

Supplementary

An alternative method to synthesize *N*,2,3-trimethyl-2*H*-indazol-6-amine as a key component in the preparation of pazopanib

Thi Thanh Cham Bui ^{1,2}, Hue Linh Luu ¹, Thi Thanh Luong ³, Thi Ngoc Nguyen ², Huy Duc Ngo ¹, Nguyet Suong Huyen Dao ¹, Van Giang Nguyen ¹, Dinh Luyen Nguyen ¹, Nguyen Trieu Trinh ⁴ and Van Hai Nguyen ^{1,*}

¹ Faculty of Pharmaceutical Chemistry and Technology, Hanoi University of Pharmacy, 13-15 Le Thanh Tong Street, Hoan Kiem District, Hanoi, Vietnam; muathinamxua@gmail.com (T.T.C.B.); linhkhoiqm@gmail.com (H.L.L.); huyngoduc.2000@gmail.com (H.D.N.); huyendns@hup.edu.vn (N.S.H.D.); giangnv@hup.edu.vn (V.G.N.); ngdluyen@hotmail.com (D.L.N.)

² Faculty of Pharmaceutical, Thai Nguyen University of Medicine and Pharmacy, 284 Luong Ngoc Quyen Street, Thai Nguyen City, Thai Nguyen, Vietnam; ngock3a@gmail.com (T.N.N.)

³ Faculty of Chemical Technology, Hanoi University of Industry, 298 Cau Dien Street, Tu Liem North District, Hanoi, Vietnam; thanhlt_cnh@hau.edu.vn (T.T.L.)

⁴ College of Engineering, Science and Environment, Center for Organic Electronics, University of Newcastle, NSW 2308, Australia; trieu.n.trinh@newcastle.edu.au

* Correspondence: hainv@hup.edu.vn; Tel.: +84-918-971-109

Abstract: Due to its application as an anti-cancer drug, pazopanib (**1**) has attracted the interest of many researchers and several studies on pazopanib synthesis have been reported over the years. This paper provides a novel route for synthesizing *N*,2,3-trimethyl-2*H*-indazol-6-amine (**5**) which is a crucial building block in the synthesis of pazopanib from 3-methyl-6-nitro-1*H*-indazole (**6**). By alternating between the reduction and two methylation steps compound **5** was obtained in comparable yield (55.0%) to what has been reported (54%). Noteworthy, the last step of *N*²-methylation also yielded *N,N*,2,3-tetramethyl-2*H*-indazol-6-amine (**5'**) as a new compound ever reported. Furthermore, the data presented in this paper can serve as instrumental for future research aimed at further refining the synthesis process of pazopanib.

Keywords: 3-methyl-6-nitro-1*H*-indazole; pazopanib; *N,N*,2,3-tetramethyl-2*H*-indazol-6-amine; *N*,2,3-trimethyl-2*H*-indazol-6-amine

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Supporting Information

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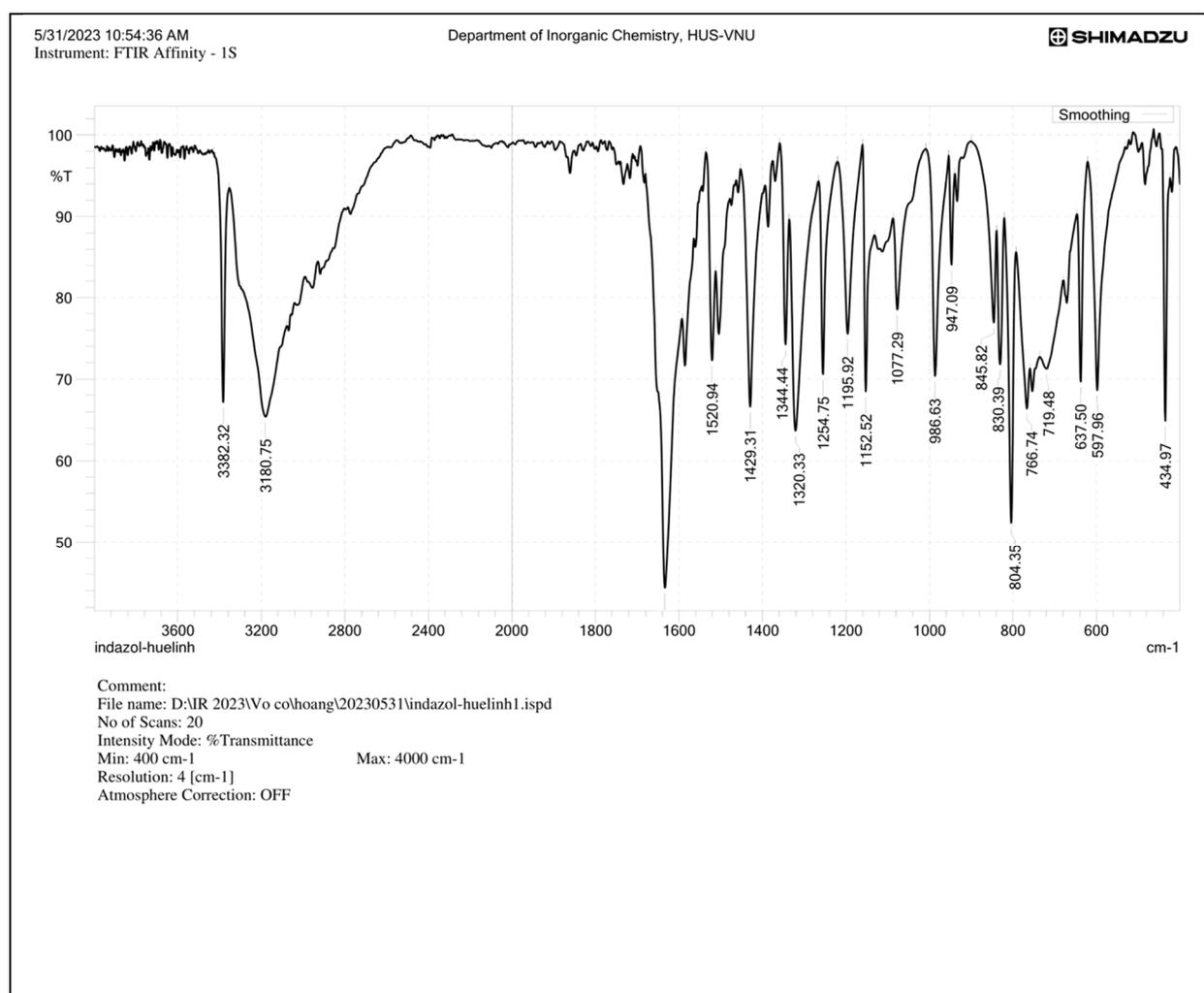


Figure S1: IR spectrum of 3-methyl-1H-indazol-6-amine (8)

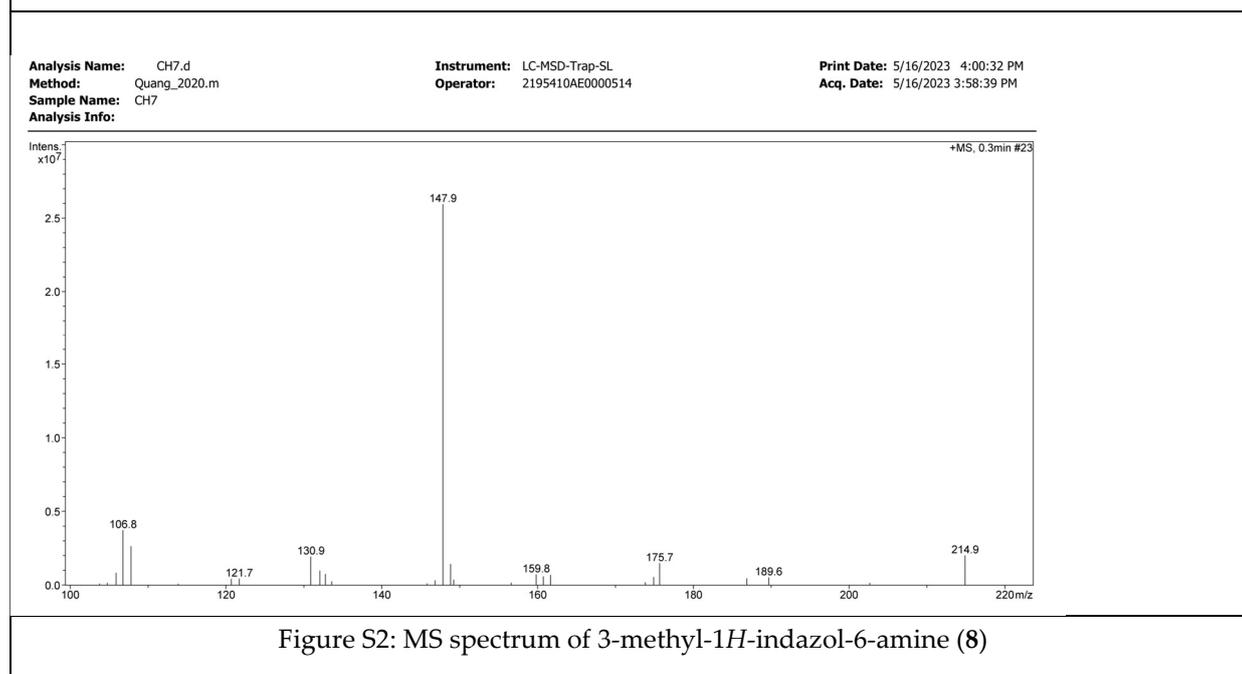
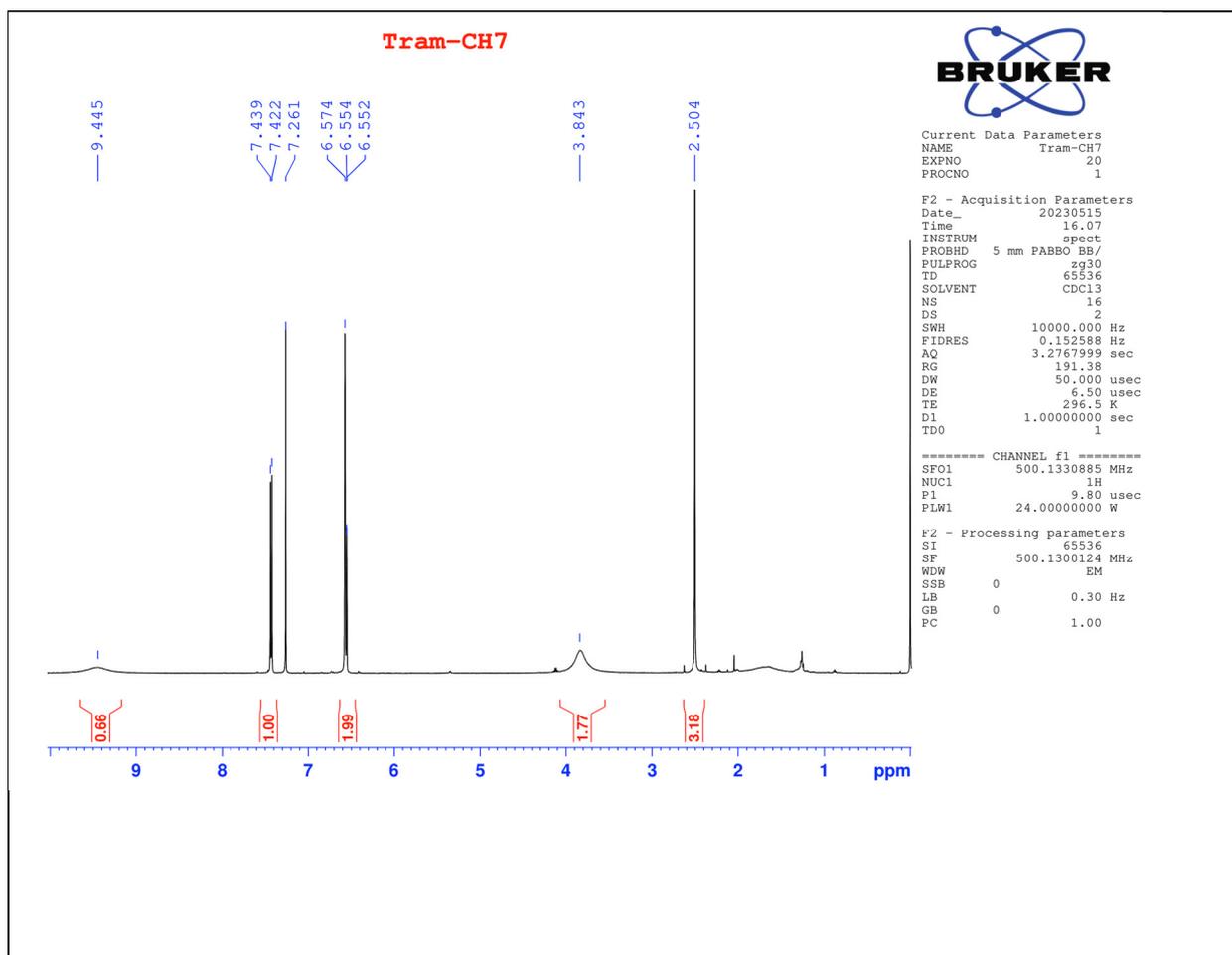
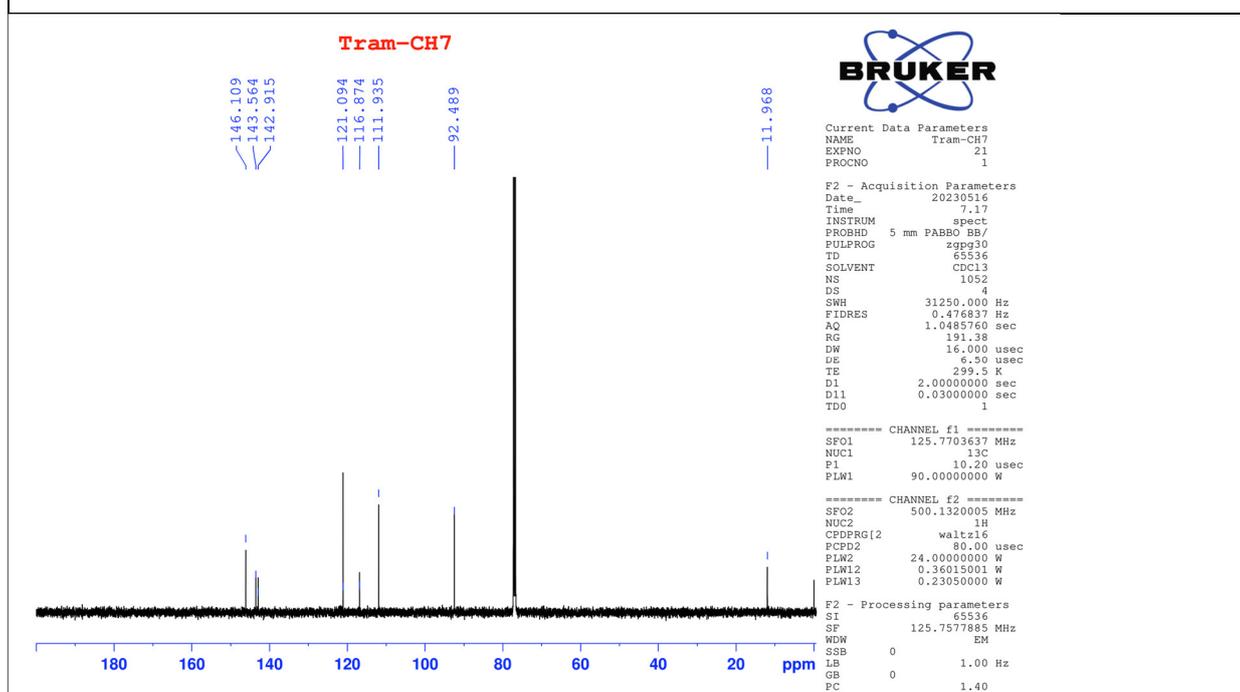
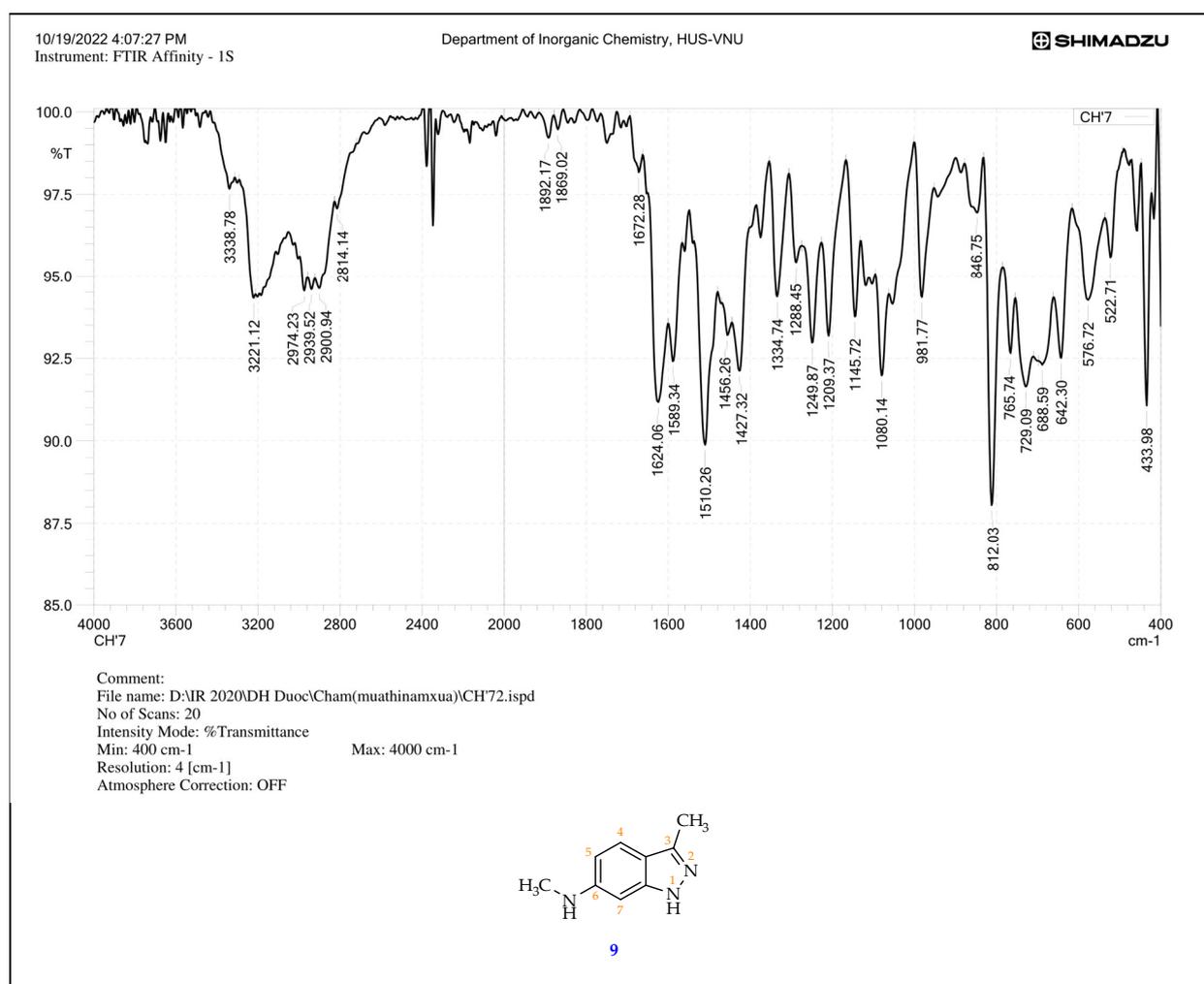
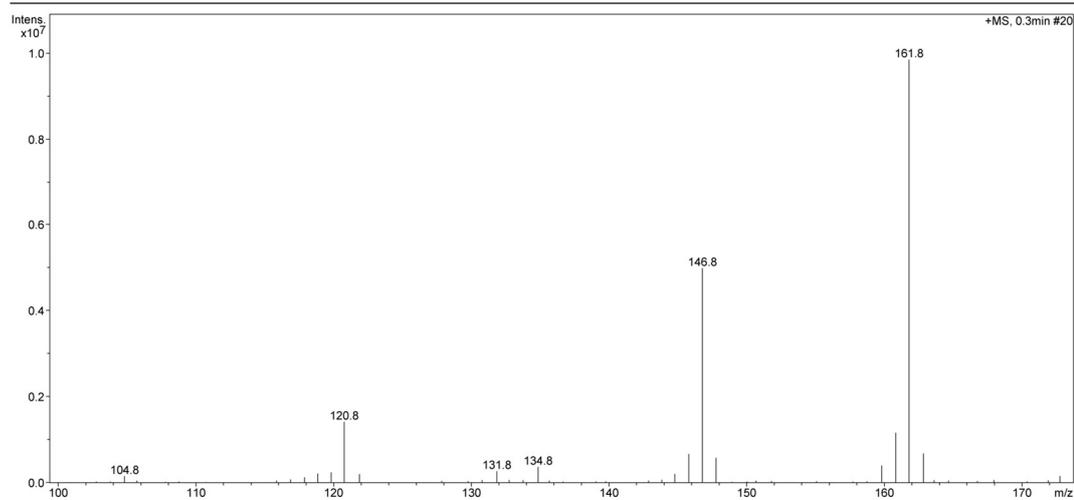


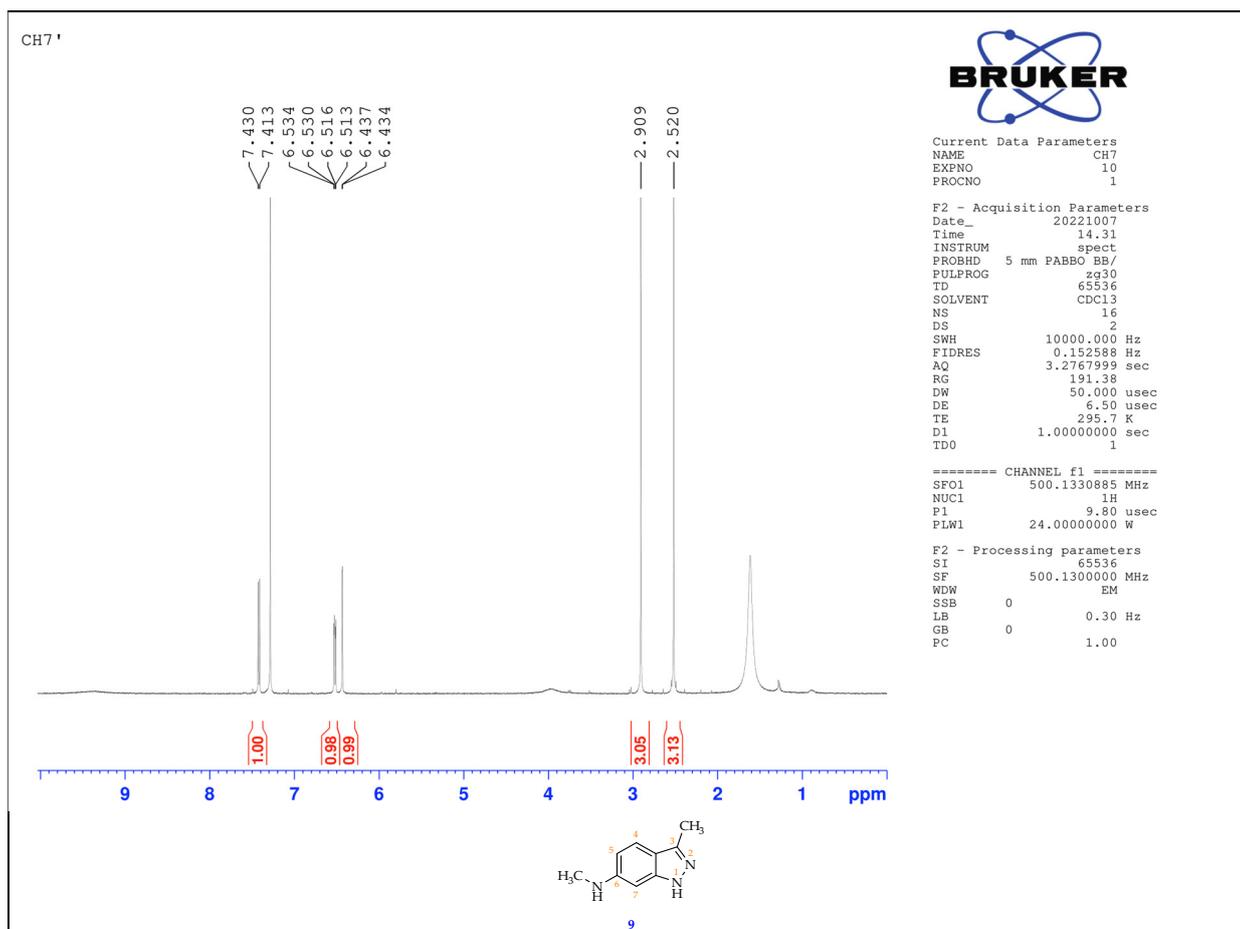
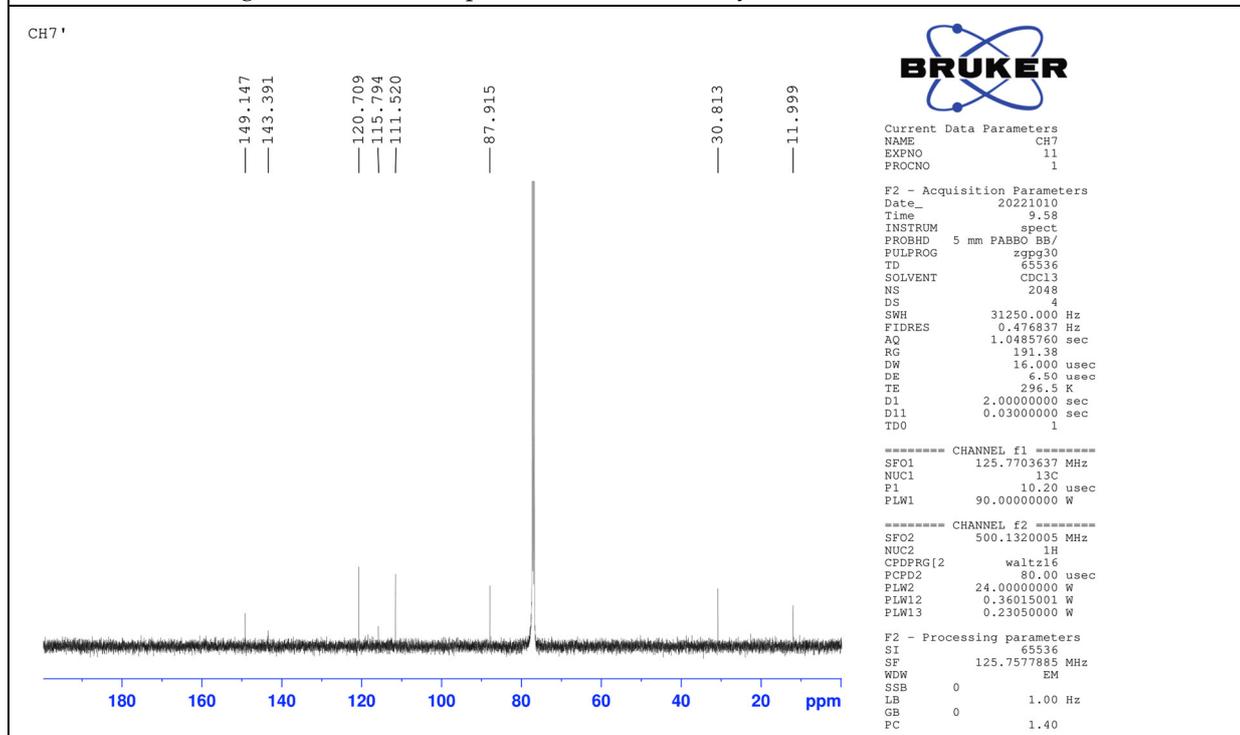
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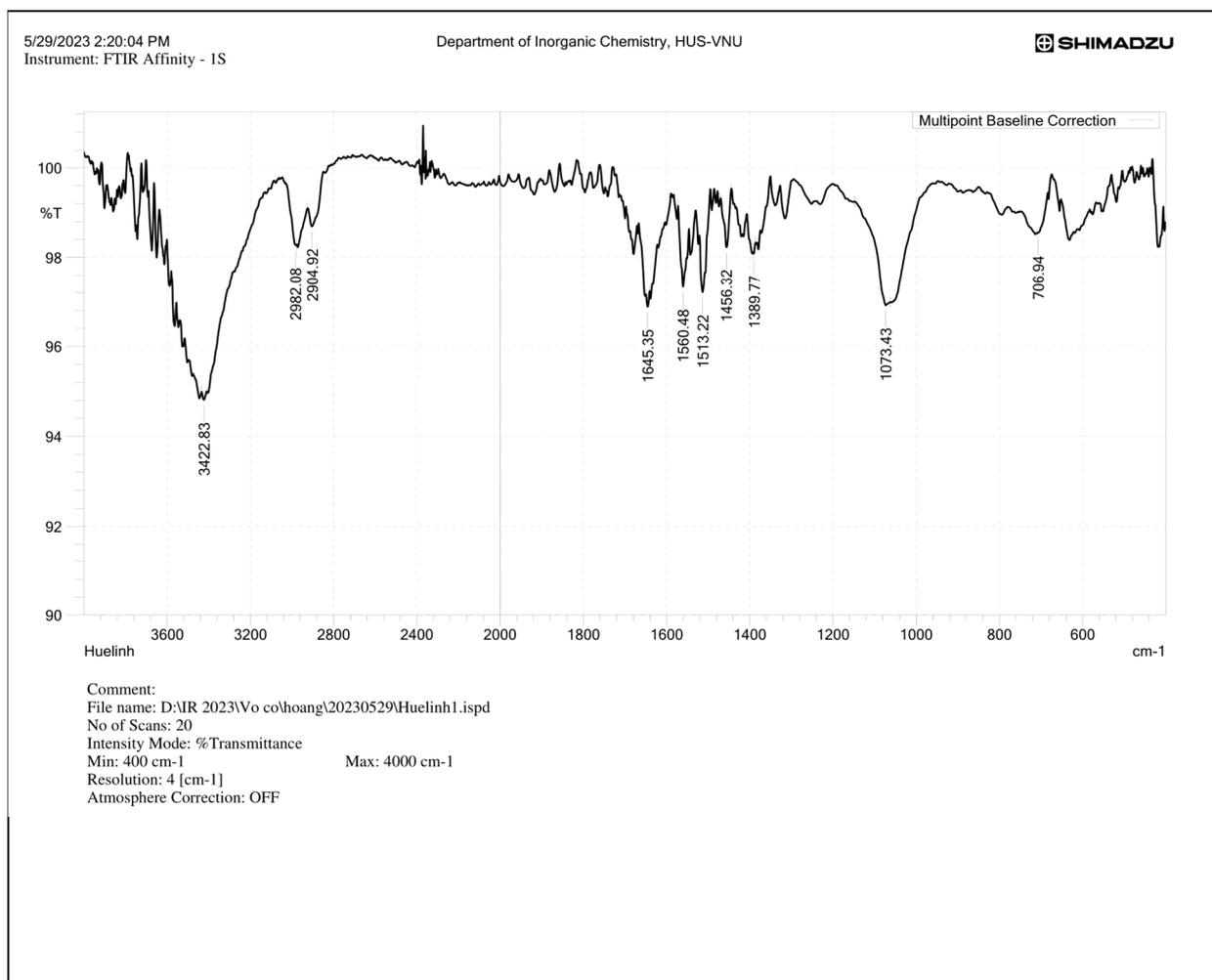
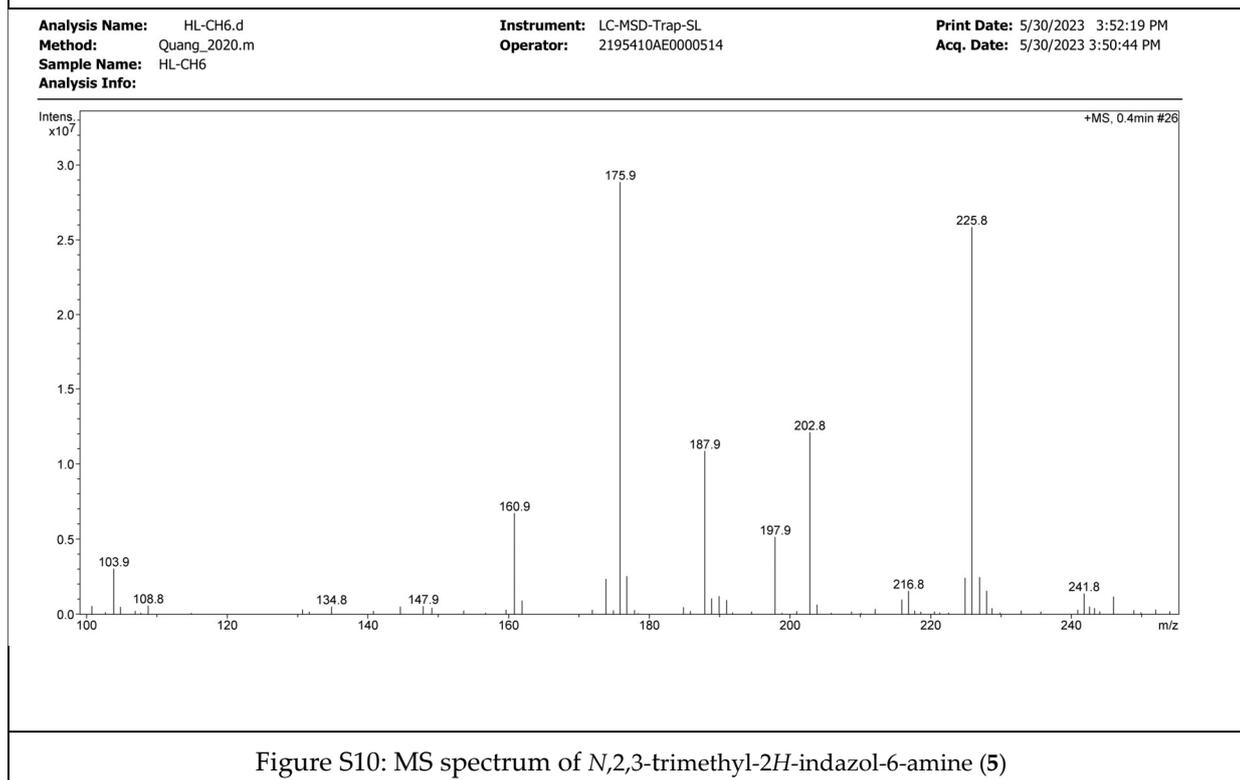
Figure S3: ^1H -NMR spectrum of 3-methyl-1H-indazol-6-amine (8)Figure S4: ^{13}C -NMR spectrum of 3-methyl-1H-indazol-6-amine (8)

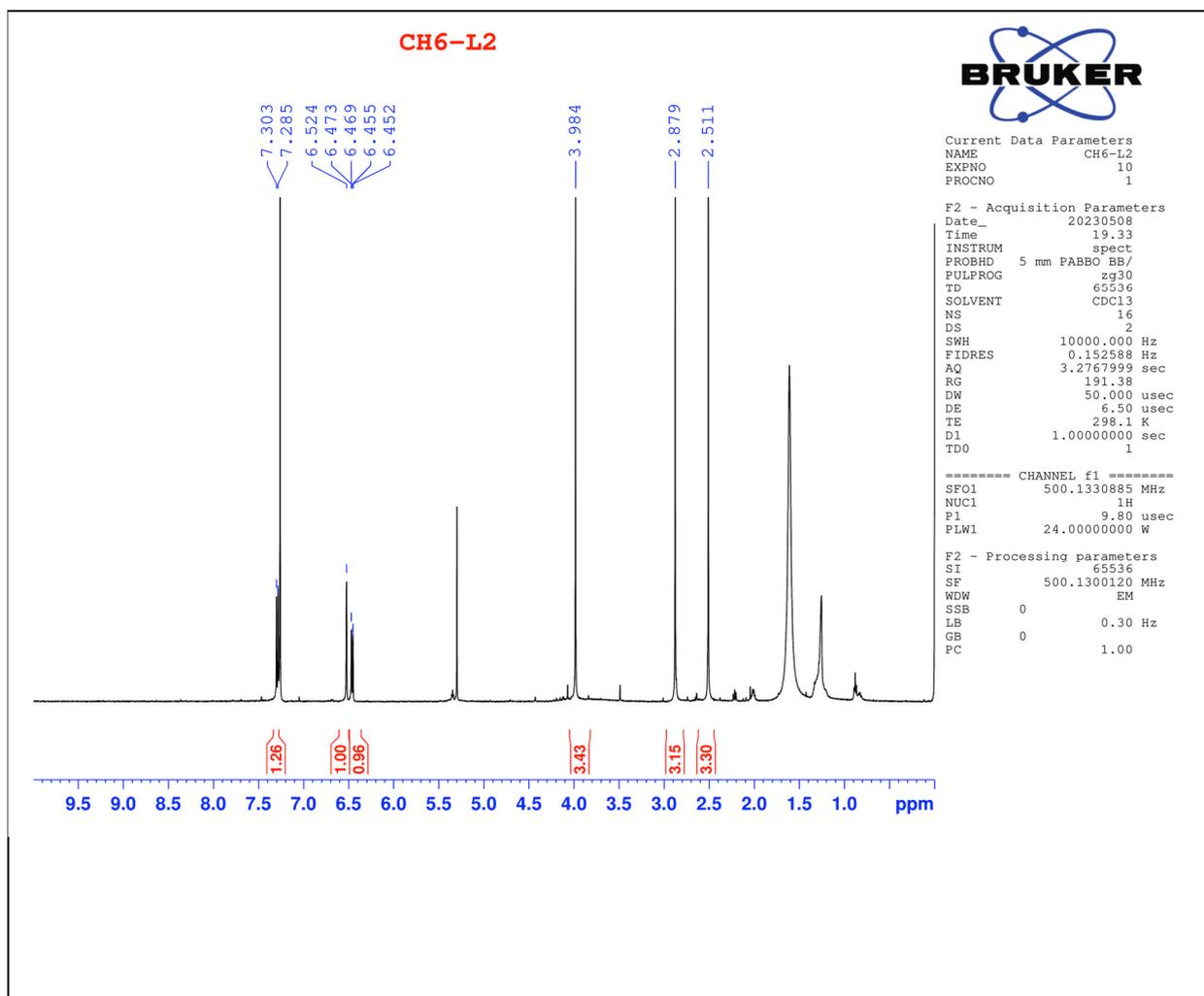
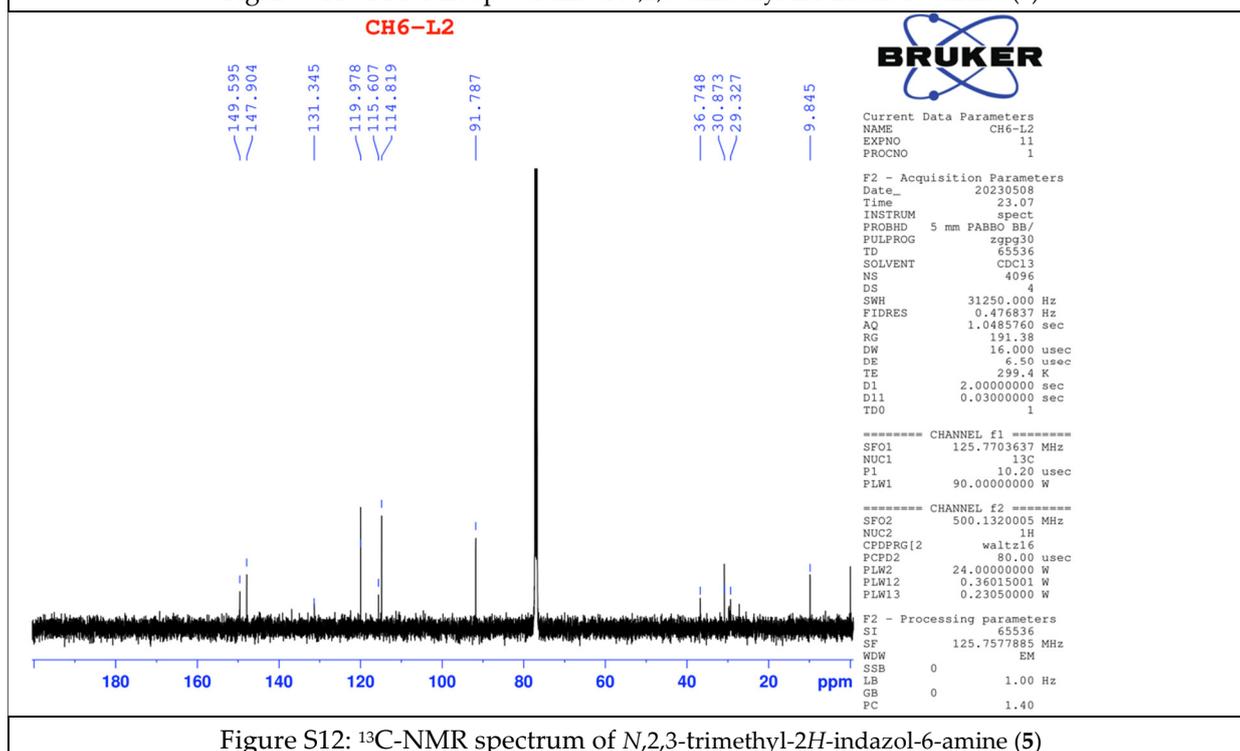
Figure S5: IR spectrum of *N*,3-dimethyl-1*H*-indazol-6-amine (9)

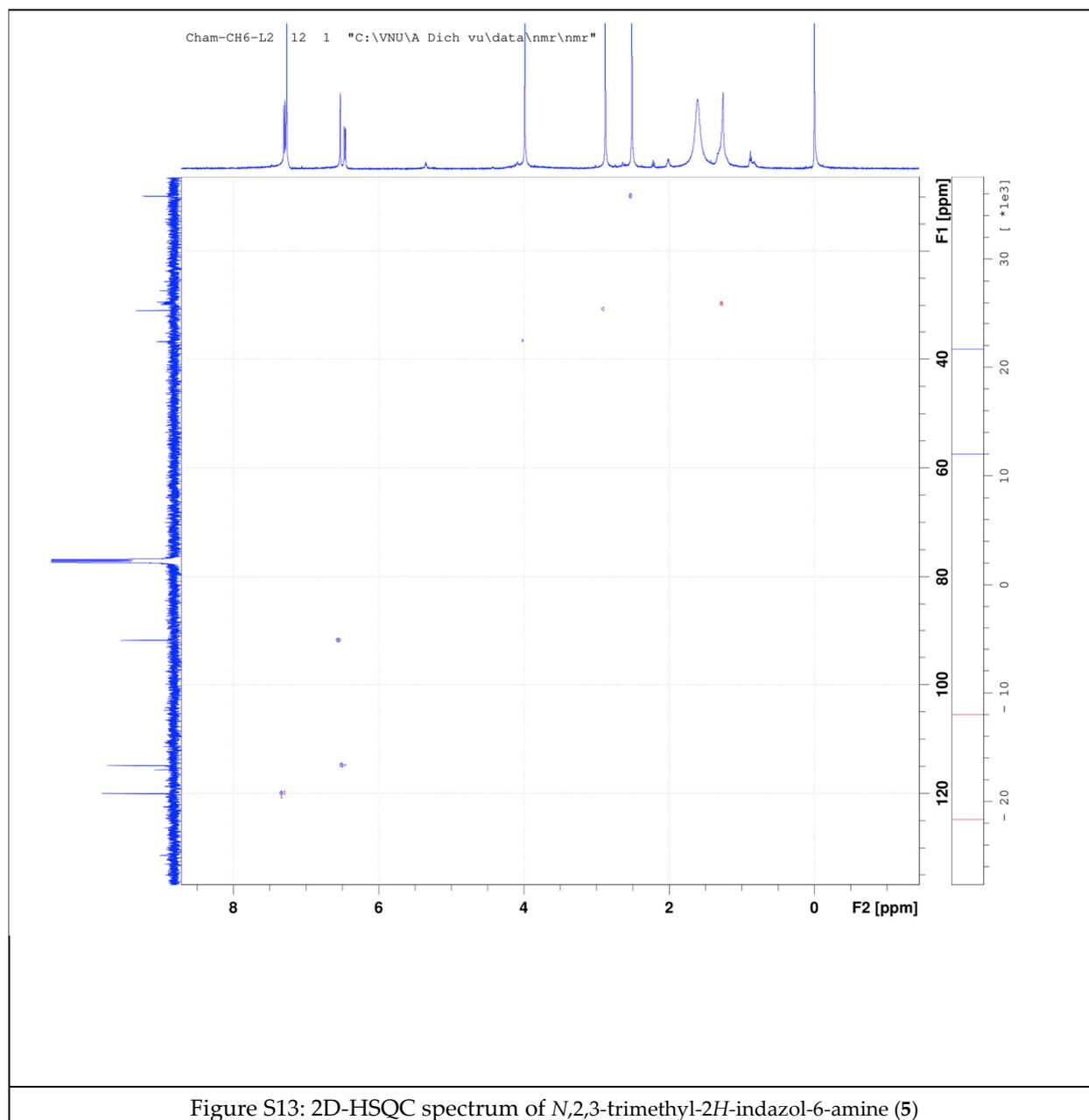
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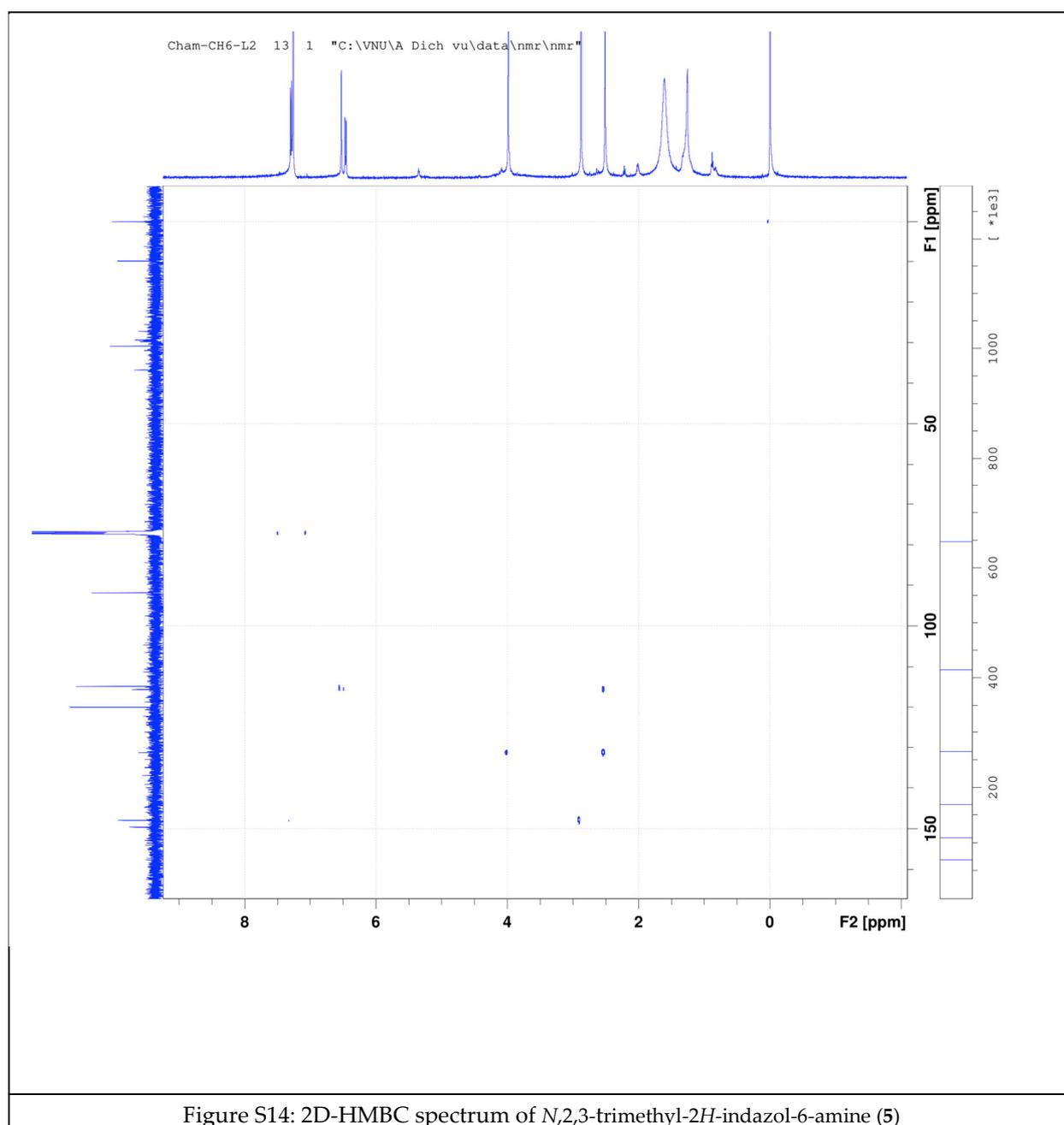
Figure S6: MS spectrum of *N*,3-dimethyl-1*H*-indazol-6-amine (9)

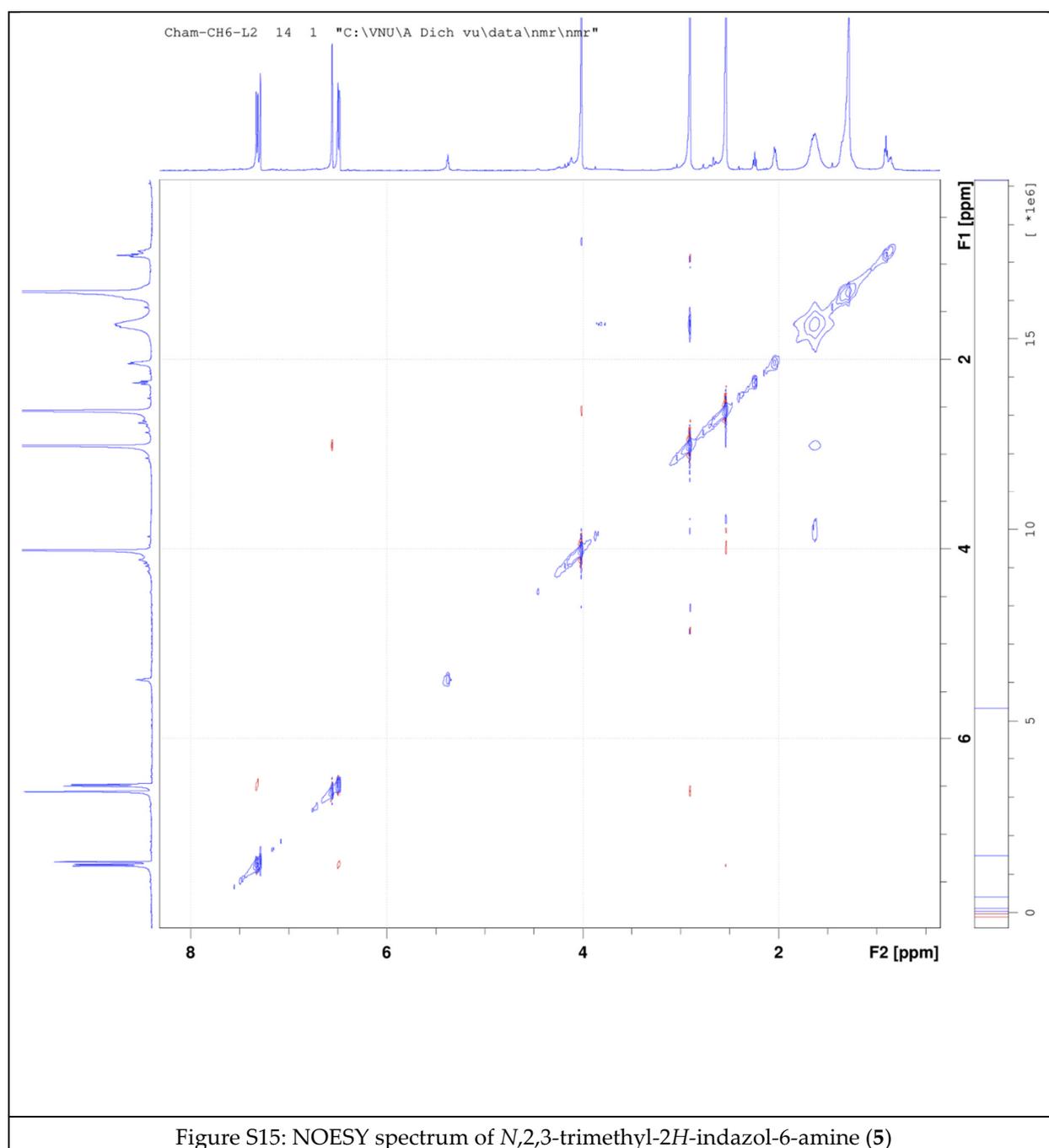
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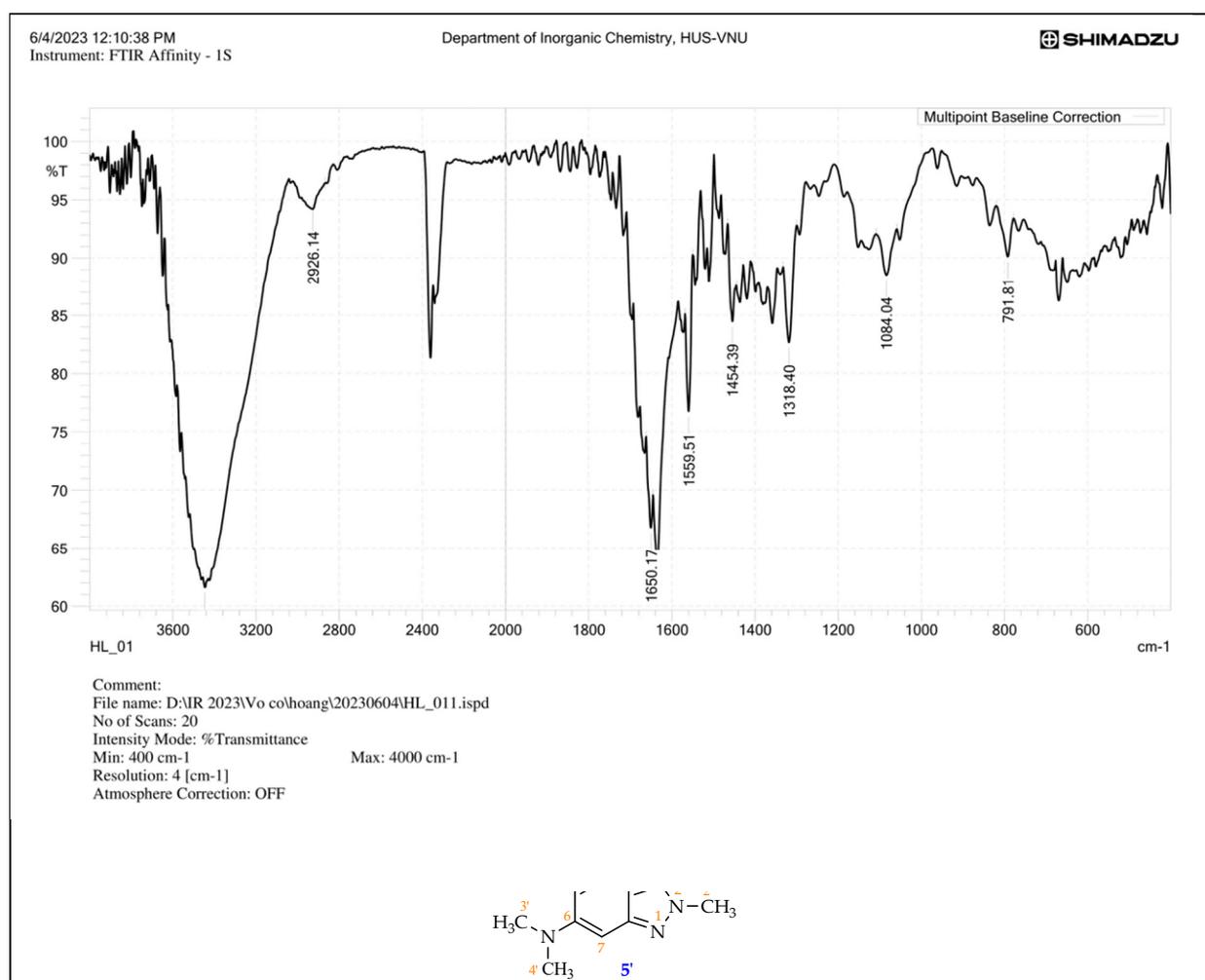
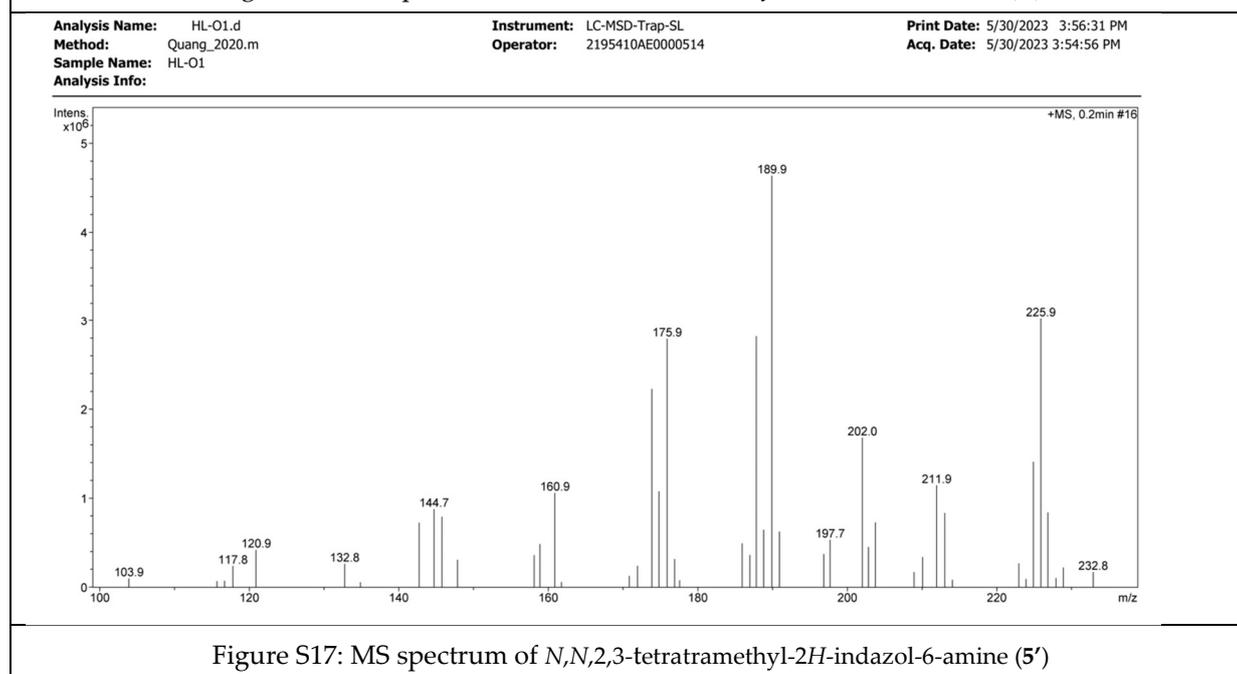
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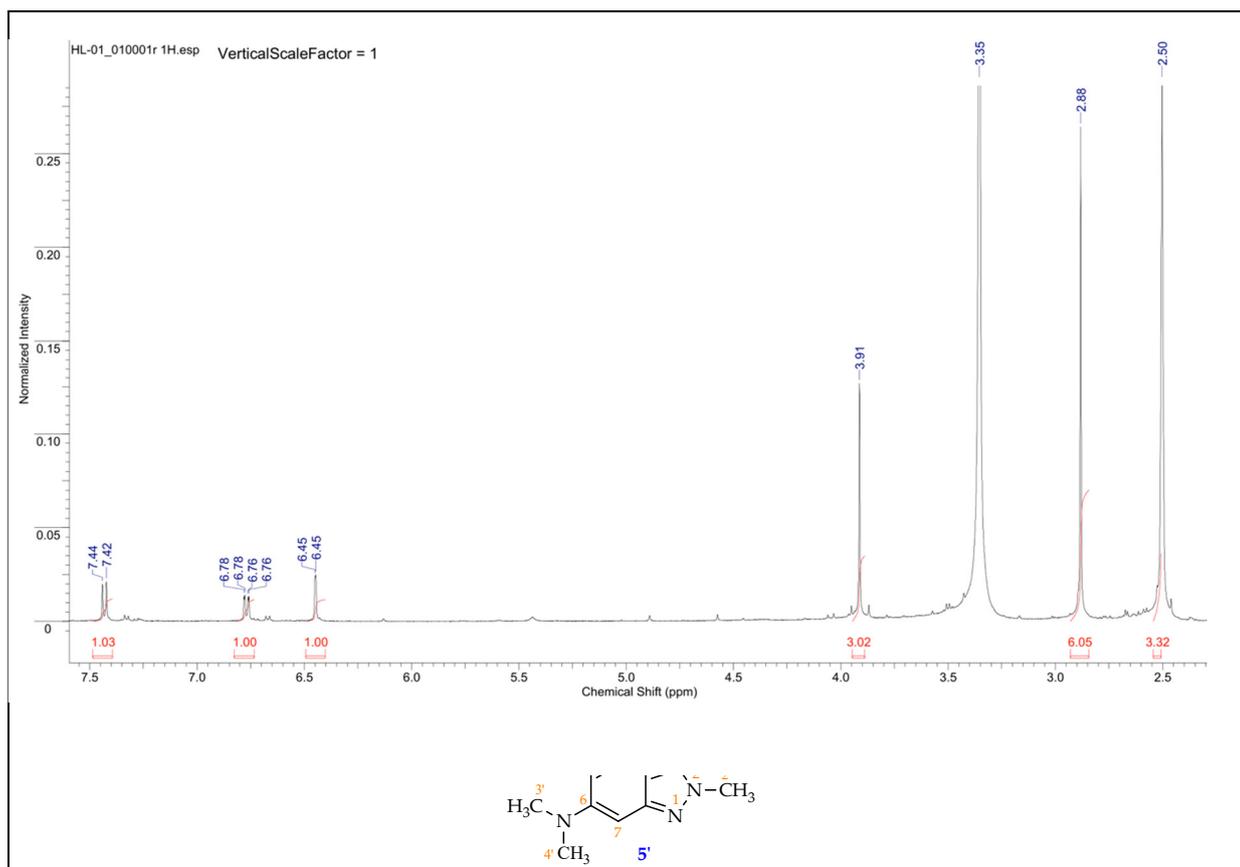
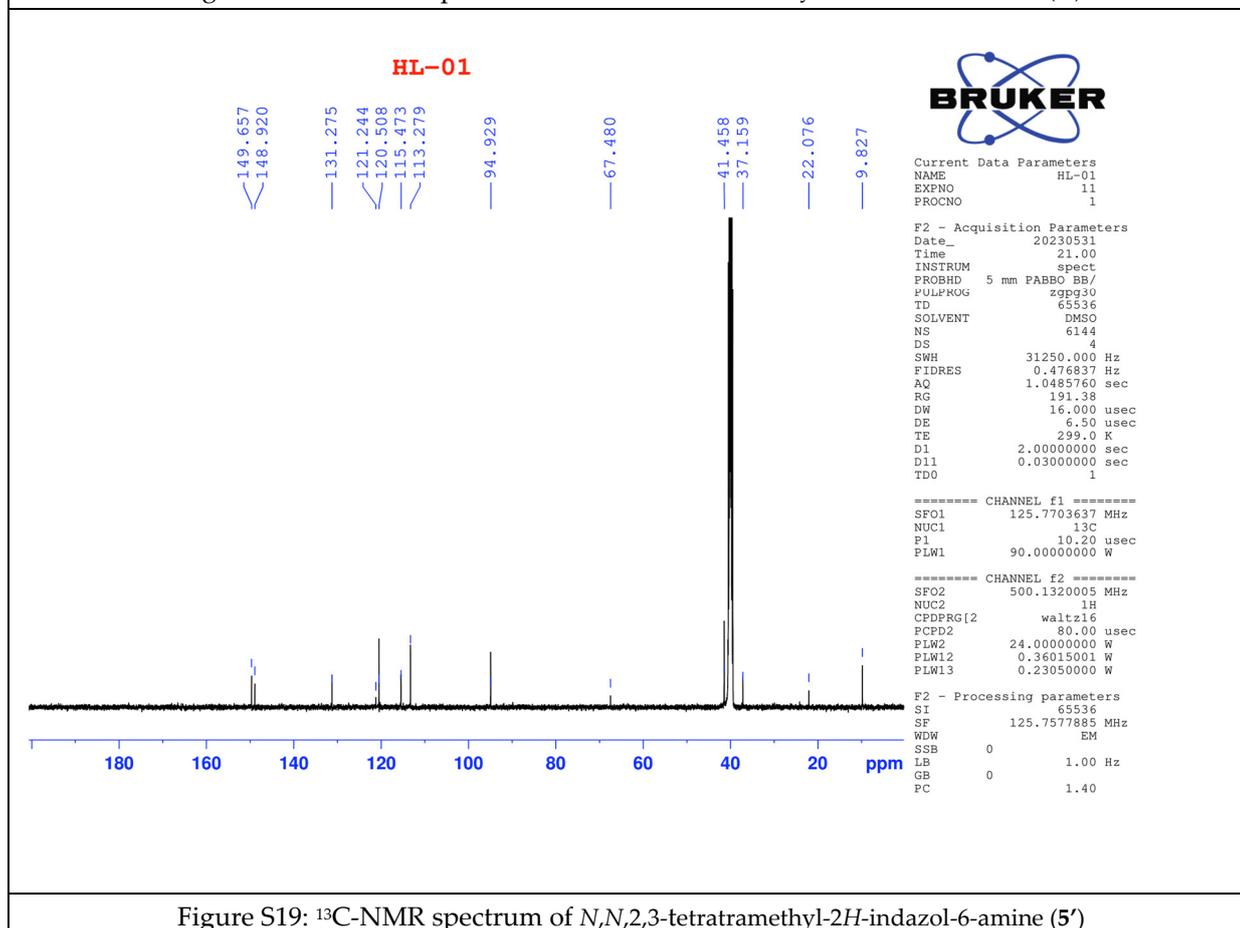
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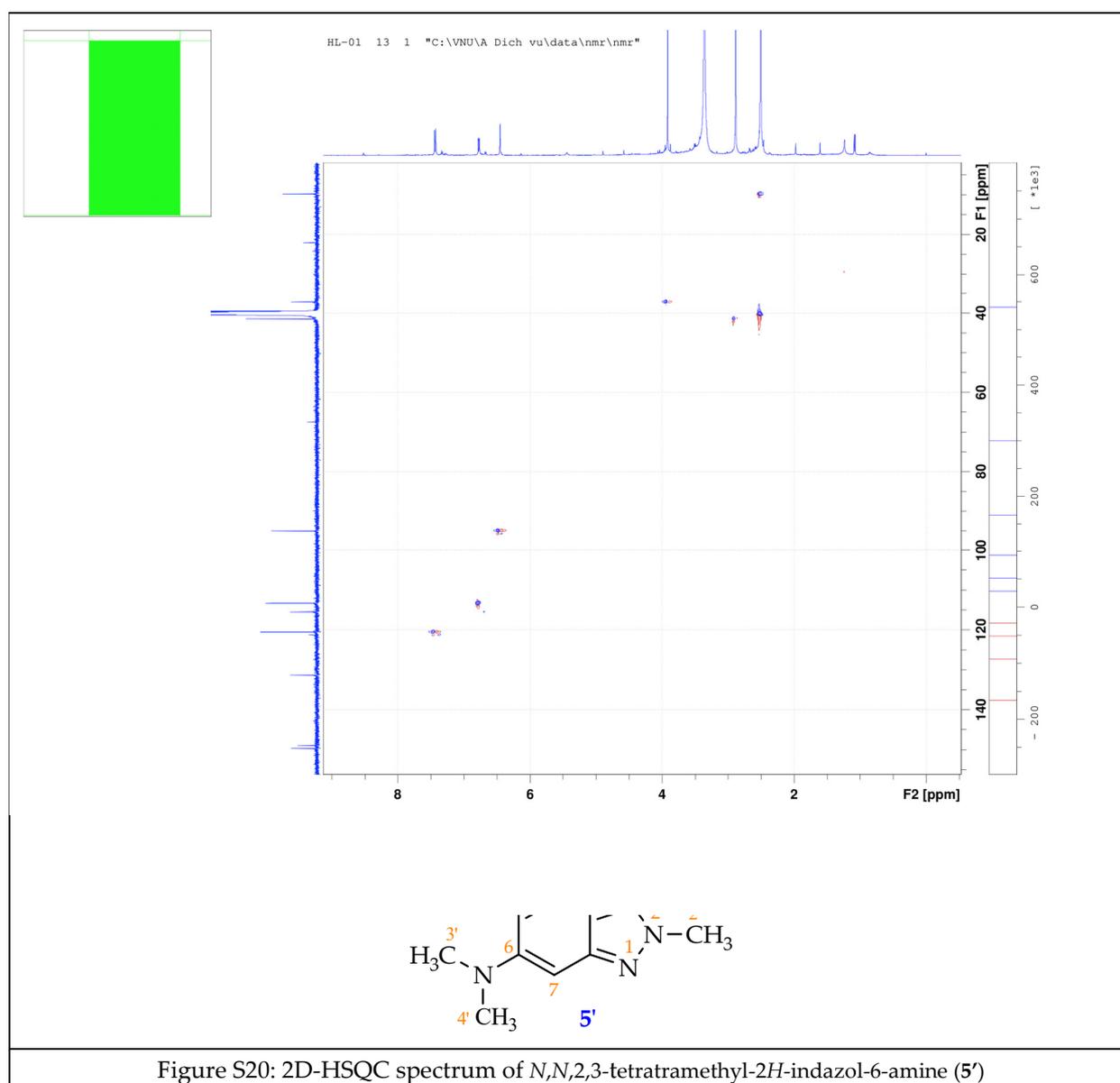


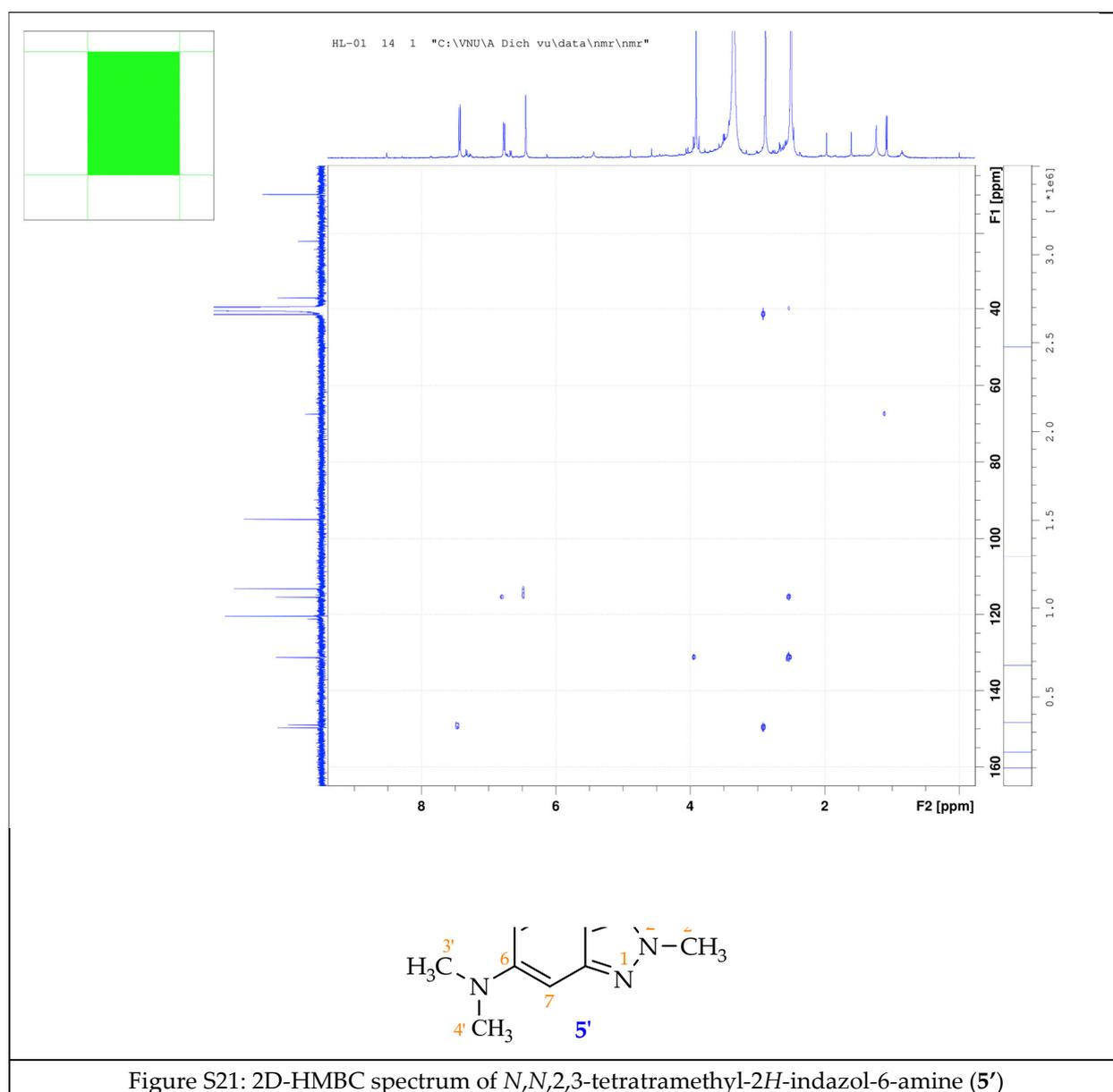


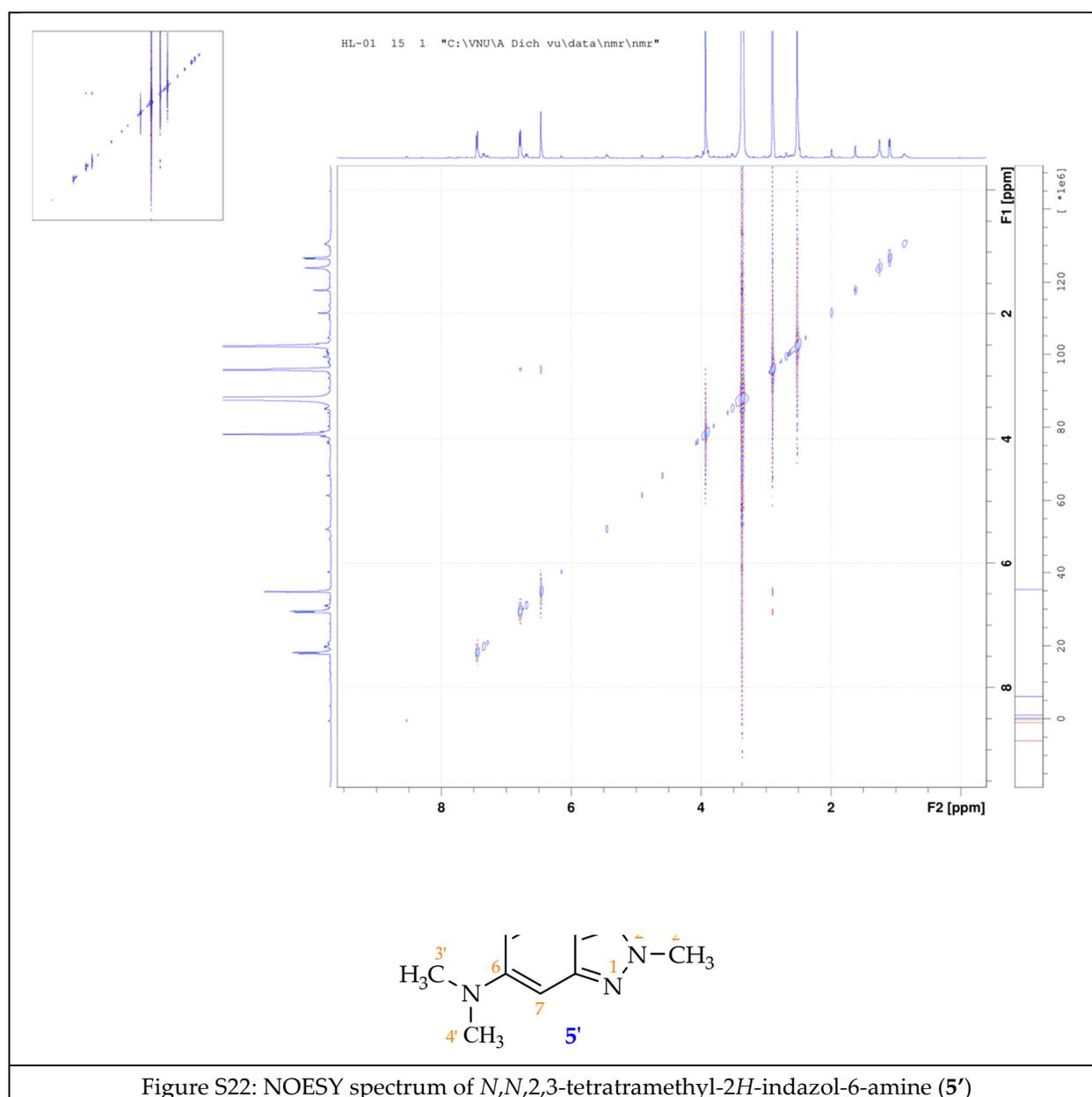


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