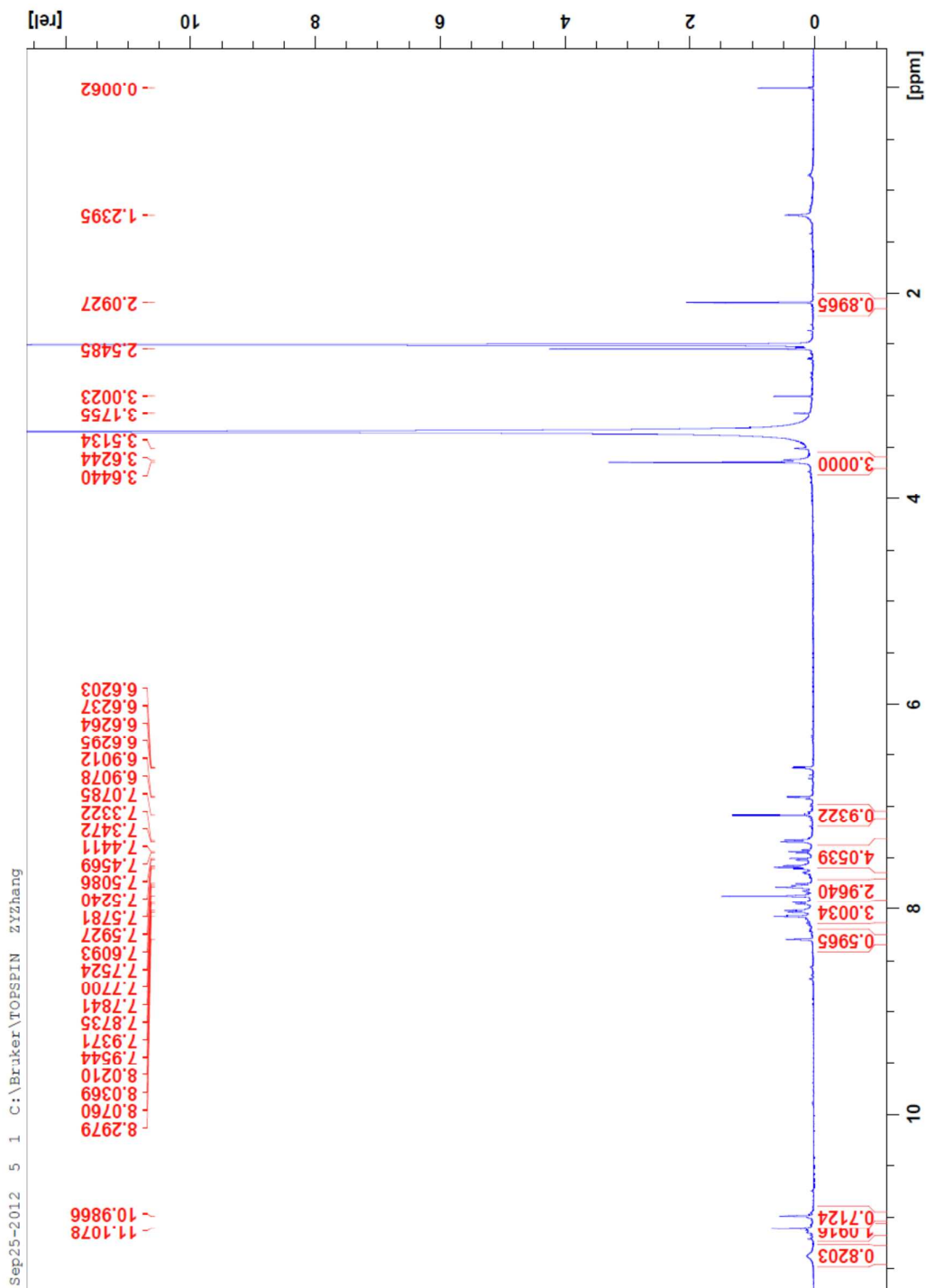
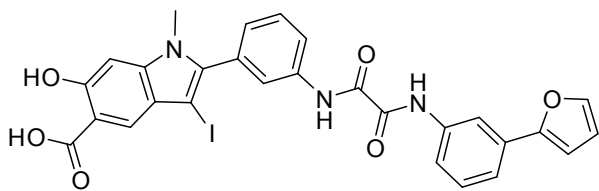
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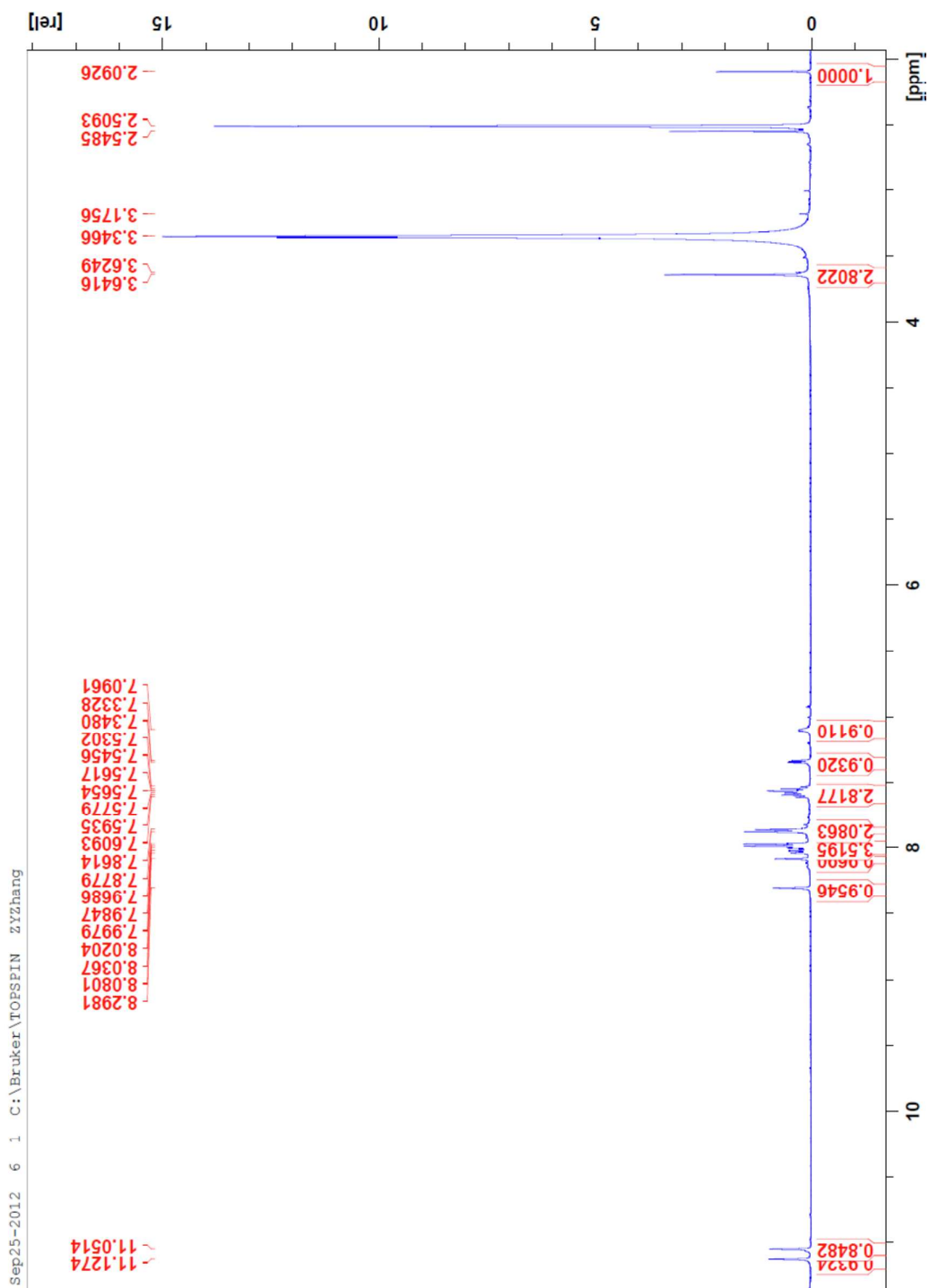
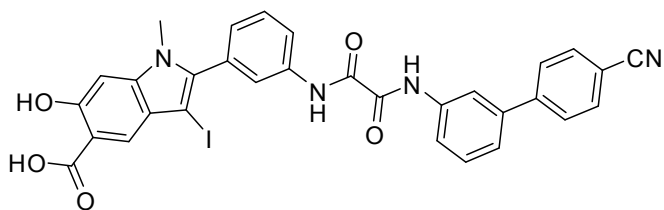
¹H NMR for compound 11a-23



¹H NMR for compound 11a-24

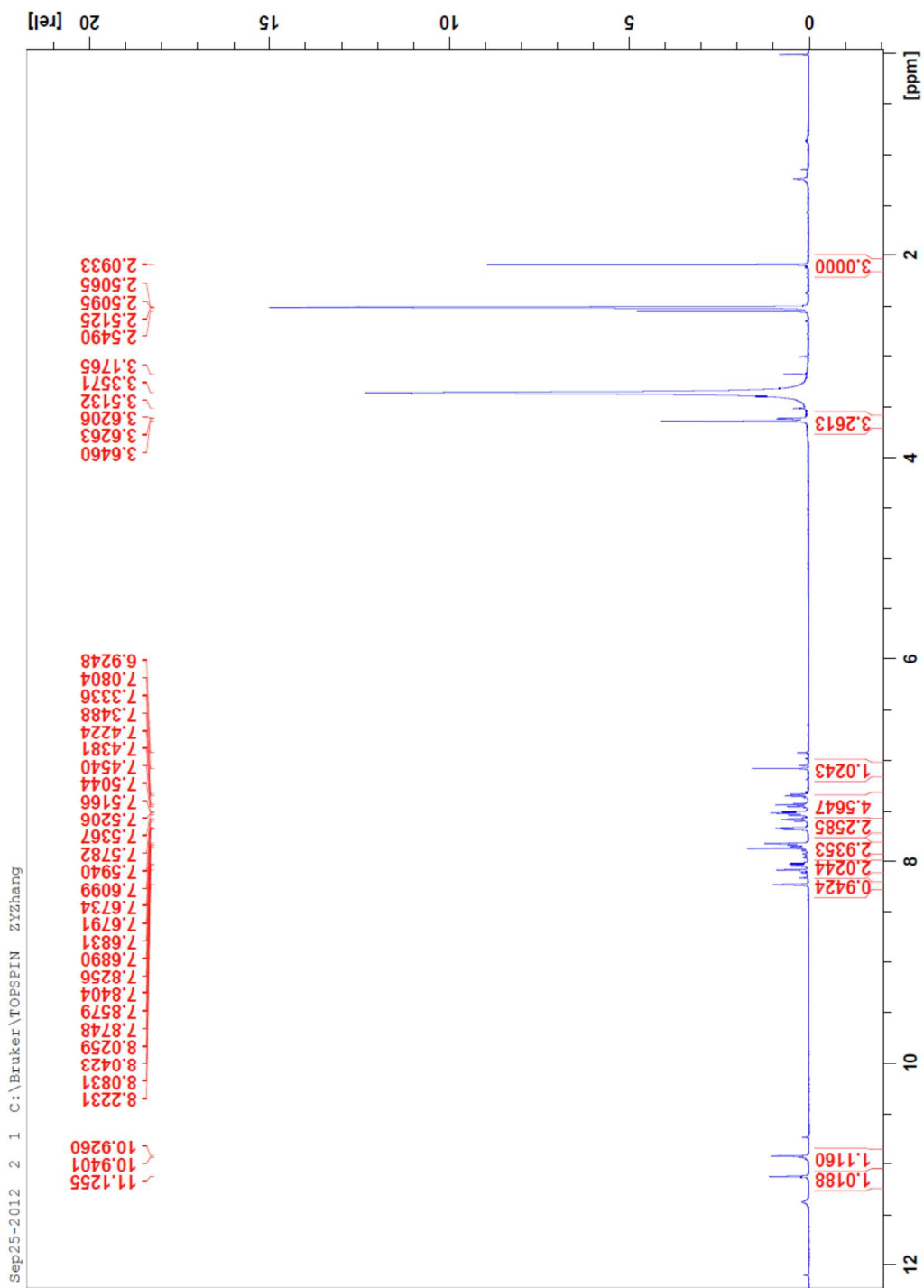
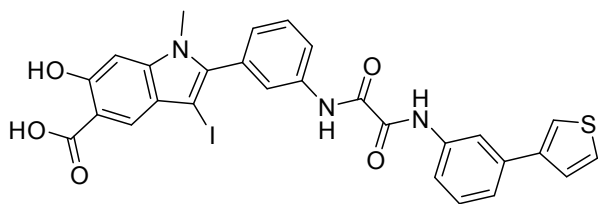


¹H NMR for compound 11a-25

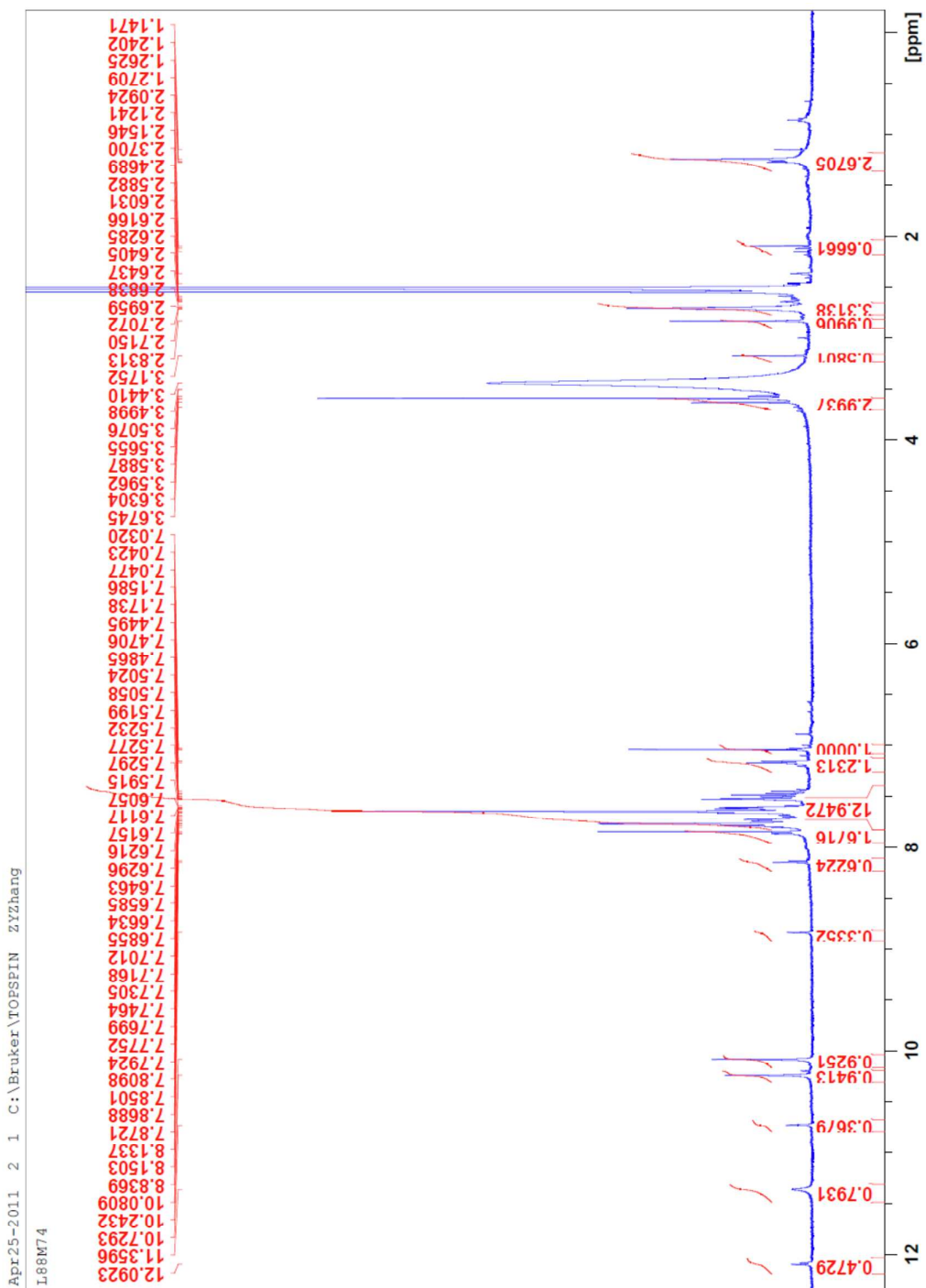
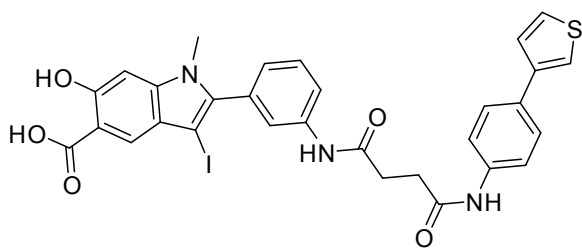


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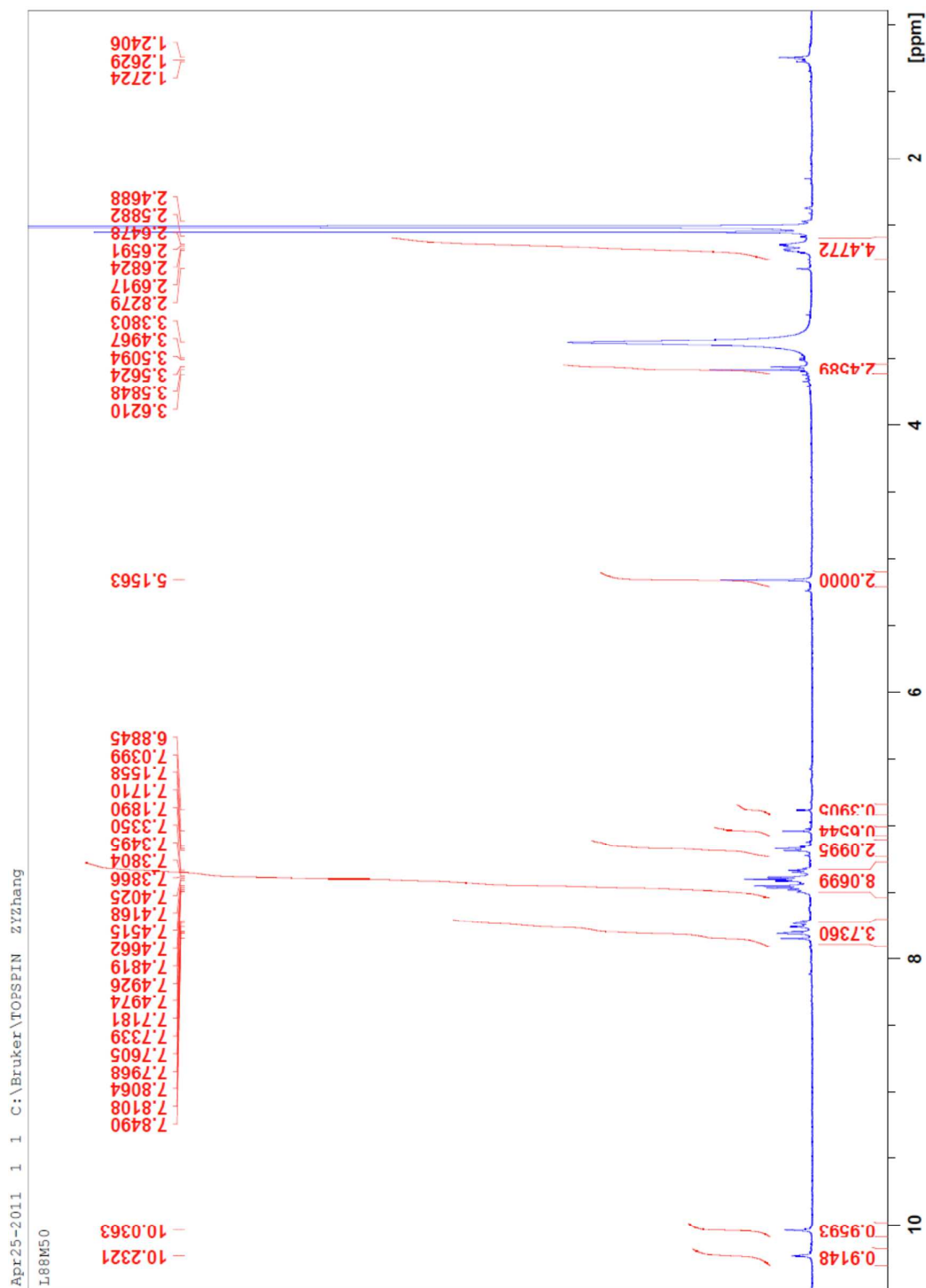
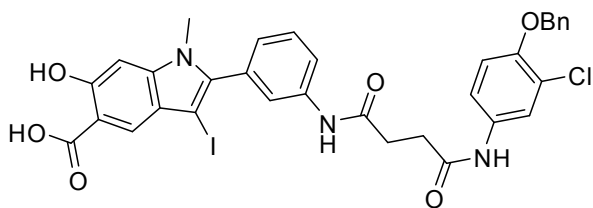
1H NMR for compound 11a-26



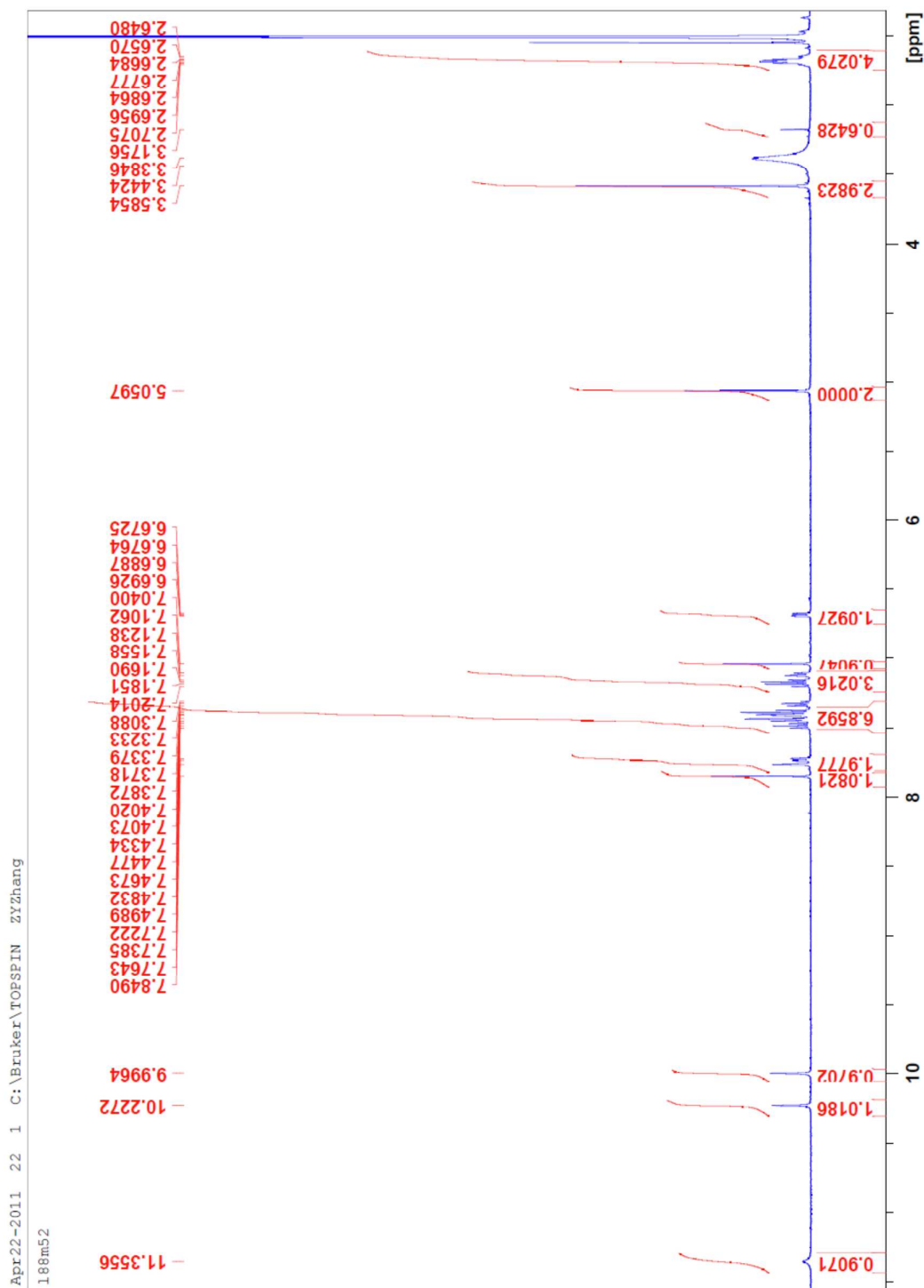
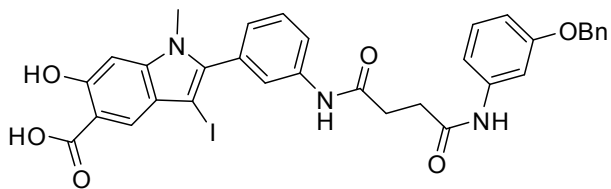
¹H NMR for compound 11c-1



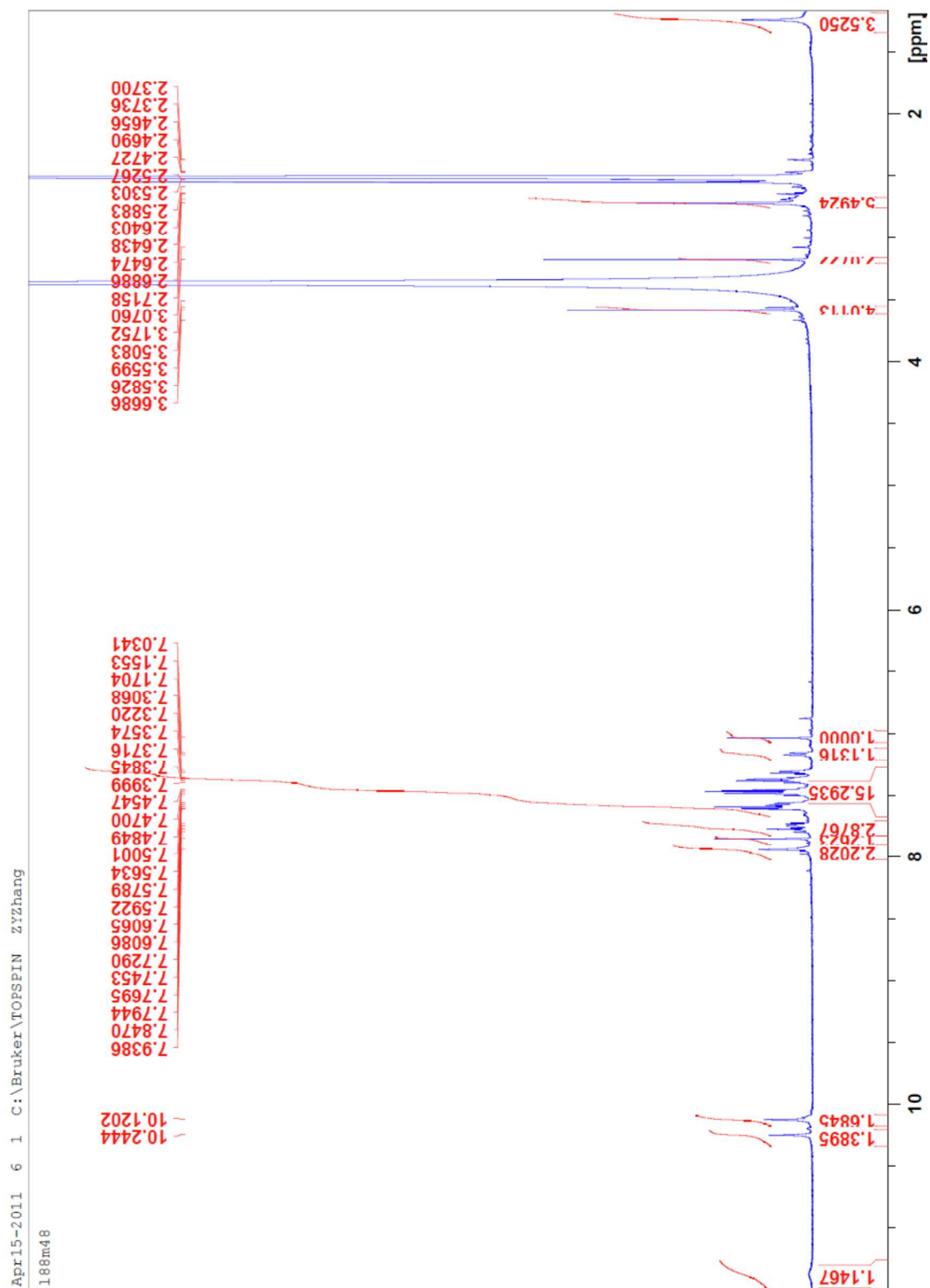
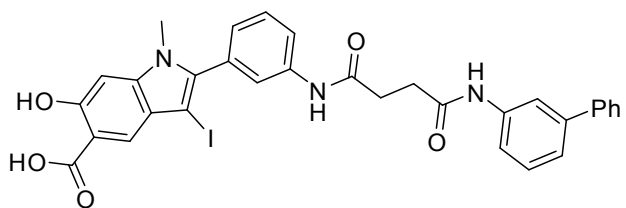
¹H NMR for compound 11c-3



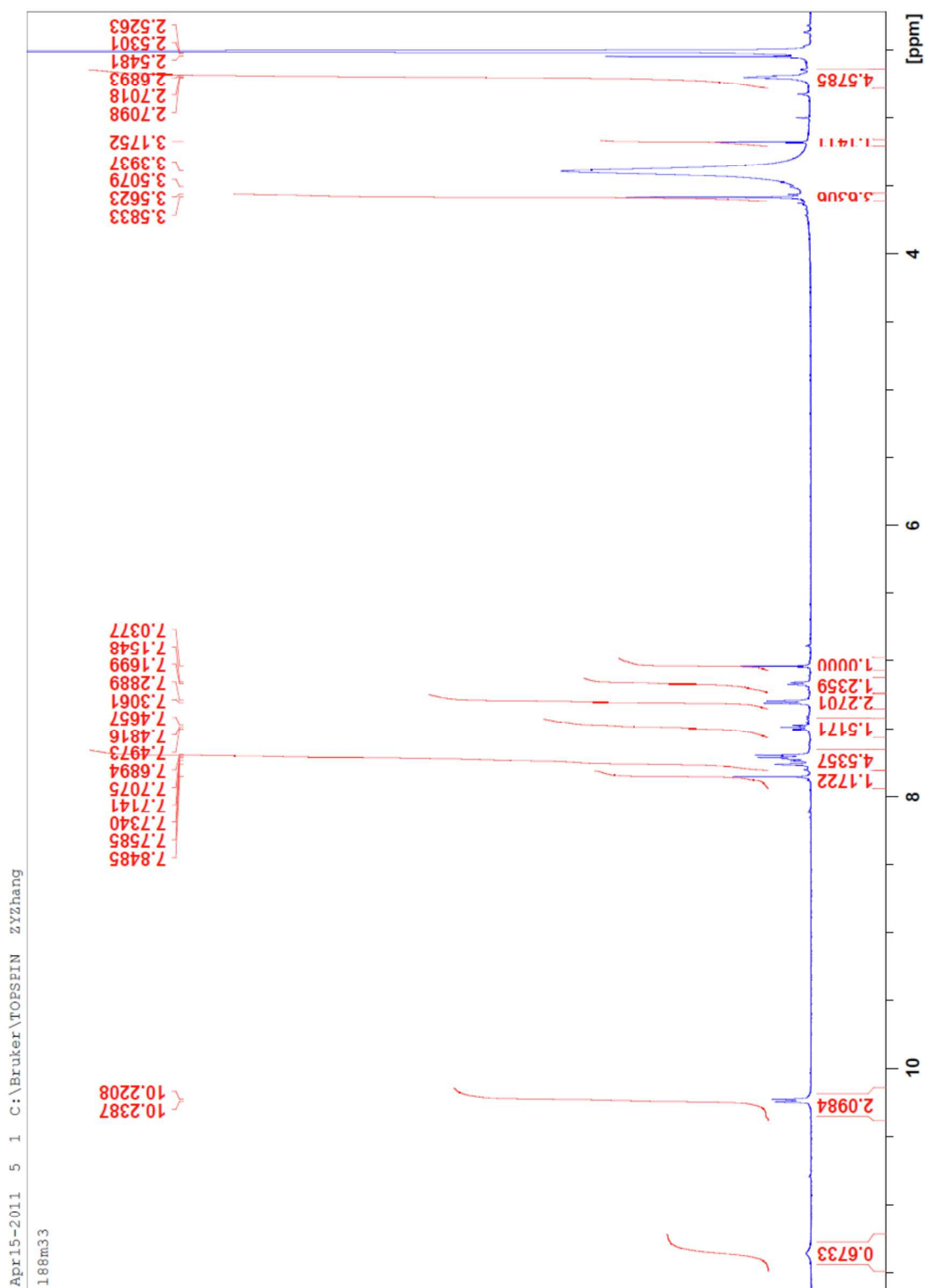
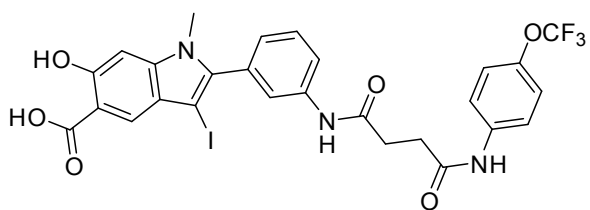
¹H NMR for compound 11c-4



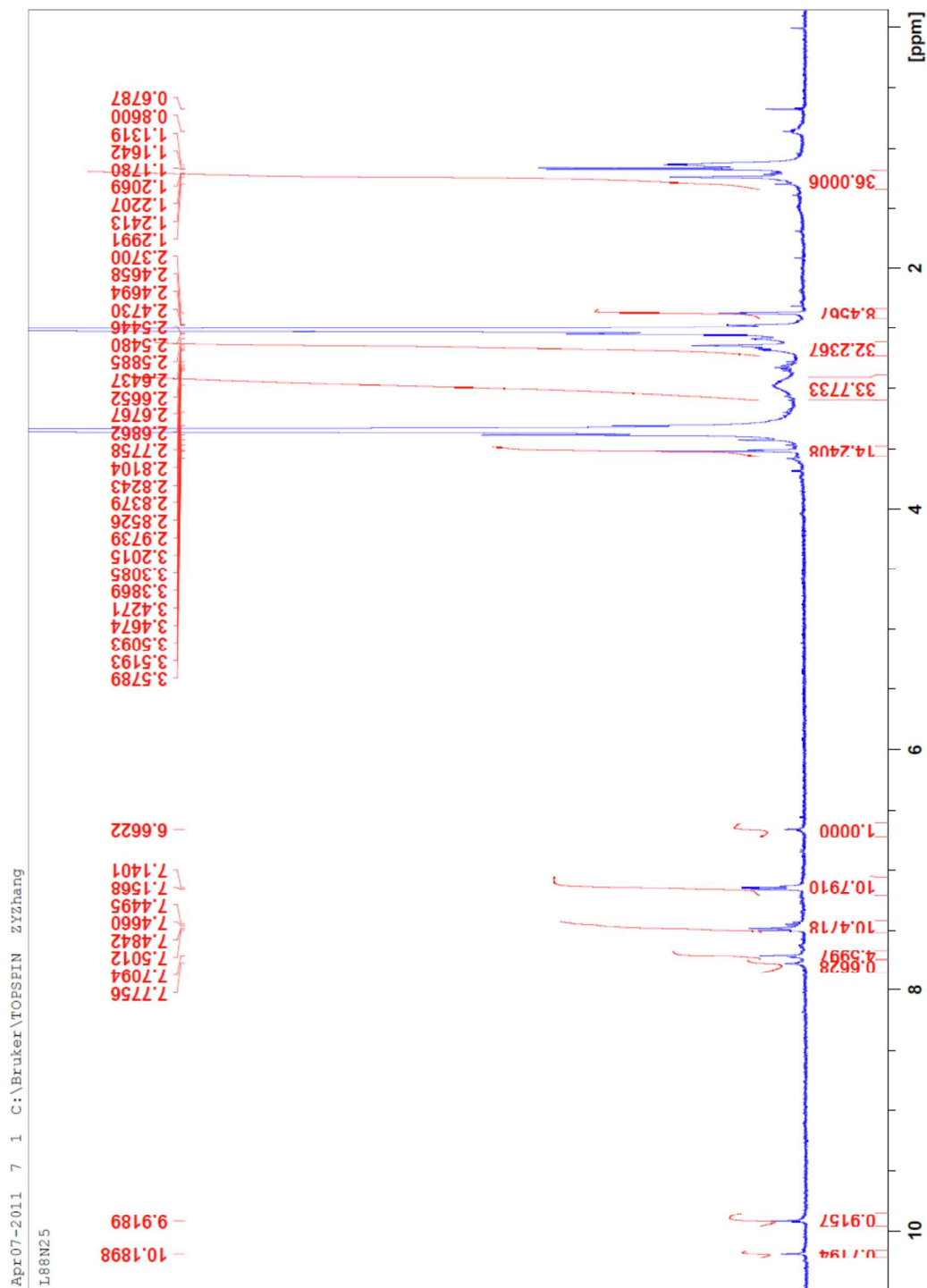
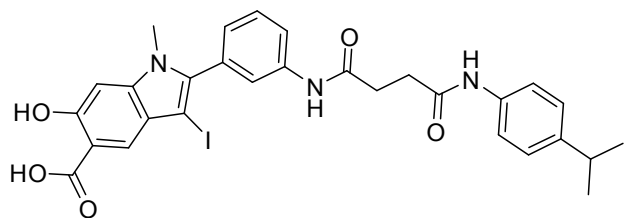
¹H NMR for compound 11c-5



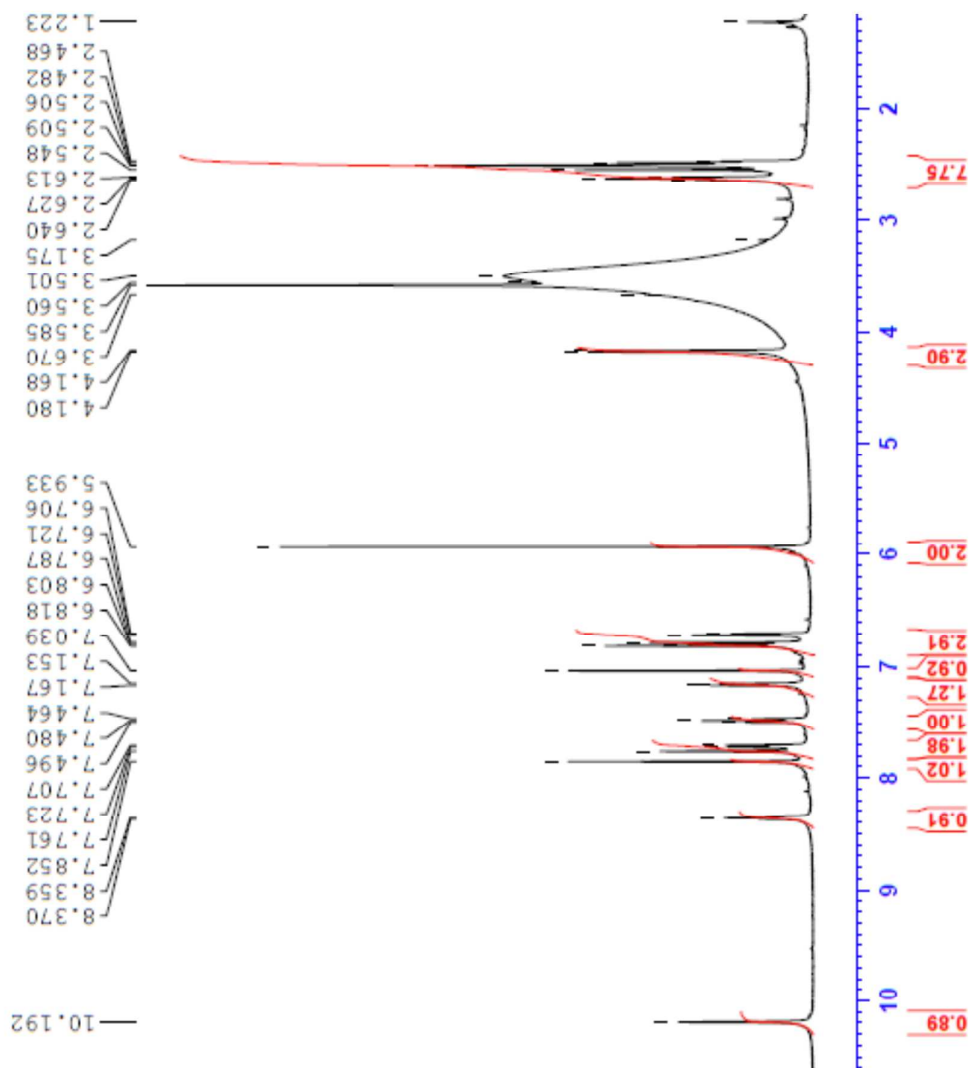
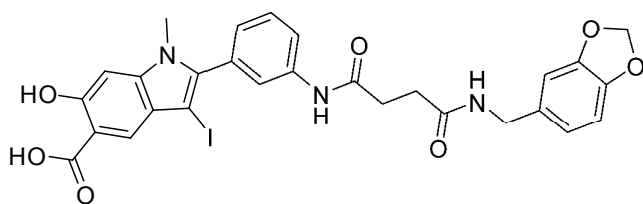
¹H NMR for compound 11c-7



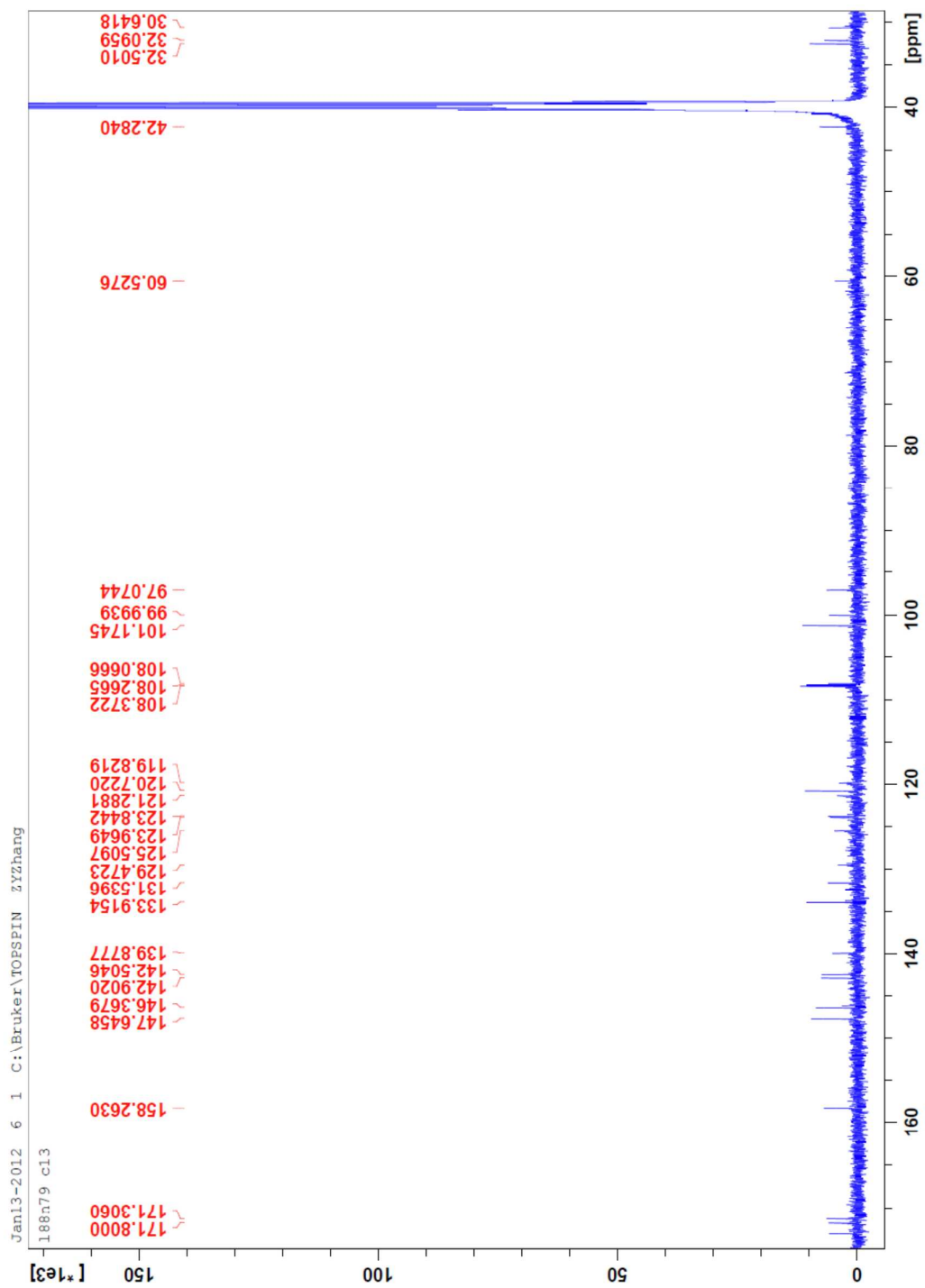
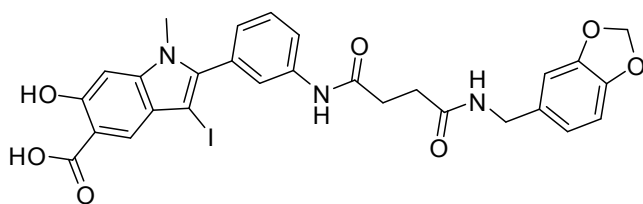
¹H NMR for compound 11c-8



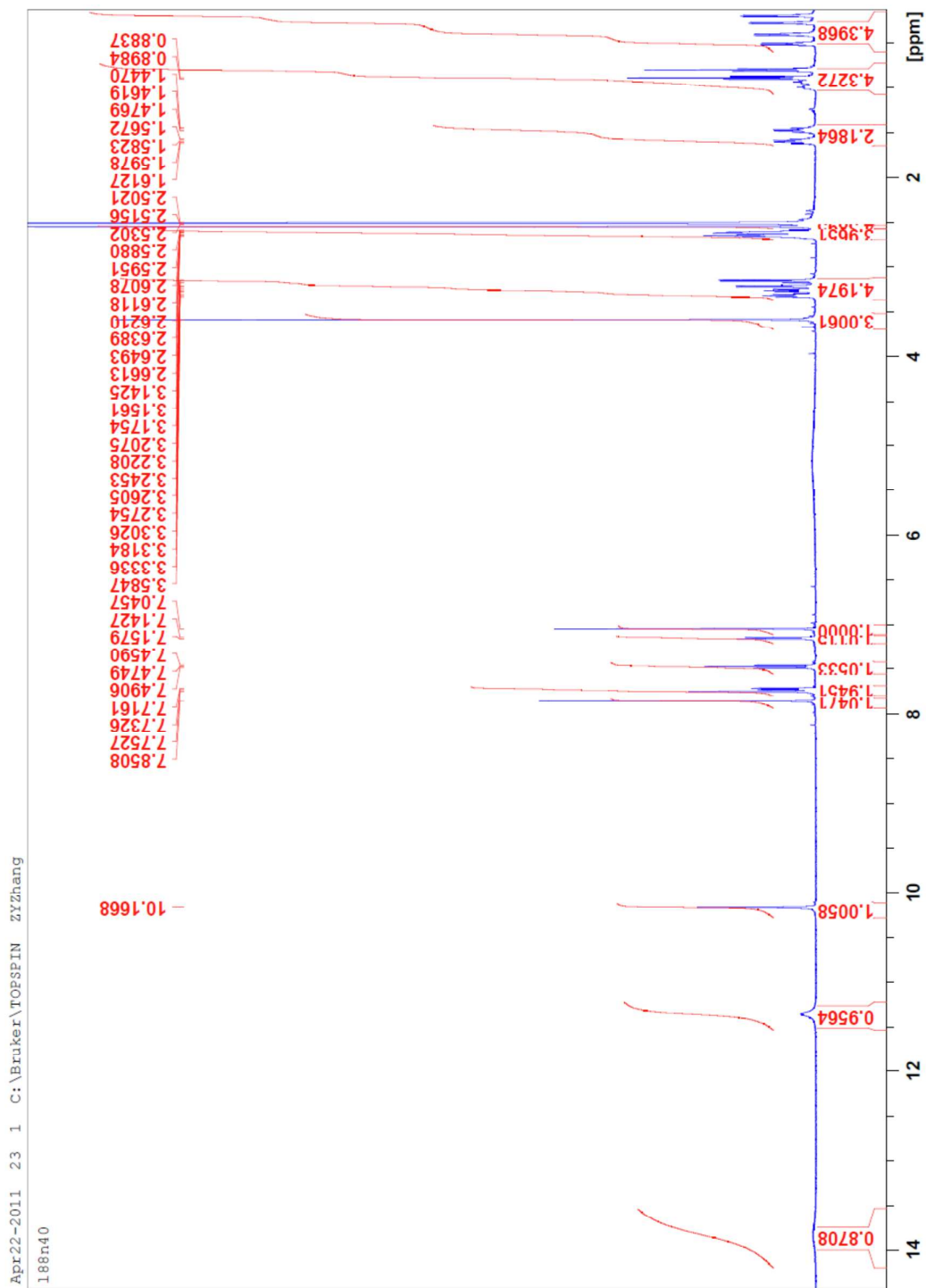
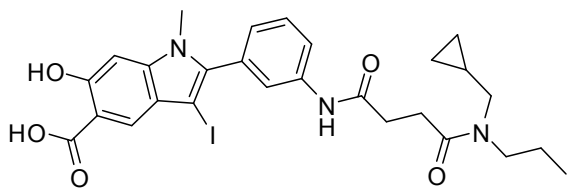
1H NMR for compound 11c-9



¹³C NMR for compound 11c-9



¹H NMR for compound 11c-10



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¹H NMR for compound 11c-11

