

## Efficient syntheses of substituted ( $\pm$ )-3-oxoisoindoline-1-carbonitriles and carboxamides using OSU-6

Baskar Nammalwar, Nagendra Prasad Muddala, Maeghan Murie and Richard A. Bunce\*

Department of Chemistry, Oklahoma State University, Stillwater, OK 74078-3071, USA

### Supporting Information

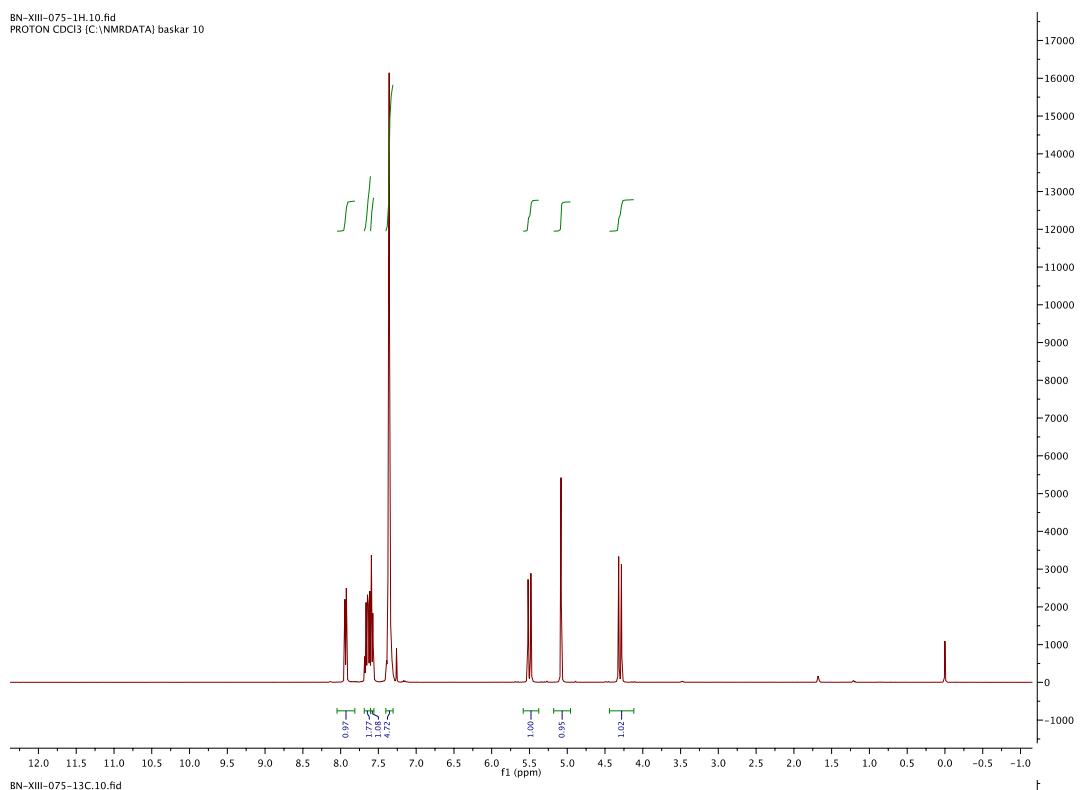
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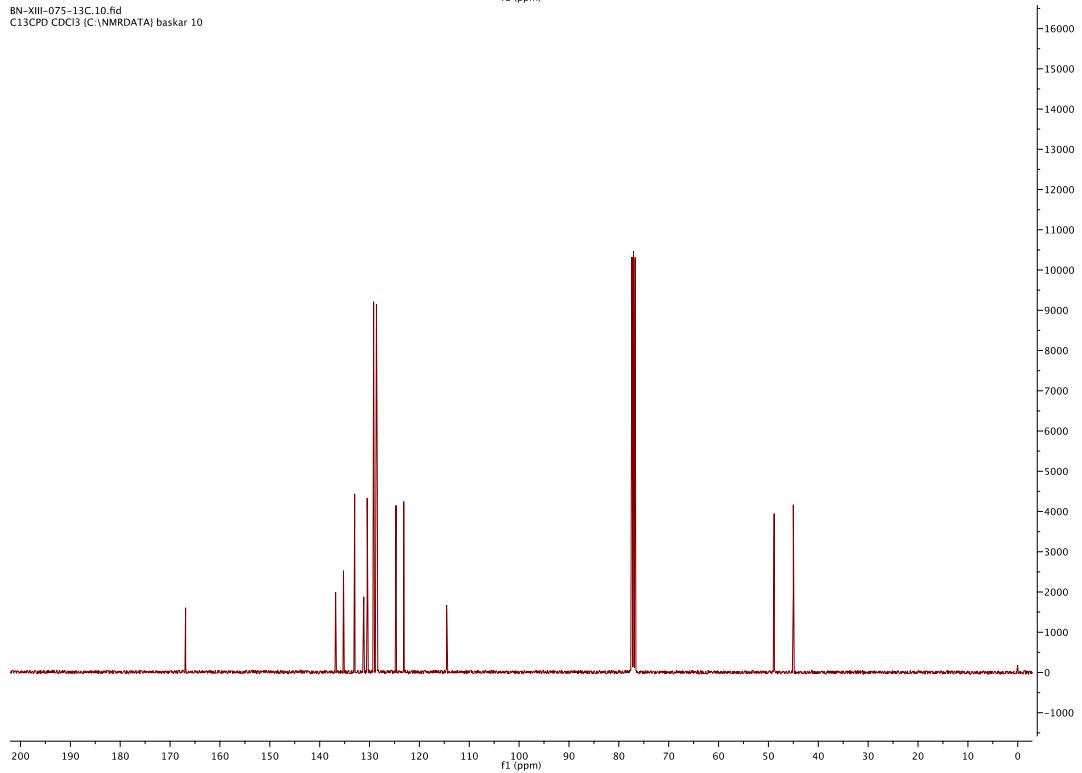
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**(±)-2-Benzyl-3-oxoisoindoline-1-carbonitrile (3a)**

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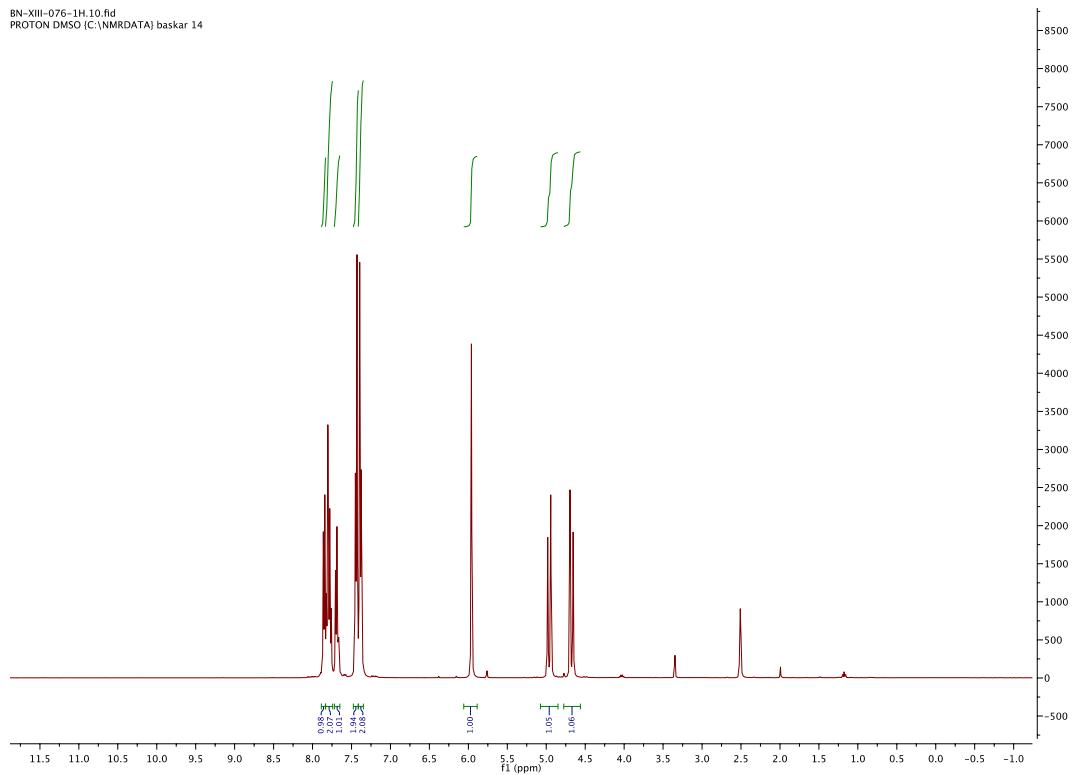


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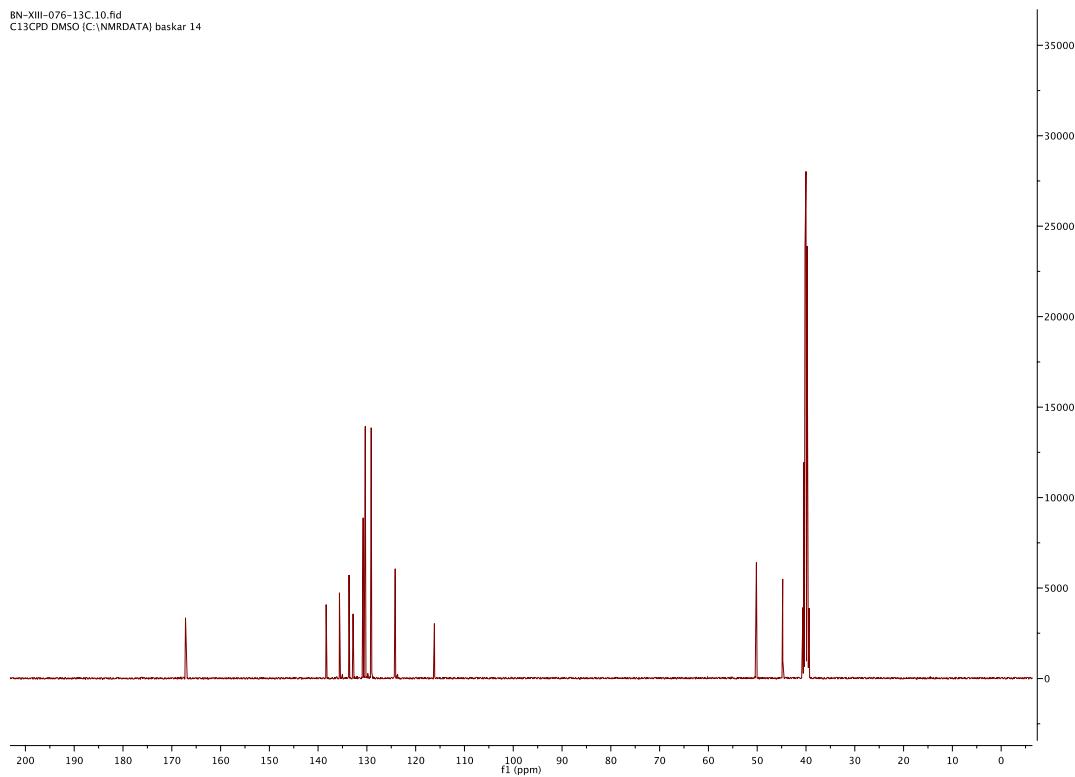


**( $\pm$ )-2-(4-Chlorobenzyl)-3-oxoisoindoline-1-carbonitrile (3b)**

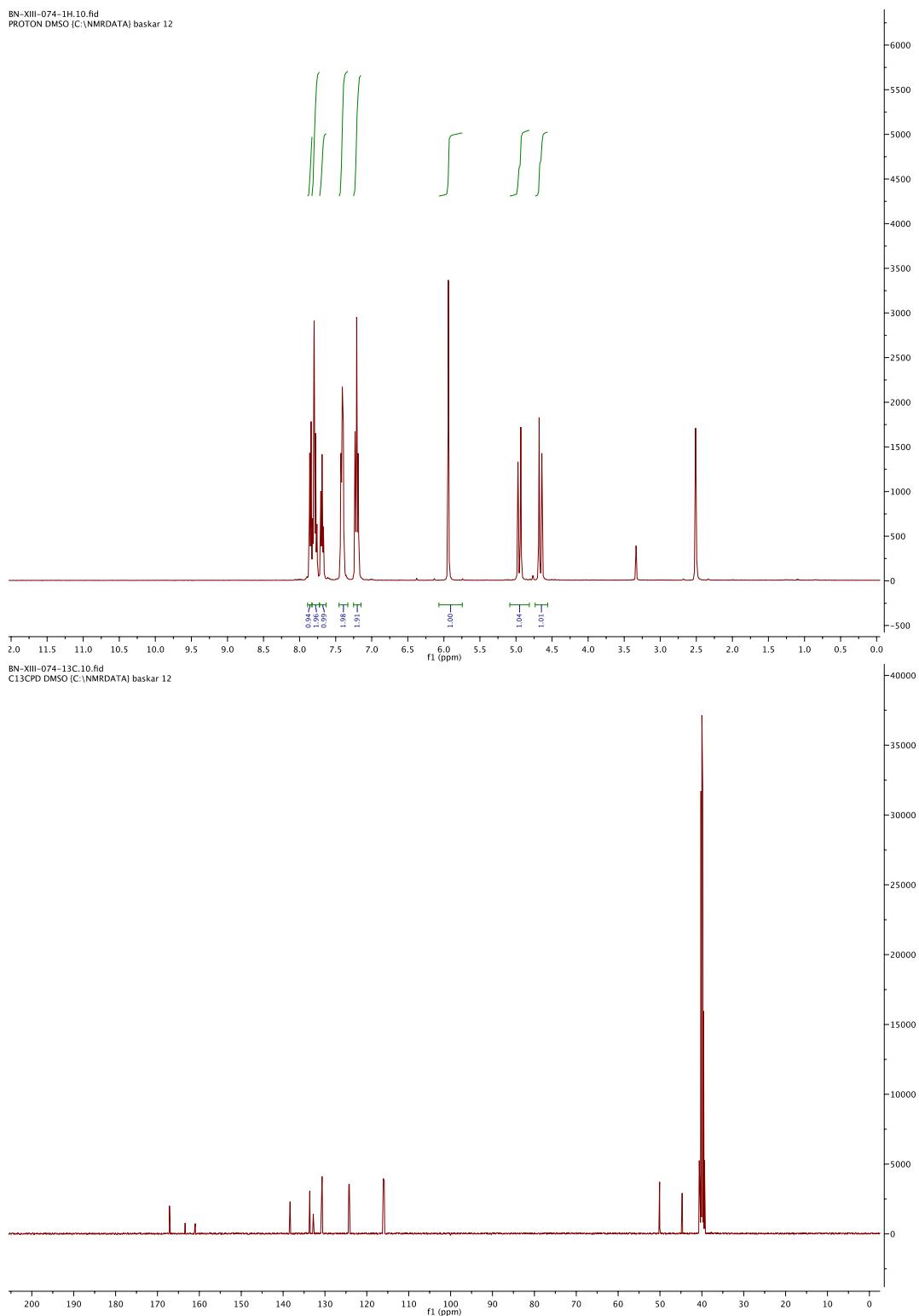
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BN-XIII-076-13C.10.fid  
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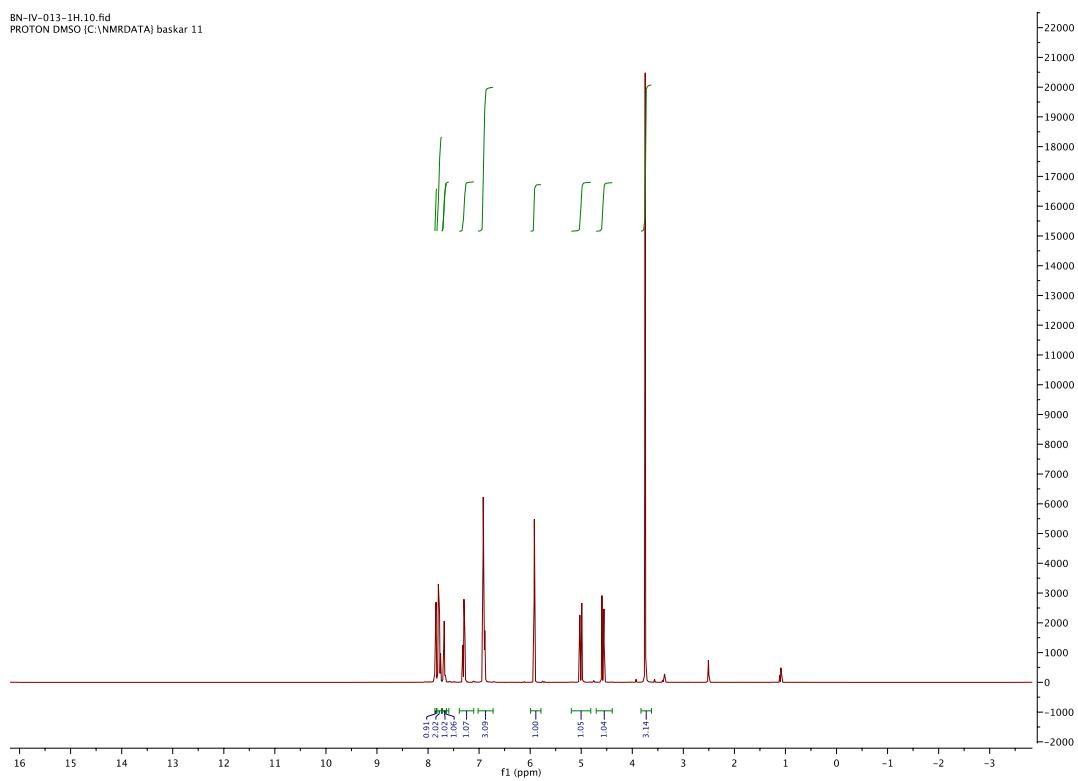


**( $\pm$ )-2-(4-Fluorobenzyl)-3-oxoisoindoline-1-carbonitrile (3c)**

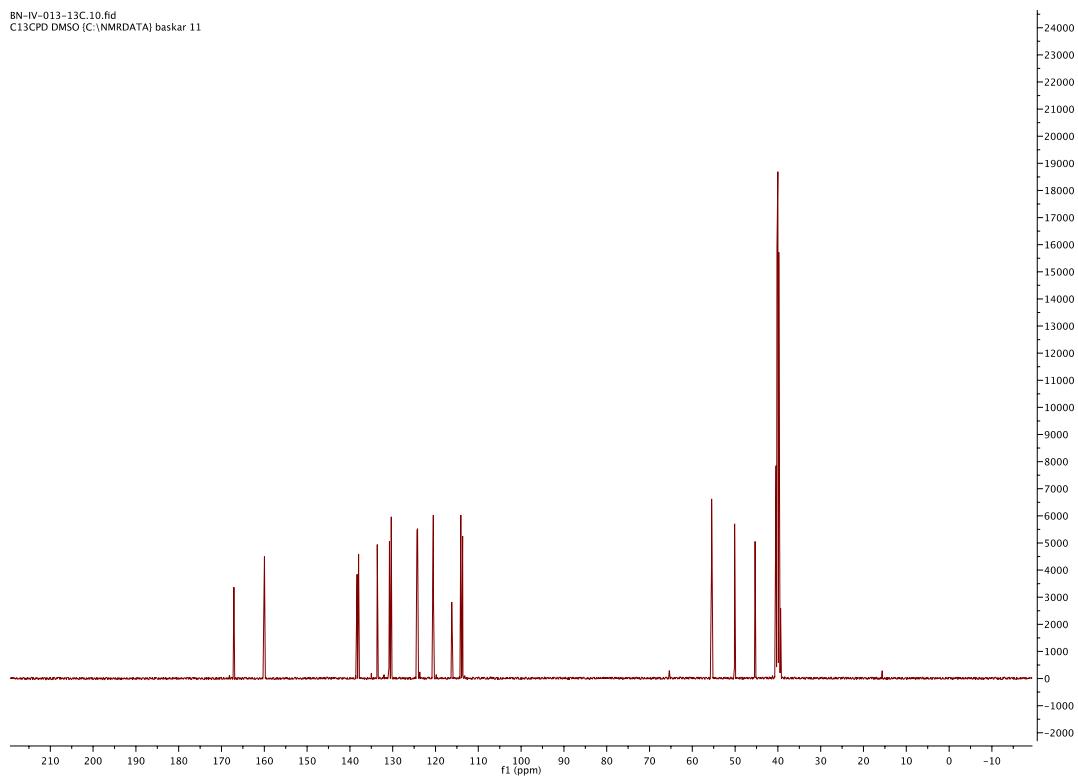


**( $\pm$ )-2-(3-Methoxybenzyl)-3-oxoindoline-1-carbonitrile (3d)**

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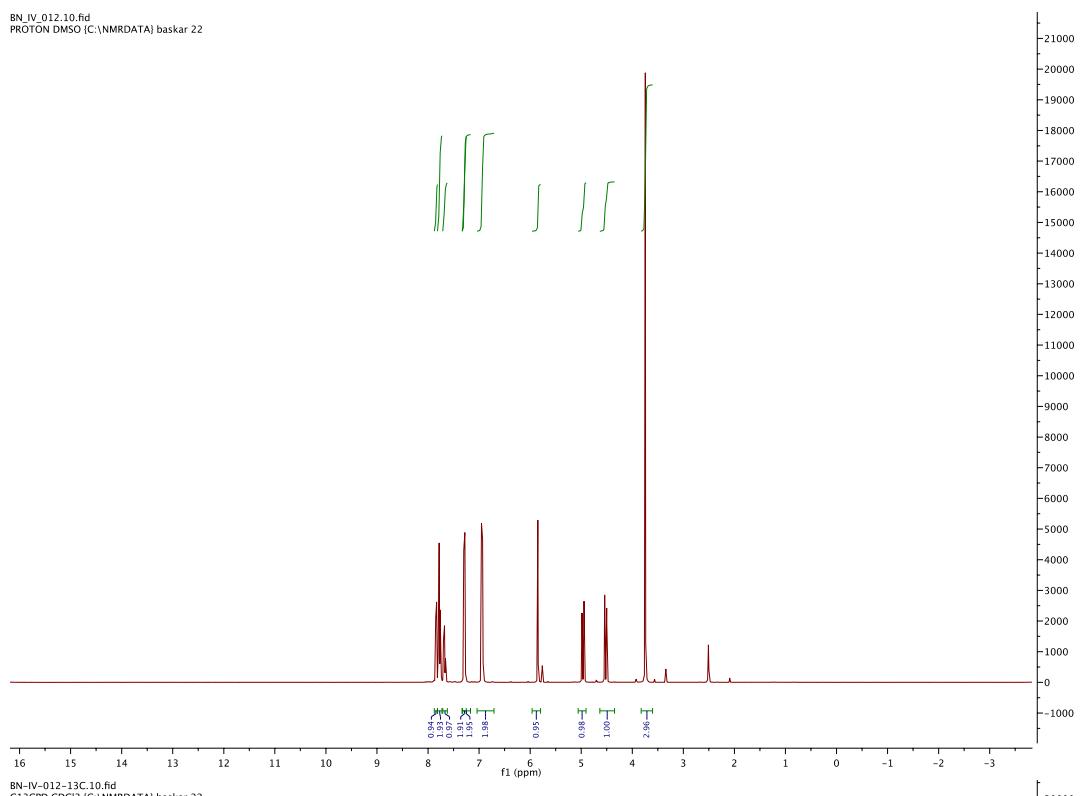


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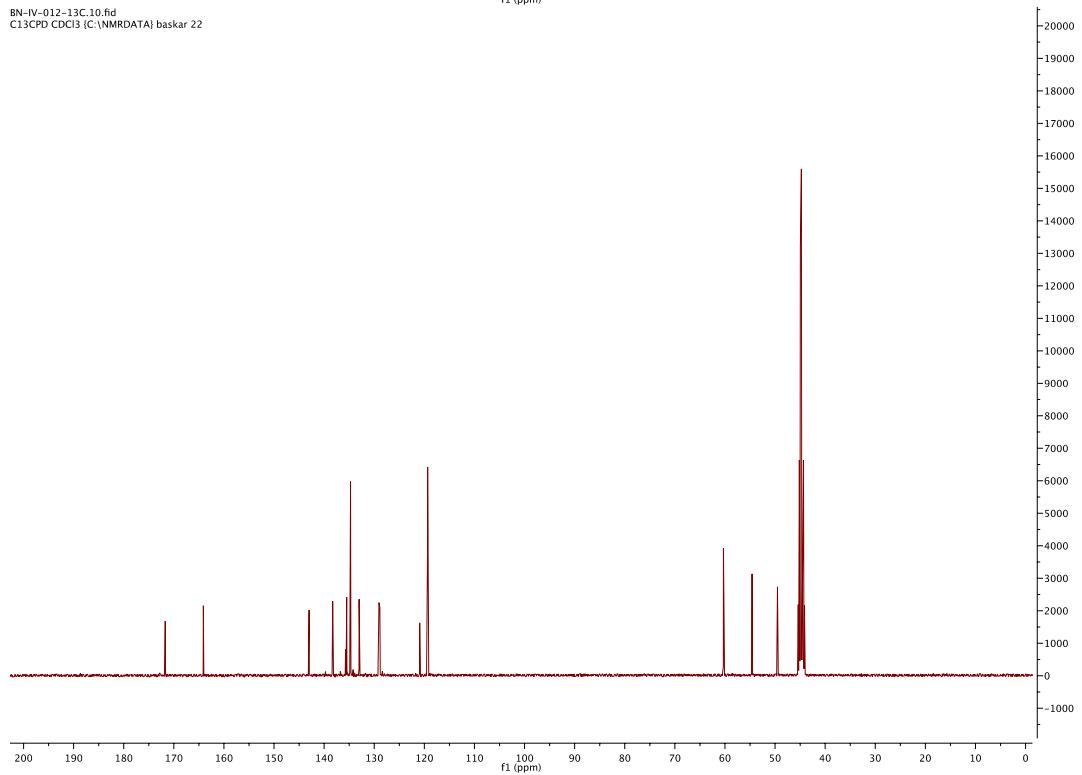


**( $\pm$ )-2-(4-Methoxybenzyl)-3-oxoindoline-1-carbonitrile (3e)**

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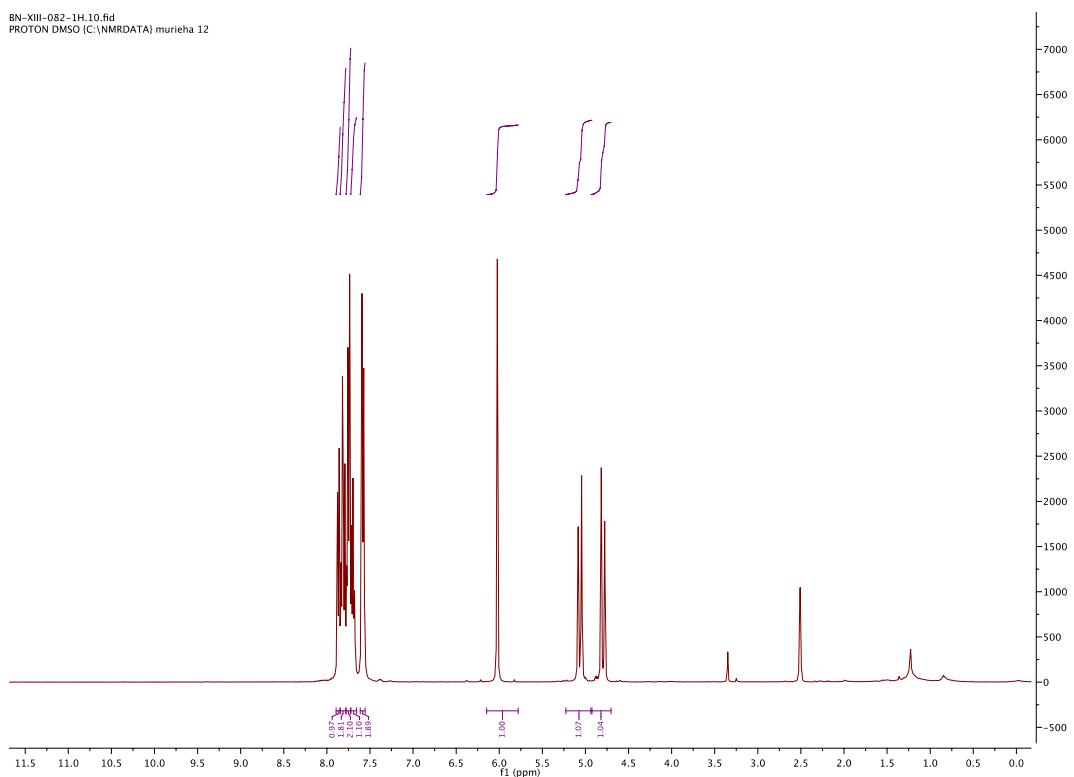


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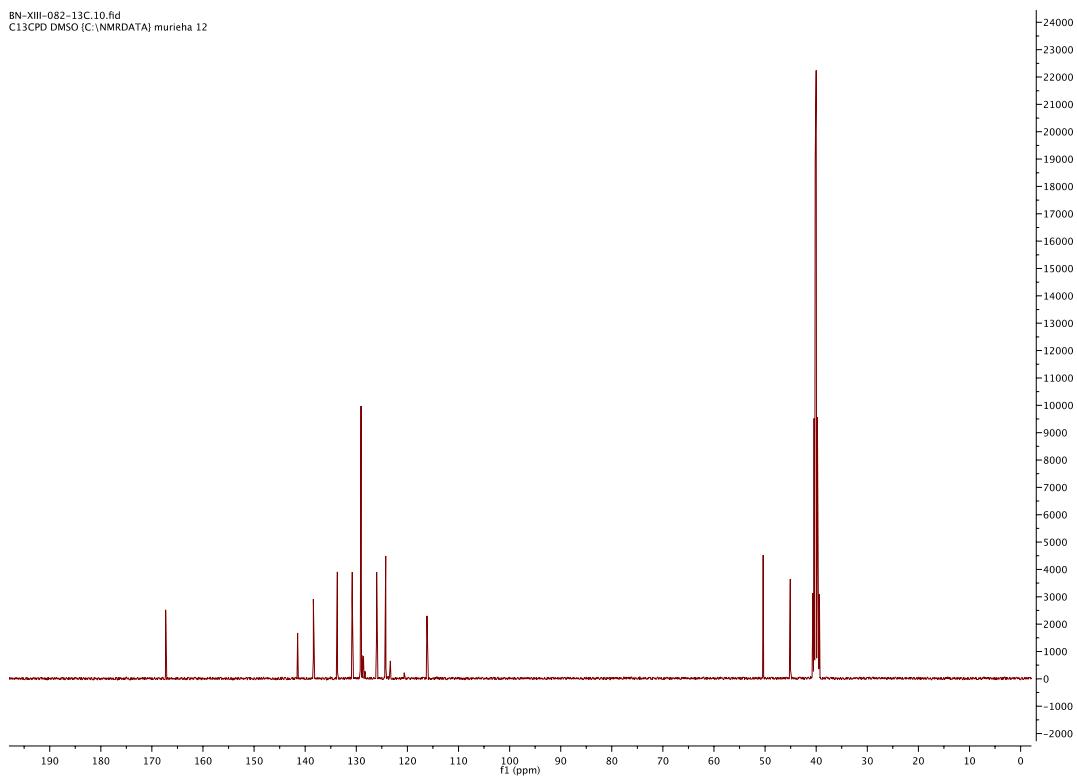


**( $\pm$ )-2-[(4-Trifluoromethyl)benzyl]-3-oxoisindoline-1-carbonitrile (3f)**

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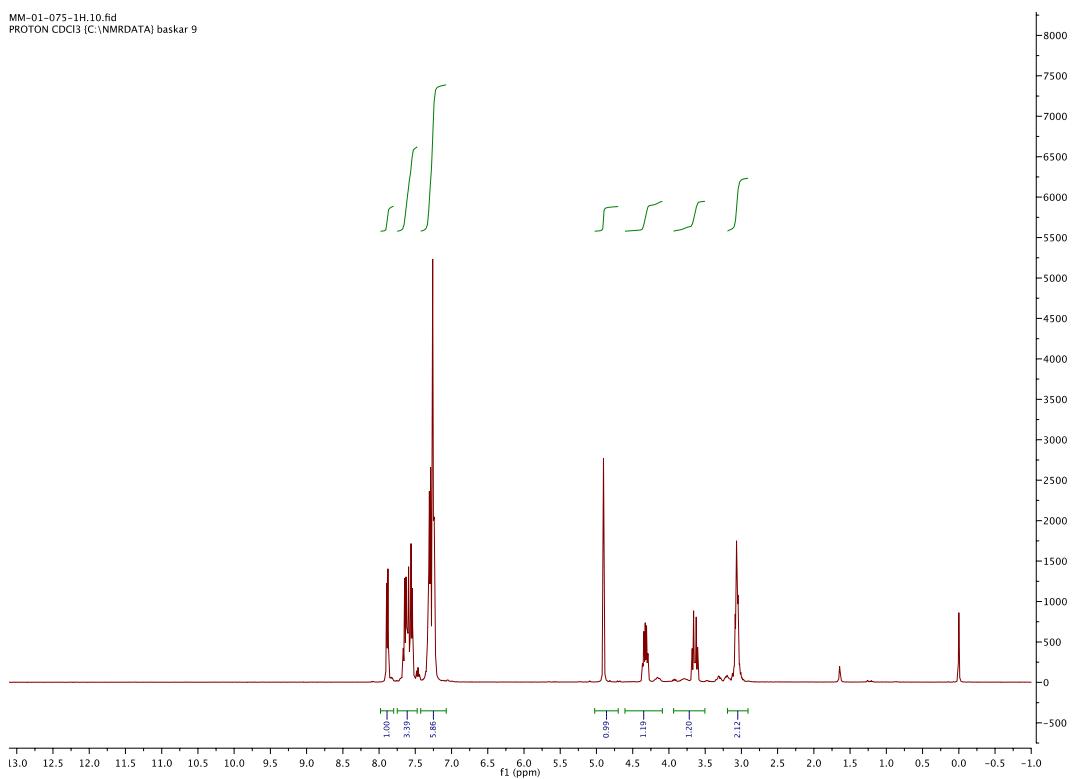


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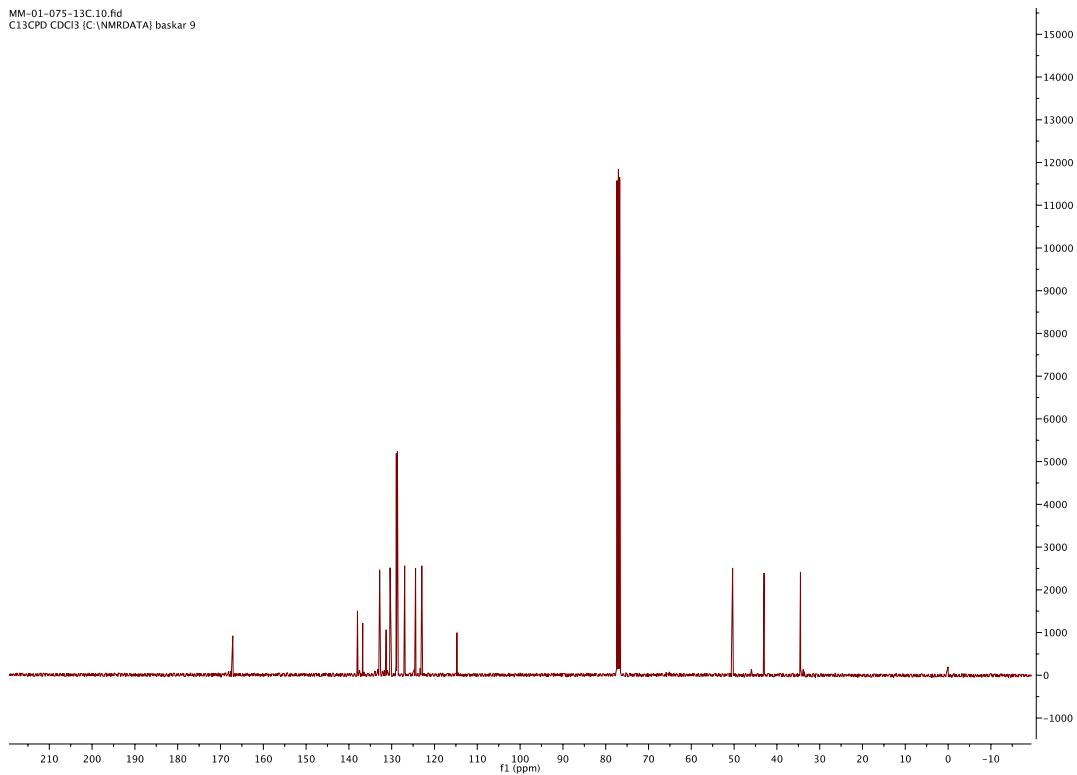


**( $\pm$ )-3-Oxo-2-(2-phenylethyl)isoindoline-1-carbonitrile (3g)**

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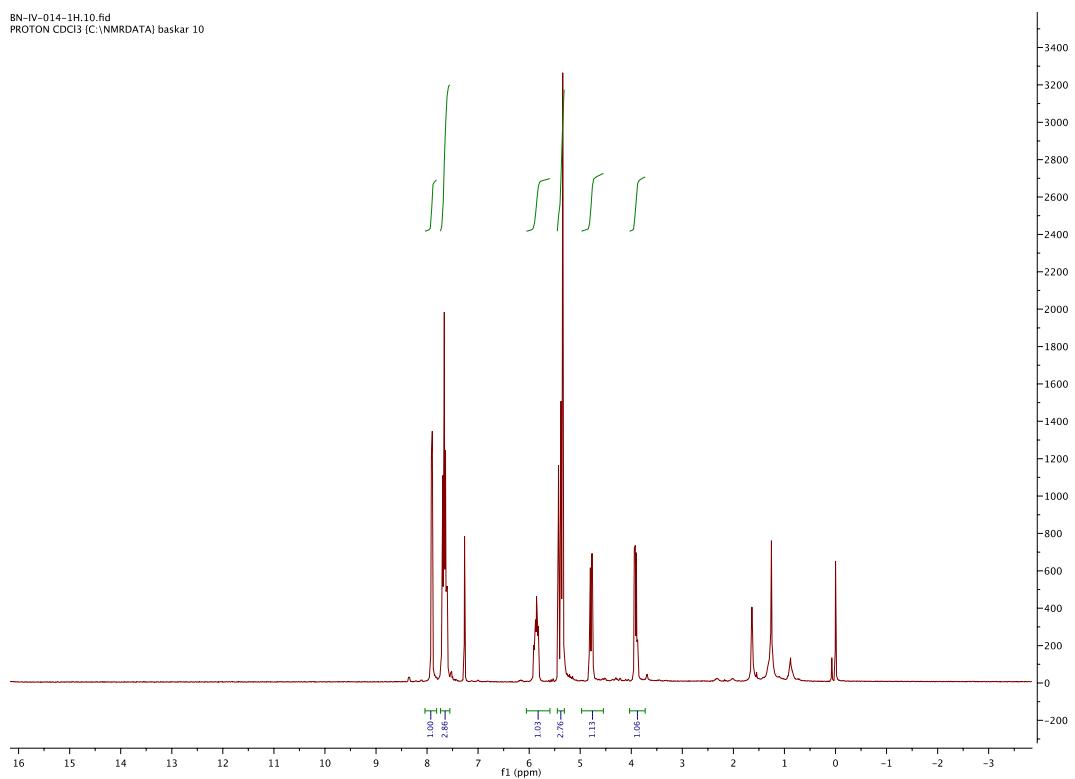


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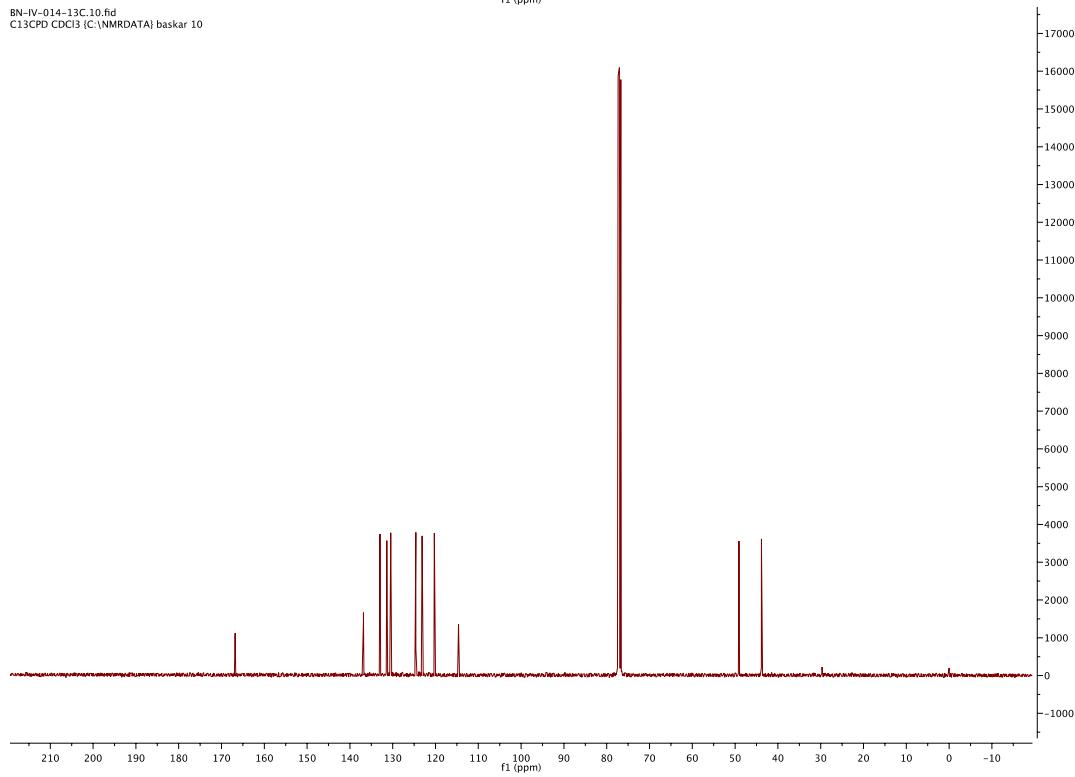


**( $\pm$ )-2-Allyl-3-oxoisooindoline-1-carbonitrile (3h)**

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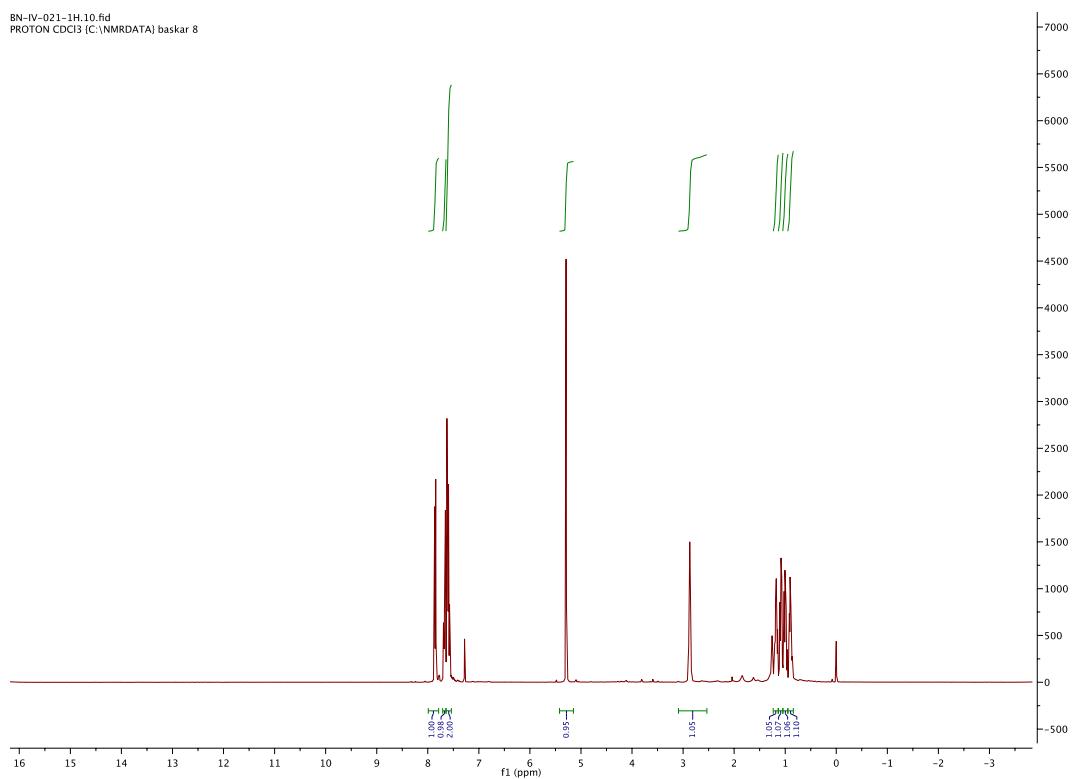


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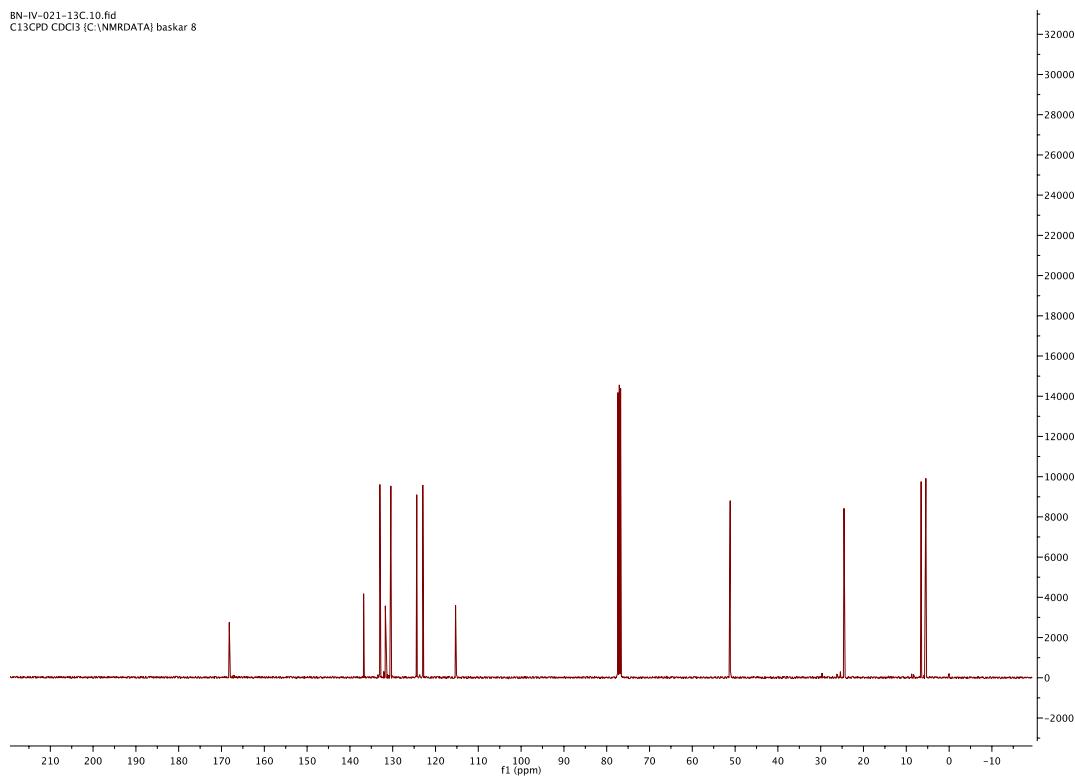


**( $\pm$ )-2-Cyclopropyl-3-oxoisoindoline-1-carbonitrile (3i)**

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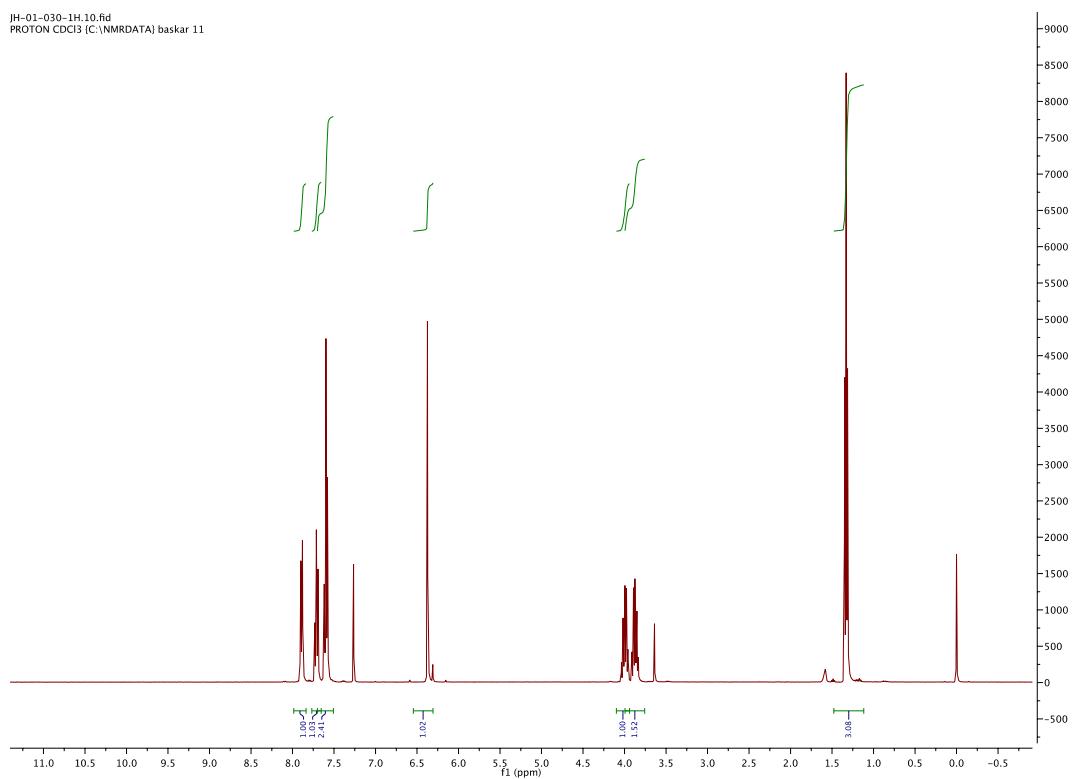


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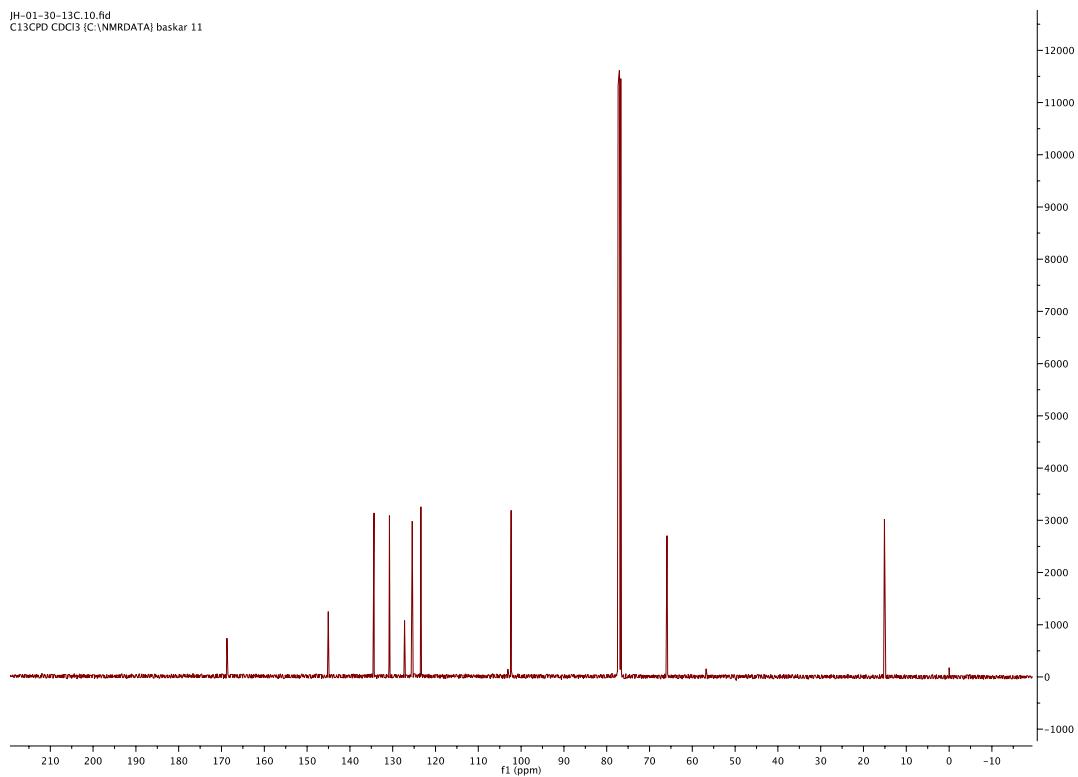


**( $\pm$ )-2-Ethyl-3-oxoisoindoline-1-carbonitrile (3j)**

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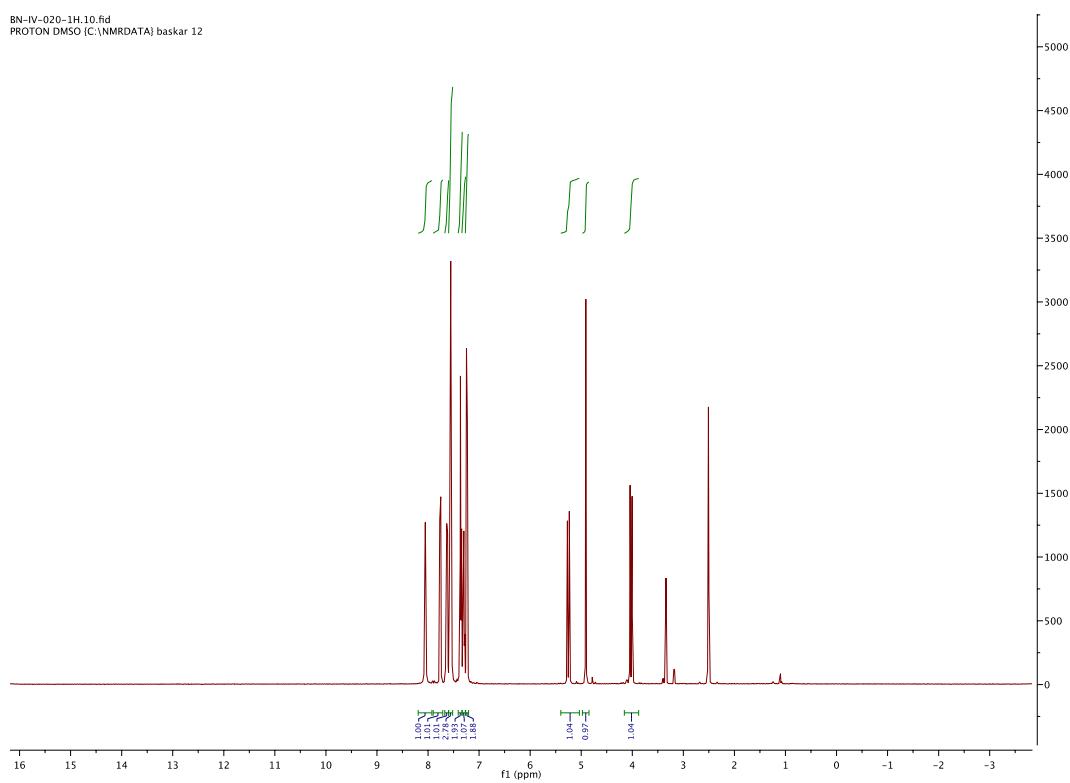


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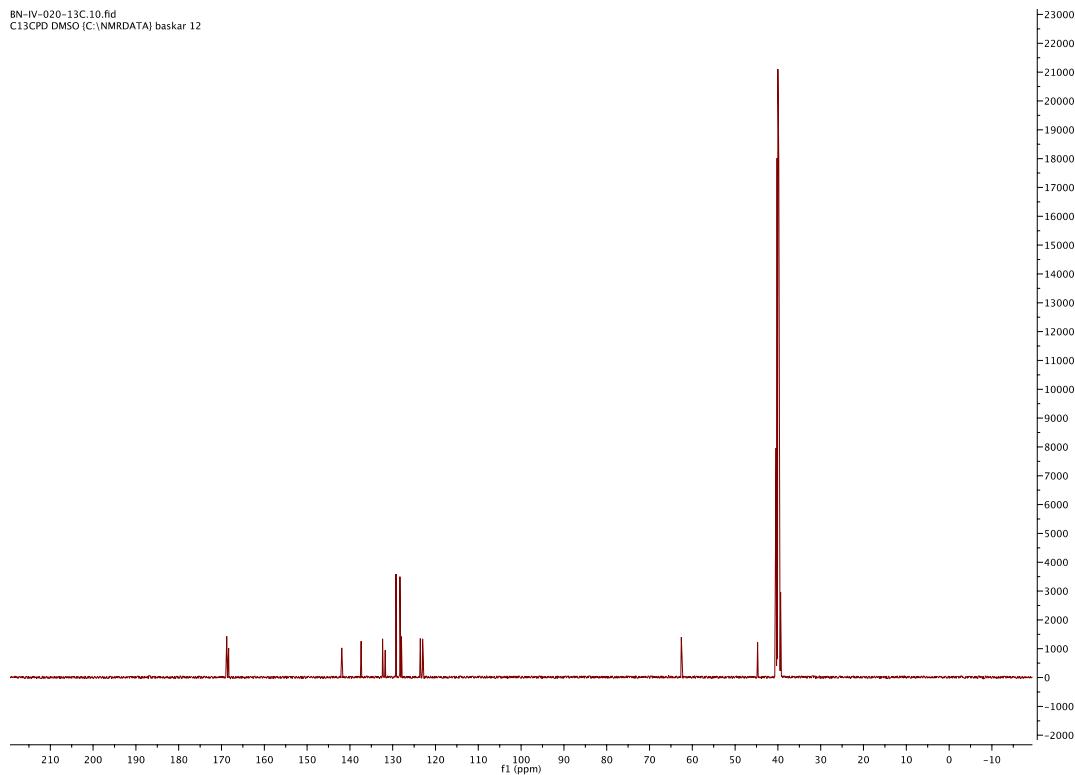


**( $\pm$ )-2-Benzyl-3-oxoisoindoline-1-carboxamide (4a)**

BN-IV-020-1H.10.fid  
PROTON DMSO [C:\NMRDATA] baskar 12

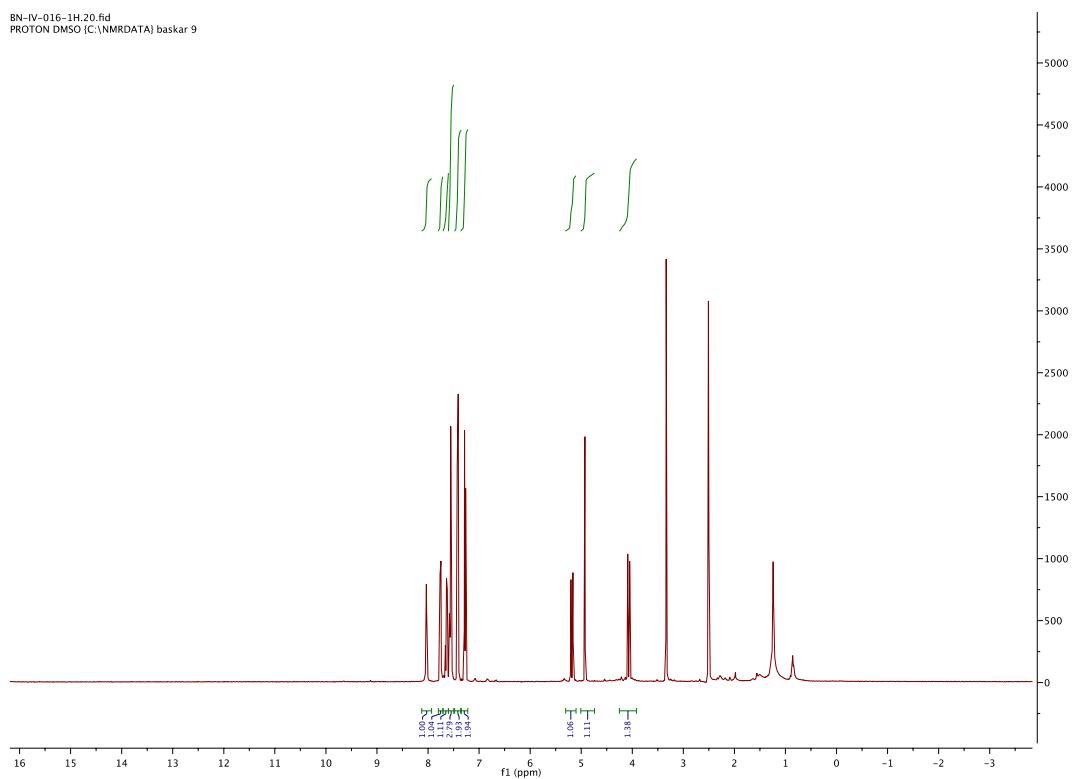


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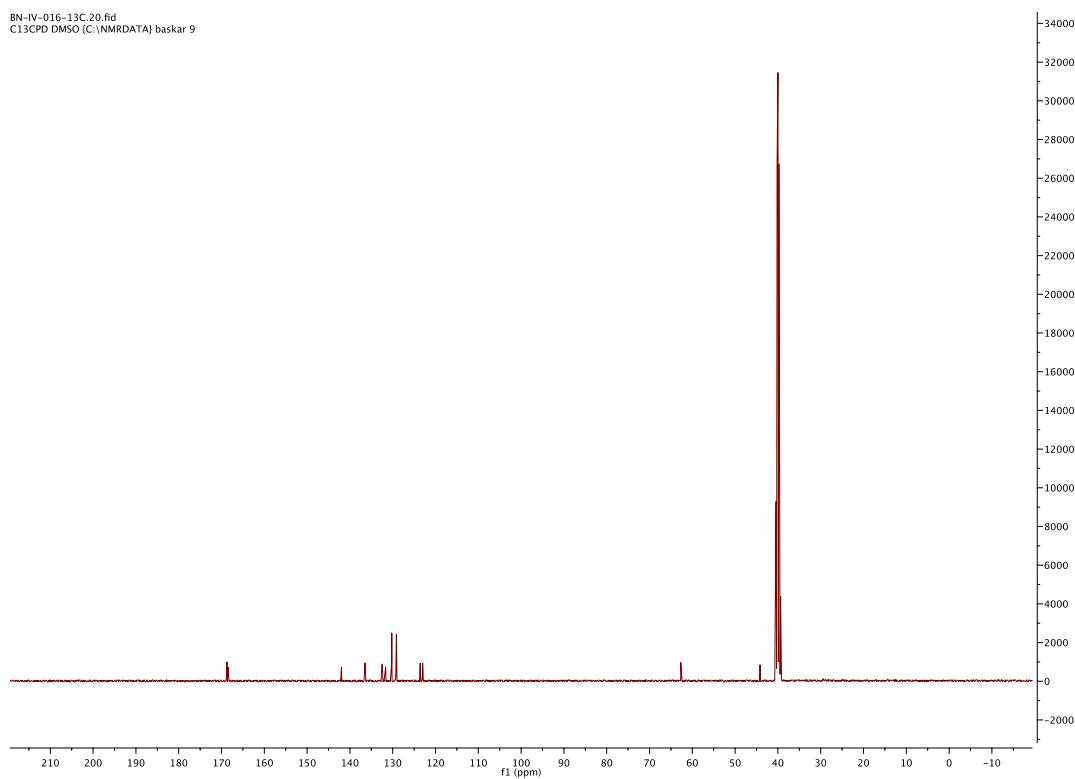


**( $\pm$ )-2-(4-Chlorobenzyl)-3-oxoisindoline-1-carboxamide (4b)**

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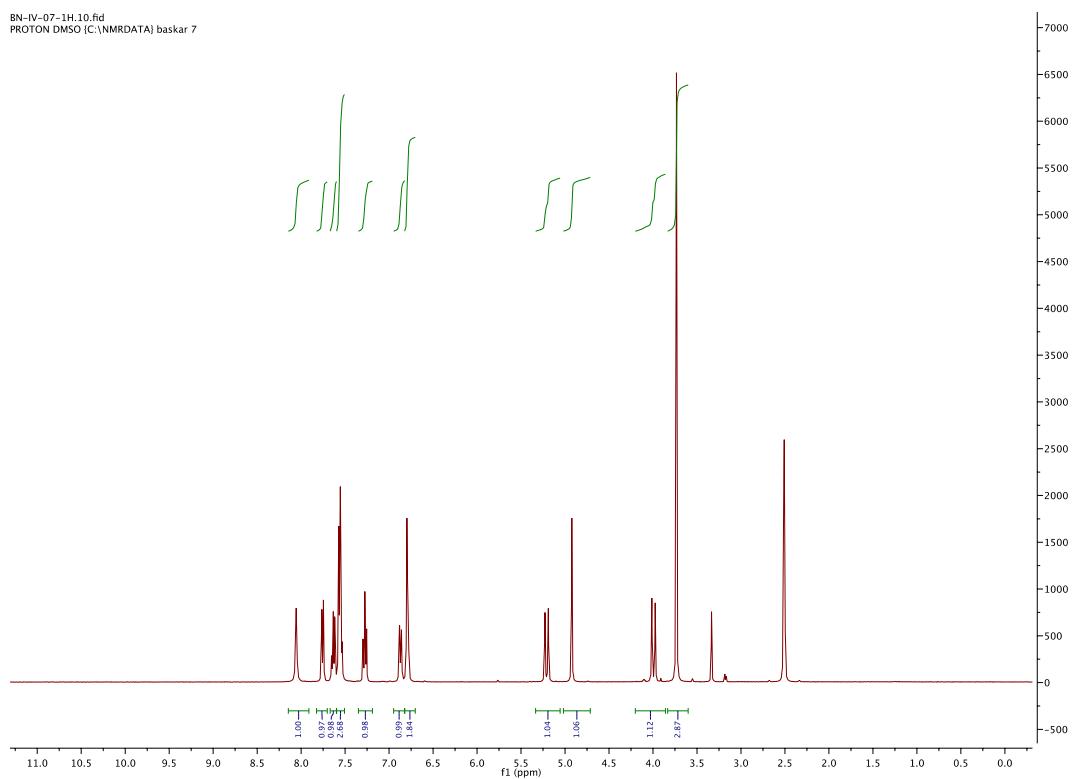


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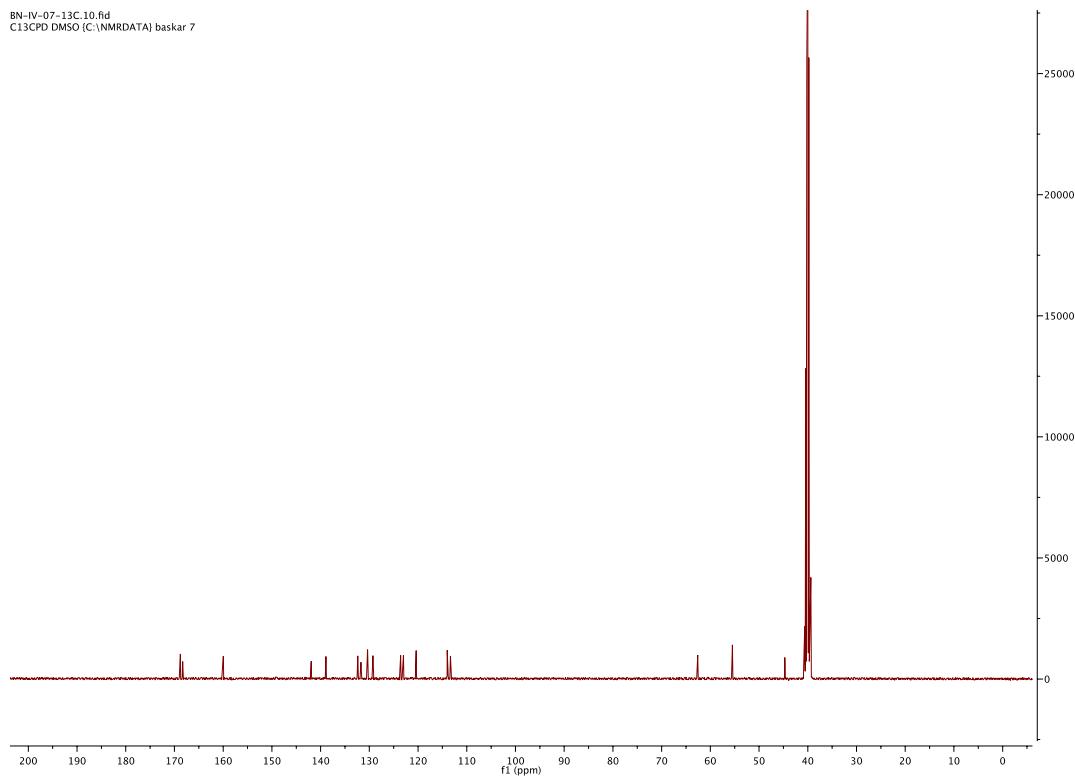


**( $\pm$ )-2-(3-Methoxybenzyl)-3-oxoindoline-1-carboxamide (4c)**

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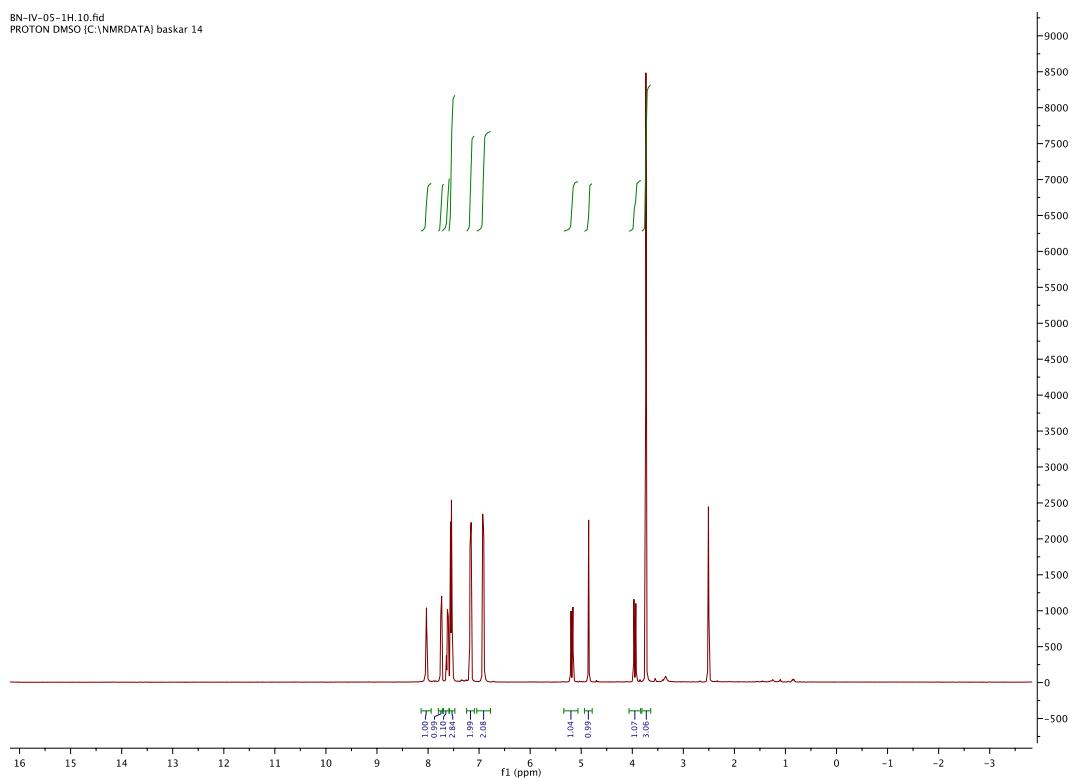


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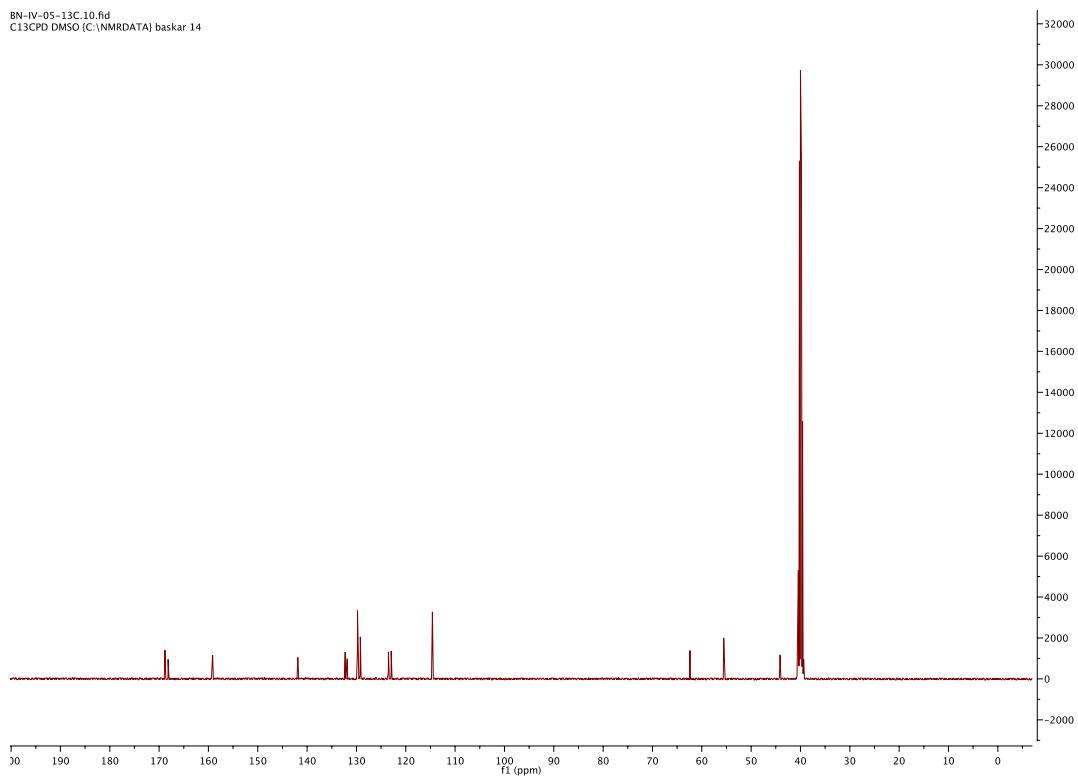


**( $\pm$ )-2-(4-Methoxybenzyl)-3-oxoindoline-1-carboxamide (4d)**

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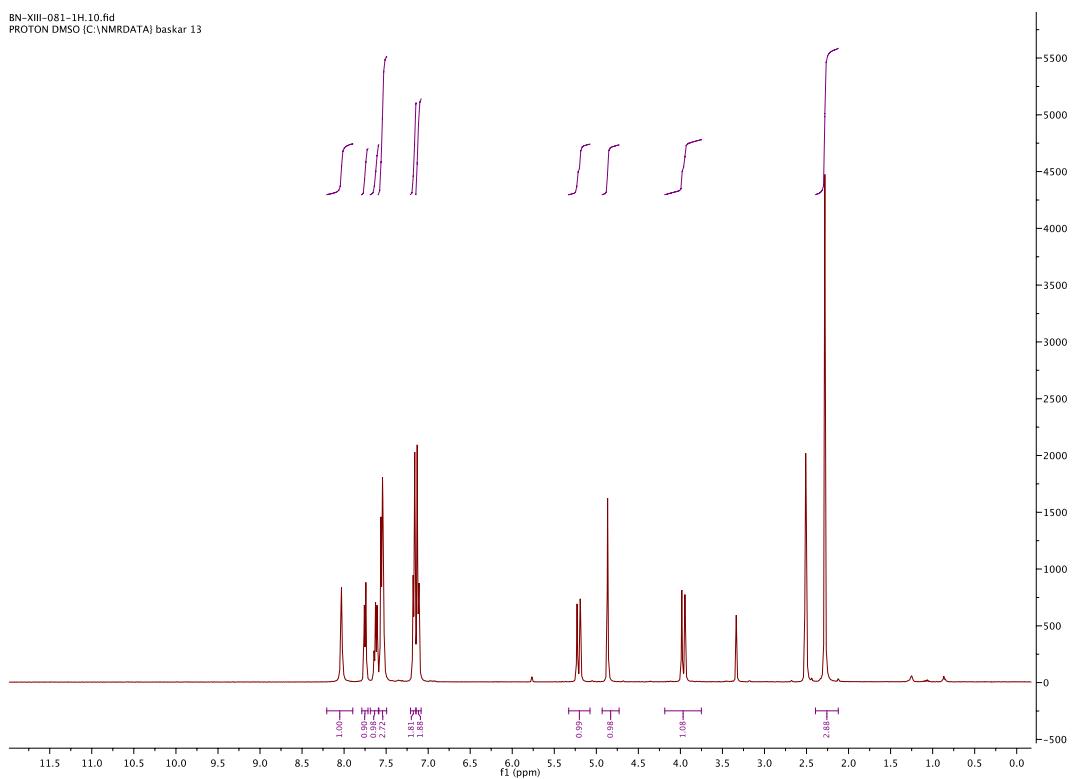


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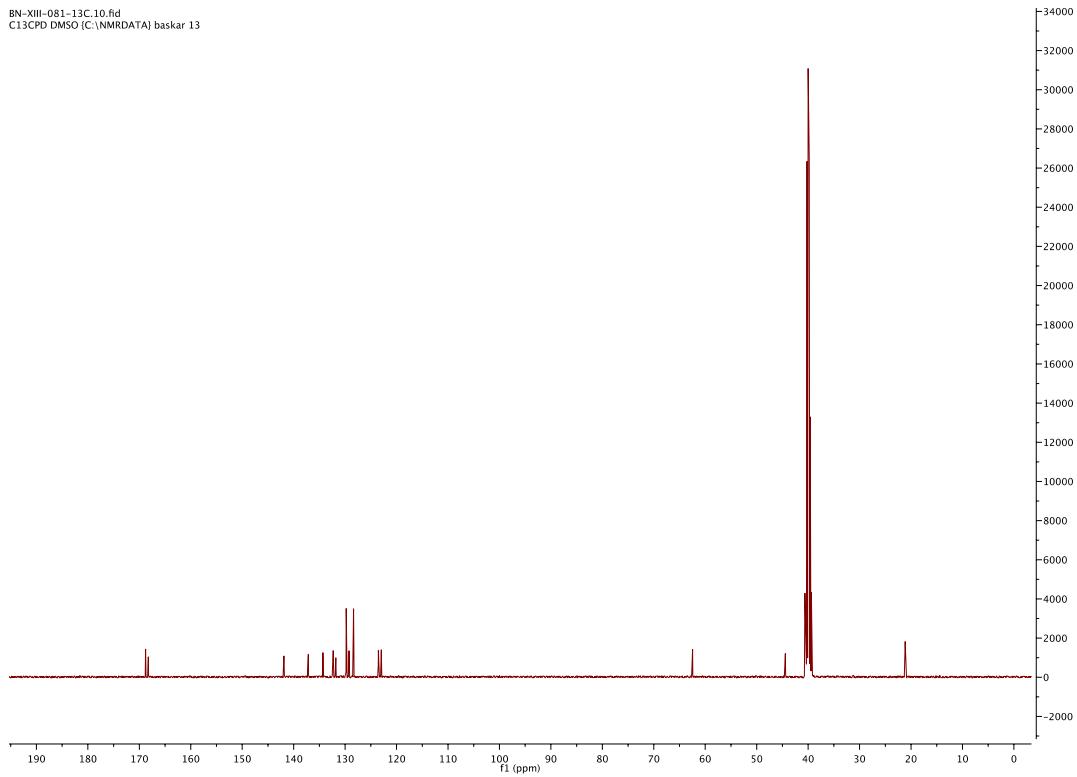


**( $\pm$ )-2-(4-Methylbenzyl)-3-oxoisindoline-1-carboxamide (4e)**

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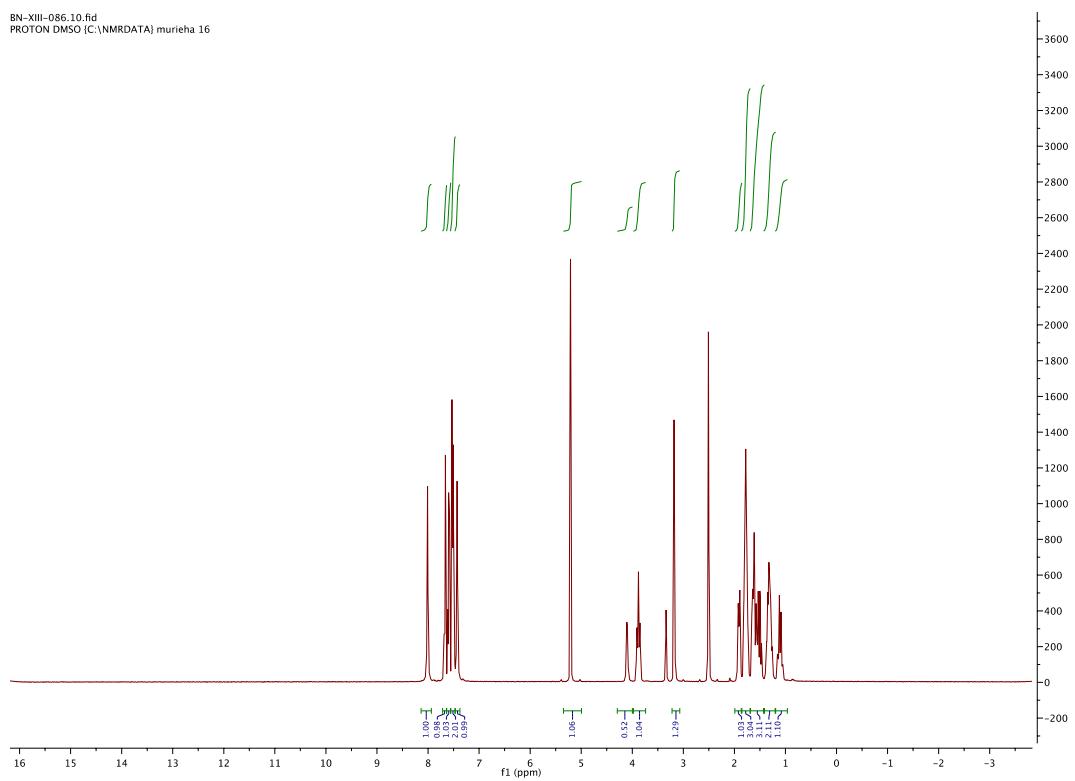


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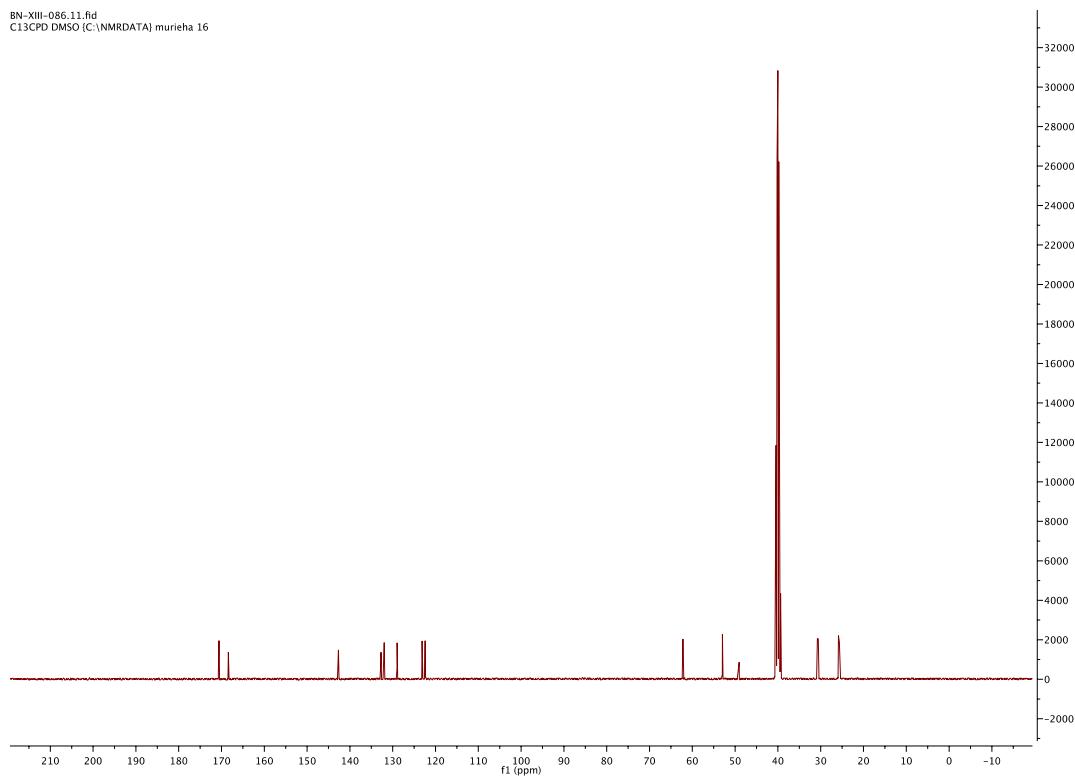


**( $\pm$ )-2-Cyclohexyl-3-oxoisoindoline-1-carboxamide (4f)**

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PROTON DMSO [C:\NMRDATA] murieha 16

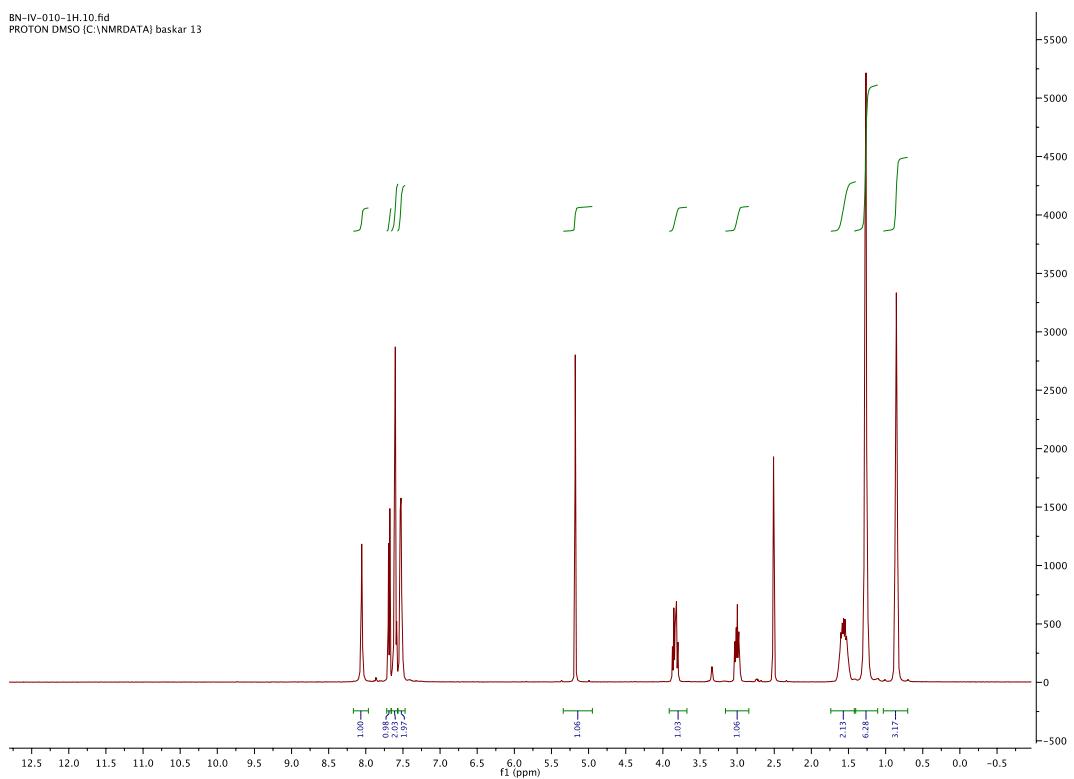


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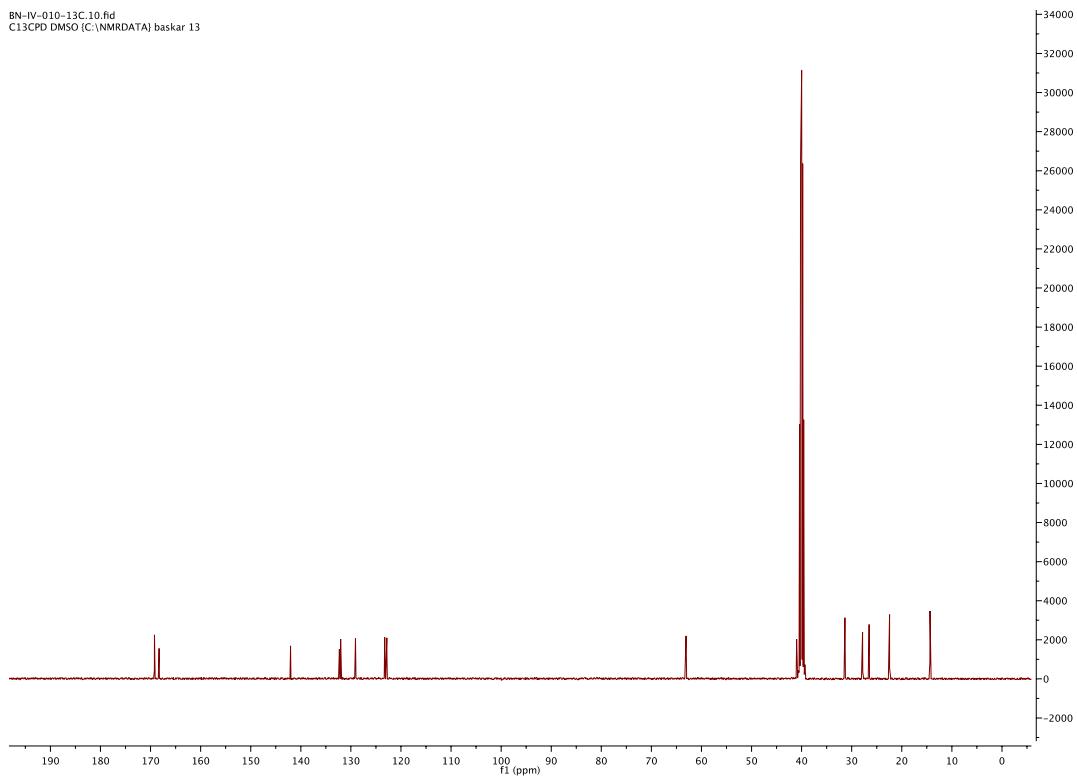


**( $\pm$ )-2-Hexyl-3-oxoisindoline-1-carboxamide (4g)**

BN-IV-010-1H.fid  
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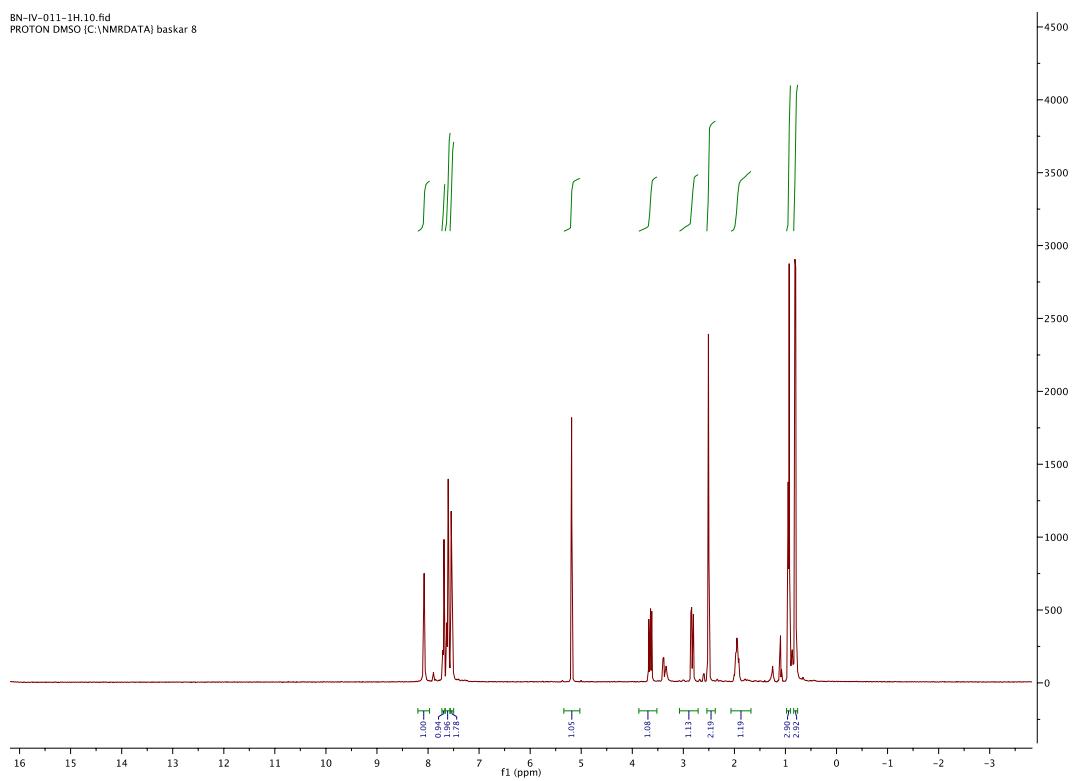


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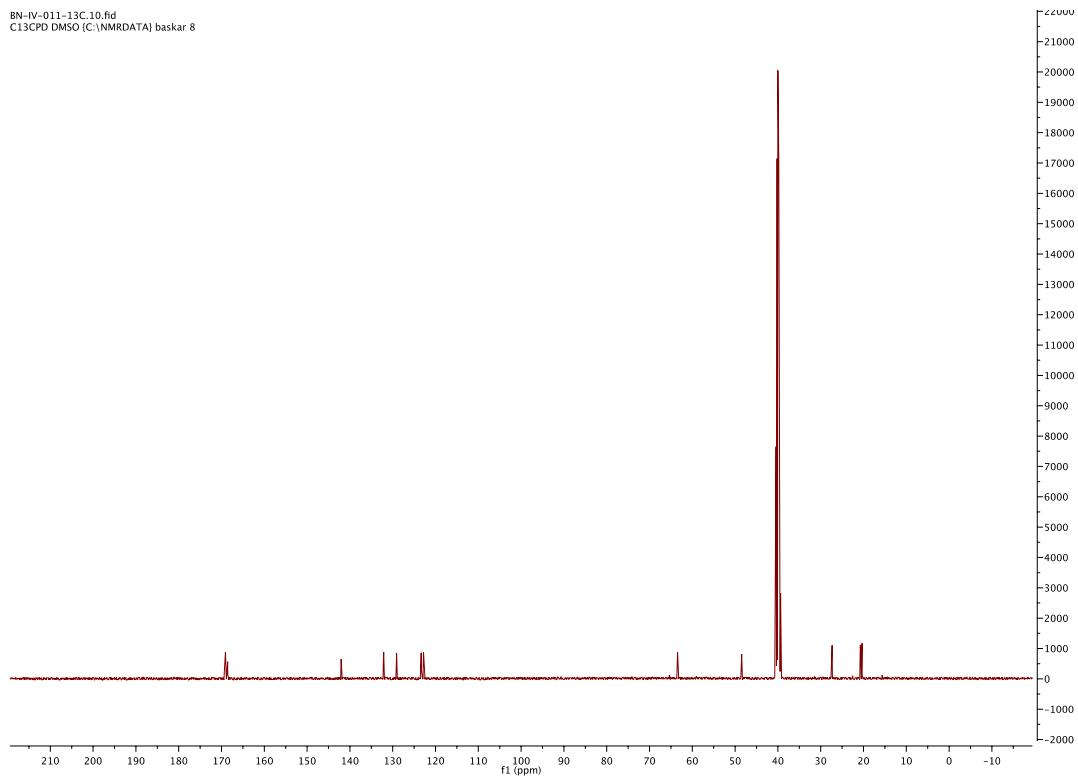


**(±)-2-Isobutyl-3-oxoisindoline-1-carboxamide (4h)**

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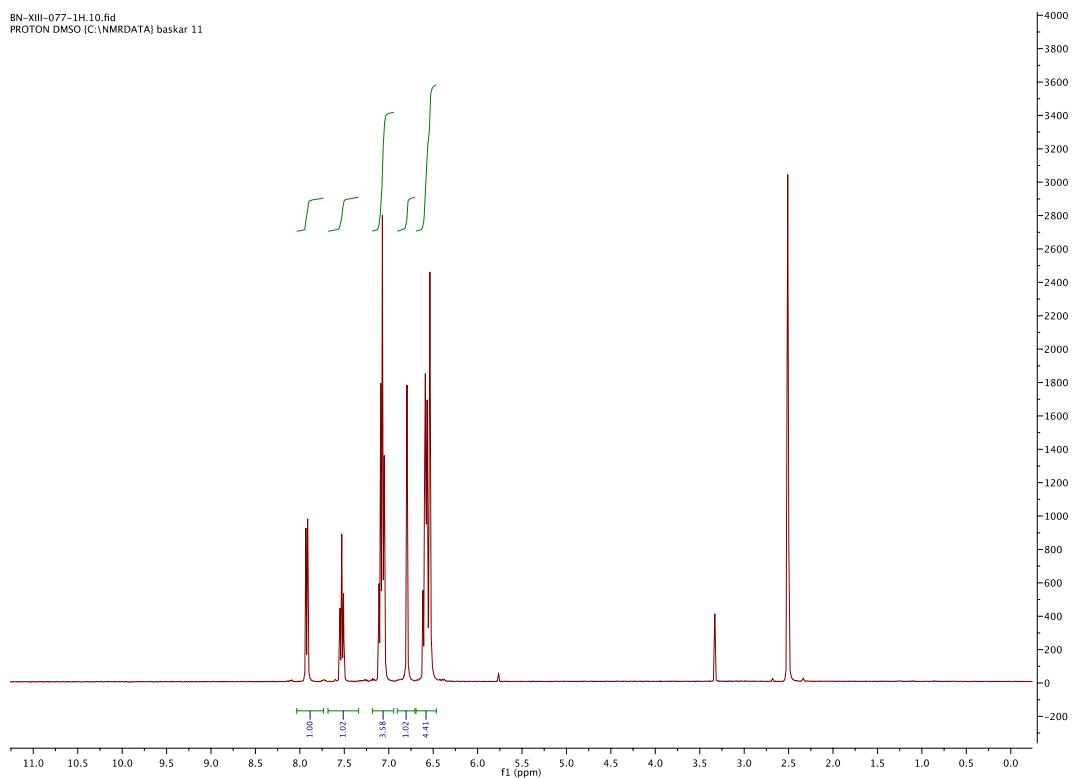


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C13CPD DMSO [C:\NMRDATA] baskar 8

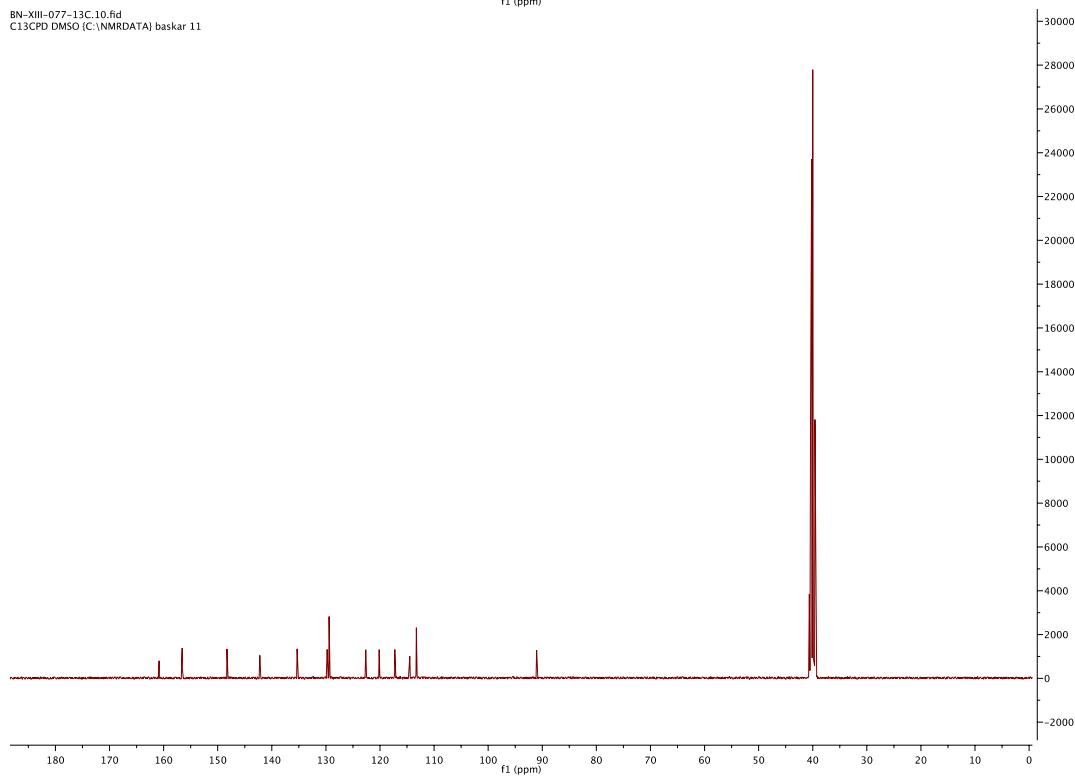


**( $\pm$ )-3-(Phenylamino)isobenzofuran-1(3H)-one (6a)**

BN-XIII-077-1H.10.fid  
PROTON DMSO [C:\NMRDATA] baskar 11

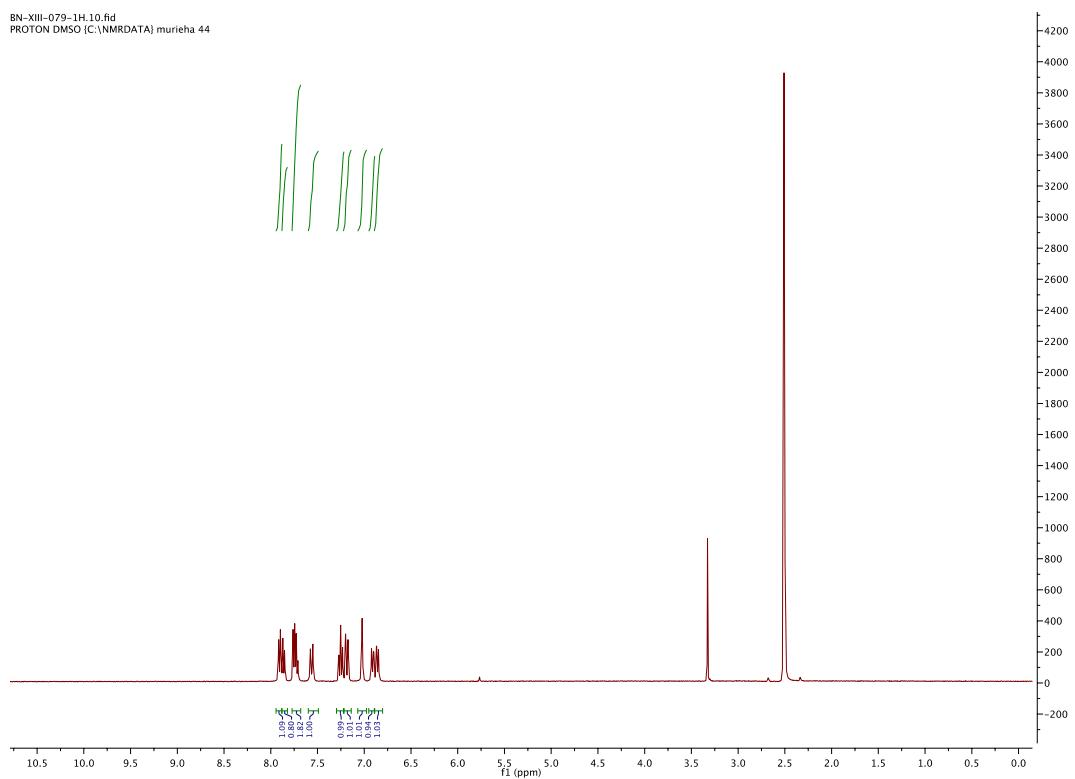


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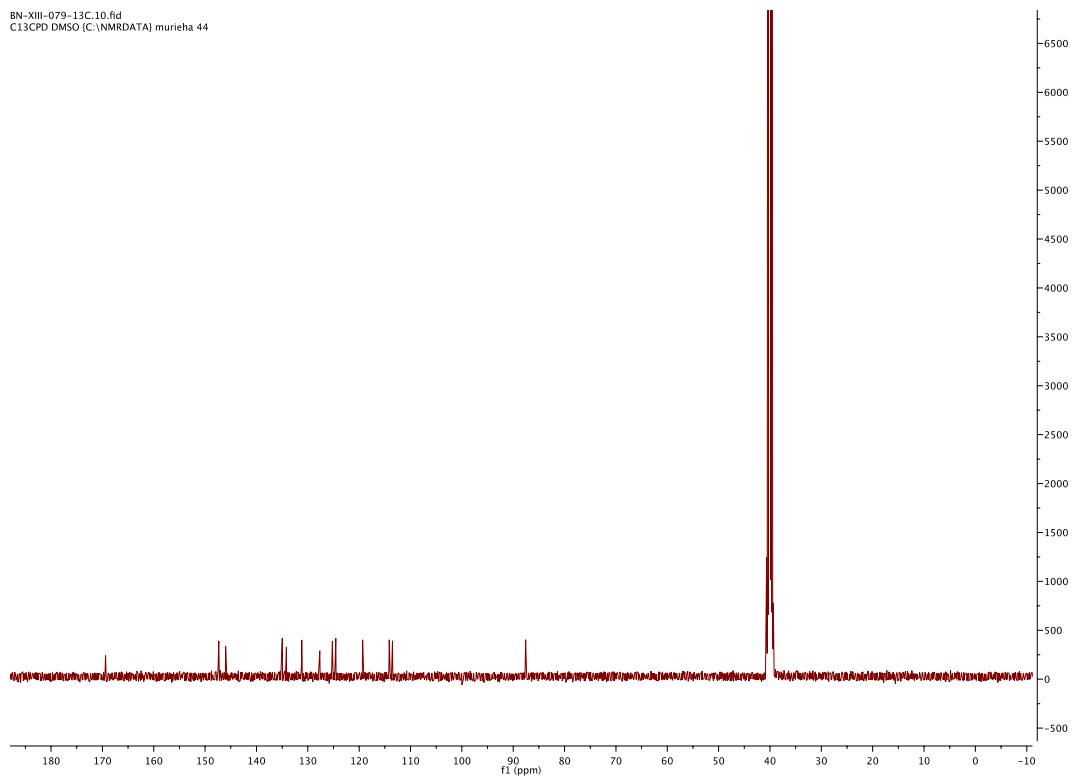


**( $\pm$ )-3-[(3-Chlorophenyl)amino]isobenzofuran-1(3H)-one (6b)**

BN-XIII-079-1H.10.fid  
PROTON DMSO [C:\NMRDATA] murieha 44

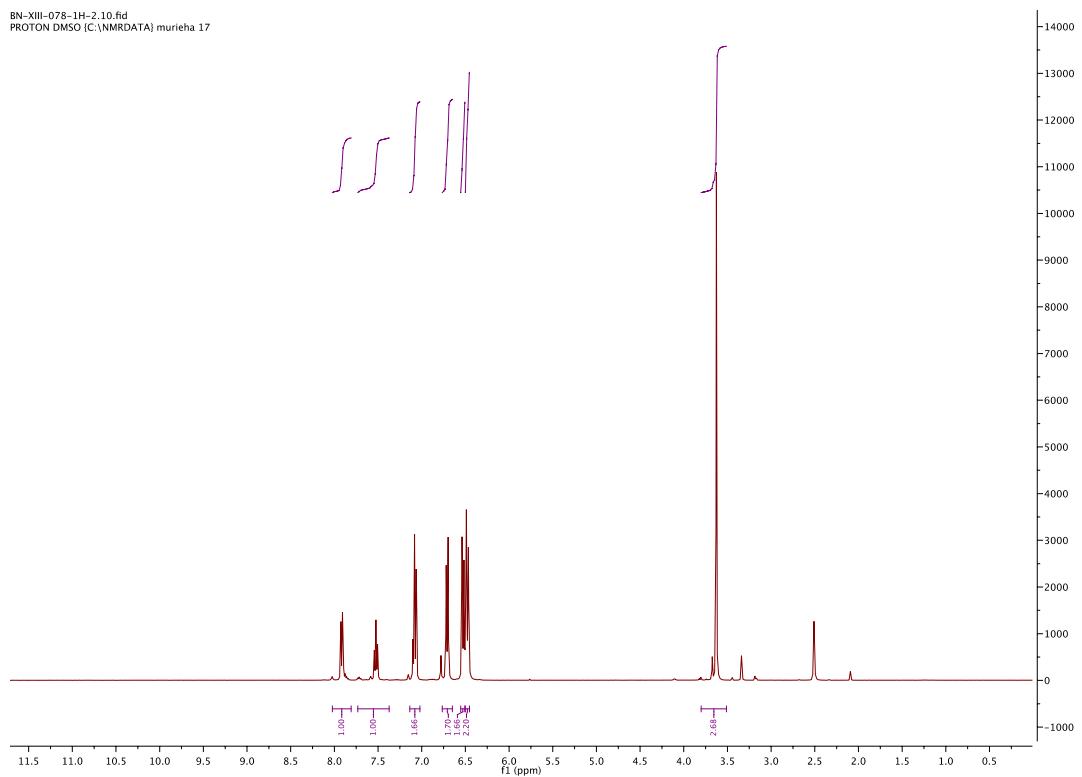


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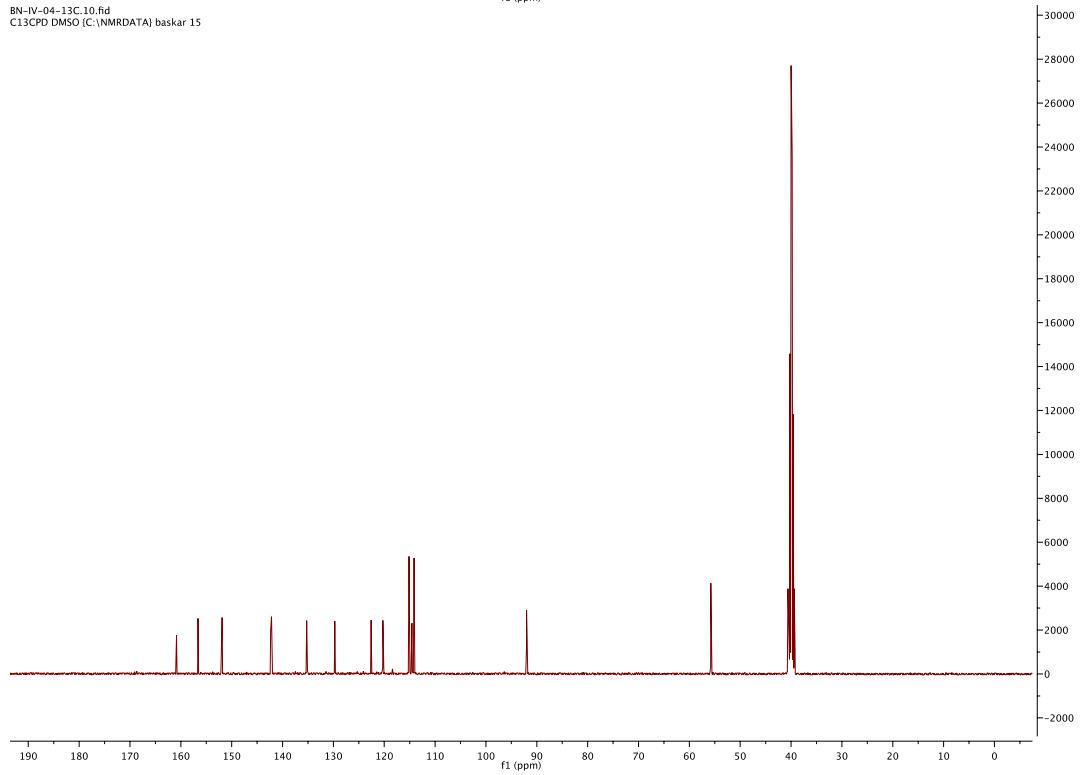


**( $\pm$ )-3-[(4-Methoxyphenyl)amino]isobenzofuran-1(3H)-one (6c)**

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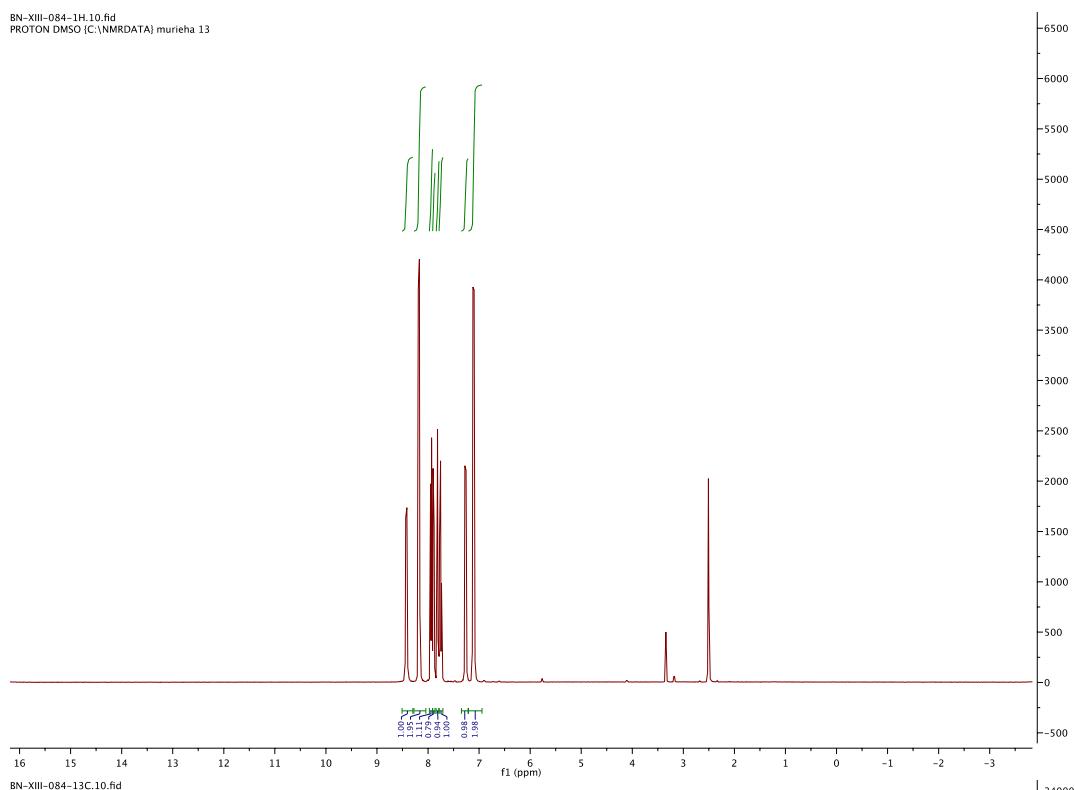


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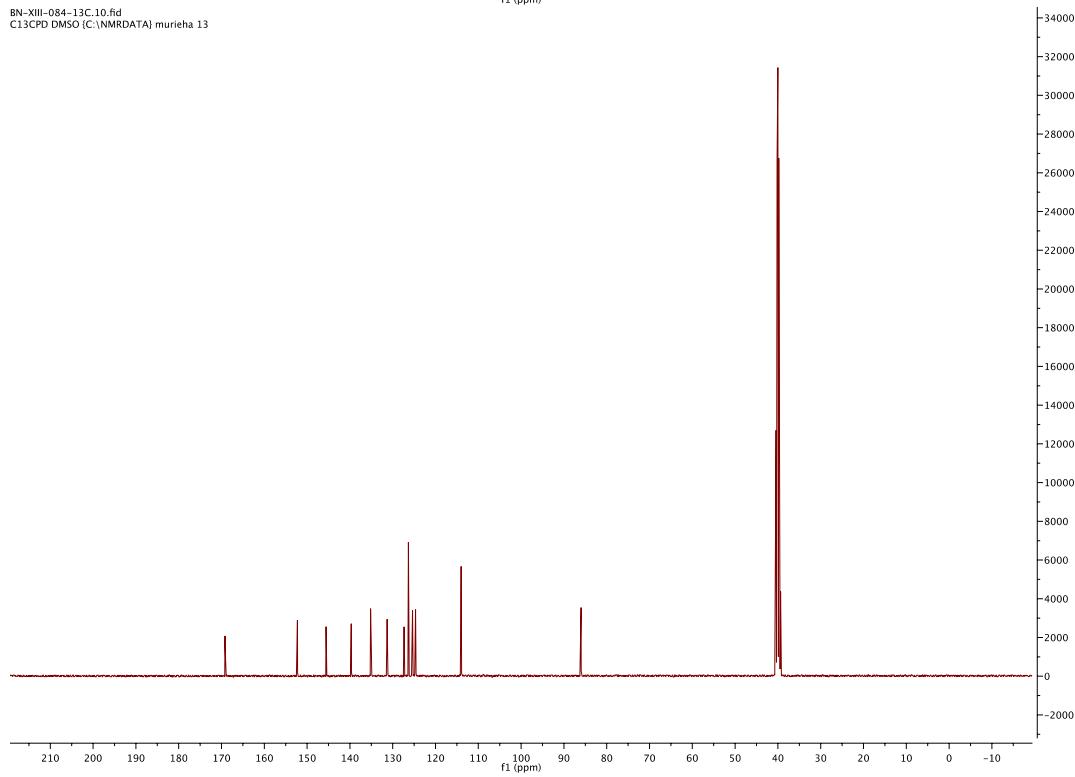


**( $\pm$ )-3-[(4-Nitrophenyl)amino]isobenzofuran-1(3H)-one (6d)**

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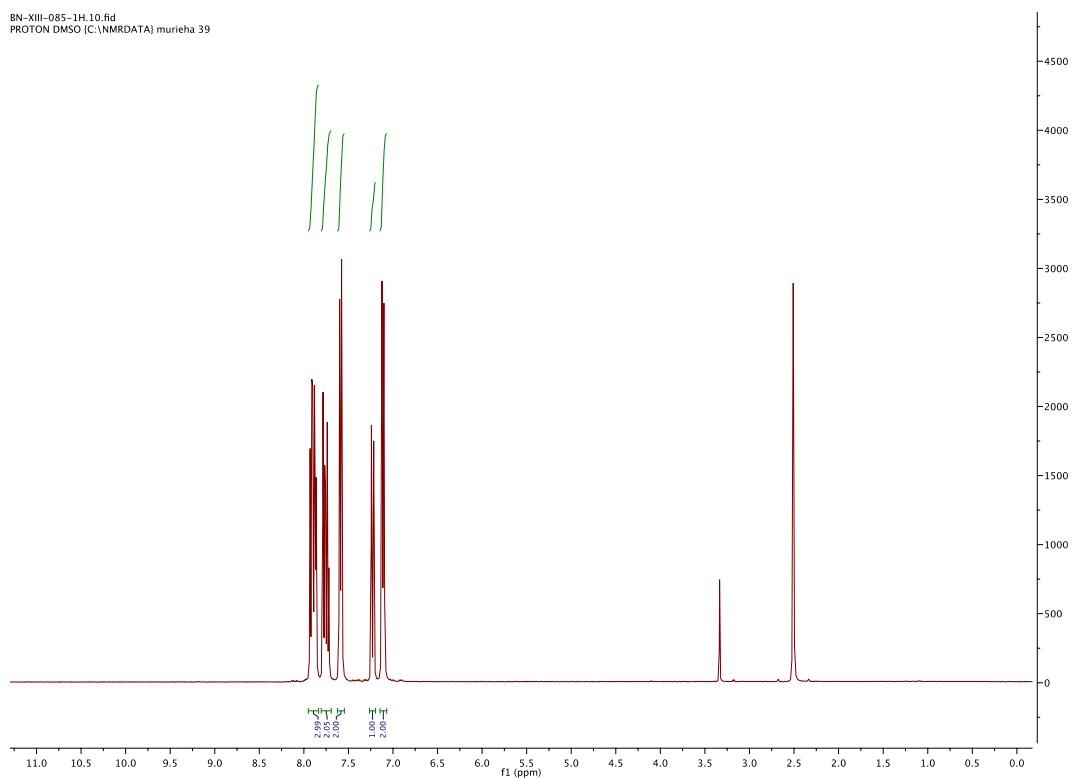


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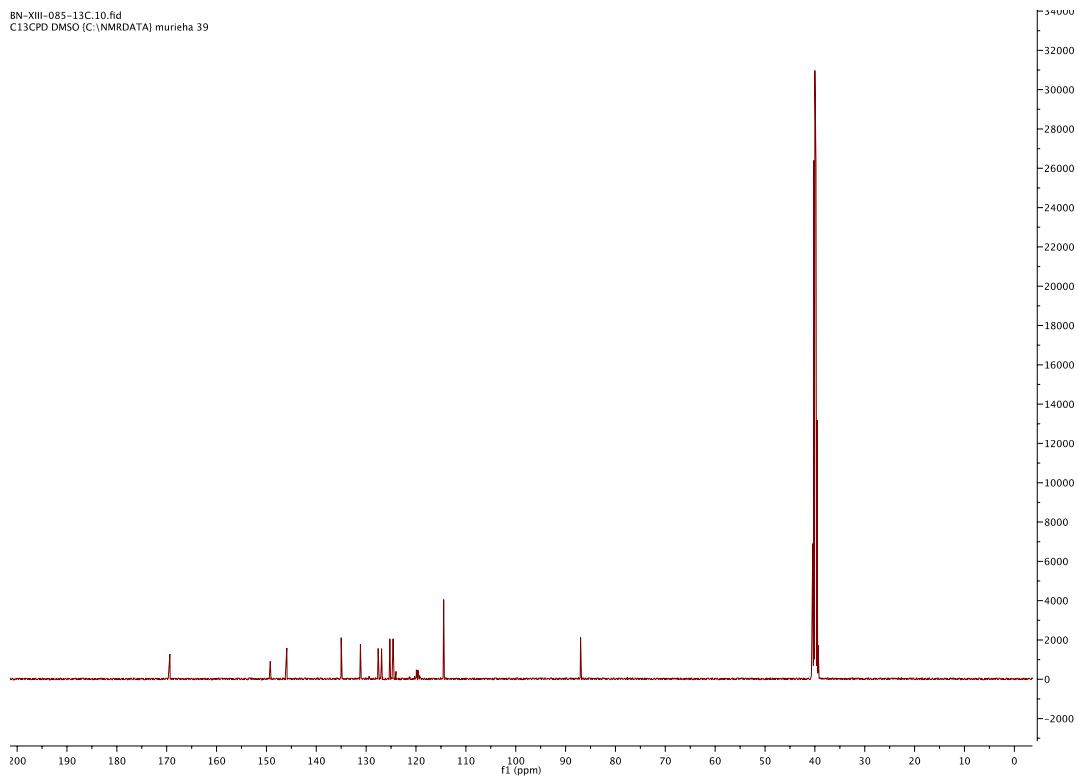


**( $\pm$ )-3-{[4-(Trifluoromethyl)phenyl]amino}isobenzofuran-1( $3H$ )-one (6e)**

BN-XIII-085-1H.10.fid  
PROTON DMSO [C:\NMRDATA] murieha 39

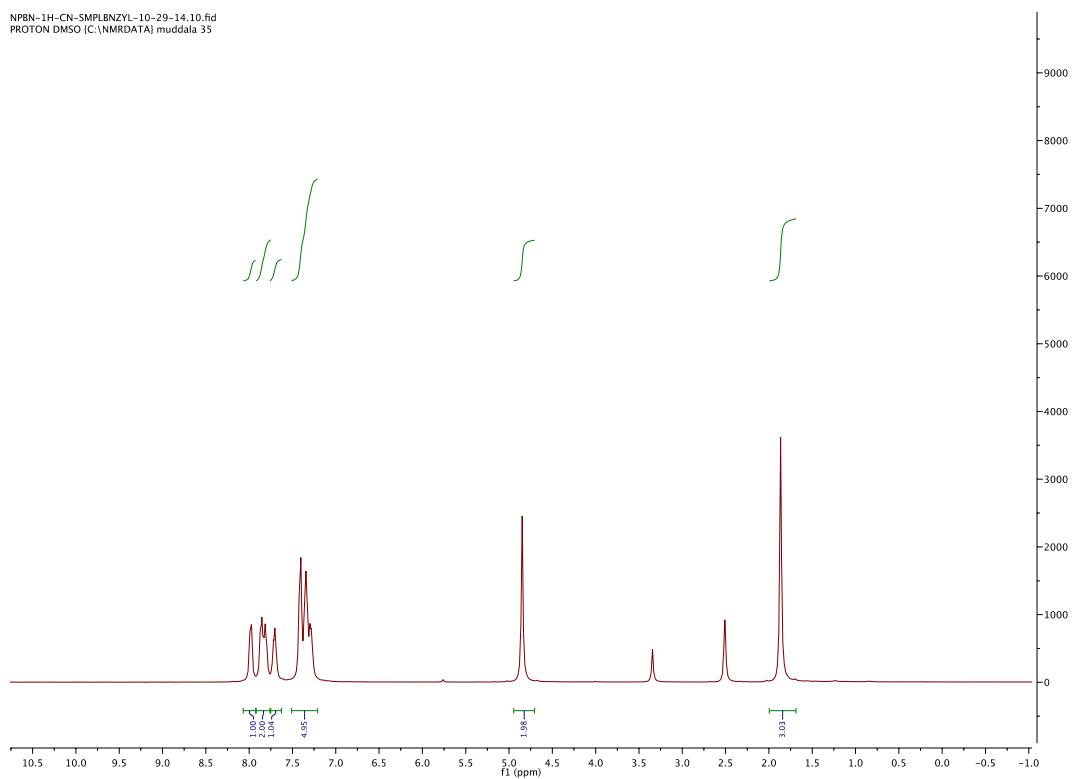


BN-XIII-085-13C.10.fid  
C13CPD DMSO [C:\NMRDATA] murieha 39

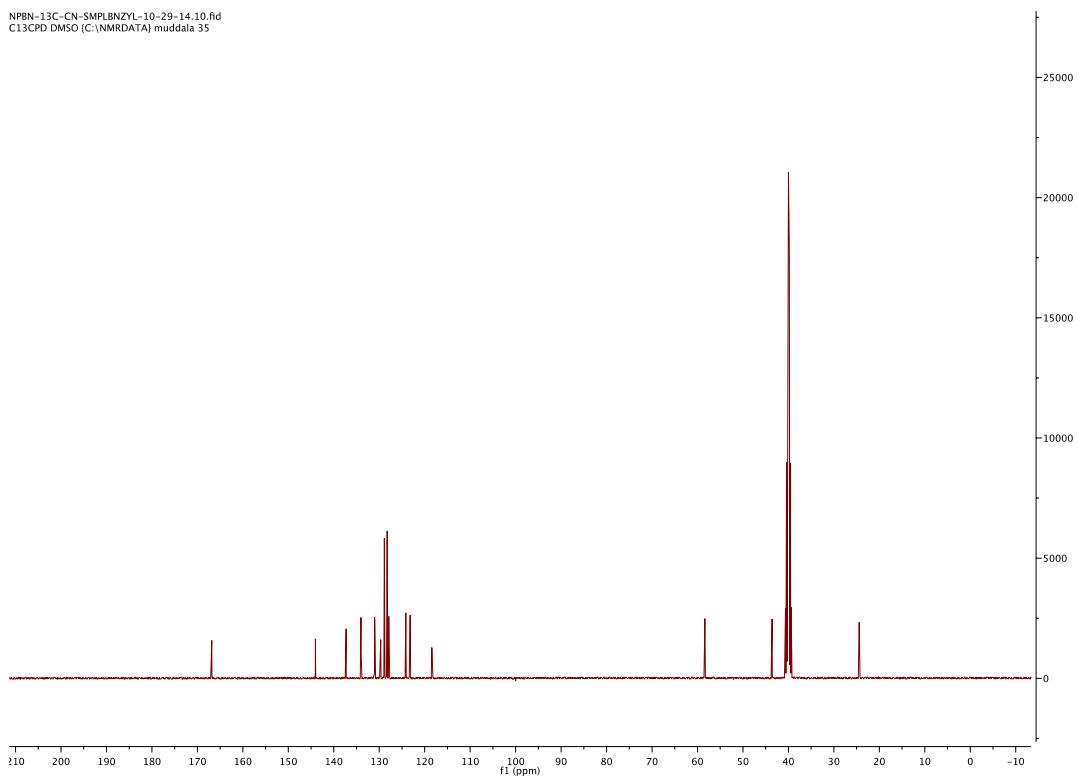


**( $\pm$ )-2-Benzyl-1-methyl-3-oxoisoindoline-1-carbonitrile (8a)**

NPBN-1H-CN-SMPLBNZYL-10-29-14.10.fid  
PROTON DMSO (C:\NMRDATA) muddala 35'

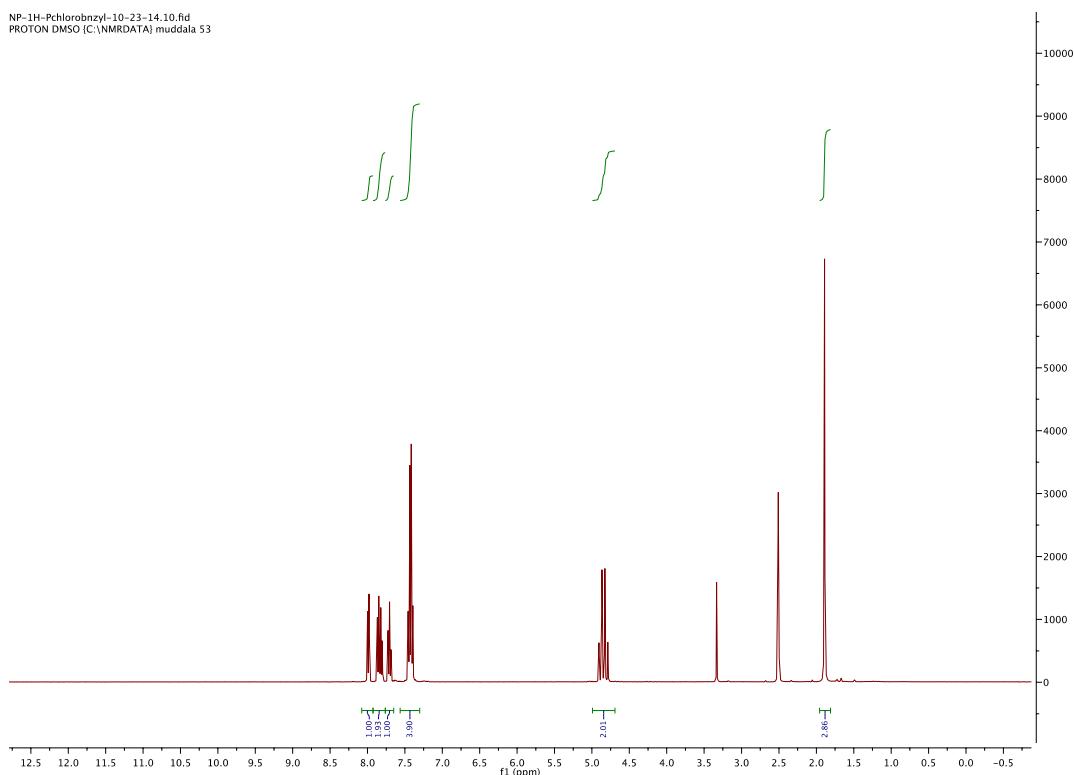


NPBN-13C-CN-SMPLBNZYL-10-29-14.10.fid  
C13CPD DMSO (C:\NMRDATA) muddala 35'

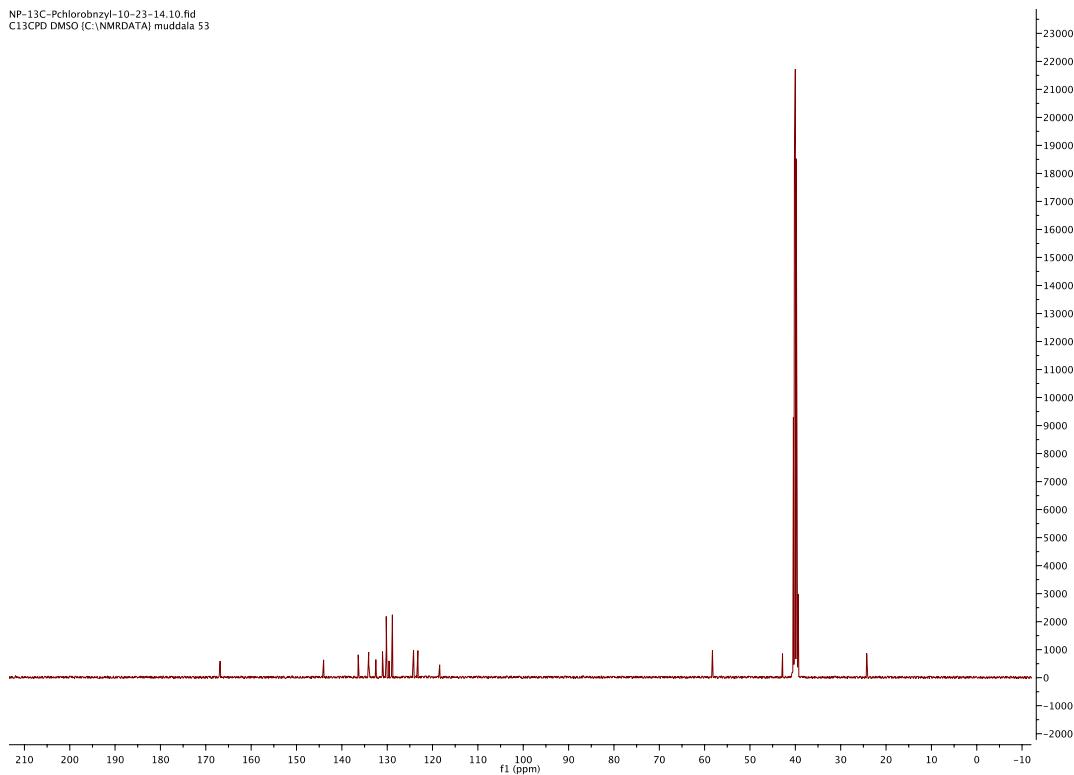


**( $\pm$ )-2-(4-Chlorobenzyl)-1-methyl-3-oxoisindoline-1-carbonitrile (8b)**

NP-1H-Pchlorobnzy-10-23-14.10.fid  
PROTON DMSO (C:\NMRDATA) muddala 53

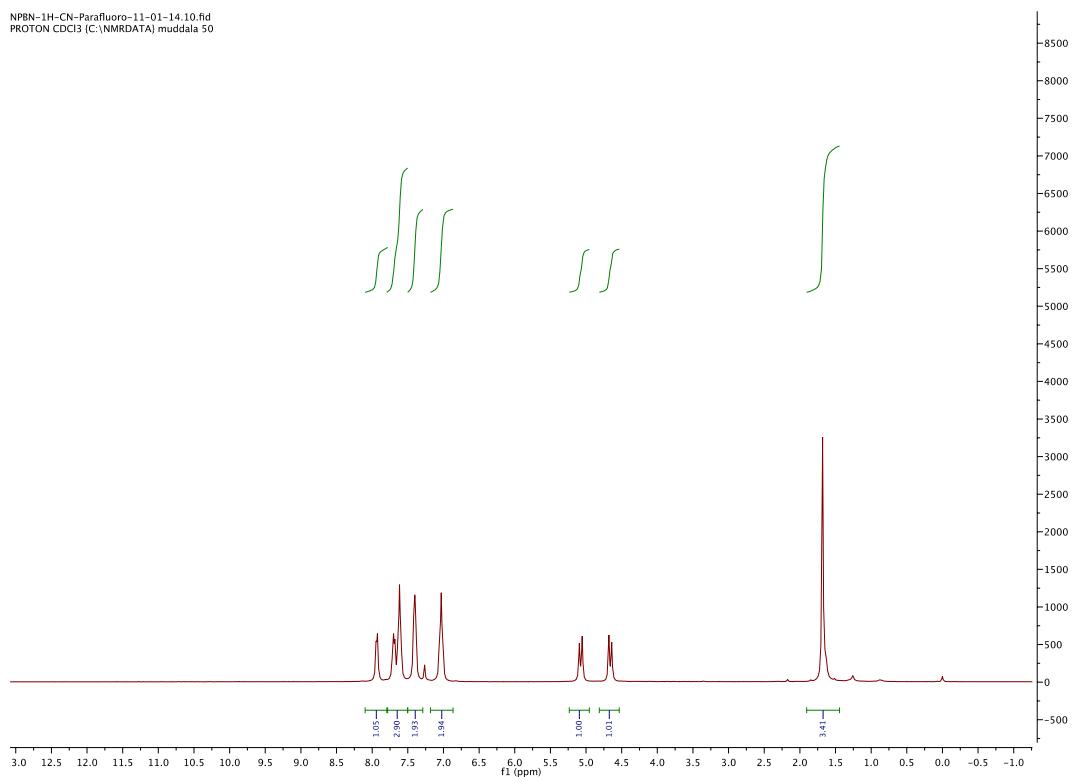


NP-13C-Pchlorobnzy-10-23-14.10.fid  
C13CPD DMSO (C:\NMRDATA) muddala 53

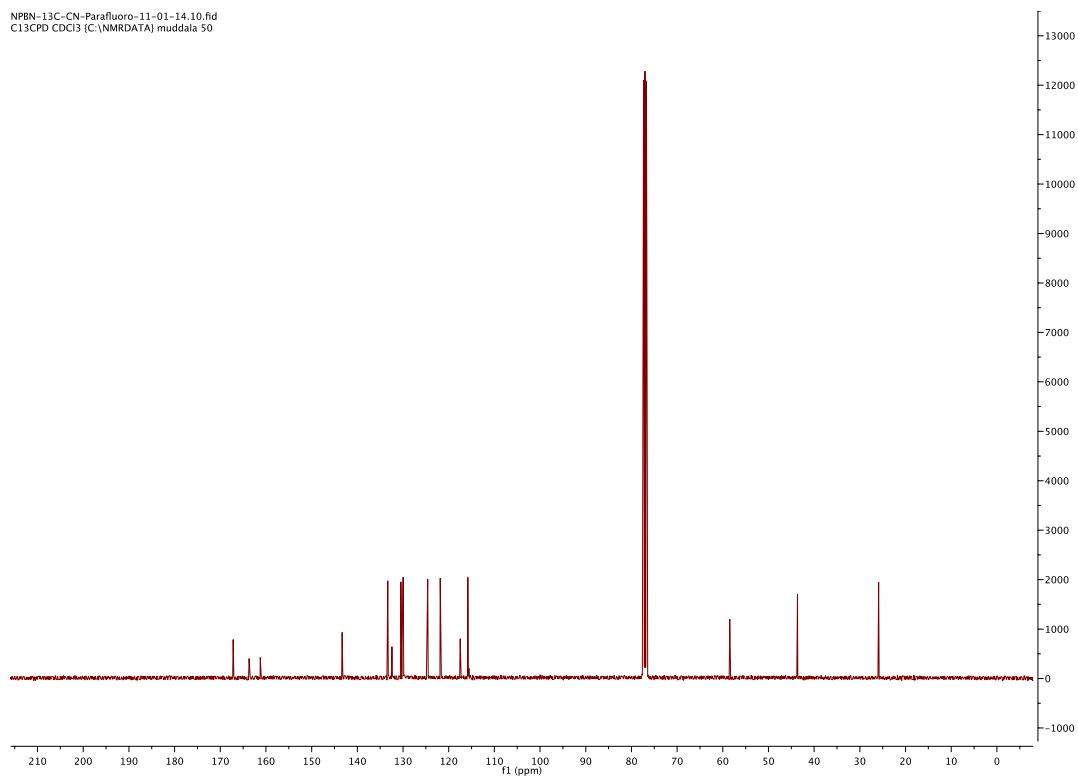


**( $\pm$ )-2-(4-Fluorobenzyl)-1-methyl-3-oxoisindoline-1-carbonitrile (8c)**

NPBN-1H-CN-Paraffluoro-11-01-14.10.fid  
PROTON CDCl<sub>3</sub> (C:\NMRDATA) muddala 50

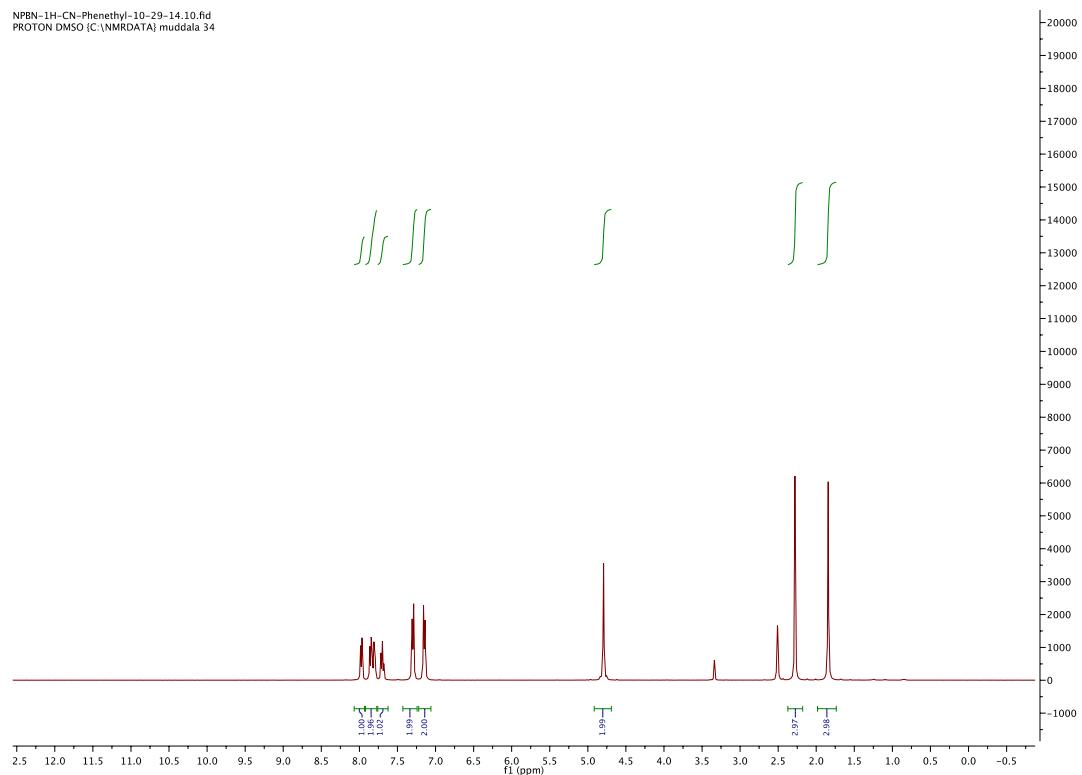


NPBN-13C-CN-Paraffluoro-11-01-14.10.fid  
C13CPD CDCl<sub>3</sub> (C:\NMRDATA) muddala 50

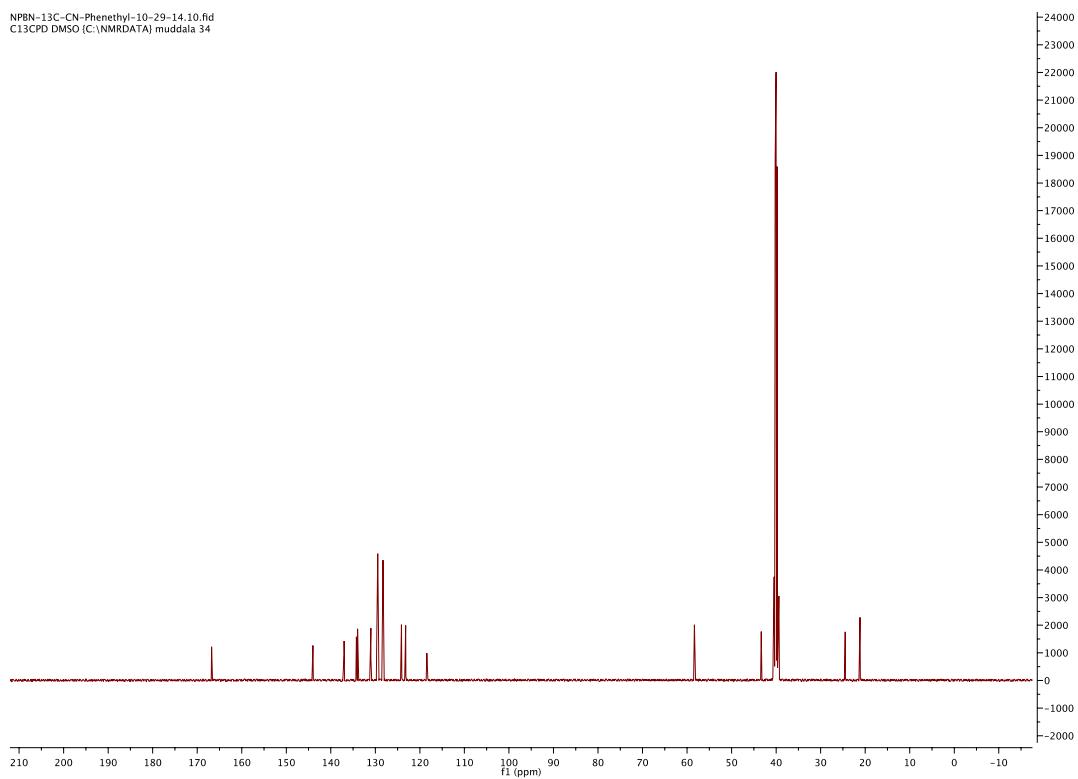


**( $\pm$ )-1-Methyl-2-(4-methylbenzyl)-3-oxoisoindoline-1-carbonitrile (8d)**

NPBN-1H-CN-Phenethyl-10-29-14.10.fld  
PROTON DMSO [C:\NMRDATA] muddala 34

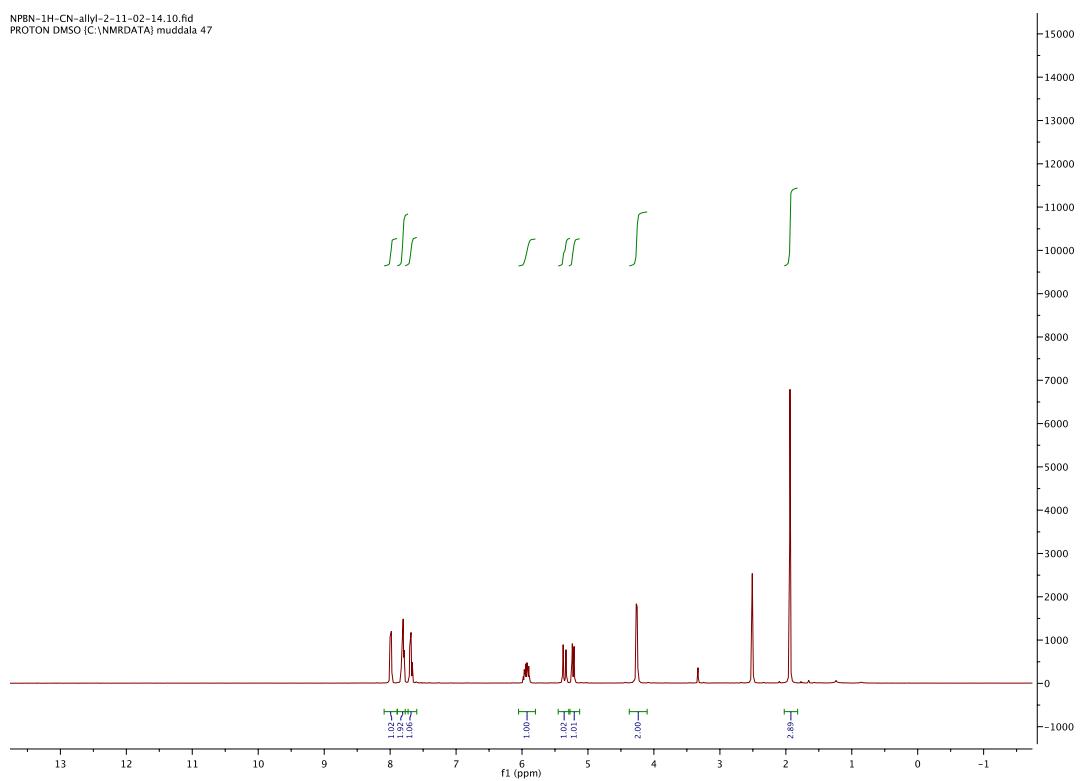


NPBN-13C-CN-Phenethyl-10-29-14.10.fld  
C13CPD DMSO [C:\NMRDATA] muddala 34

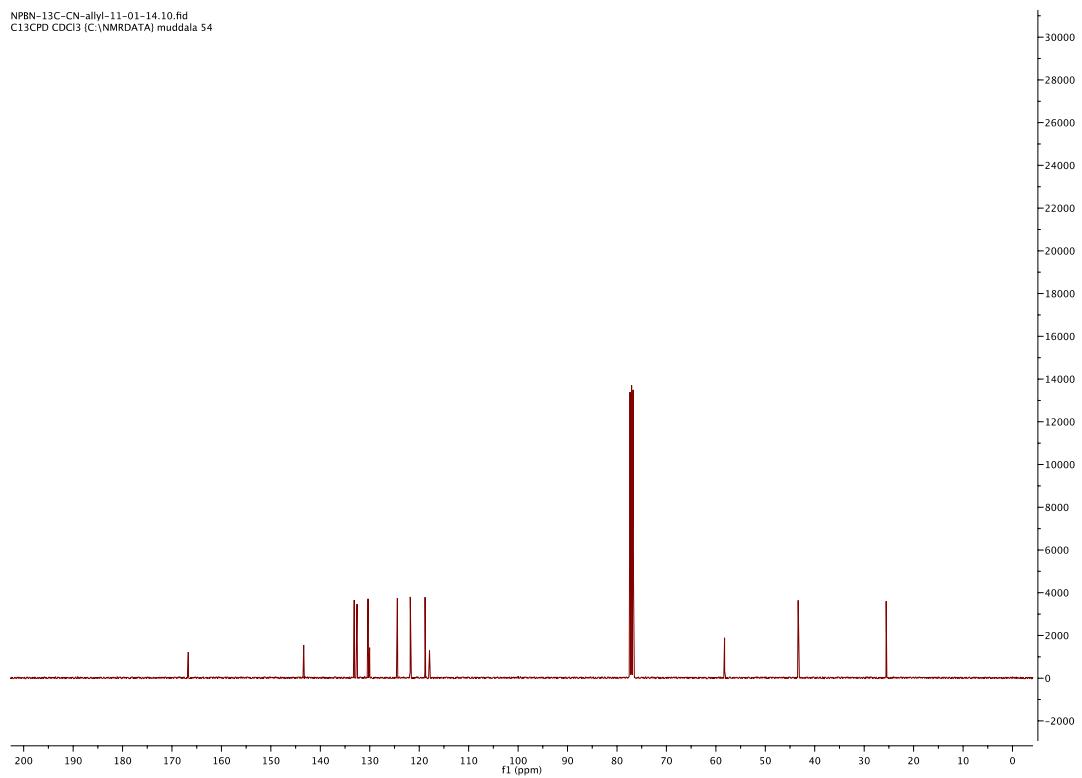


**( $\pm$ )-2-Allyl-1-methyl-3-oxoisoindoline-1-carbonitrile (8e)**

NPBN-1H-CN-allyl-2-11-02-14.10.fid  
PROTON DMSO (C:\NMRDATA) muddala 47

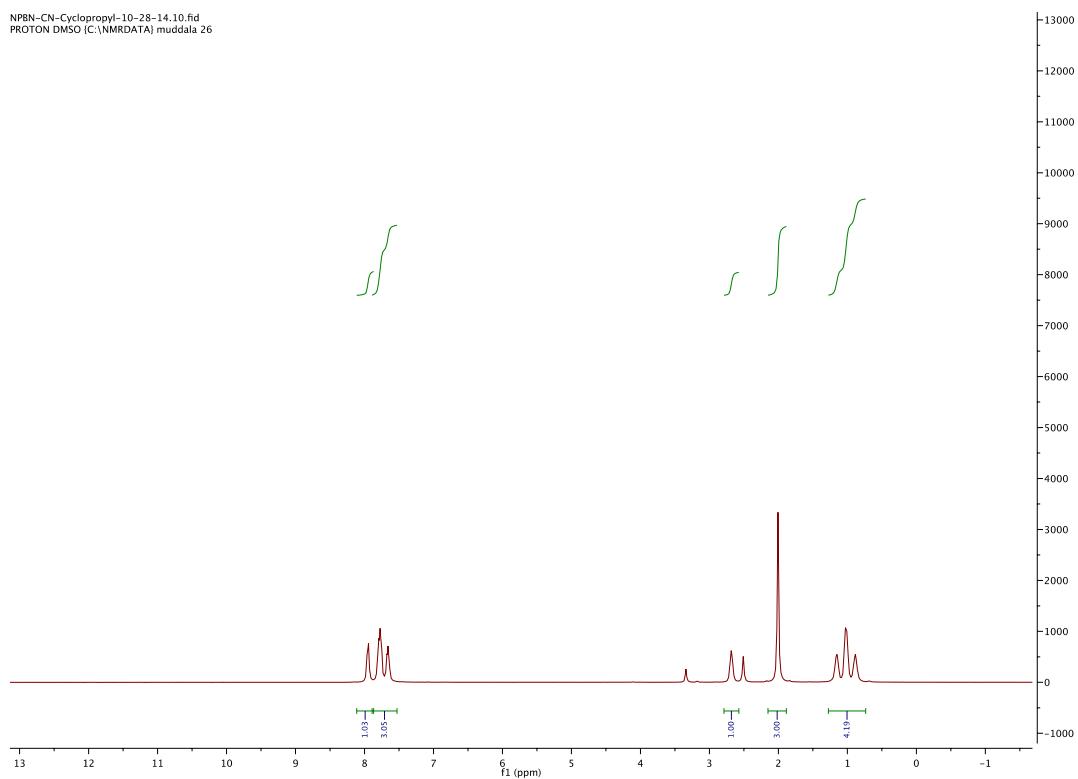


NPBN-13C-CN-allyl-11-01-14.10.fid  
C13CPD CDCl<sub>3</sub> (C:\NMRDATA) muddala 54

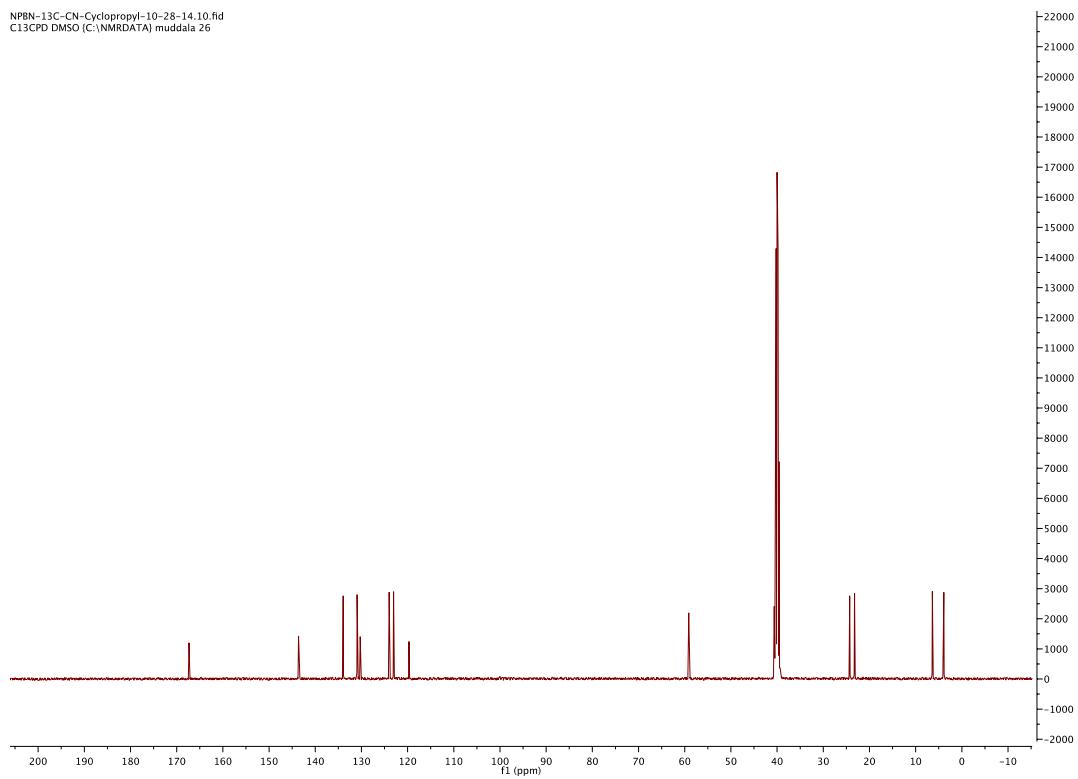


**( $\pm$ )-2-Cyclopropyl-1-methyl-3-oxoisindoline-1-carbonitrile (8f)**

NPBNCN-Cyclopropyl-10-28-14,10.fid  
PROTON DMSO [C:\NMRDATA] muddala 26

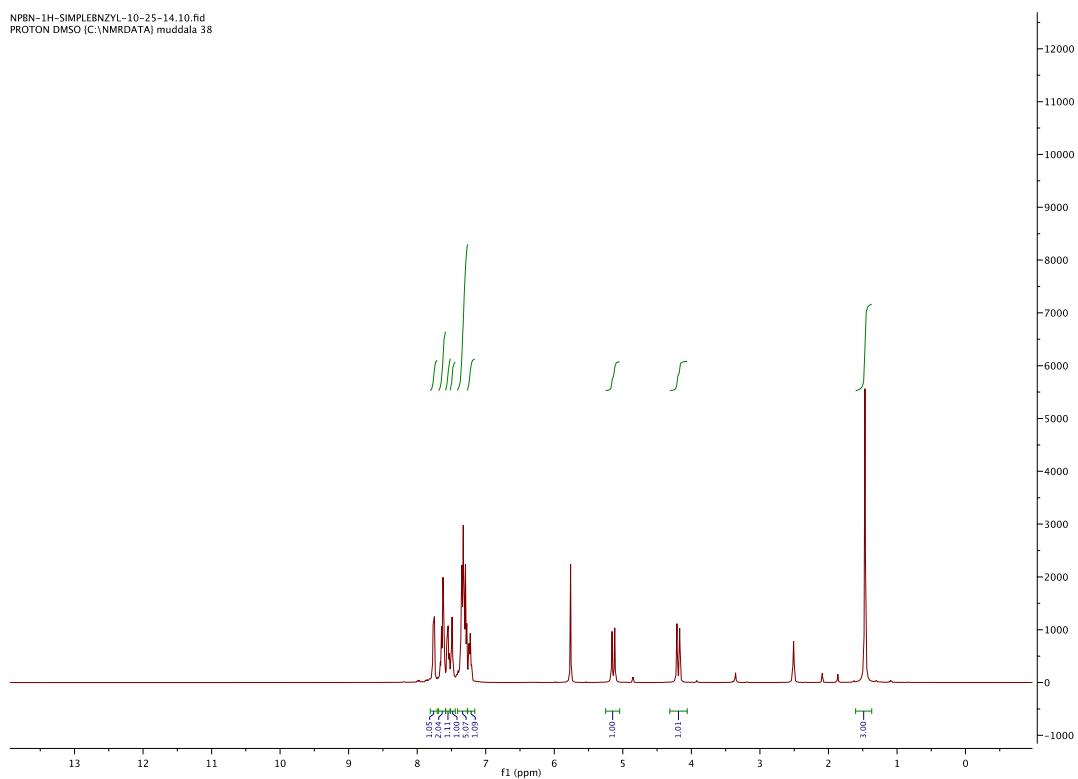


NPBNCN-13C-CN-Cyclopropyl-10-28-14,10.fid  
C13CPD DMSO [C:\NMRDATA] muddala 26

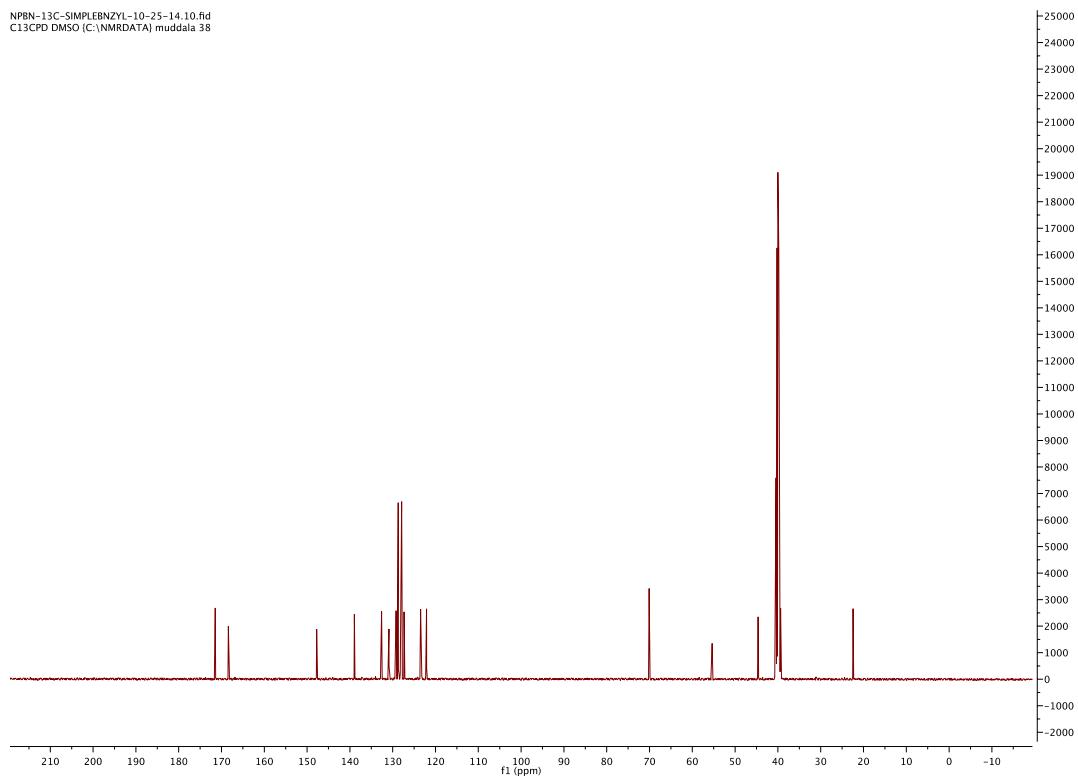


**(±)-2-Benzyl-1-methyl-3-oxoisoindoline-1-carboxamide (9a)**

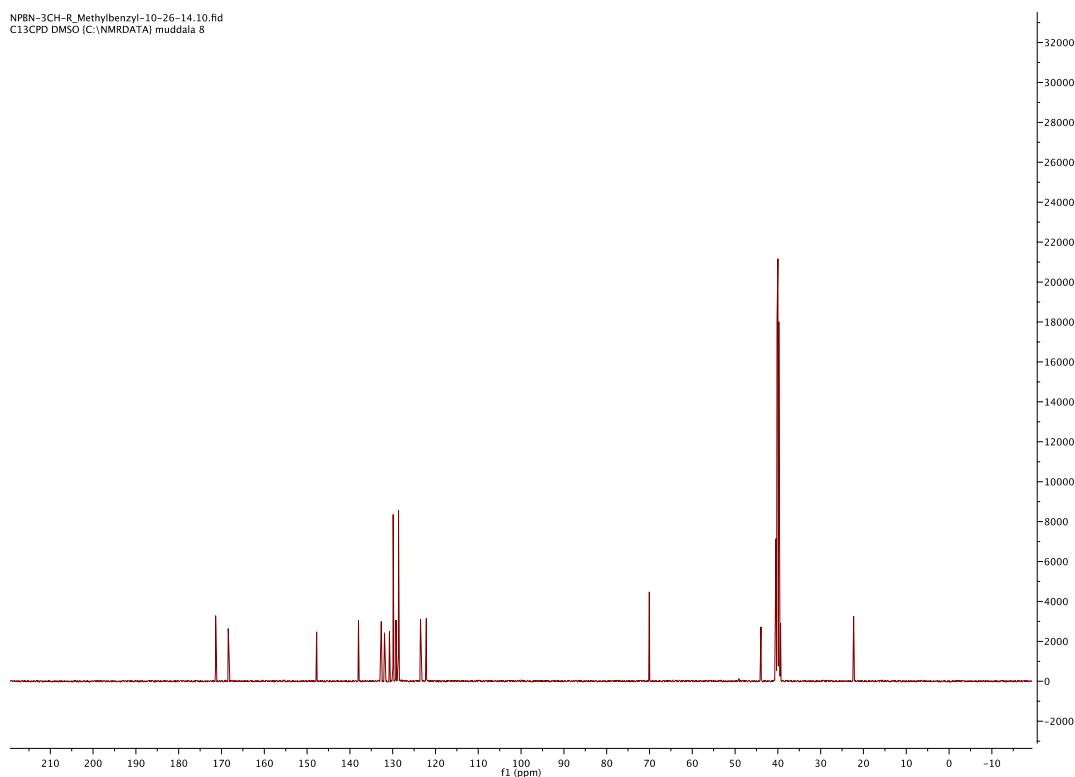
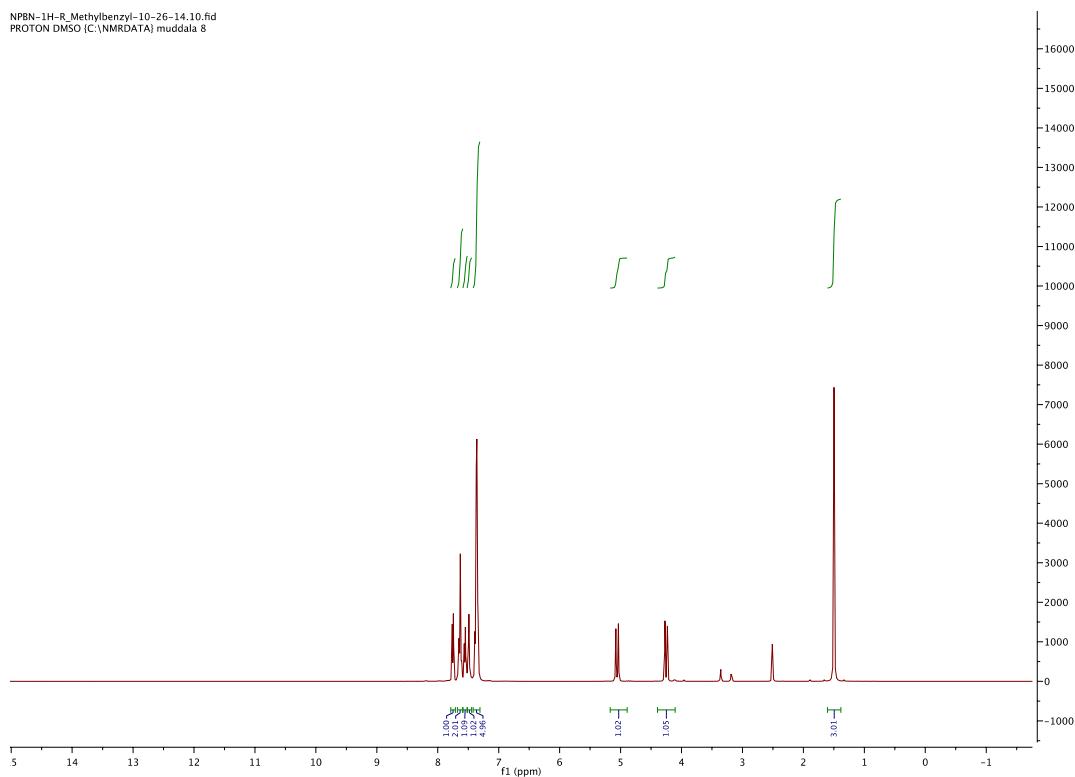
NPBN-1H-SIMPLEBNZYL-10-25-14.10.fid  
PROTON DMSO (C:\NMRDATA) muddala 38



NPBN-13C-SIMPLEBNZYL-10-25-14.10.fid  
C13CPD DMSO (C:\NMRDATA) muddala 38

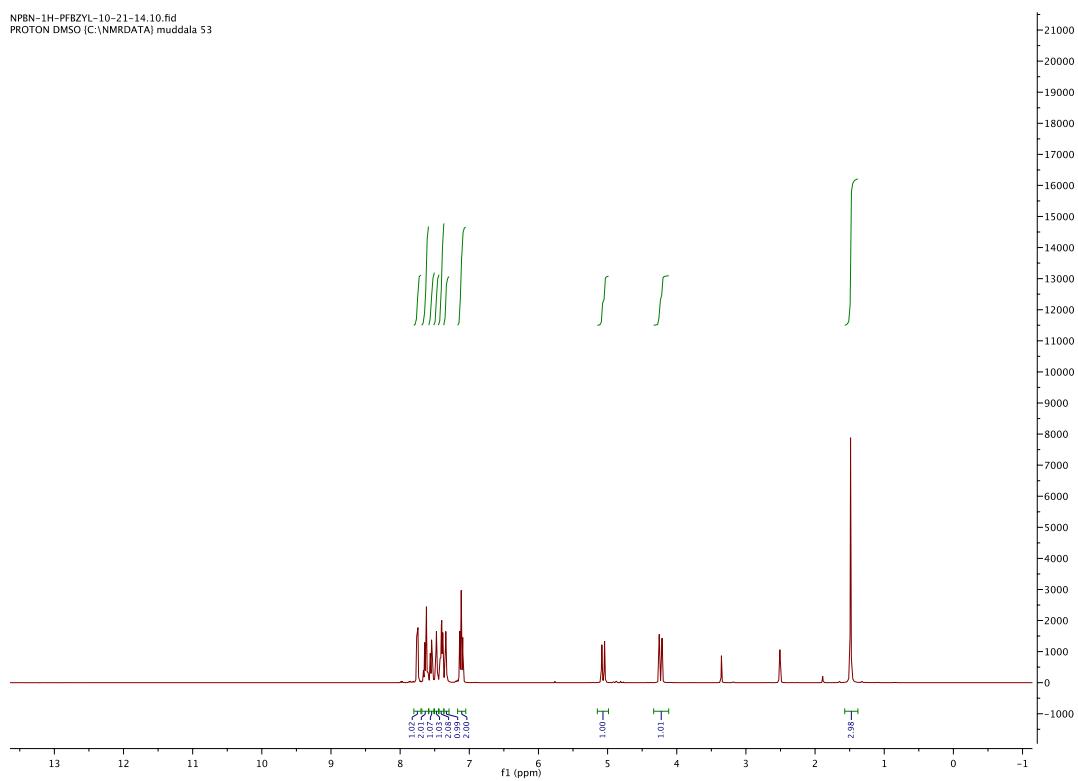


**( $\pm$ )-2-(4-Chlorobenzyl)-1-methyl-3-oxoisoindoline-1-carboxamide (9b)**

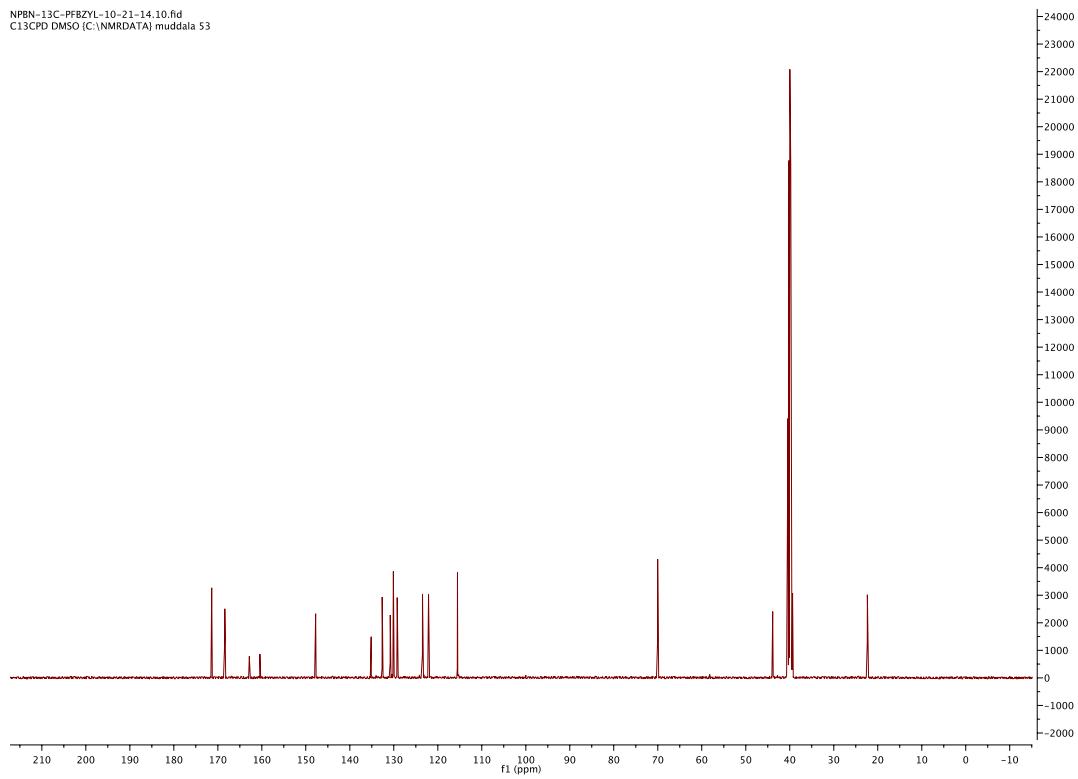


**( $\pm$ )-2-(4-Fluorobenzyl)-1-methyl-3-oxoisindoline-1-carboxamide (9c)**

NPBN-1H-PFBZYL-10-21-14.10.fid  
PROTON DMSO (C:\NMRDATA) muddala 53

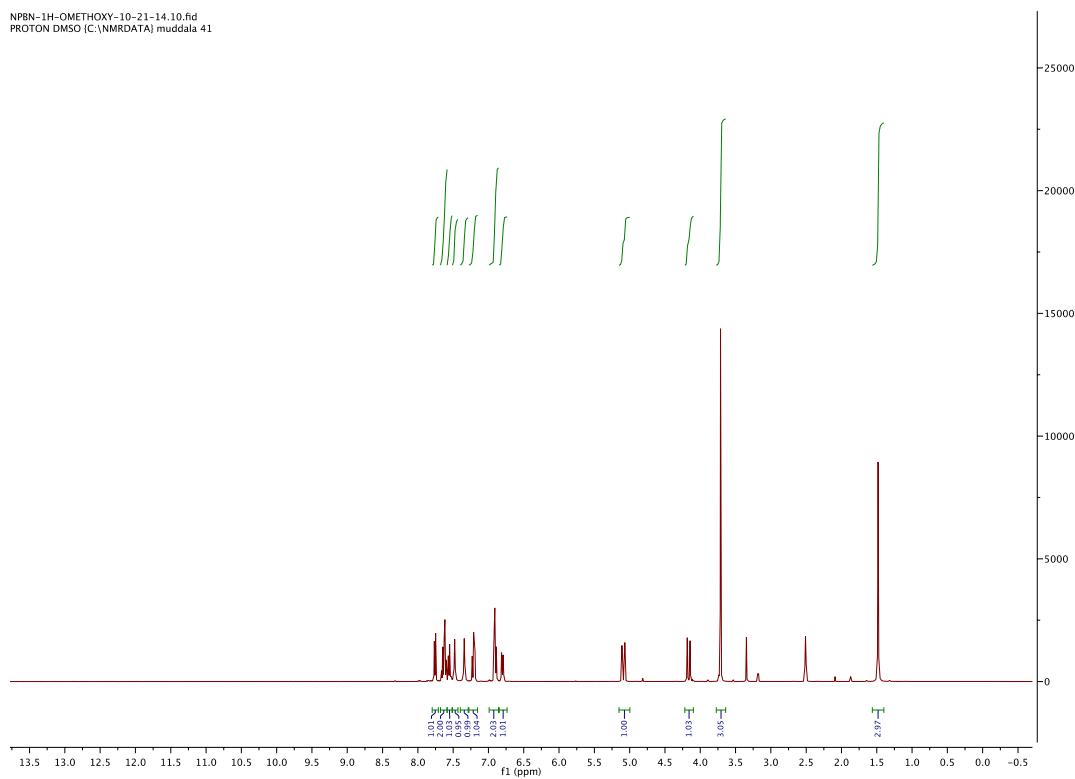


NPBN-13C-PFBZYL-10-21-14.10.fid  
C13CPD DMSO (C:\NMRDATA) muddala 53

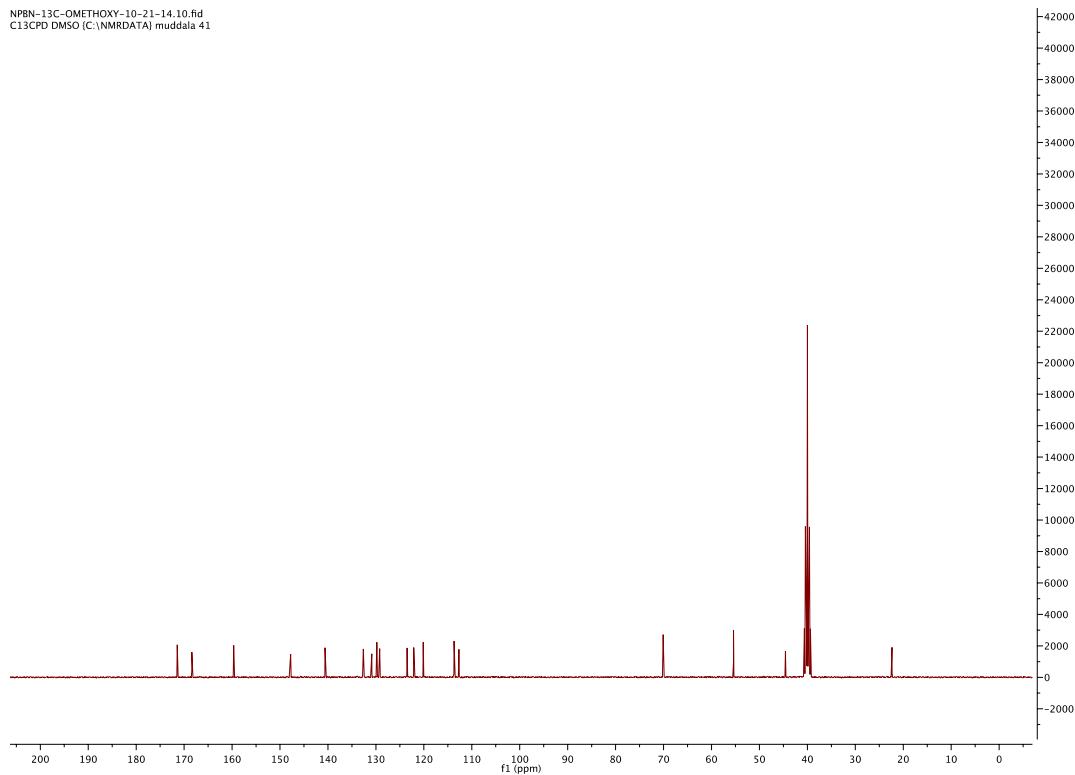


**( $\pm$ )-2-(3-Methoxybenzyl)-1-methyl-3-oxoisindoline-1-carboxamide (9d)**

NPBN-1H-OMETHOXY-10-21-14.10.fid  
PROTON DMSO [C:\NMRDATA] muddala 41

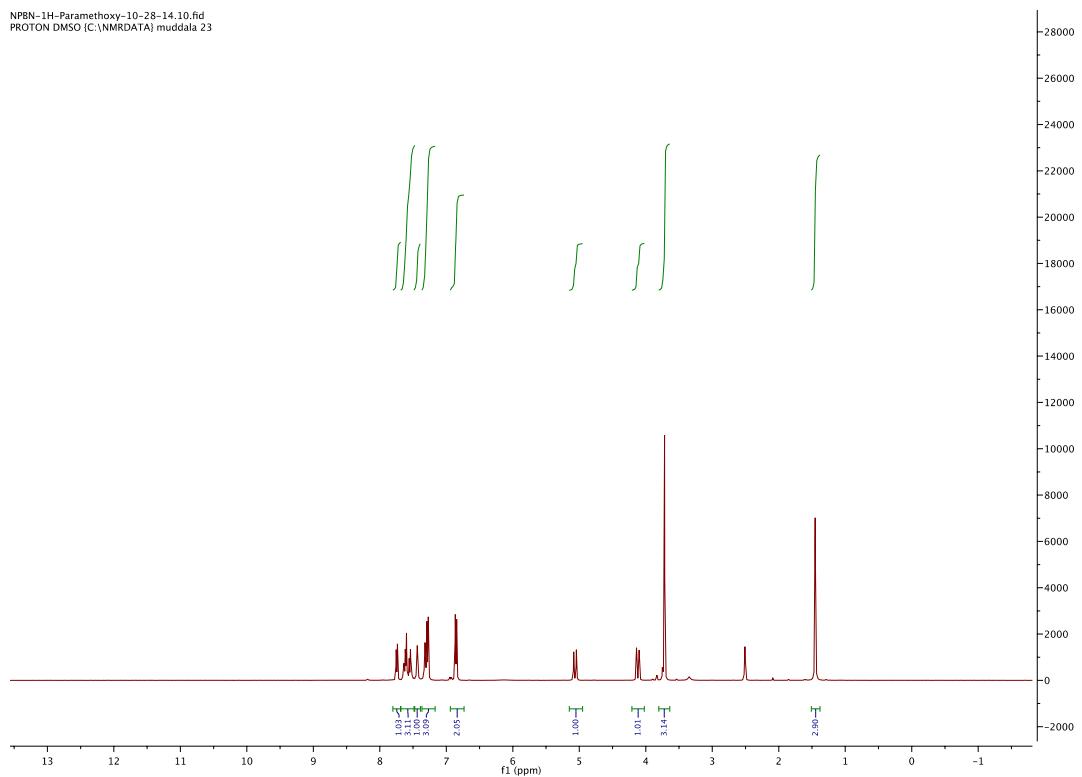


NPBN-13C-OMETHOXY-10-21-14.10.fid  
C13CPD DMSO [C:\NMRDATA] muddala 41

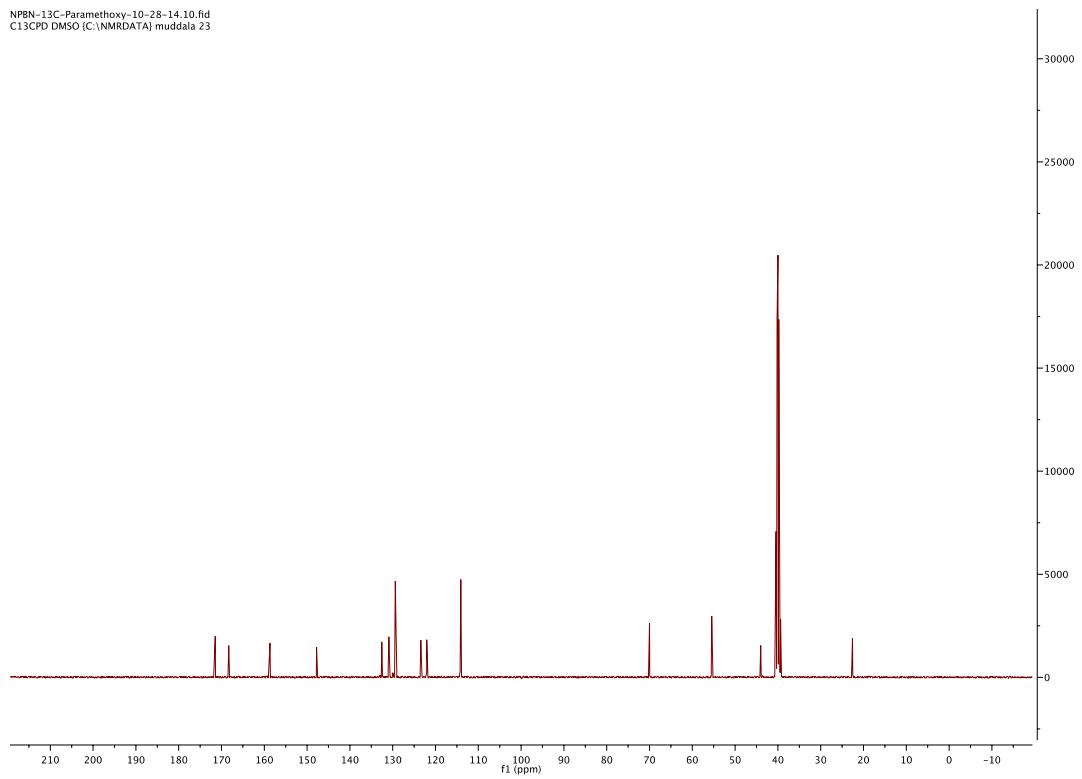


**( $\pm$ )-2-(4-Methoxybenzyl)-1-methyl-3-oxoisindoline-1-carboxamide (9e)**

NPBN-1H-Paramethoxy-10-28-14.10.fid  
PROTON DMSO [C:\NMRDATA] muddala 23

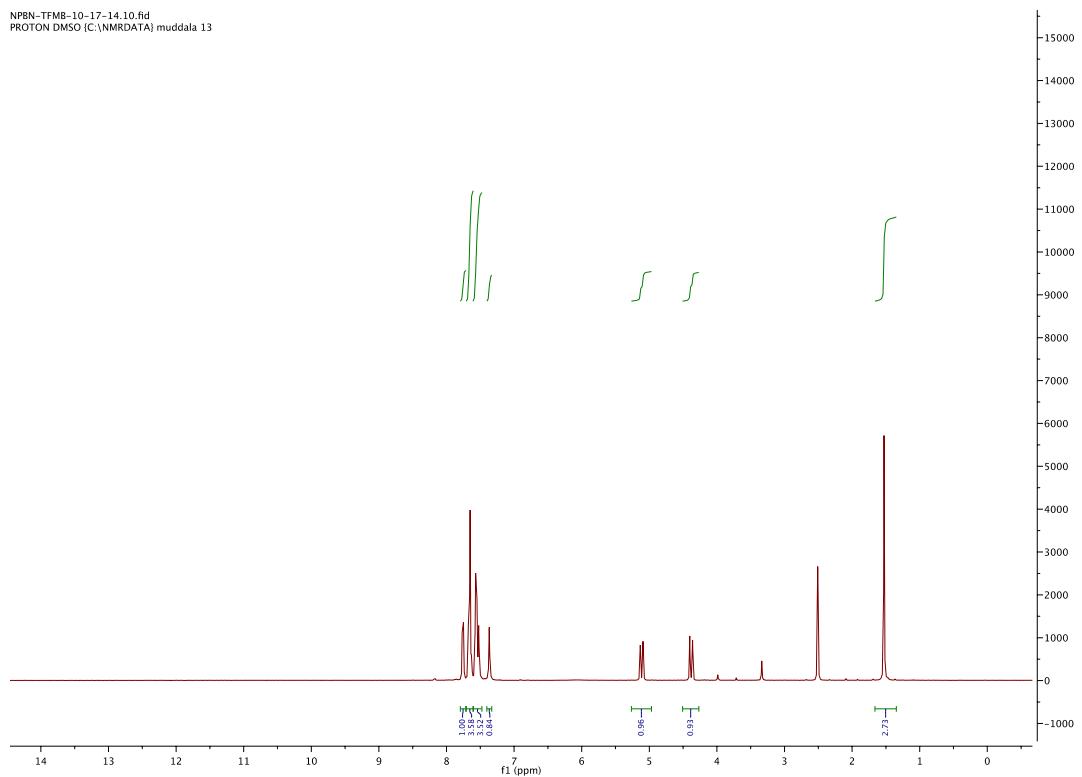


NPBN-13C-Paramethoxy-10-28-14.10.fid  
C13CPD DMSO [C:\NMRDATA] muddala 23

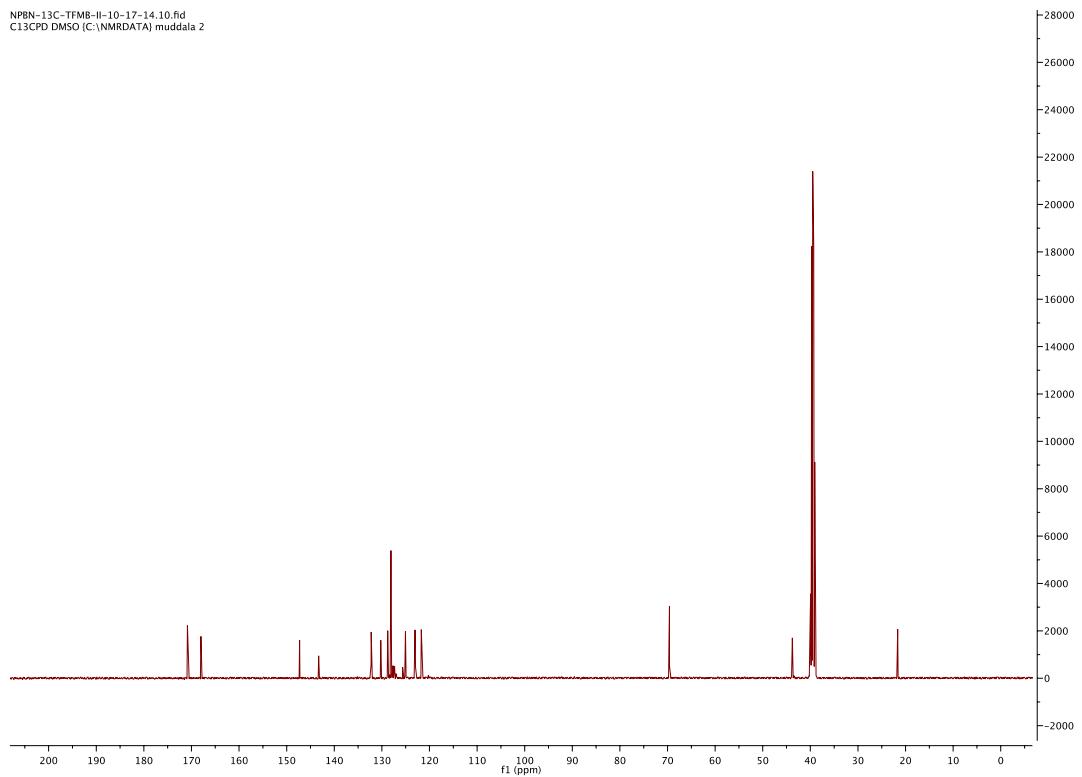


**(±)-1-Methyl-3-oxo-2-[4-(trifluoromethyl)benzyl]isoindoline-1-carboxamide (9f)**

NPBN-TFMB-10-17-14.10.fid  
PROTON DMSO (C:\NMRDATA) muddala 13

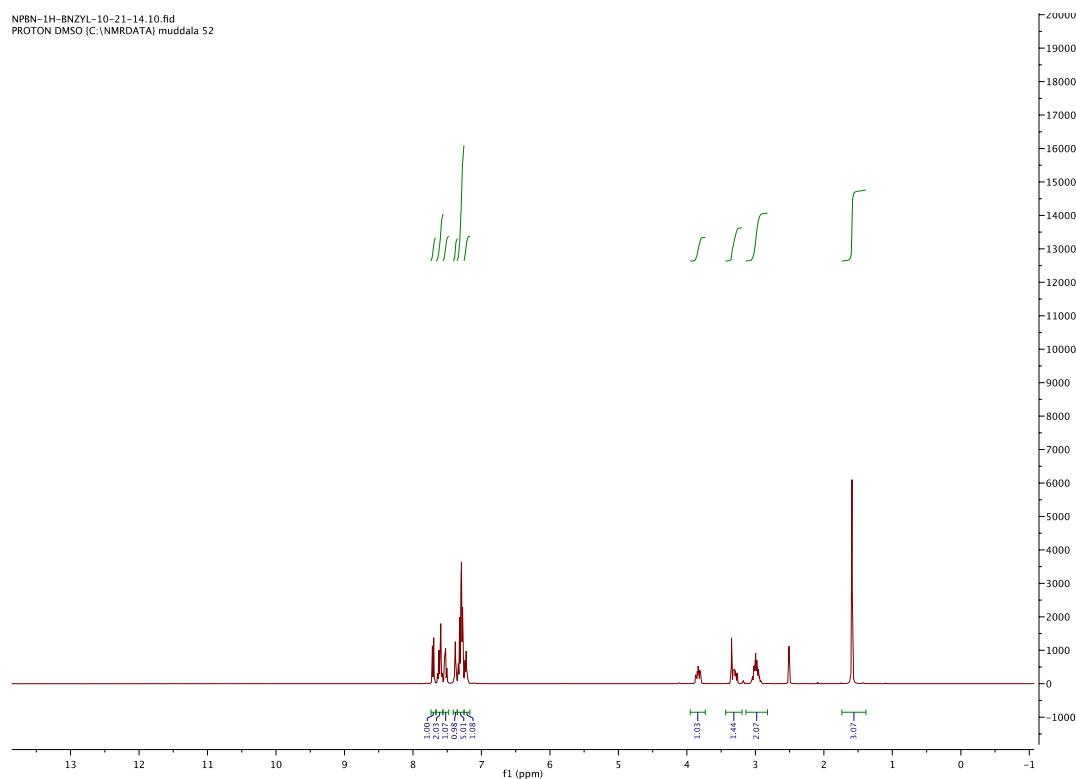


NPBN-13C-TFMB-II-10-17-14.10.fid  
C13CPD DMSO (C:\NMRDATA) muddala 2

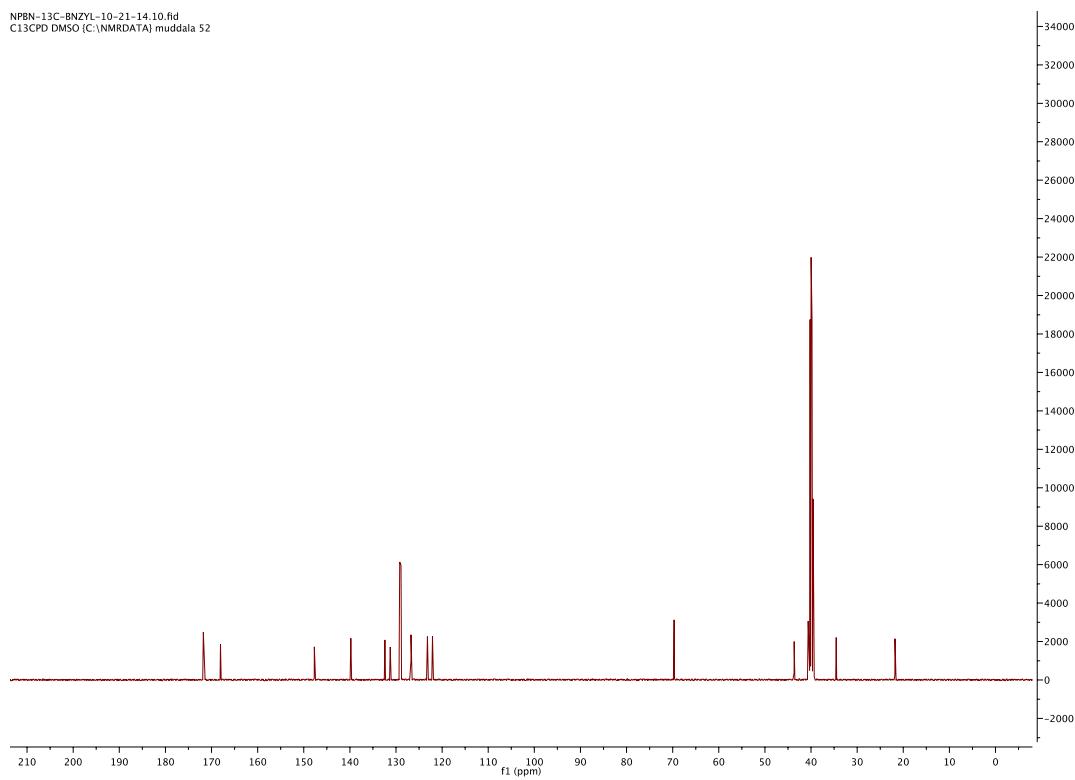


**(±)-1-Methyl-3-oxo-2-phenethylisoindoline-1-carboxamide (9g)**

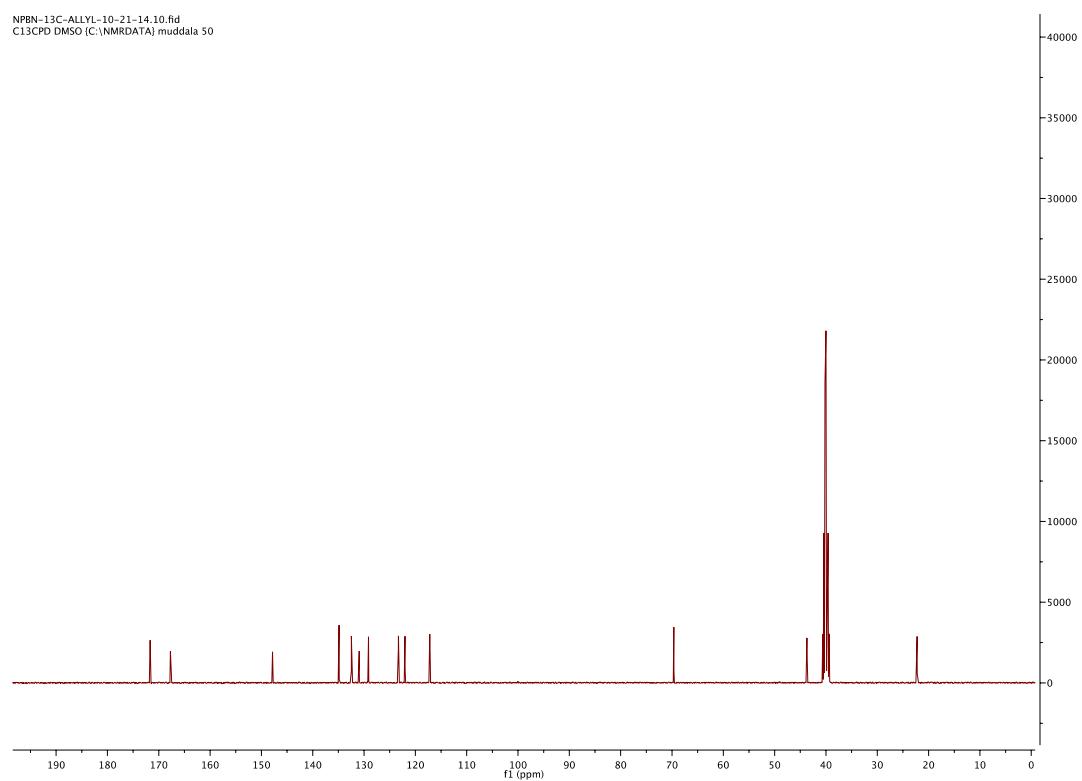
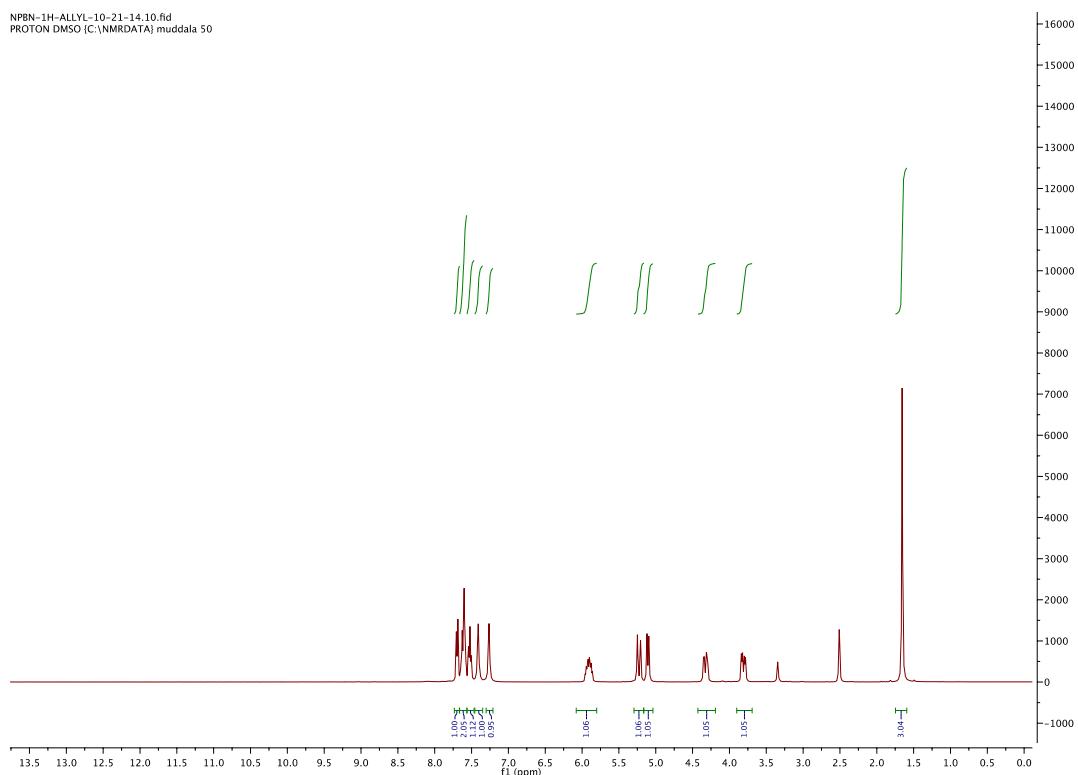
NPNB-1H-BNZYL-10-21-14.10.fid  
PROTON DMSO (C:\NMRDATA) muddala 52



NPNB-13C-BNZYL-10-21-14.10.fid  
C13CPD DMSO (C:\NMRDATA) muddala 52

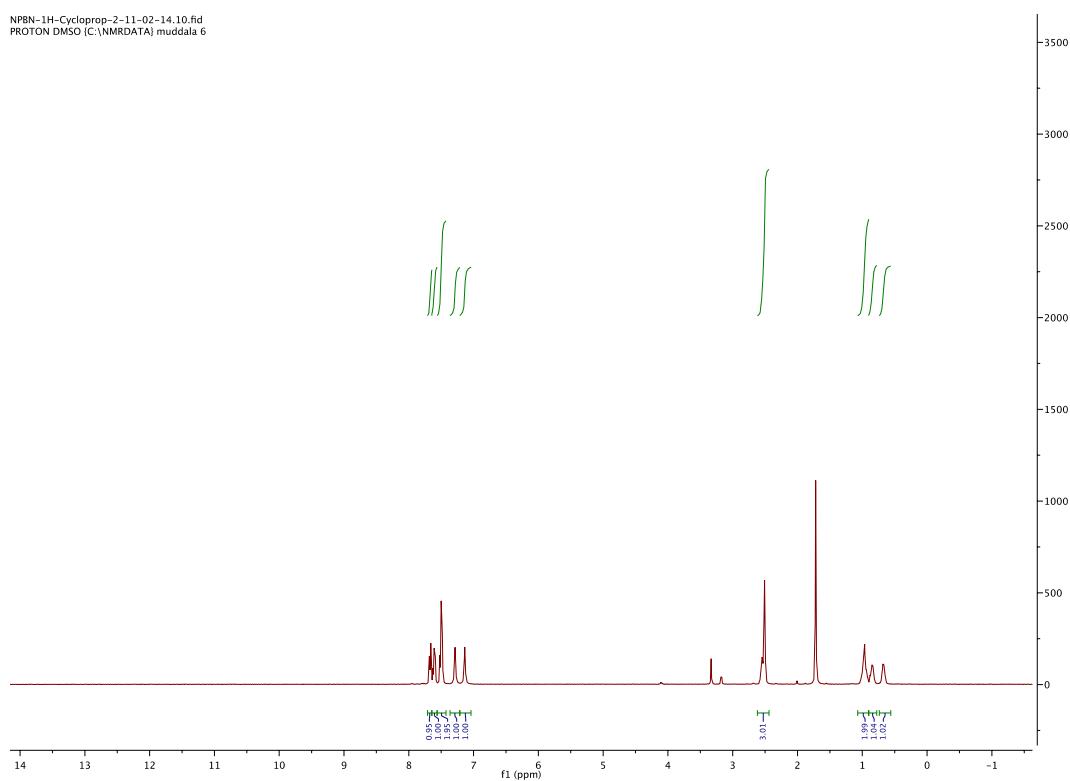


**( $\pm$ )-2-Allyl-1-methyl-3-oxoisoindoline-1-carboxamide (9h)**

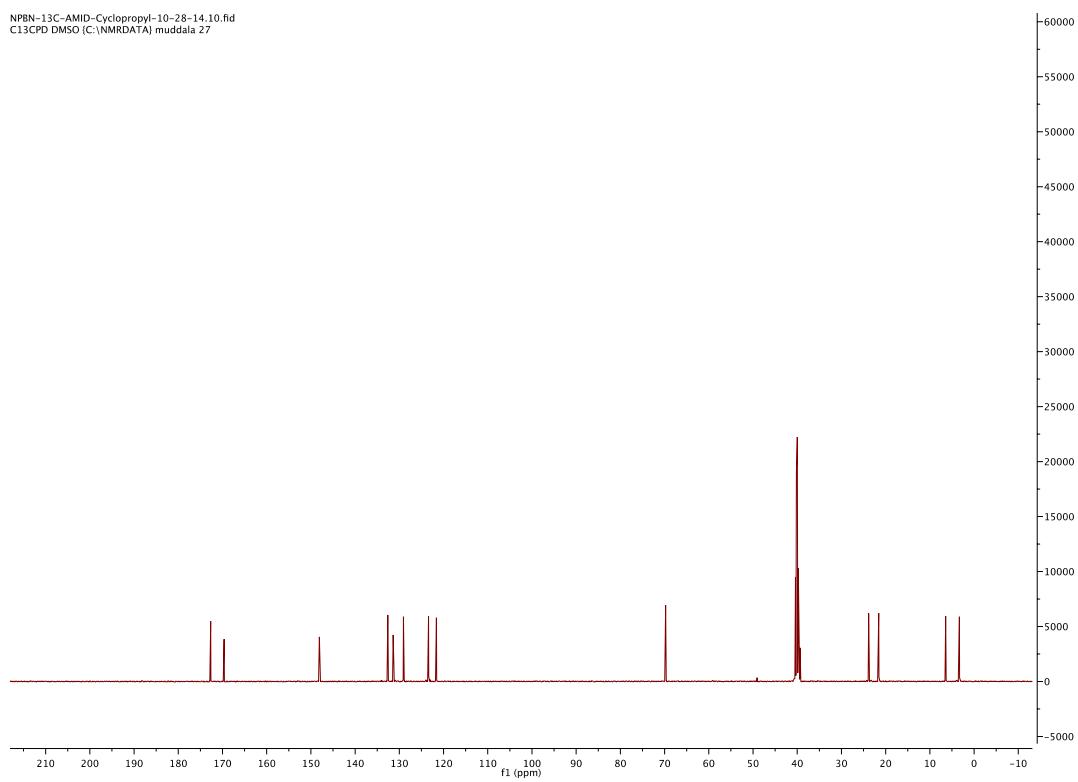


**( $\pm$ )-2-Cyclopropyl-1-methyl-3-oxoisoindoline-1-carboxamide (9i)**

NPBN-1H-Cycloprop-2-11-02-14.10.fid  
PROTON DMSO (C:\NMRDATA) muddala 6

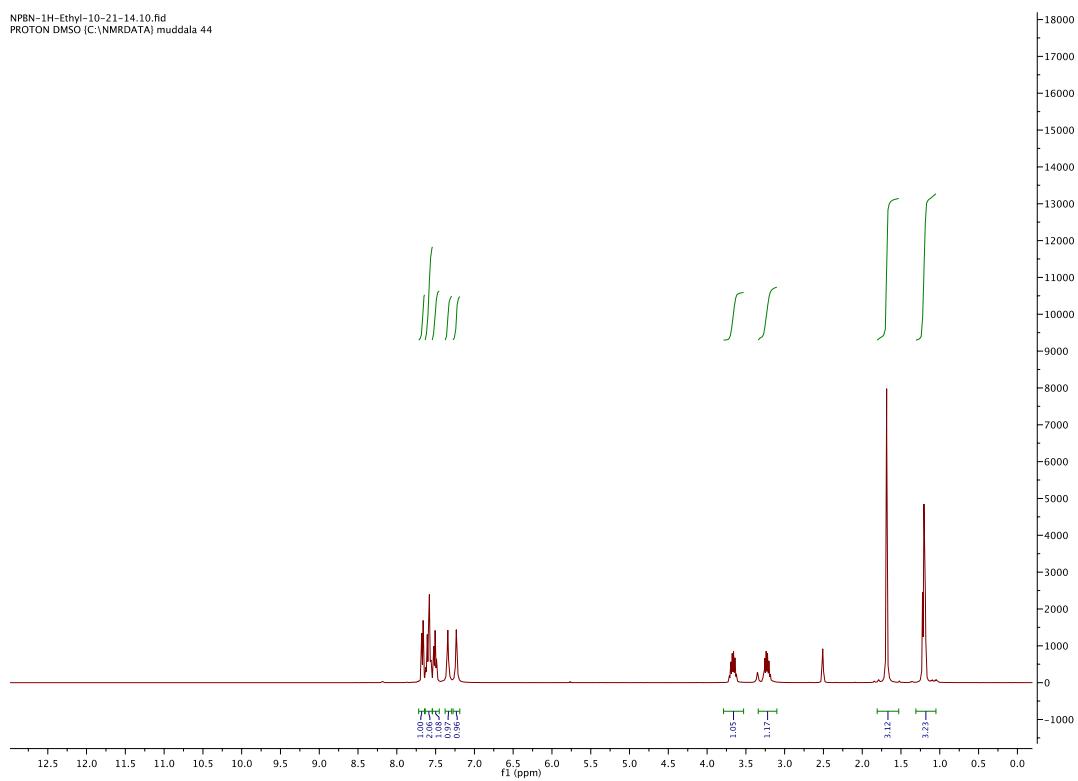


NPBN-13C-AMID-Cyclopropyl-10-28-14.10.fid  
C13CPD DMSO (C:\NMRDATA) muddala 27

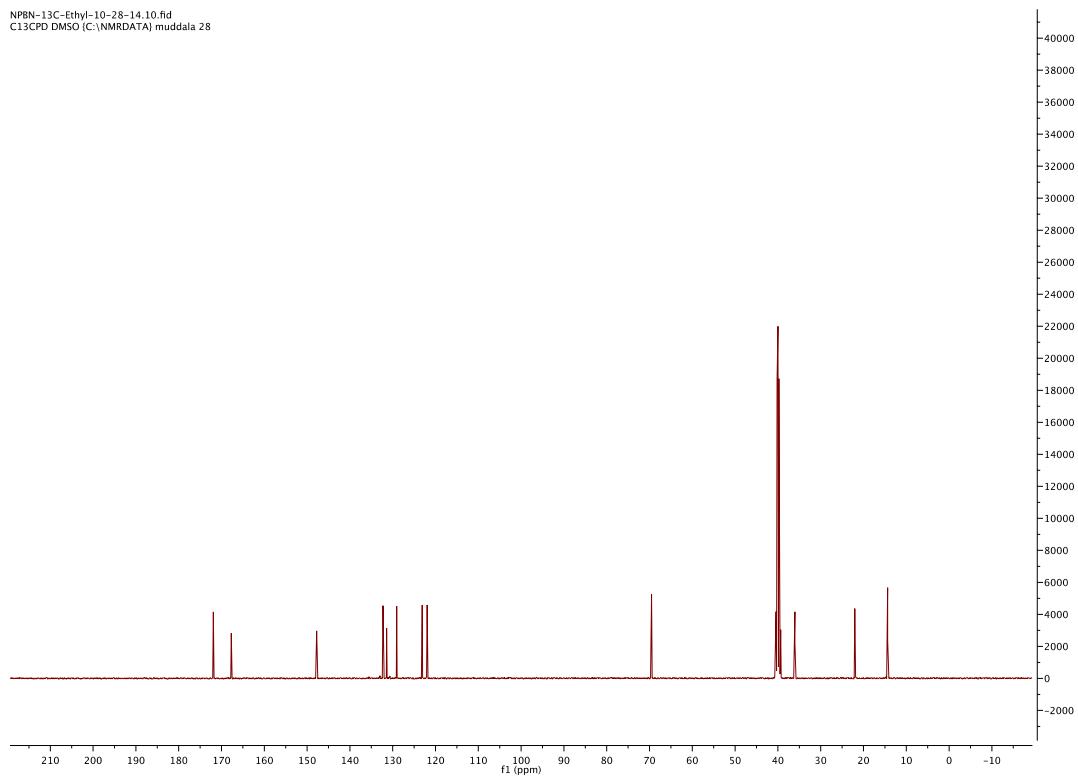


**( $\pm$ )-2-Ethyl-1-methyl-3-oxoisindoline-1-carboxamide (9j)**

NPBN-1H-Ethyl-10-21-14.10.fid  
PROTON DMSO (C:\NMRDATA) muddala 44

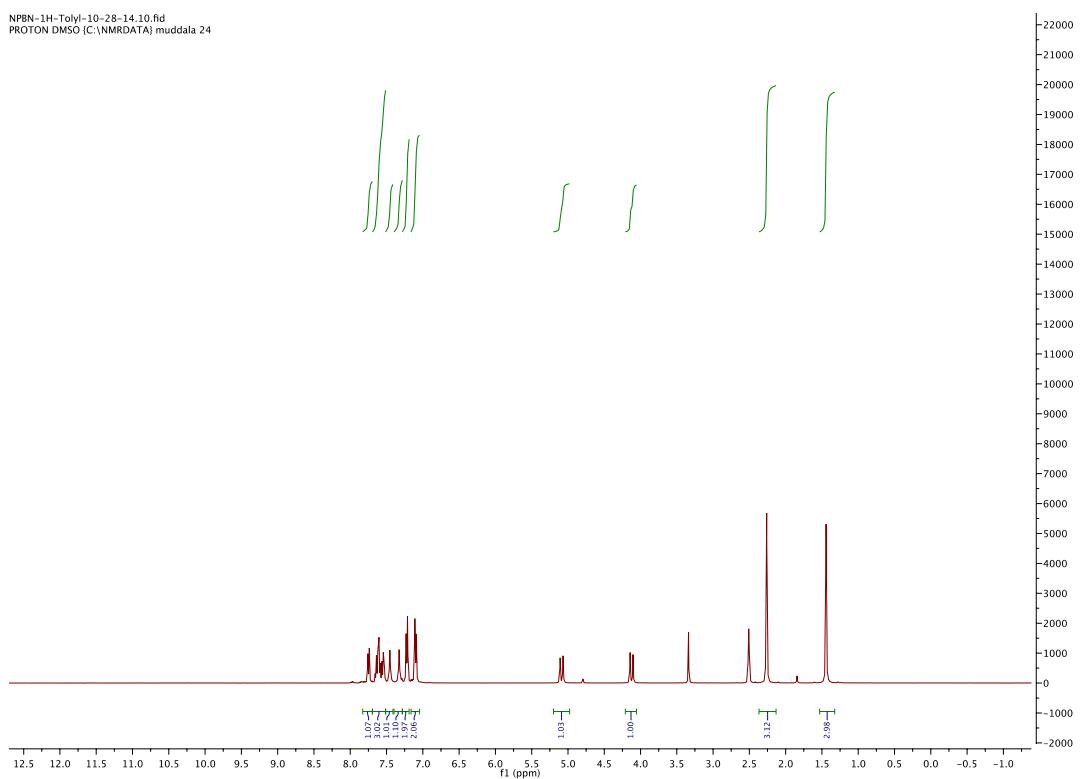


NPBN-13C-Ethyl-10-28-14.10.fid  
C13CPD DMSO (C:\NMRDATA) muddala 28

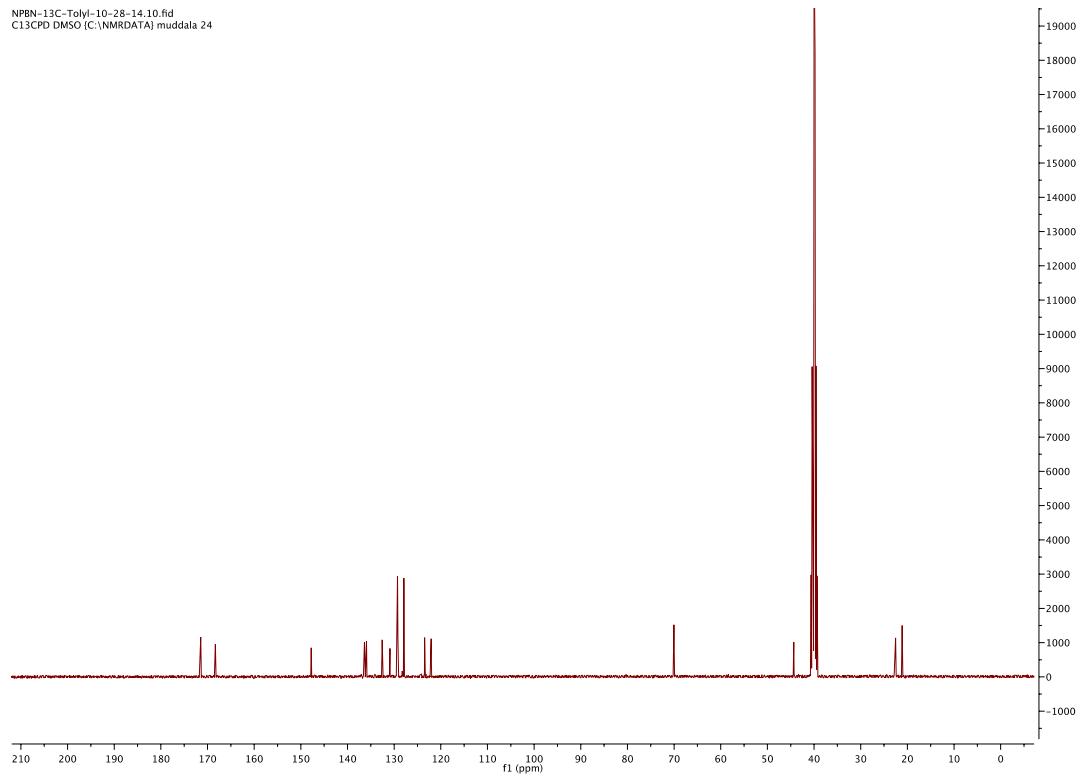


**( $\pm$ )-1-Methyl-2-(4-methylbenzyl)-3-oxoisoindoline-1-carboxamide (9k)**

NPBN-1H-Tolyl-10-28-14.10.fid  
PROTON DMSO (C:\NMRDATA) muddala 24

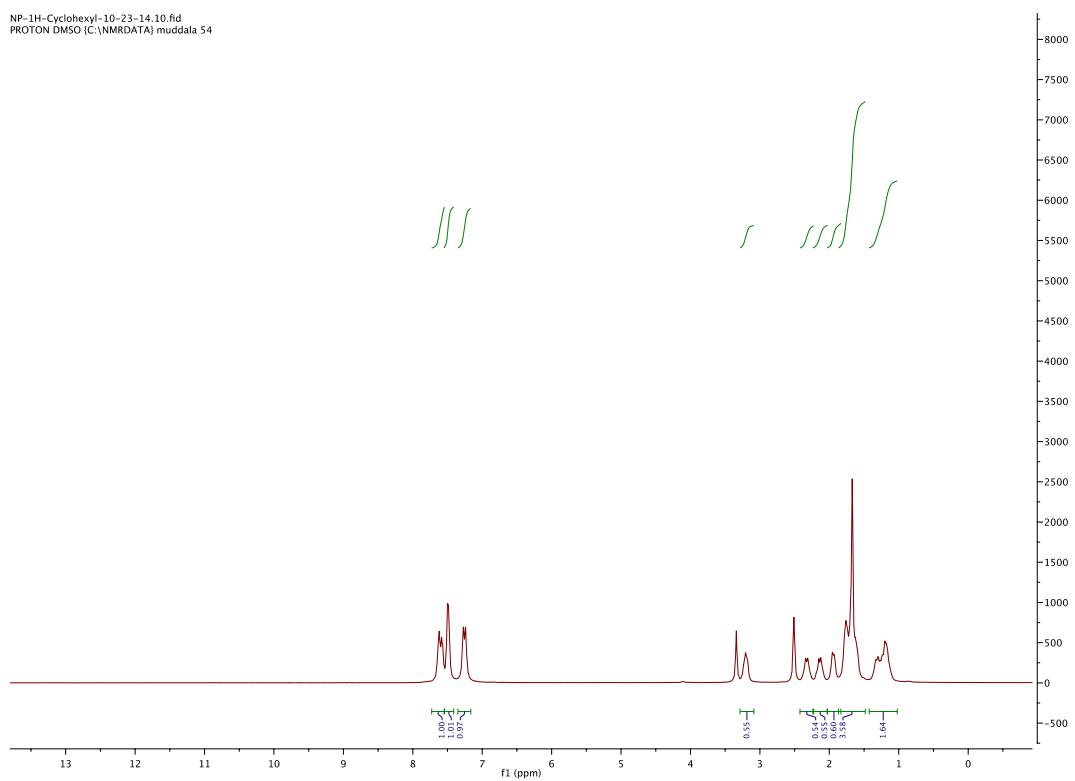


NPBN-13C-Tolyl-10-28-14.10.fid  
C13CPD DMSO (C:\NMRDATA) muddala 24

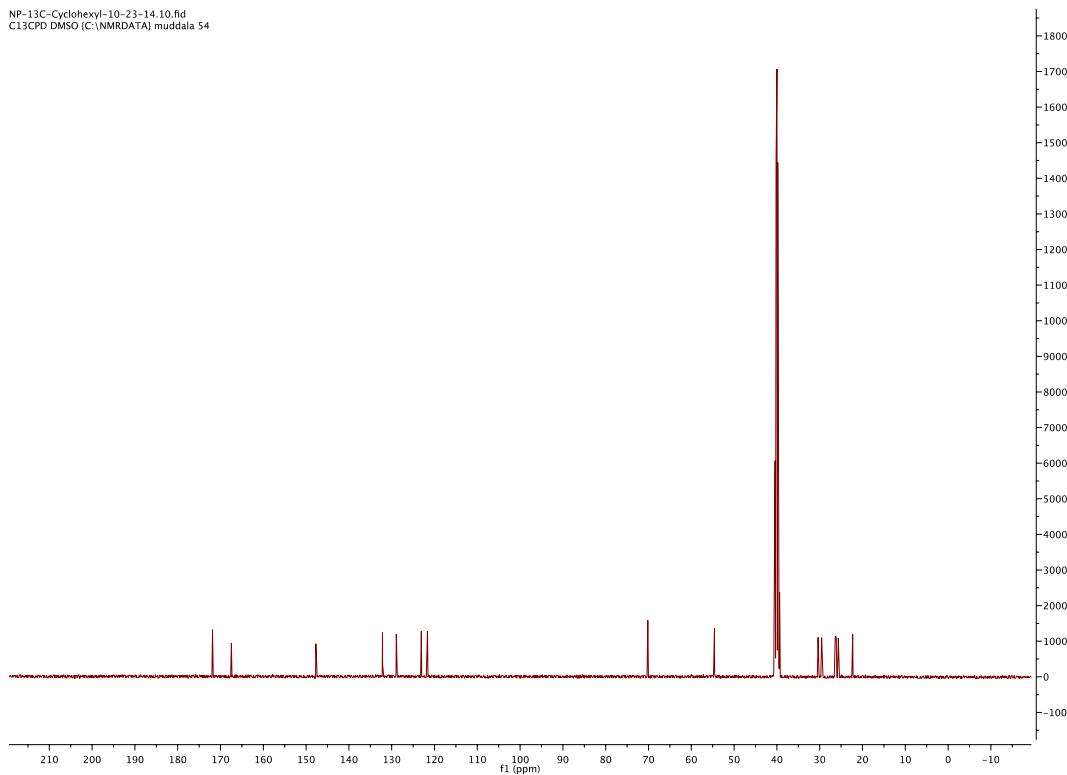


**( $\pm$ )-2-Cyclohexyl-1-methyl-3-oxoisindoline-1-carboxamide (9l)**

NP-1H-Cyclohexyl-10-23-14.10.fid  
PROTON DMSO (C:\NMRDATA) muddala 54

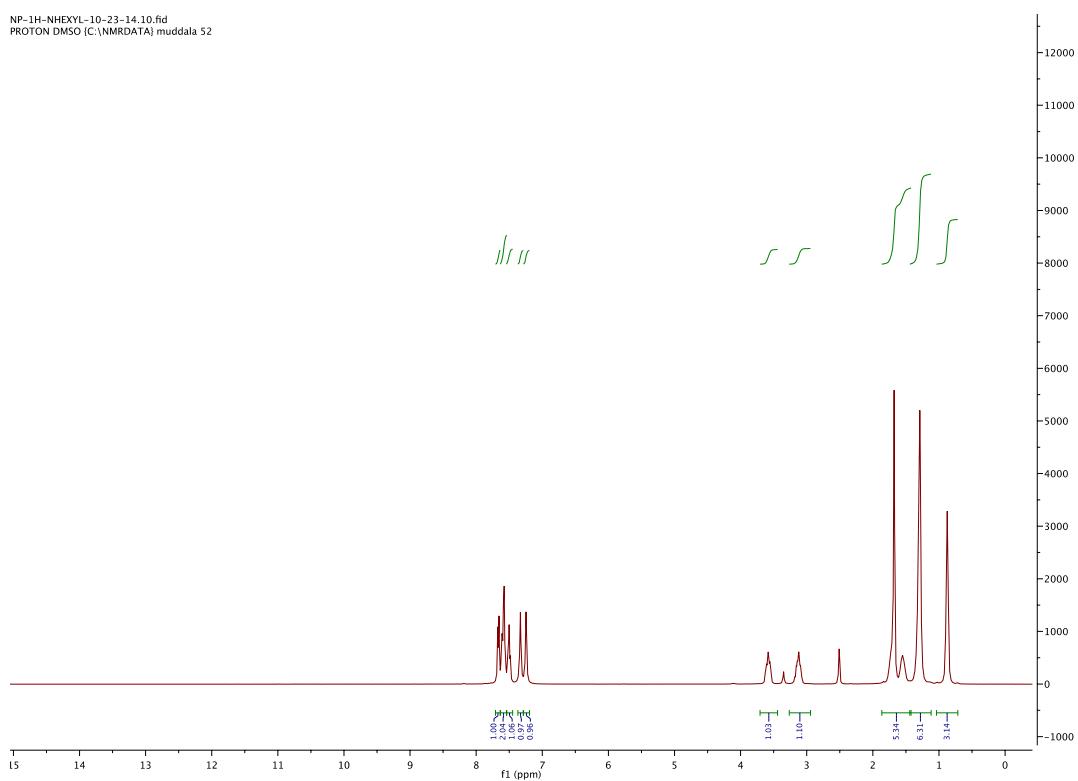


NP-13C-Cyclohexyl-10-23-14.10.fid  
C13CPD DMSO (C:\NMRDATA) muddala 54

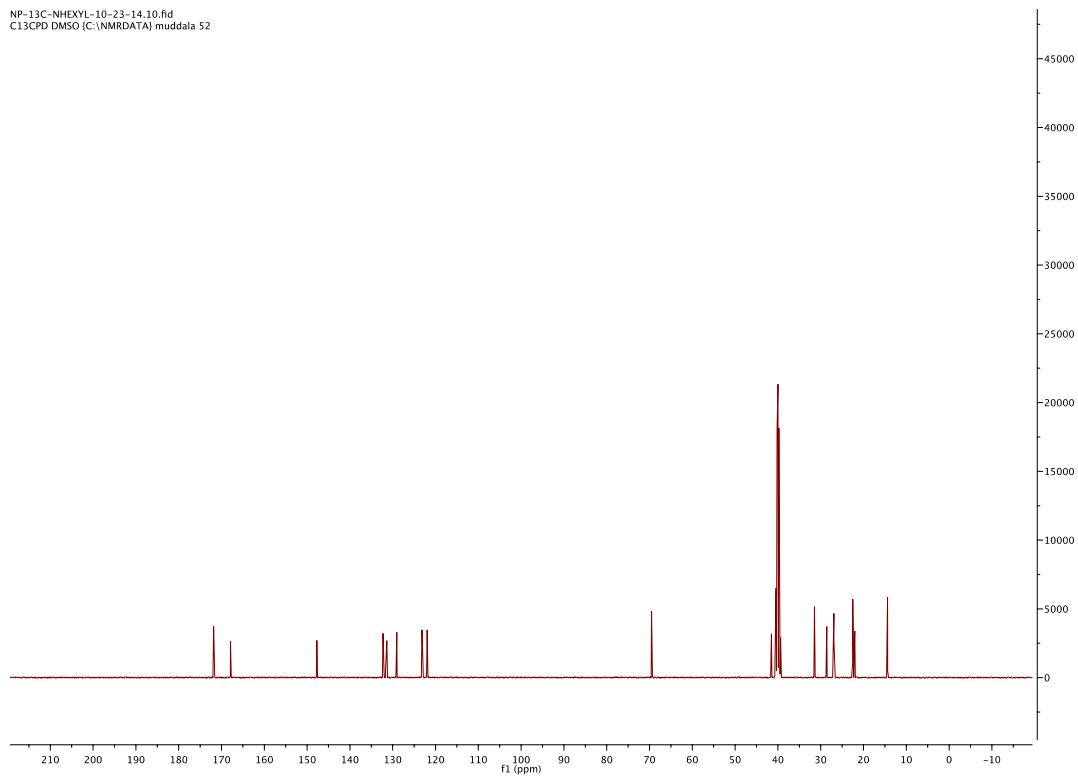


**( $\pm$ )-2-Hexyl-1-methyl-3-oxoisooindoline-1-carboxamide (**9m**)**

NP-1H-NHEXYL-10-23-14.10.fid  
PROTON DMSO (C:\NMRDATA) muddala 52

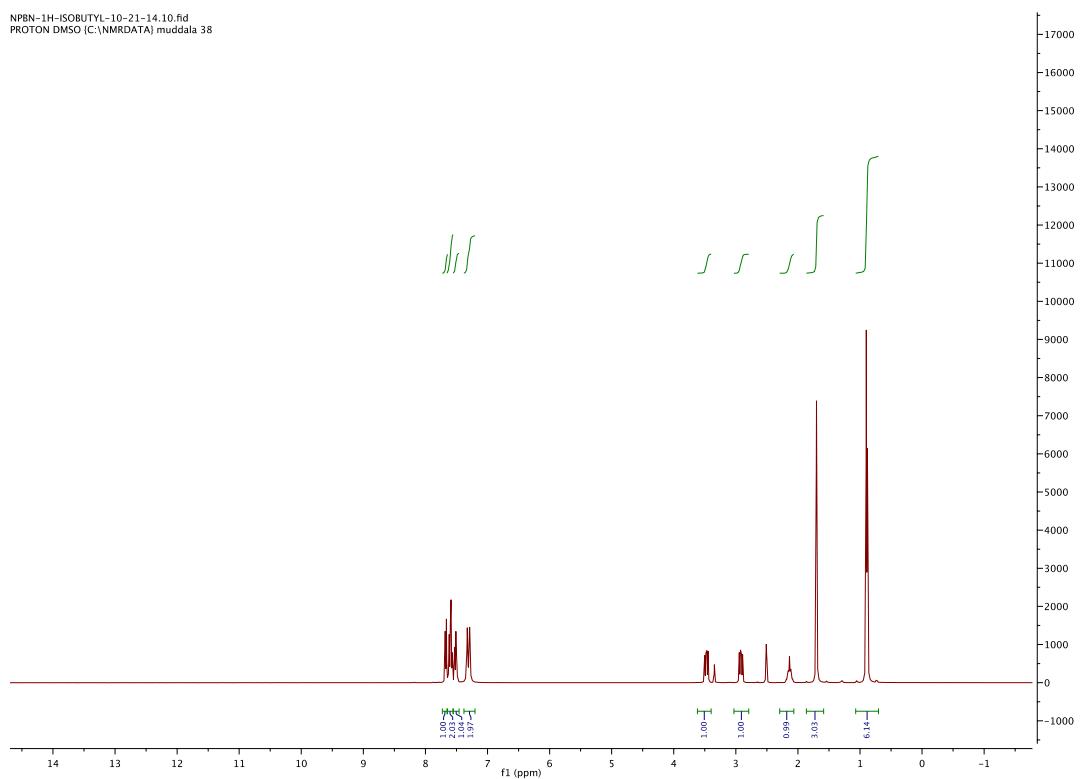


NP-13C-NHEXYL-10-23-14.10.fid  
C13CPD-DMSO (C:\NMRDATA) muddala 52



**( $\pm$ )-2-Isobutyl-1-methyl-3-oxoisindoline-1-carboxamide (9n)**

NPBN-1H-ISOBUTYL-10-21-14.10.fid  
PROTON DMSO (C:\NMRDATA) muddala 38



NPBN-13C-ISOBUTYL-10-21-14.10.fid  
C13CPD DMSO (C:\NMRDATA) muddala 38

