

Supporting Information

"Platinum-Catalyzed Diastereoselective Intramolecular Coupling of Allyl Halides and Hydrazones"

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Division of Energy Systems Research

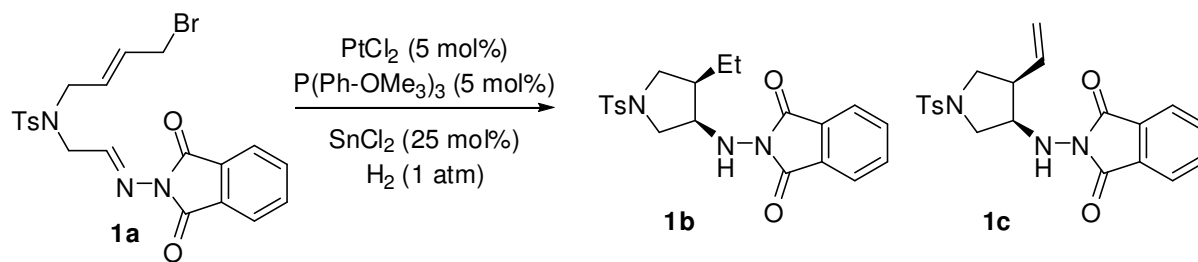
Ajou University

Suwon, 443-749

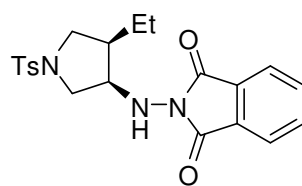
Korea

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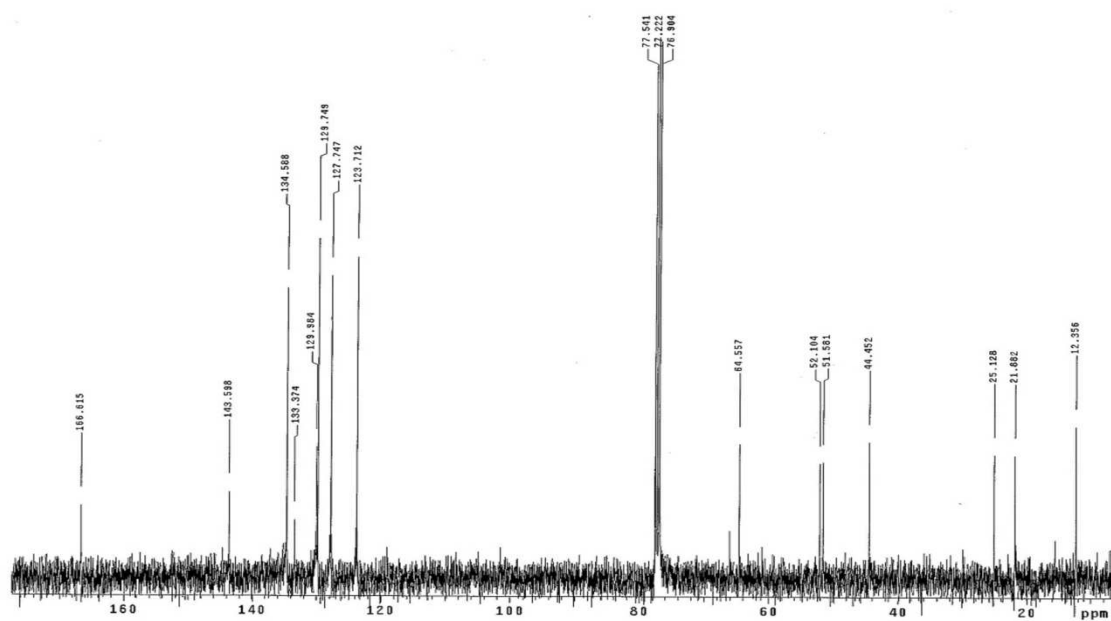
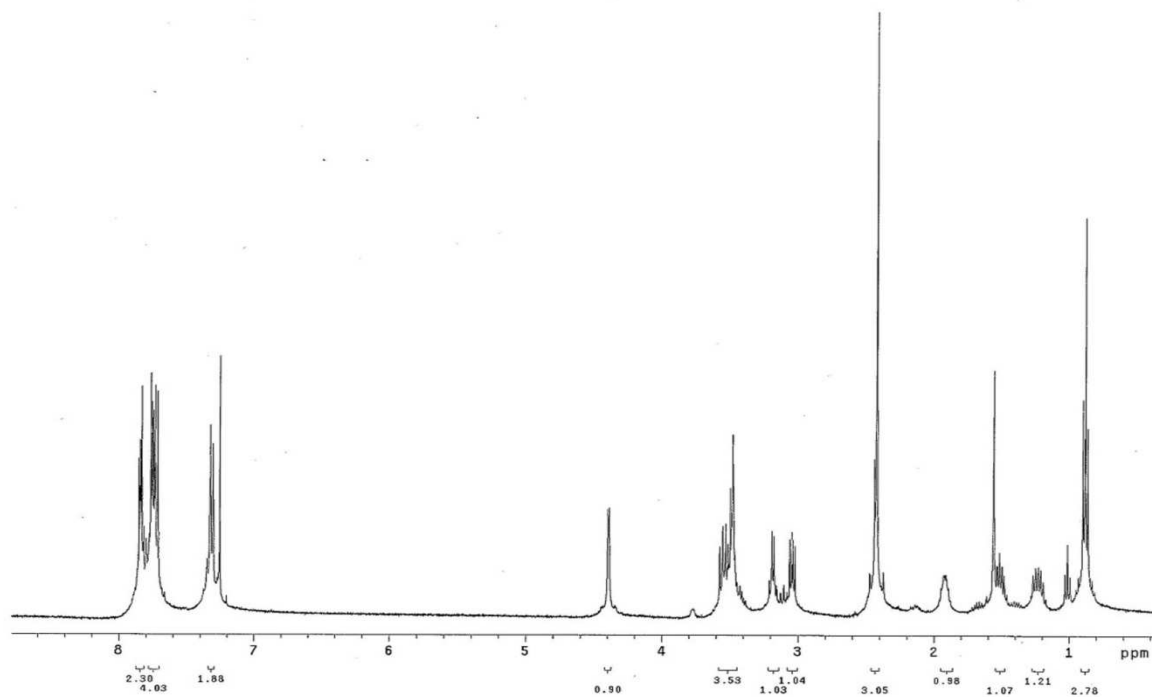
- I. Solvent screening results of the cyclization of **1a**....S2
- II. Spectral data for new compounds.....S3-S15



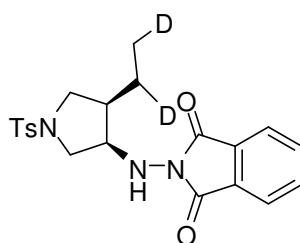
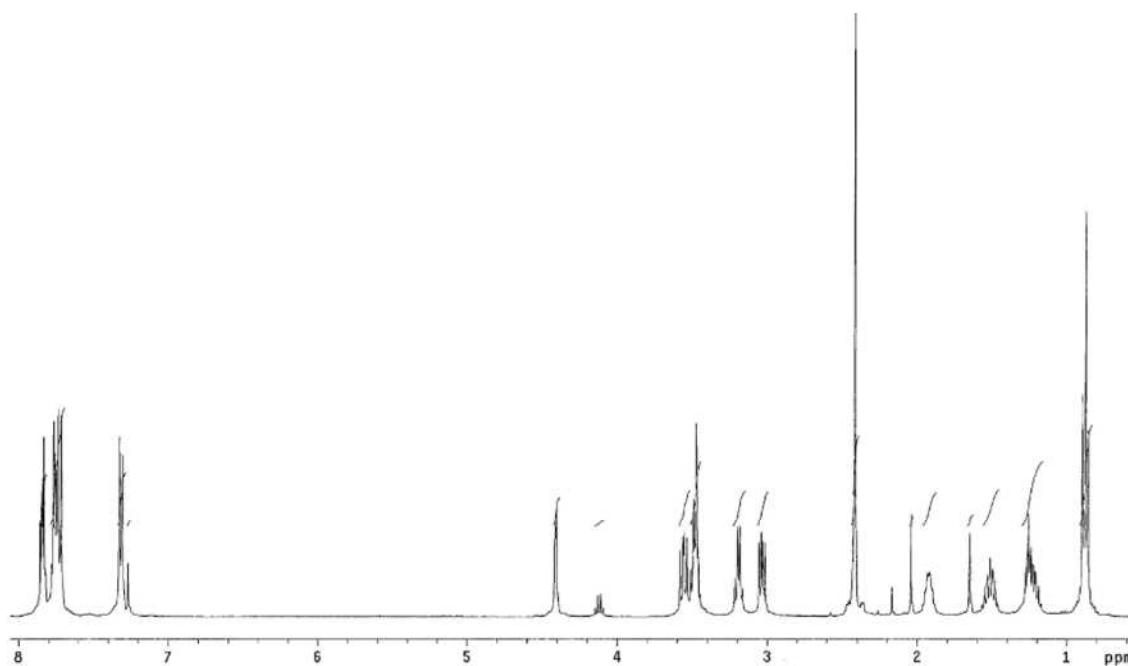
Entry	Solvent (0.1 M)	Temperature	Yield	<i>cis:trans</i>
1	Dichloroethane	80 °C	82%(1b)	6:1
2	CH_3CN	80 °C	45%(1b)	4:1
3	Ethylacetate	76 °C	54%(1b)	4:1
4	THF	65 °C	60%(1b)	3:1
5	DMF	80 °C	43%(1c)	1:1
6	DMF	152 °C	34%(1c)	1:4



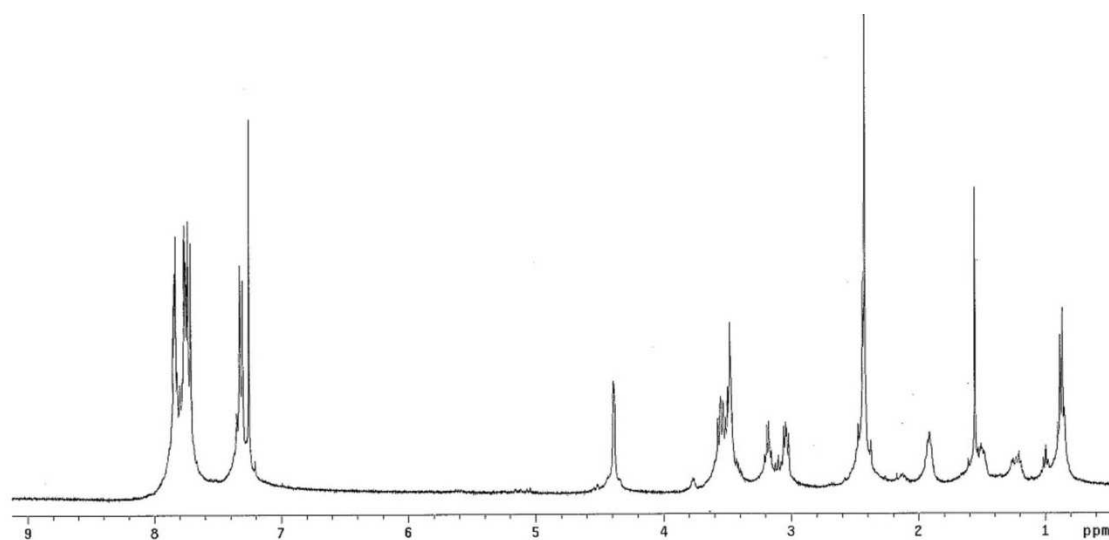
Cis-2-(4-ethyl-1-tosylpyrrolidin-3-ylamino)isoindoline-1,3-dione (1b)

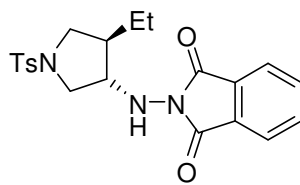


¹H NMR spectrum of cis-1b prepared by a procedure reported in *Chem. Commun.*, 2007, 5025.

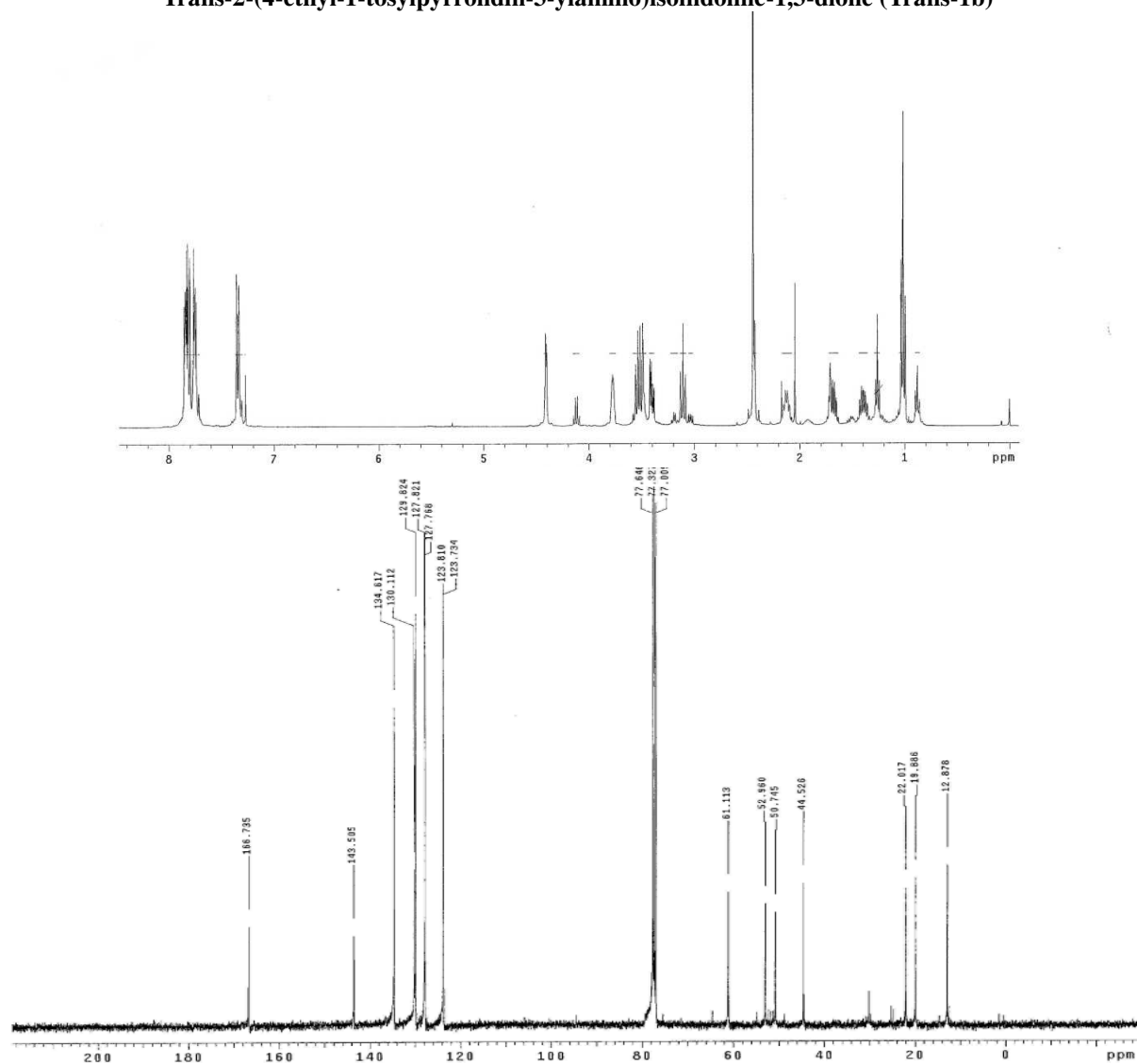


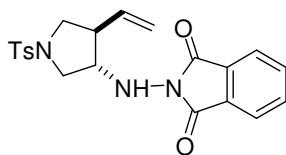
Deuterio-cis-2-(4-ethyl-1-tosylpyrrolidin-3-ylamino)isoindoline-1,3-dione (deuterio-1b)



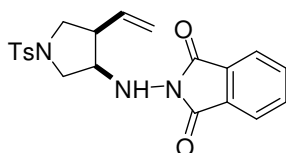
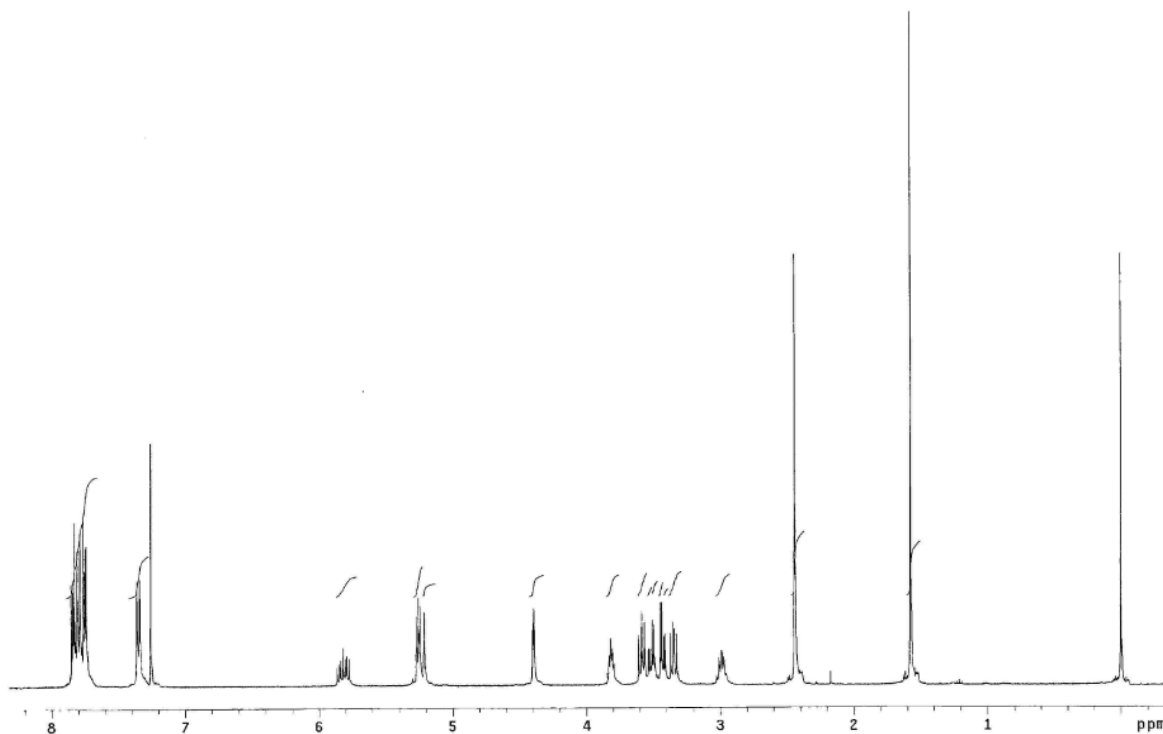


Trans-2-(4-ethyl-1-tosylpyrrolidin-3-ylamino)isoindoline-1,3-dione (Trans-1b)

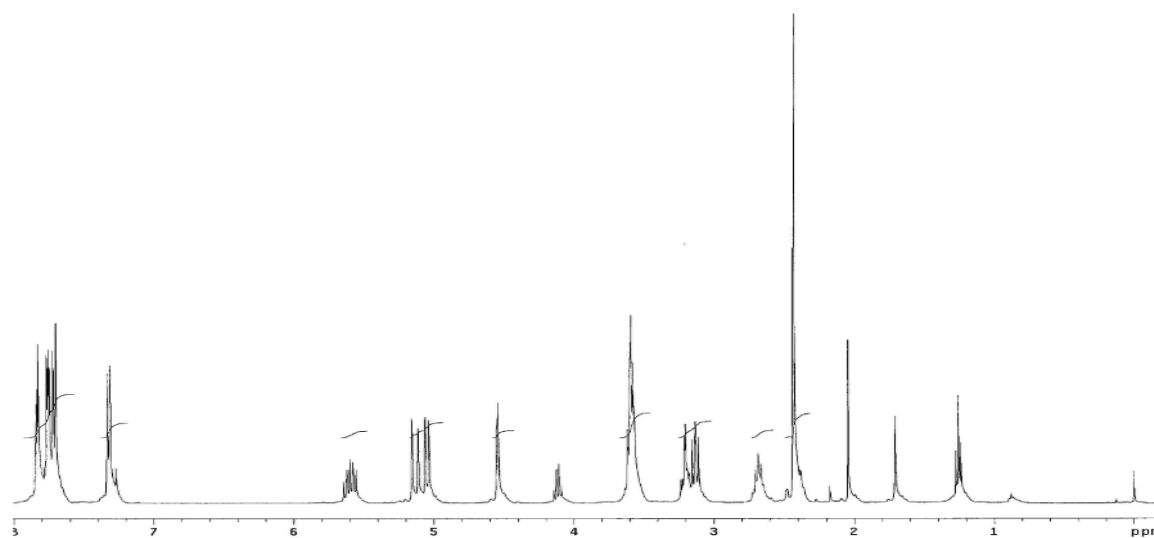


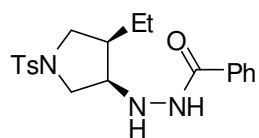


***Trans*-2-(1-tosyl-4-vinylpyrrolidin-3-ylamino)isoindoline-1,3-dione**
reported in Adv. Synth. Catal. 2010, 2010, 352, 2949.

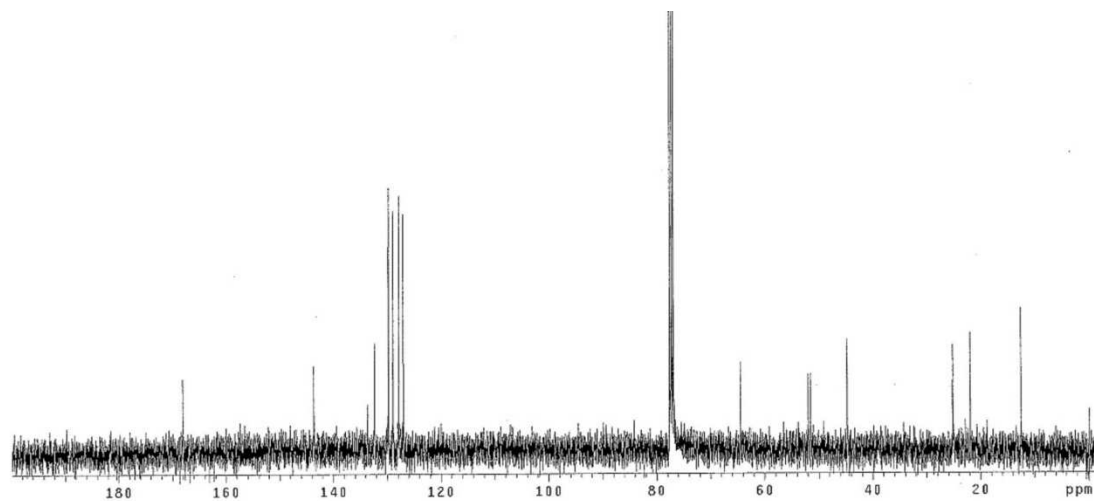
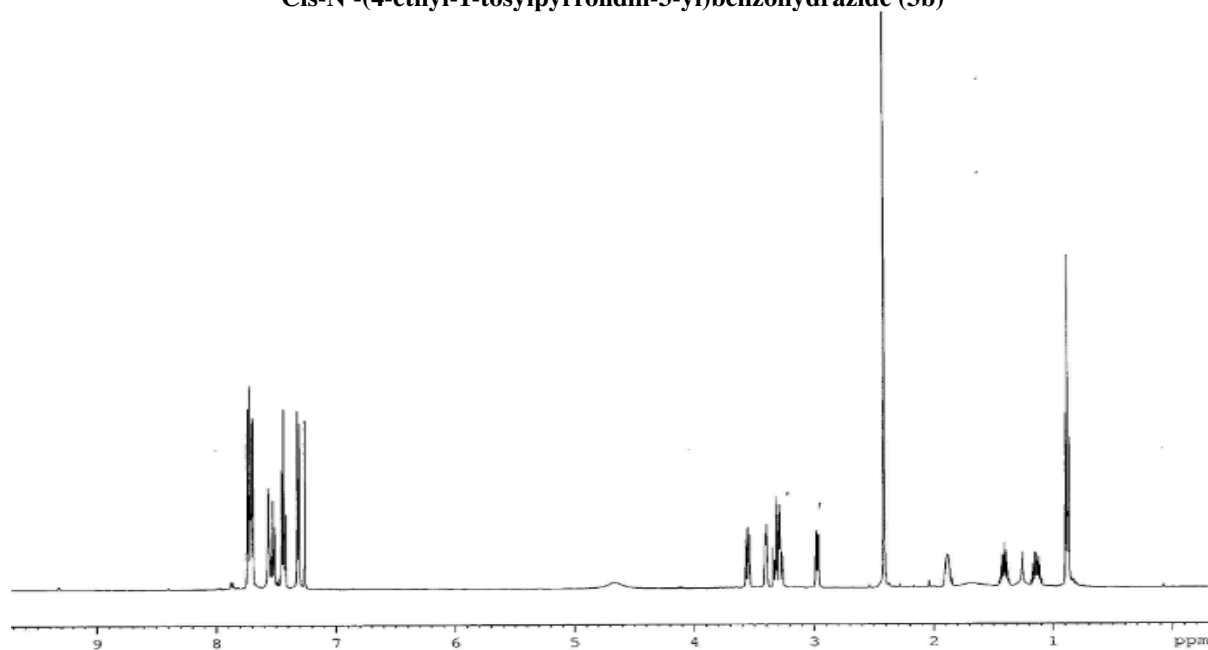


***Cis*-2-(1-tosyl-4-vinylpyrrolidin-3-ylamino)isoindoline-1,3-dione**
reported in Adv. Synth. Catal. 2010, 2010, 352, 2949.

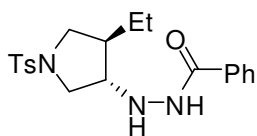
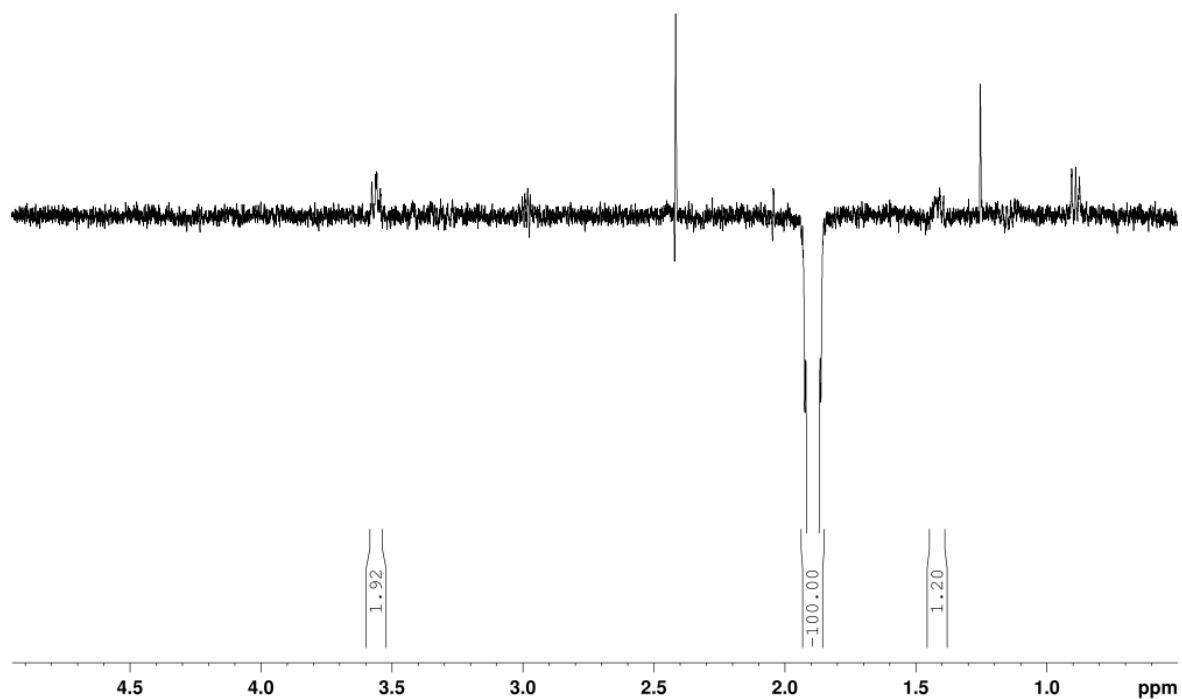




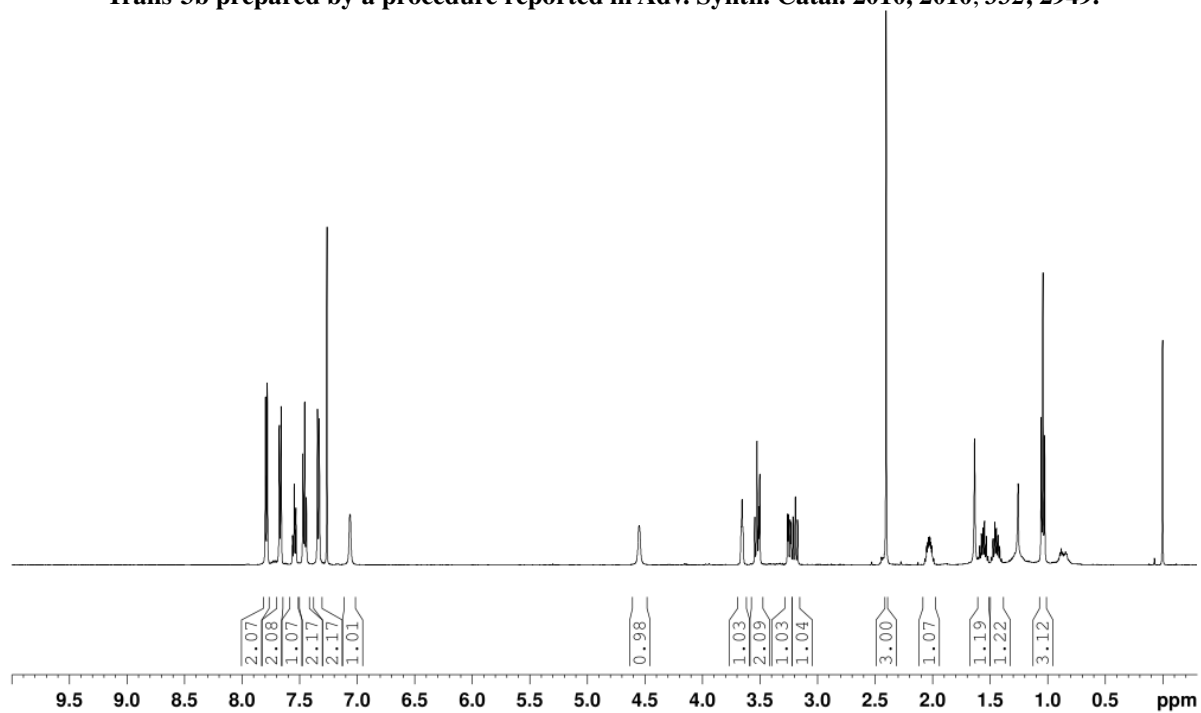
Cis-N'-(4-ethyl-1-tosylpyrrolidin-3-yl)benzohydrazide (3b)

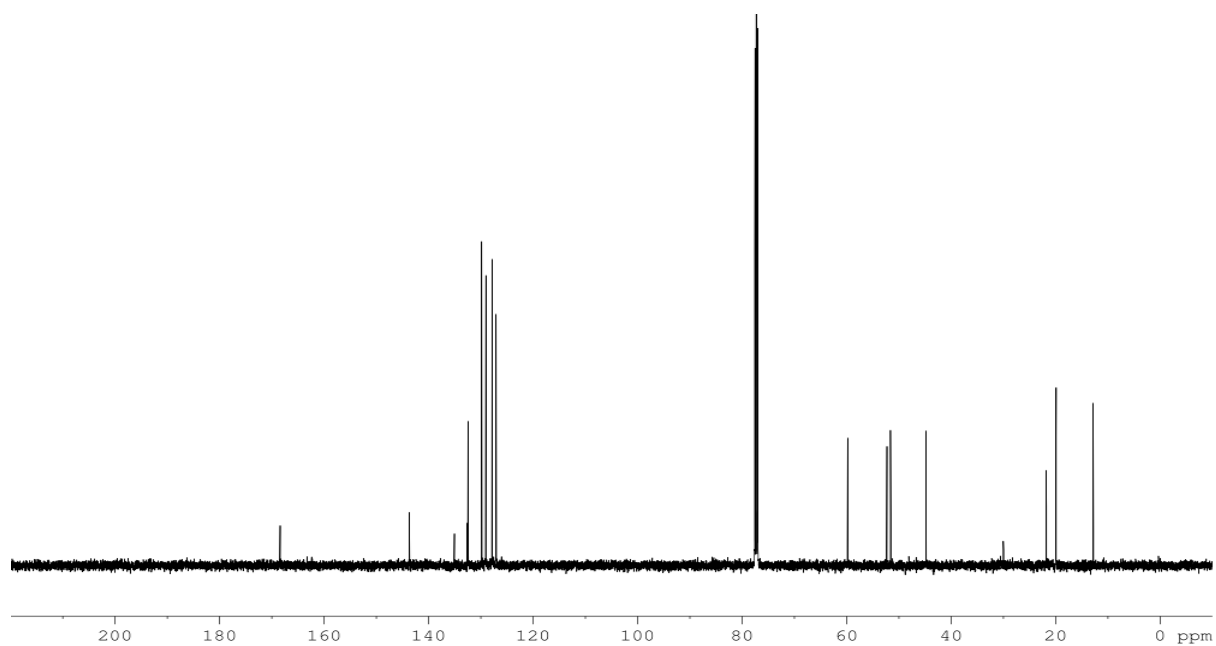


1D NOE of cis-3b

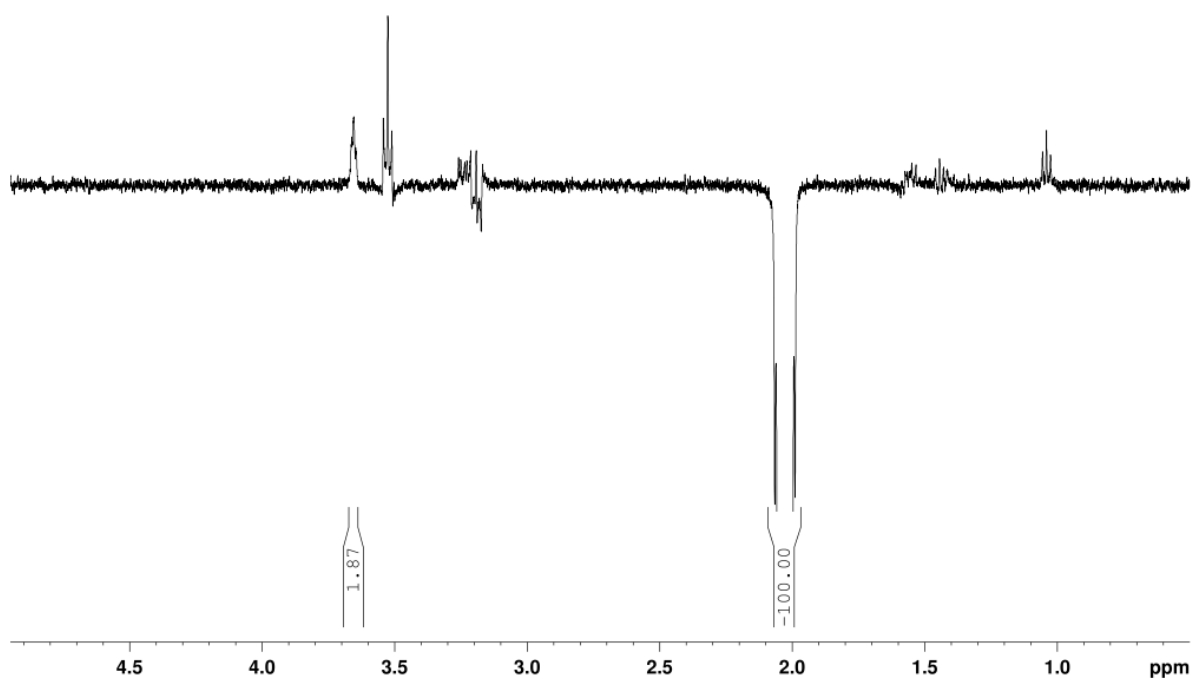


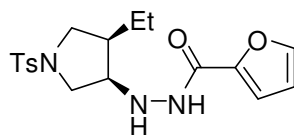
***Trans*-N'-(4-ethyl-1-tosylpyrrolidin-3-yl)benzohydrazide (trans-3b)**
 Trans-3b prepared by a procedure reported in Adv. Synth. Catal. 2010, 2010, 352, 2949.



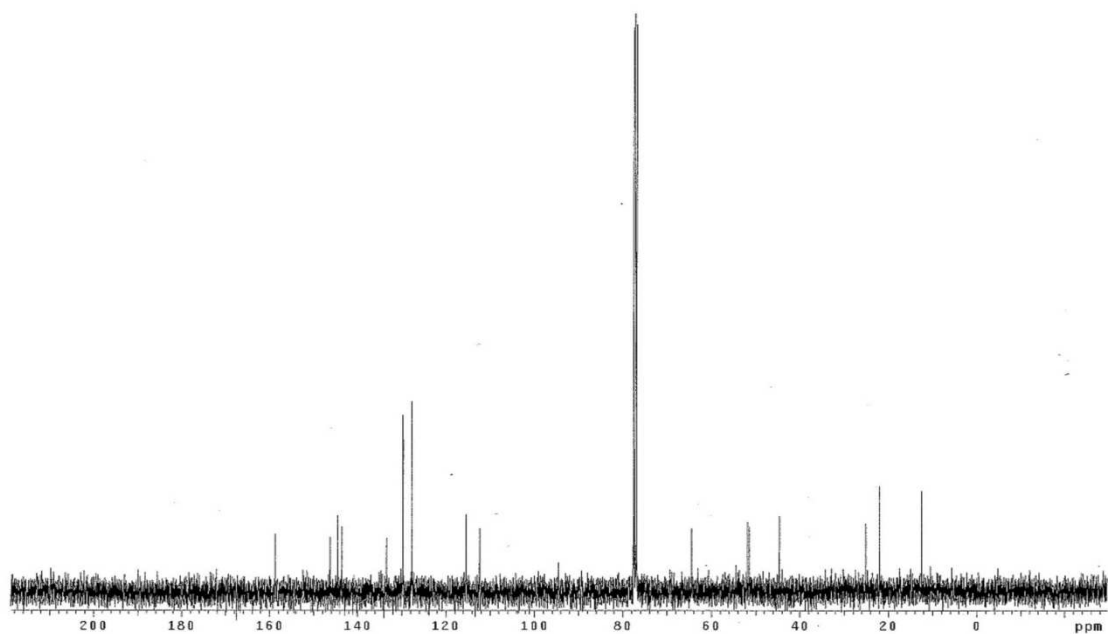
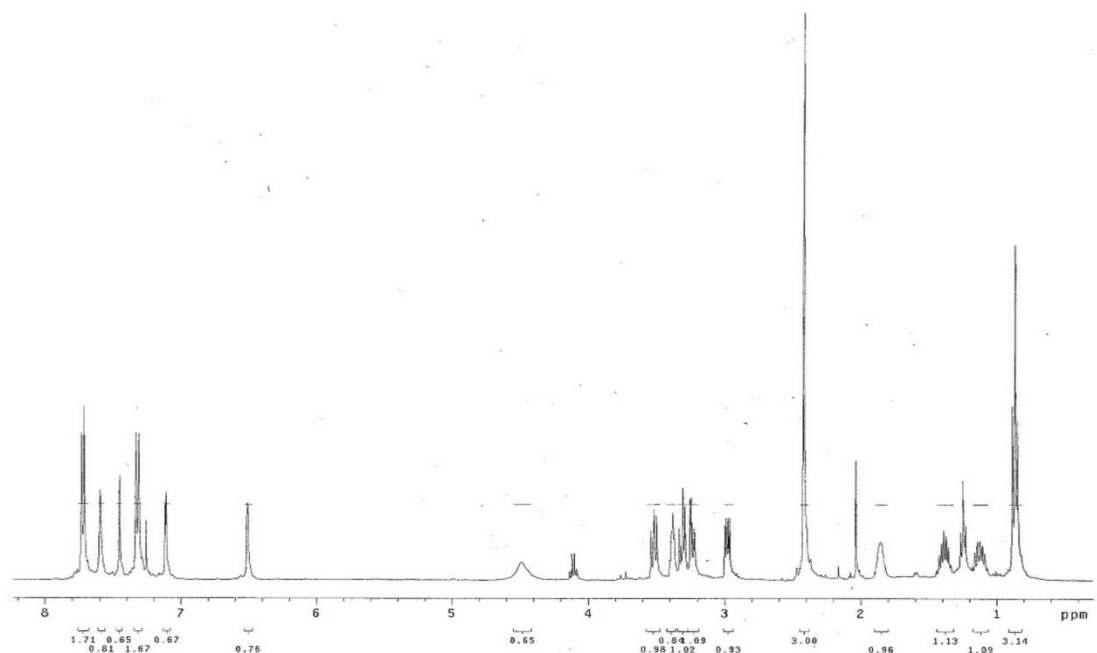


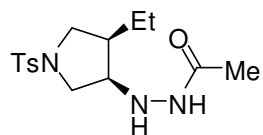
1D NOE of trans-3b



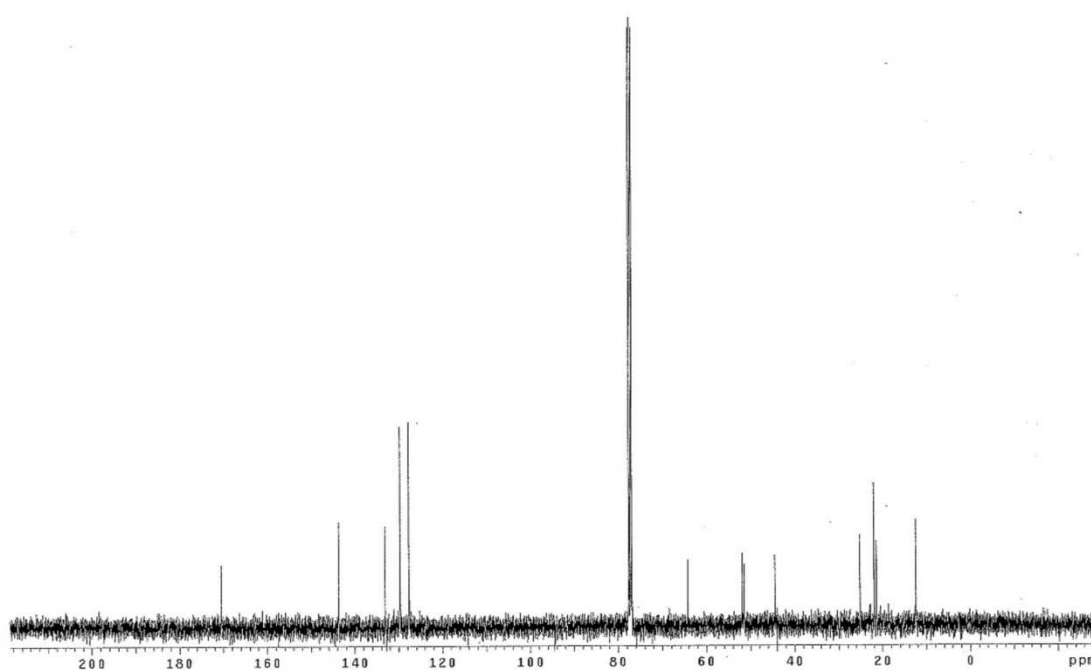
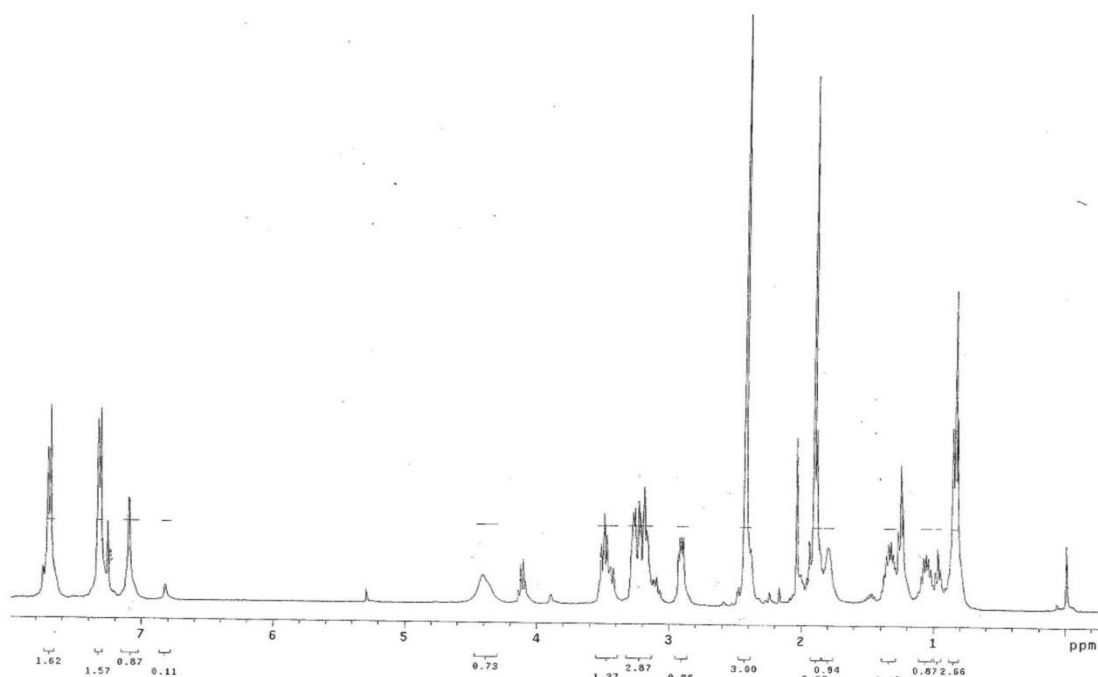


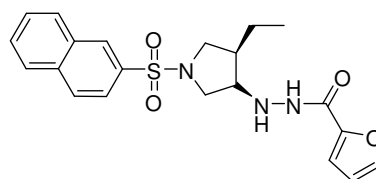
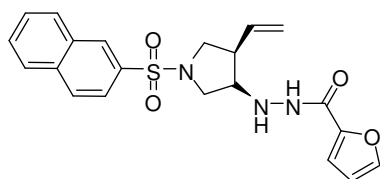
Cis-N'-(4-ethyl-1-tosylpyrrolidin-3-yl)furan-2-carbohydrazide (4b)



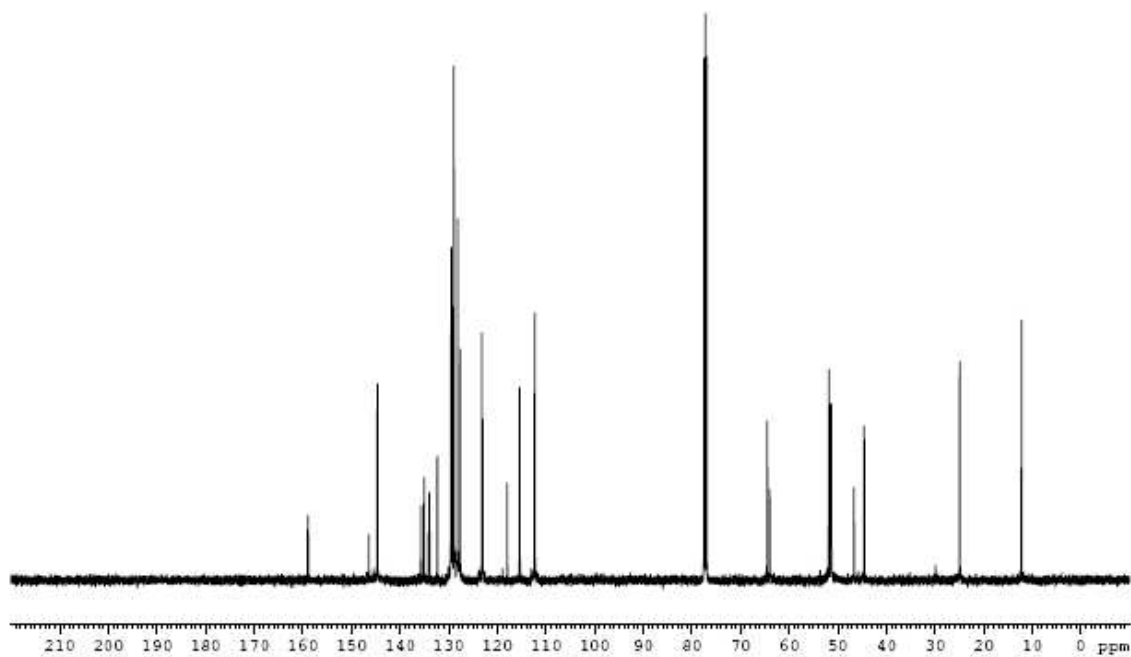
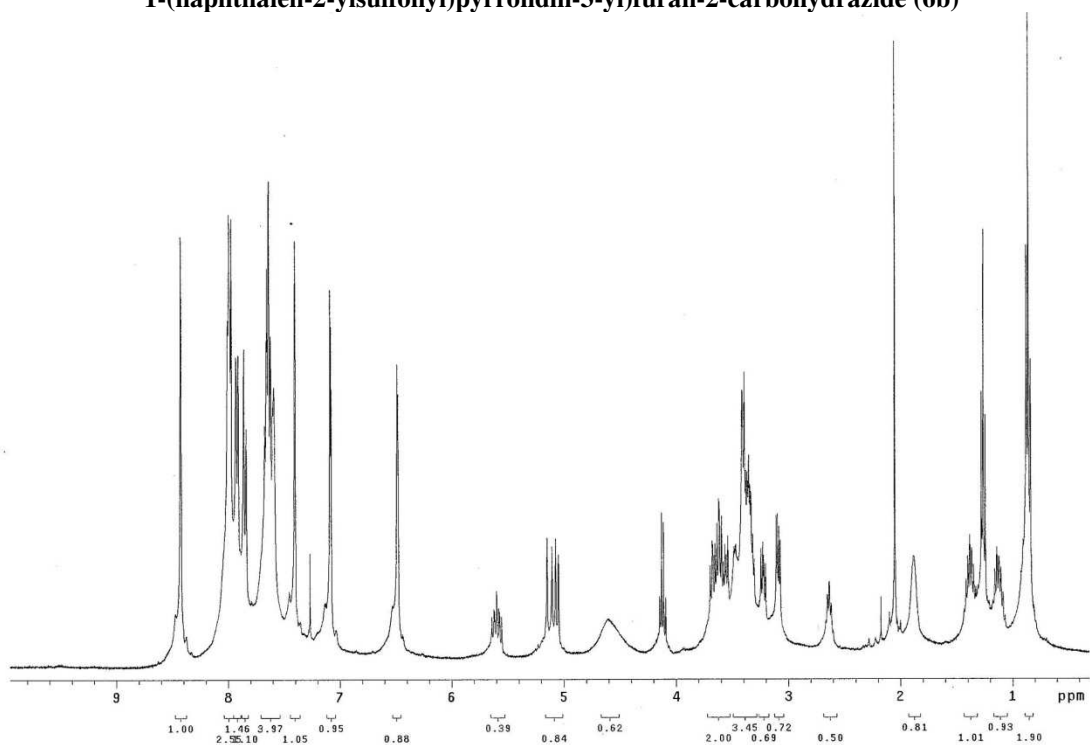


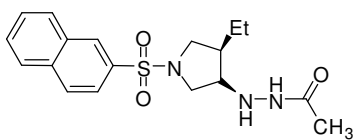
Cis-N'-(4-ethyl-1-tosylpyrrolidin-3-yl)acetohydrazide (5b)



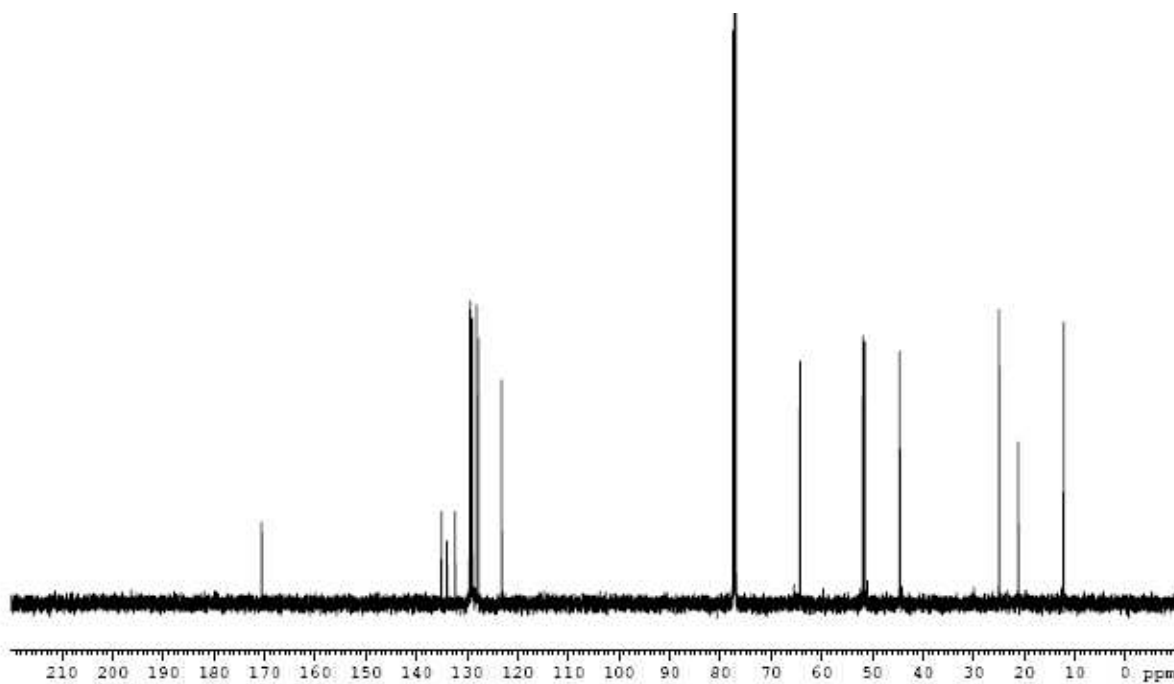
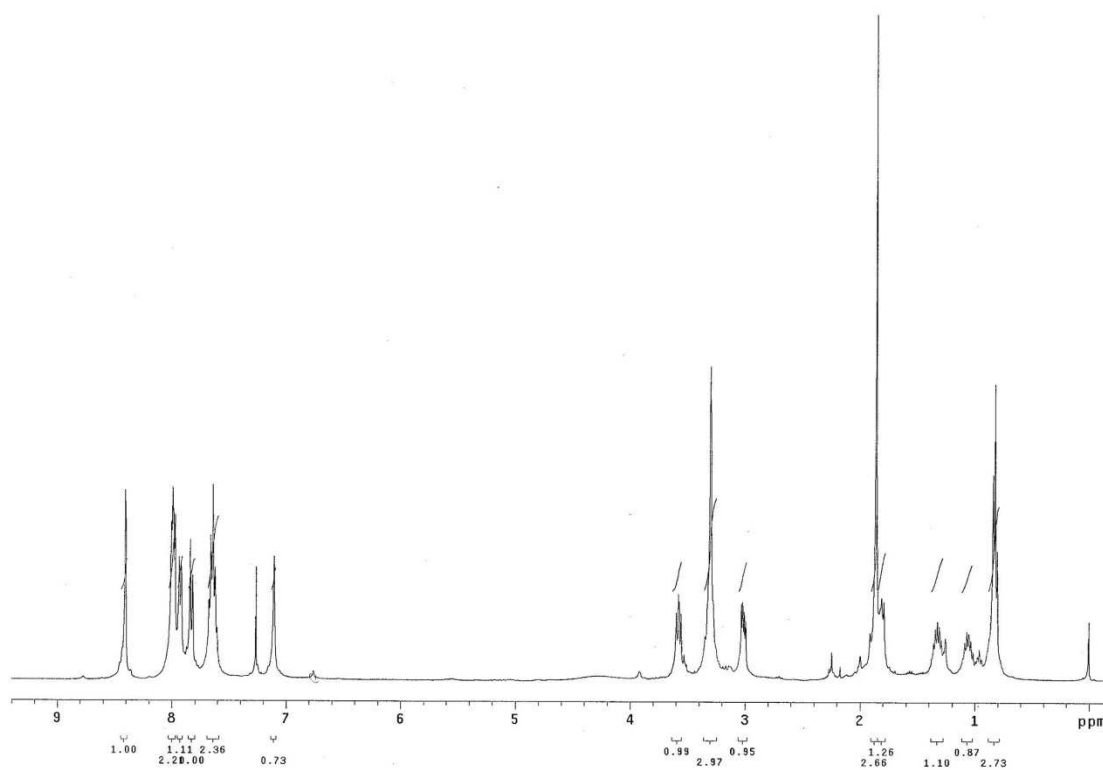


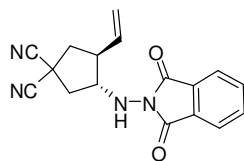
Cis-N'-(1-(naphthalen-2-ylsulfonyl)-4-vinylpyrrolidin-3-yl)furan-2-carbohydrazide (6c) & cis-N'-(4-ethyl-1-(naphthalen-2-ylsulfonyl)pyrrolidin-3-yl)furan-2-carbohydrazide (6b)



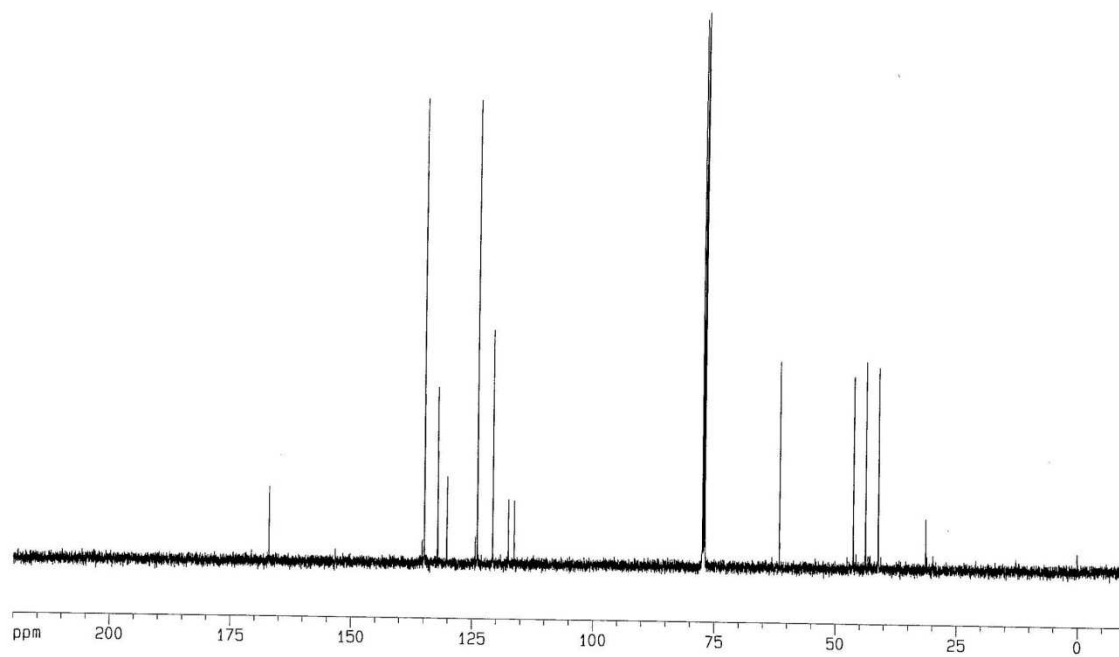
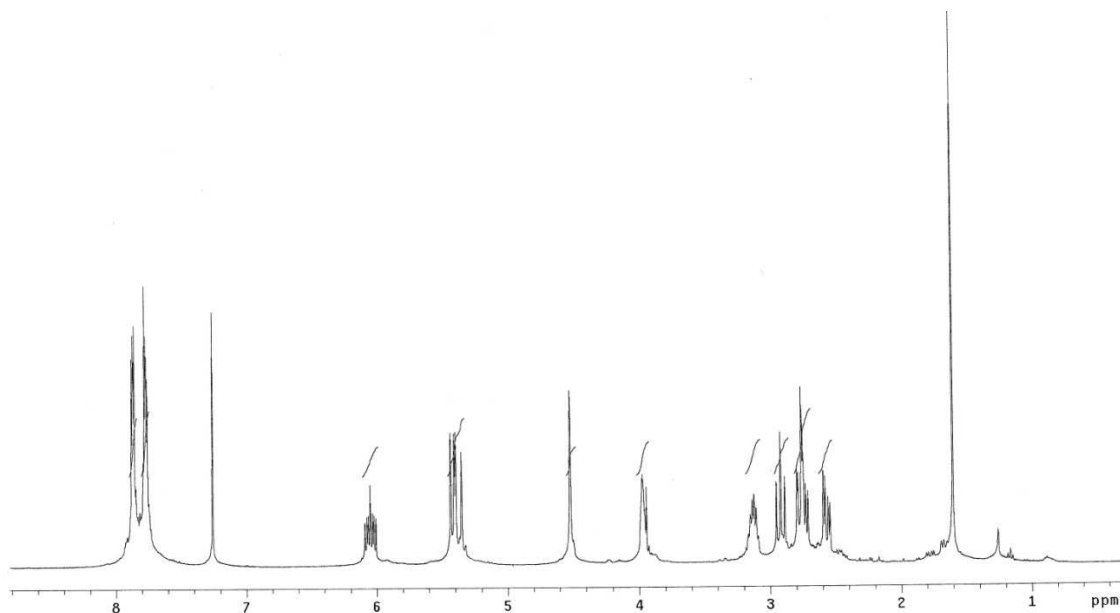


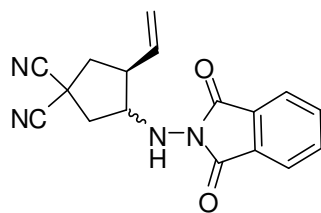
Cis-N'-(4-ethyl-1-(naphthalen-2-ylsulfonyl)pyrrolidin-3-yl)acetohydrazide (7b)





trans-3-(1,3-dioxisoindolin-2-ylamino)-4-vinylcyclopentane-1,1-dicarbonitrile (8b)





A Mixture of *cis*- and *trans*-8b

