

Supplementary Information

Sonogashira Breathes Easy: A Practical Room-Temperature Homogeneous Coupling in Continuous Flow Under Air

Vladimir L. Bondarev,^a Ivan A. Andreev,^a Olga A. Sherstneva,^a Alexey A. Festa,^{a,*} Leonid G. Voskressensky^{a,*} and Rafael Luque^{a,b*}

^aOrganic Chemistry Department, Science Faculty, Peoples' Friendship University of Russia (RUDN University), 6 Miklukho-Maklaya st., 117198 Moscow, Russian Federation

^bUniversidad ECOTEC, Km 13.5 Samborondon, EC092303, Samborondon, Ecuador

*Correspondence: voskresenskiy-lg@rudn.ru; rluque@ecotec.edu.ec

Contents

1. Flow Reaction Setup, p. S3
2. Copies of NMR Spectra, p. S4

Flow Reaction Setup

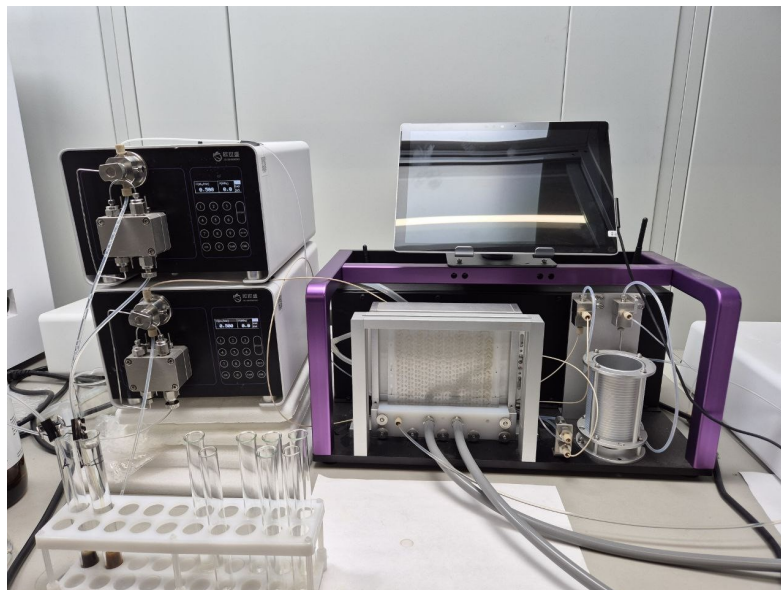
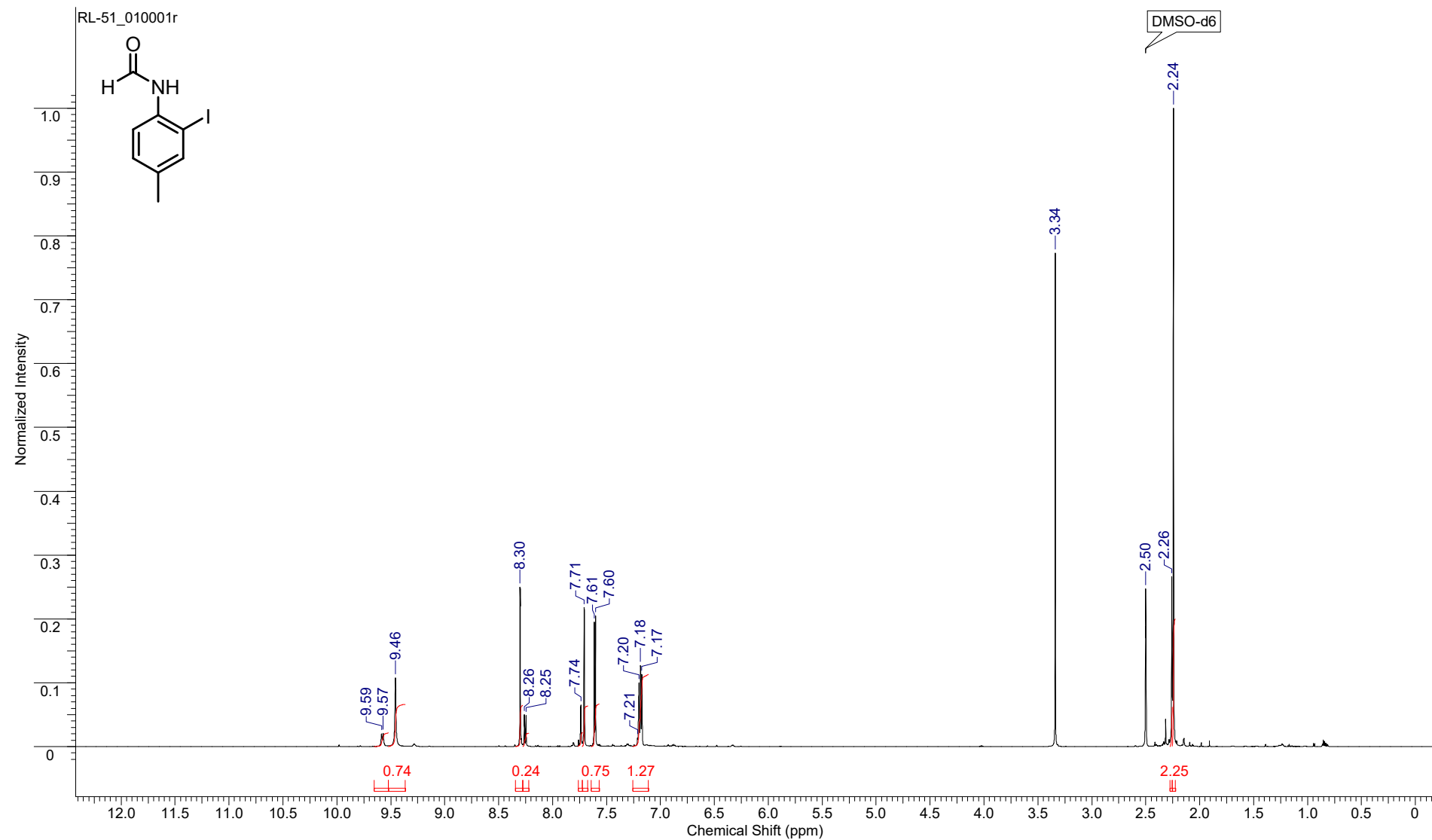


Figure S1. Instrument setup for the flow reaction. In this work, a flow reactor, E-FLOW-10 Flow Chemistry Teaching Platform (Ou Shisheng Technology Co., Ltd., Beijing, China), with a 10 mL volume, was used. Pumps of the DP-S10 model (Ou Shisheng Technology Co., Ltd., Beijing, China) were used to deliver the reaction mixture into the reactor.

COPIES of ^1H and ^{13}C NMR SPECTRA

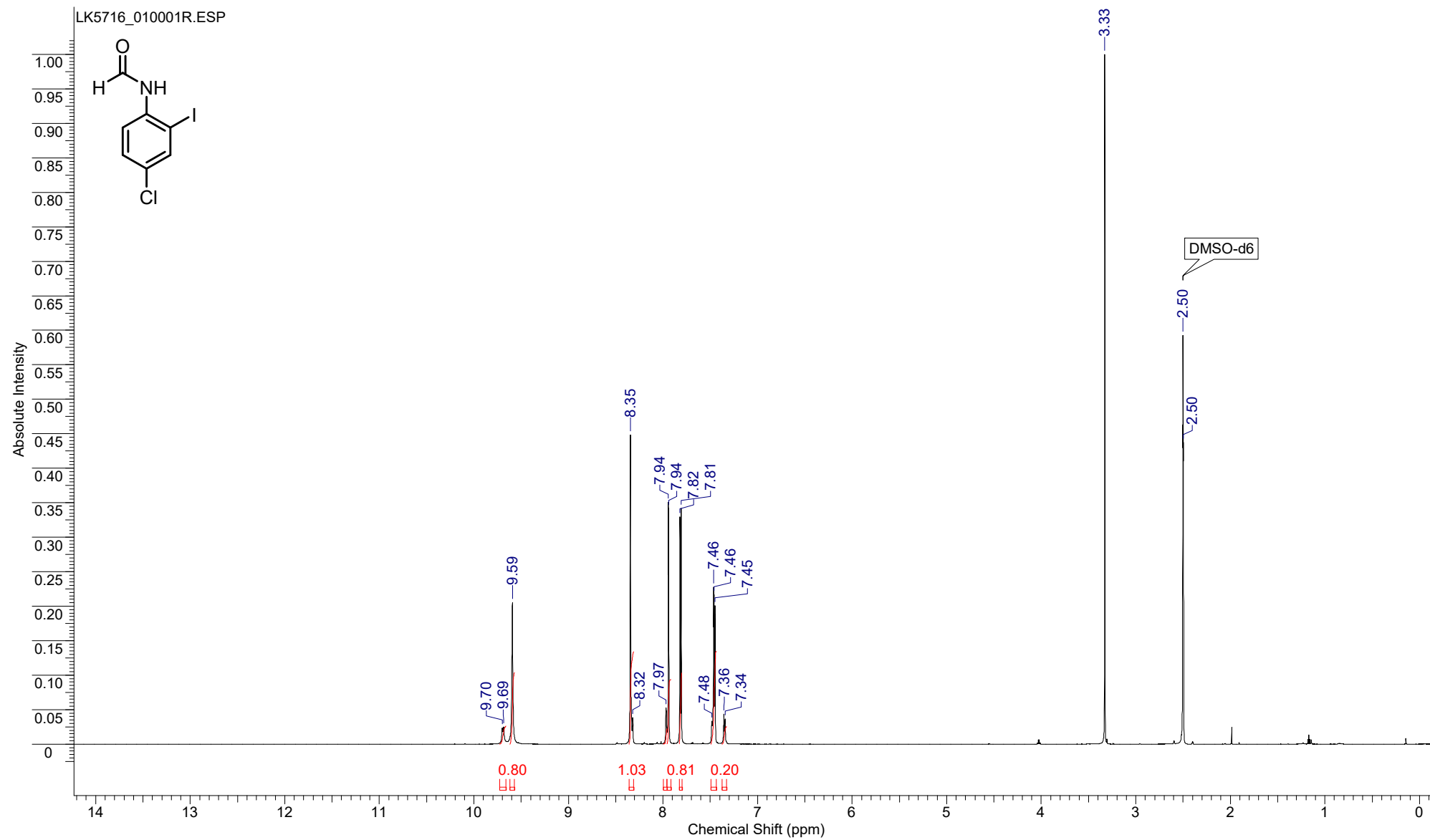
N-(2-iodo-4-methylphenyl)formamide (2g)

^1H NMR (700 MHz, DMSO)



***N*-(4-chloro-2-iodophenyl)formamide (2h)**

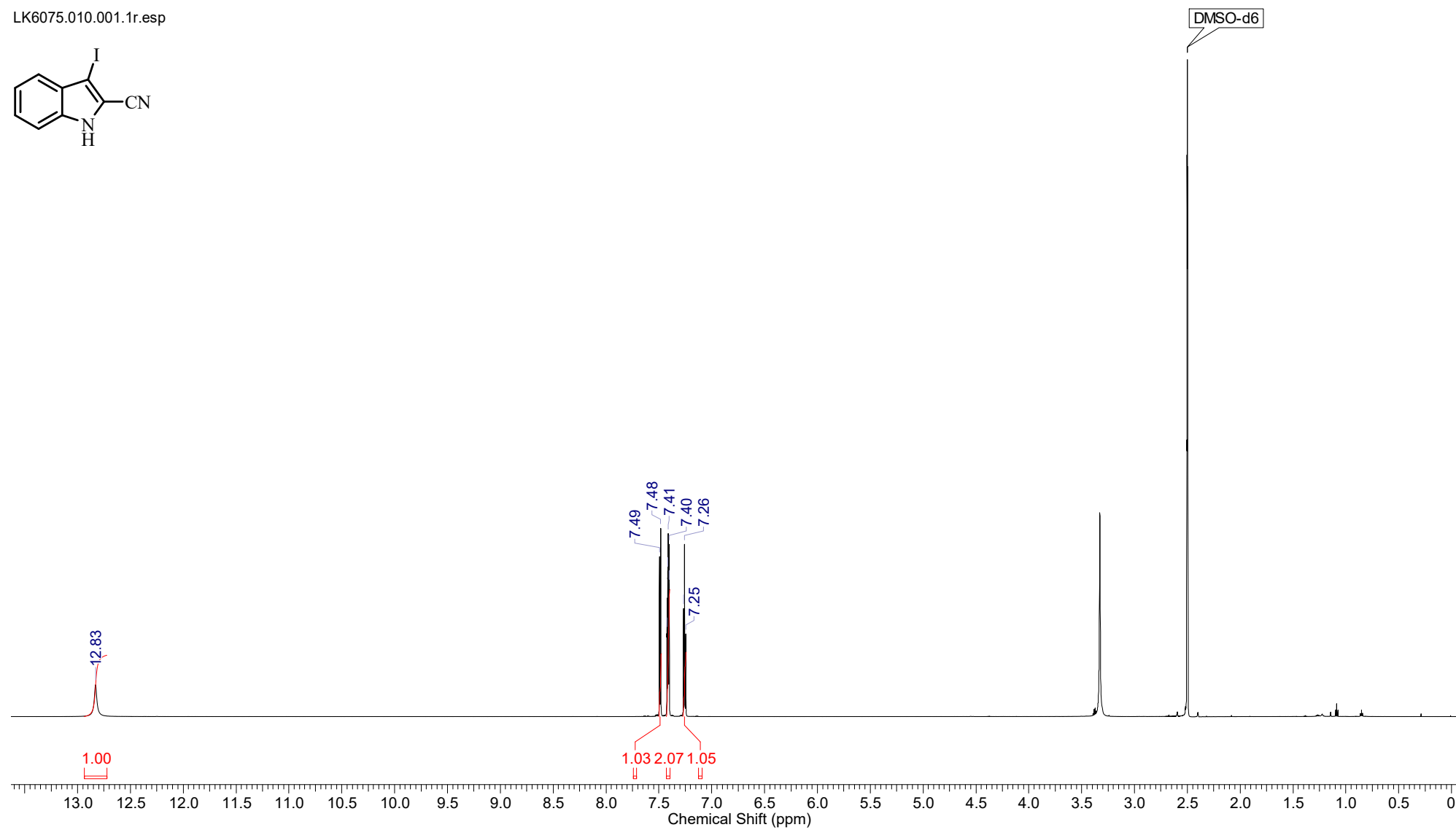
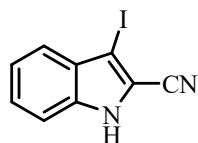
¹H NMR (700 MHz, DMSO)



3-iodo-1H-indole-2-carbonitrile (2i)

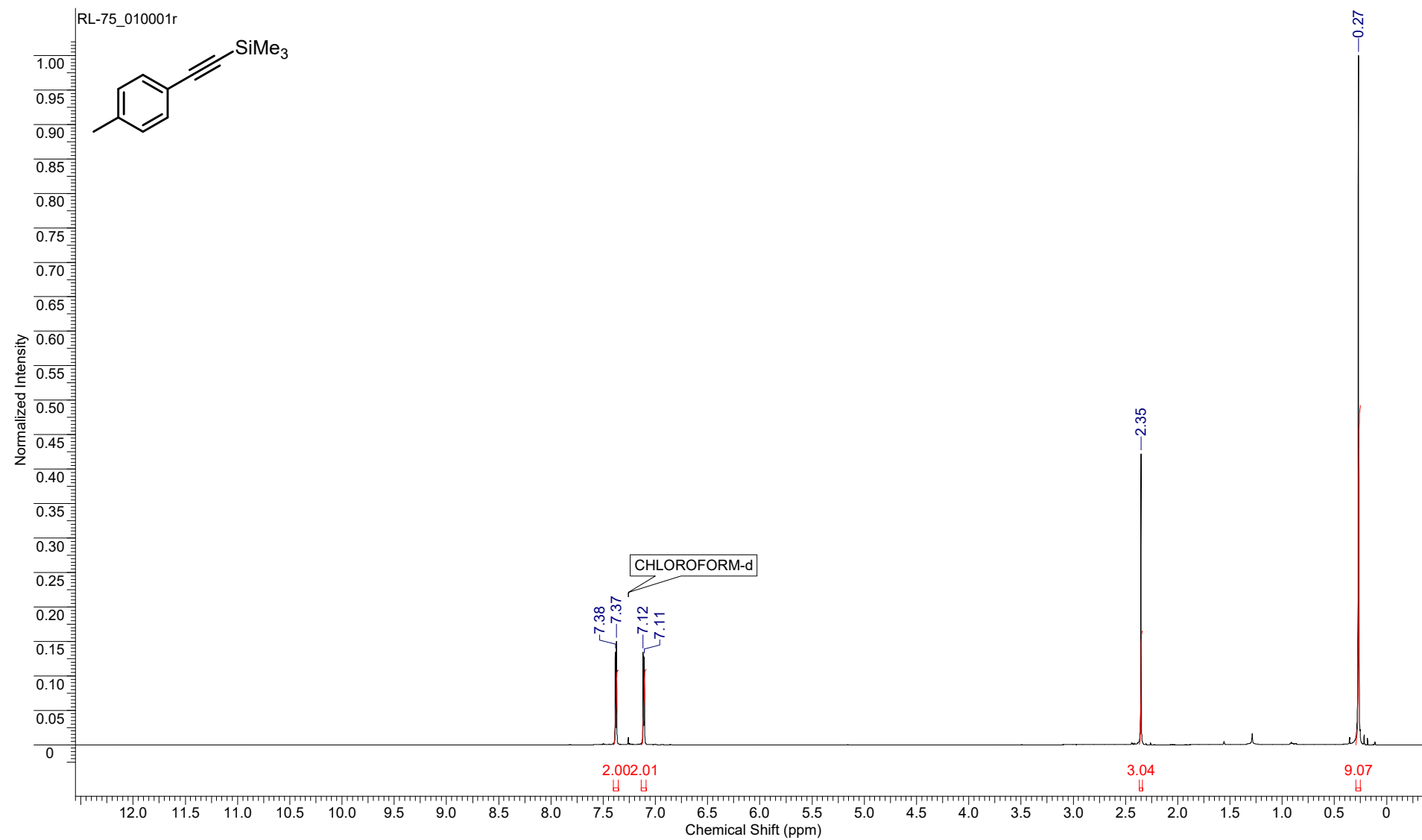
¹H NMR (700 MHz, DMSO)

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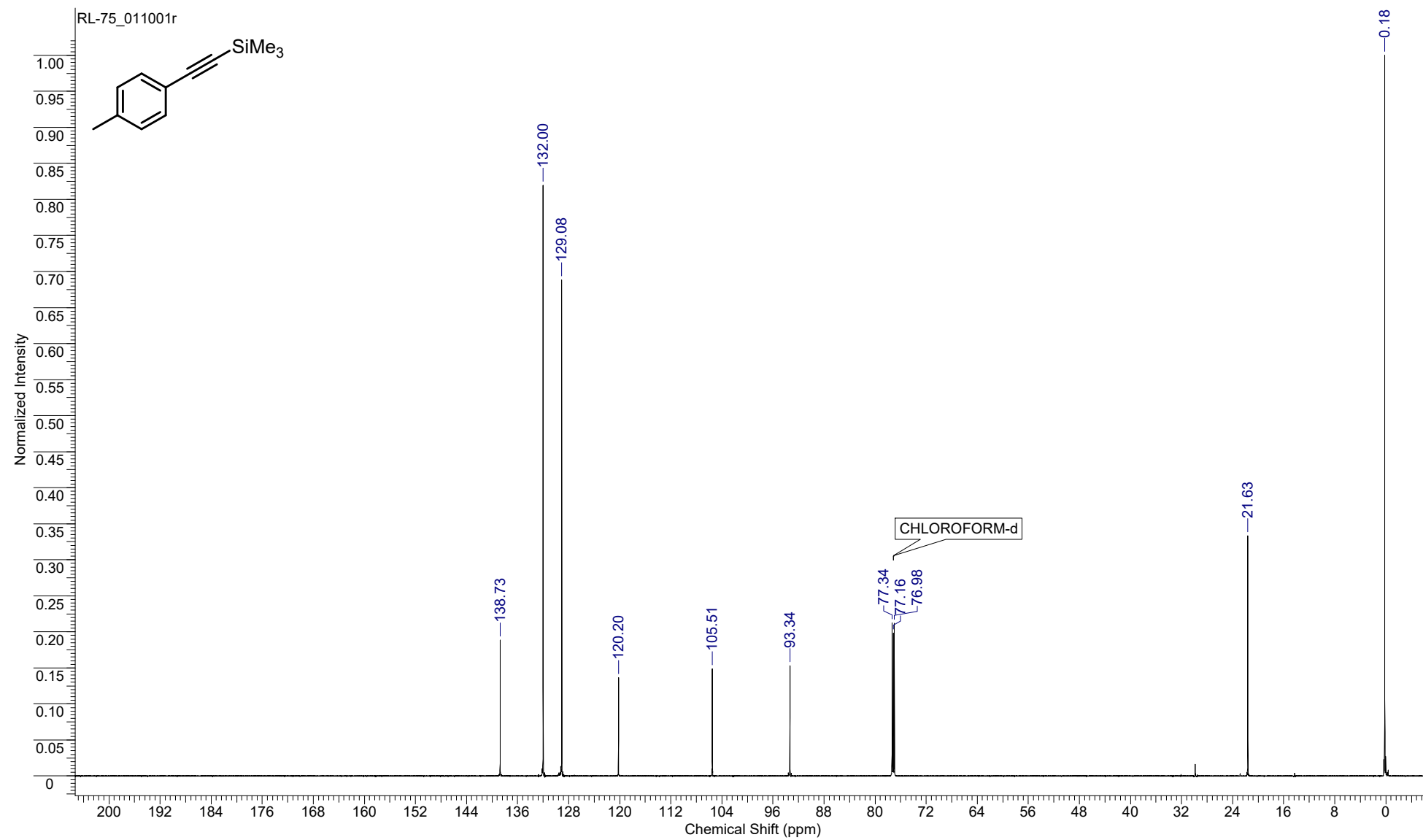
Trimethyl(*p*-tolylethynyl)silane (3a)

^1H NMR (700 MHz, CDCl_3)



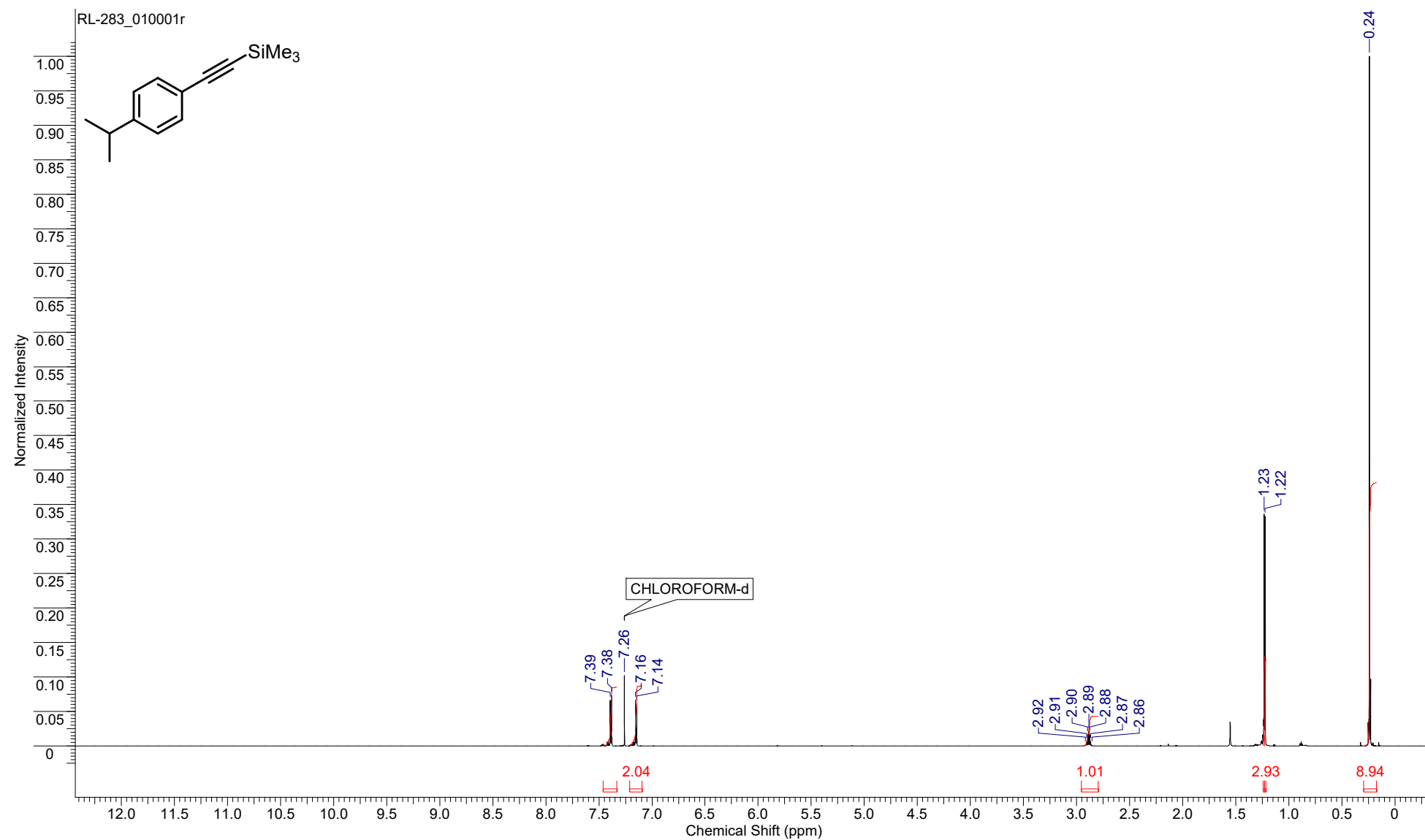
Trimethyl(*p*-tolylethynyl)silane (3a)

^{13}C NMR (176 MHz, CDCl_3)



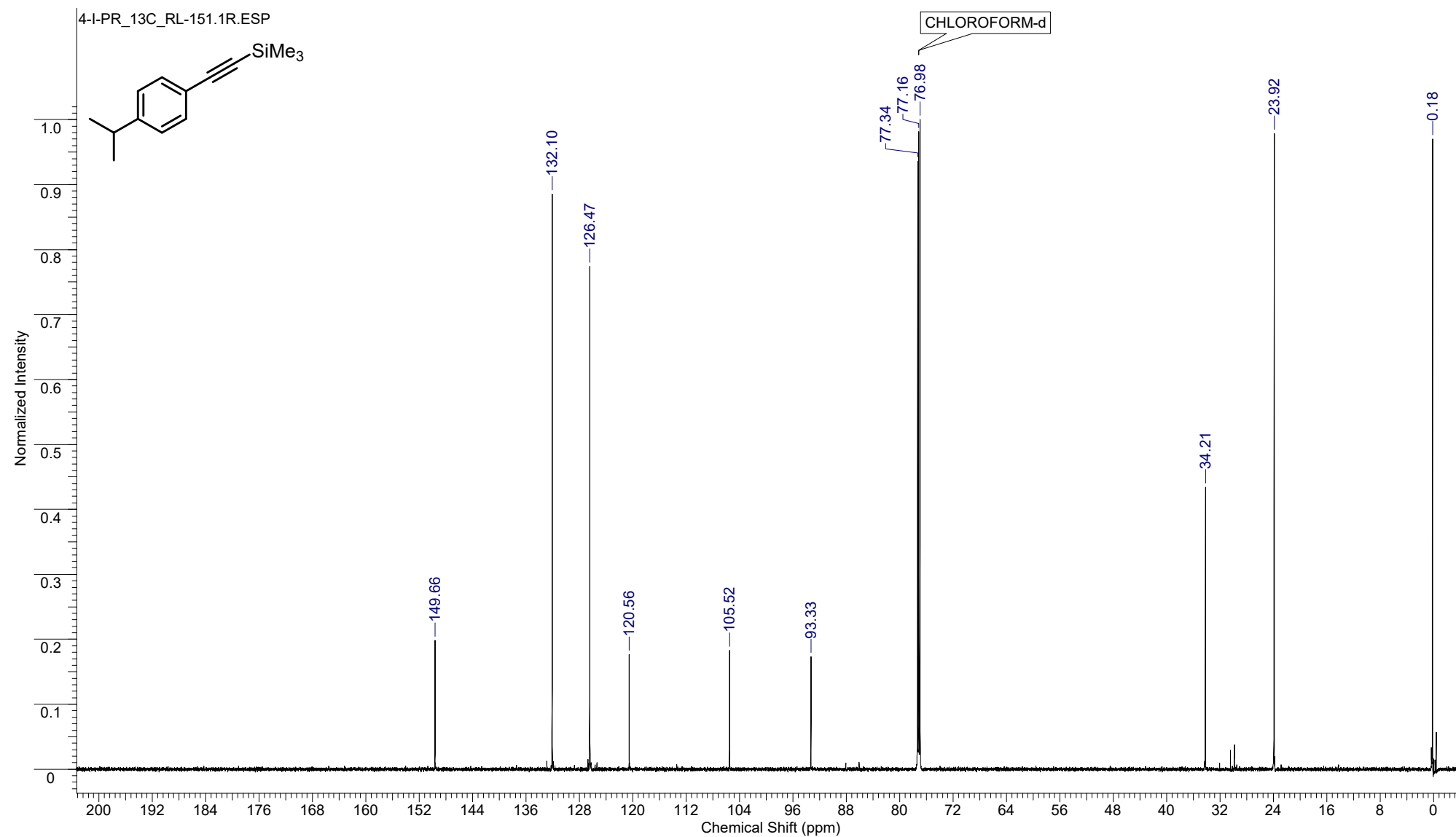
((4-Isopropylphenyl)ethynyl)trimethylsilane (3b)

^1H NMR (700 MHz, CDCl_3)



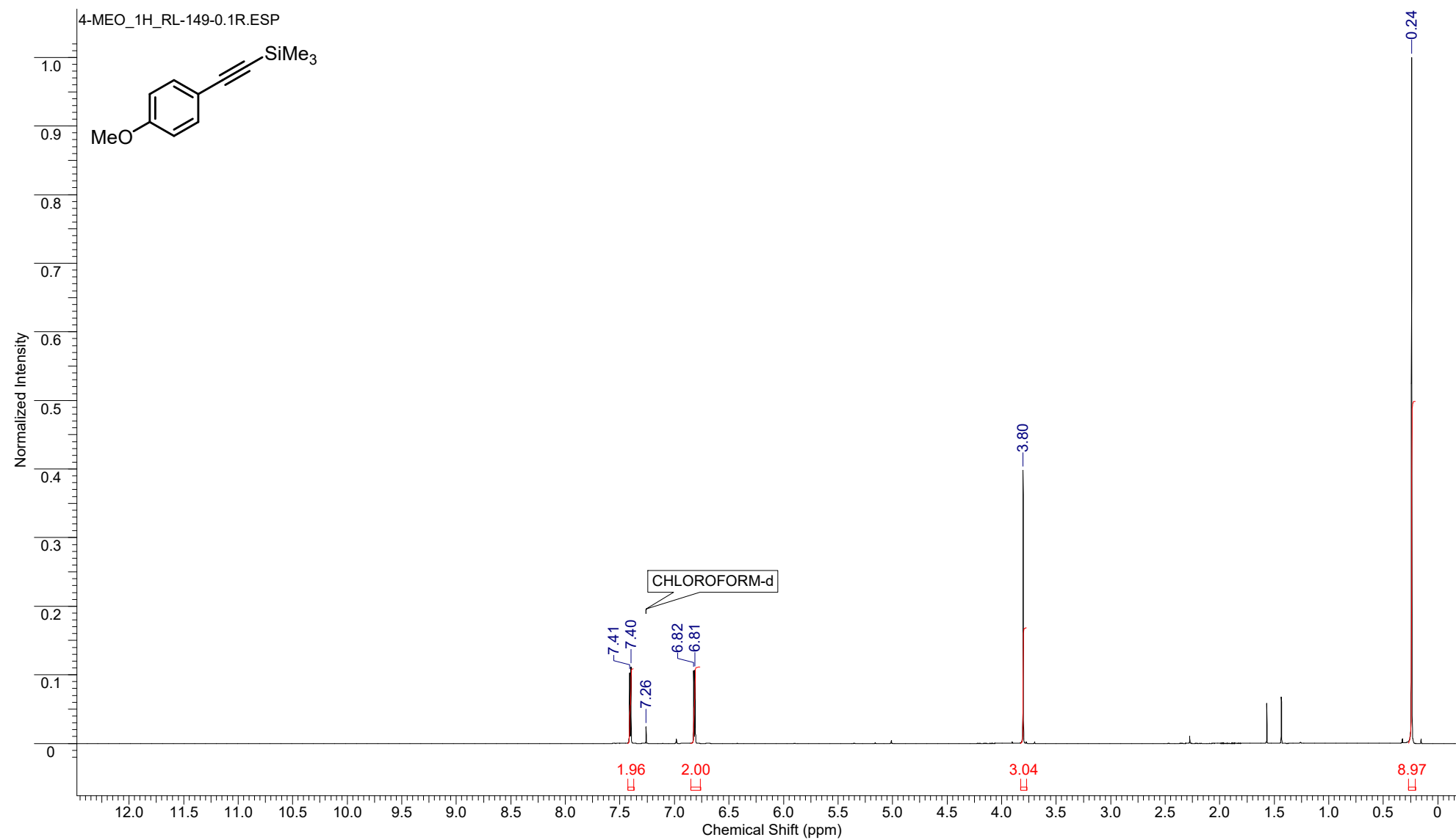
((4-Isopropylphenyl)ethynyl)trimethylsilane (3b)

^{13}C NMR (176 MHz, CDCl_3)



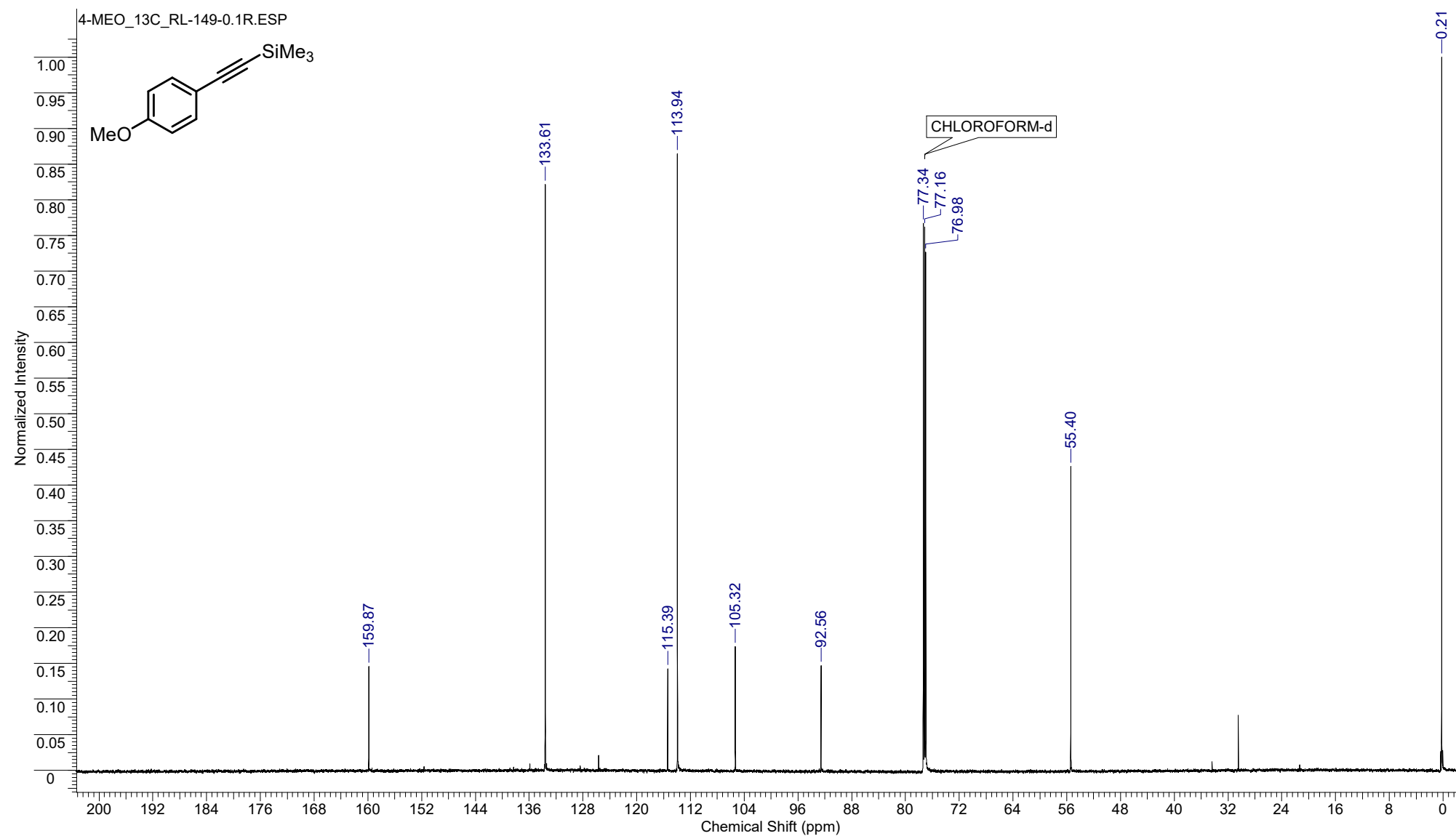
((4-Methoxyphenyl)ethynyl)trimethylsilane (3c)

^1H NMR (700 MHz, CDCl_3)



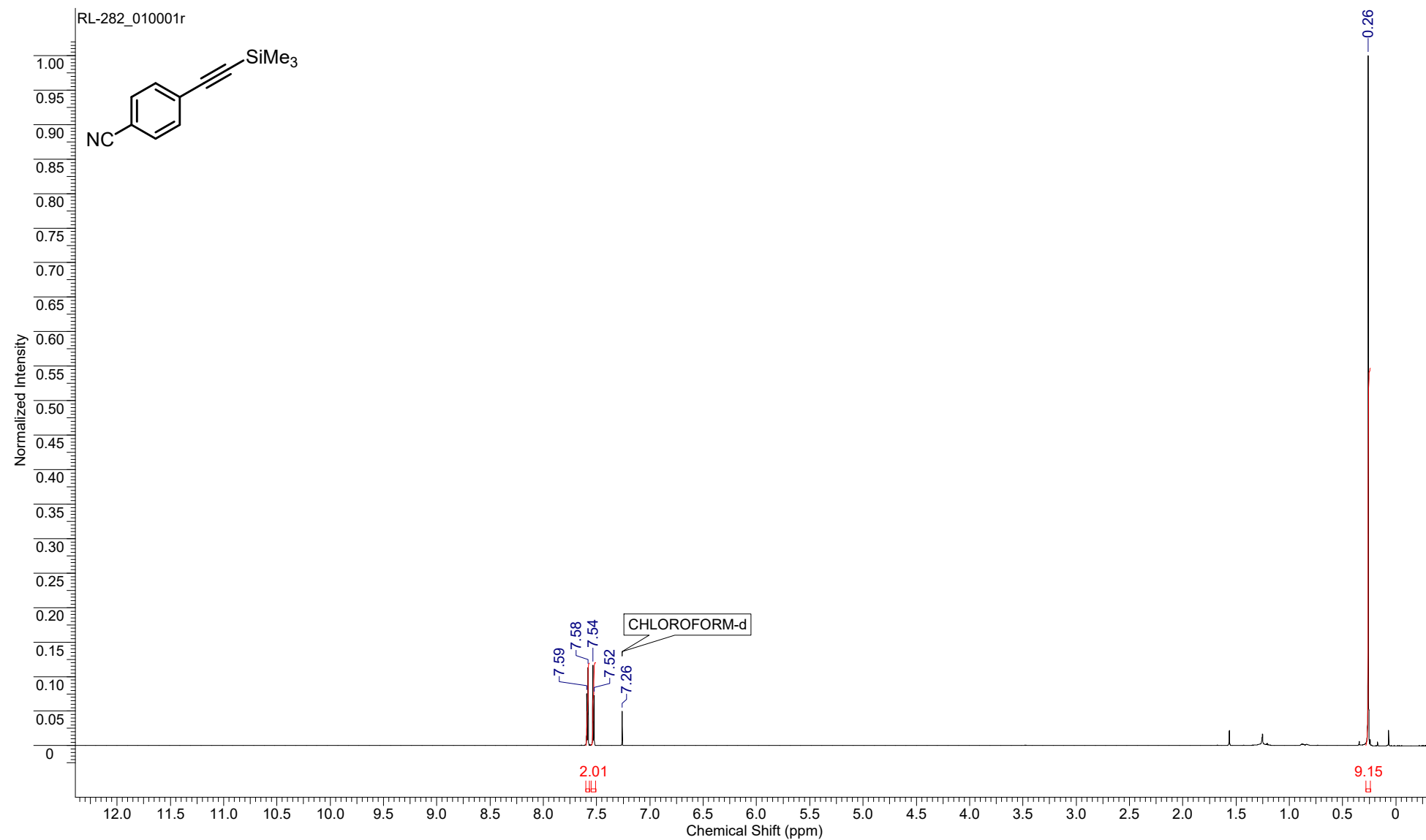
((4-Methoxyphenyl)ethynyl)trimethylsilane (3c)

^{13}C NMR (176 MHz, CDCl_3)



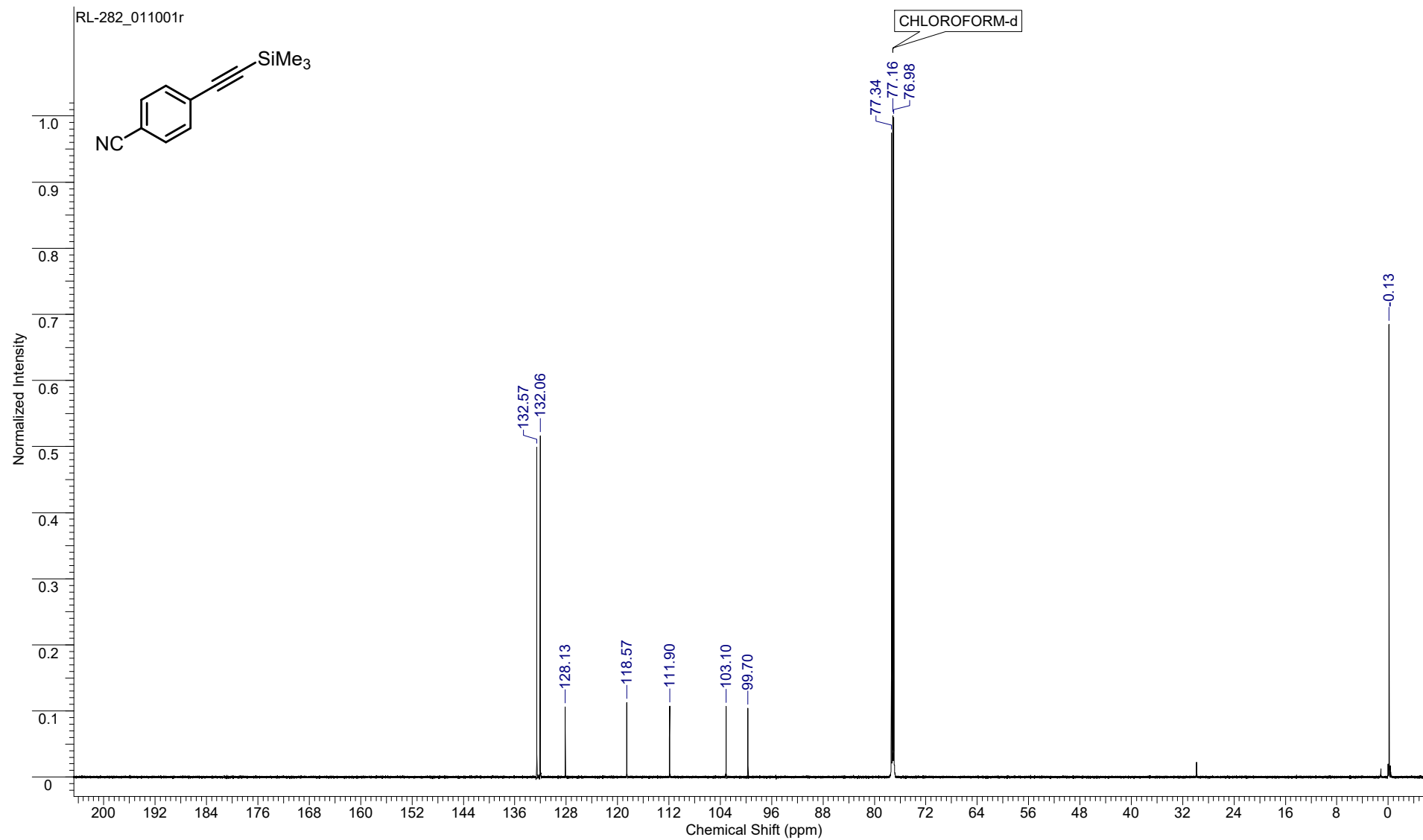
4-((Trimethylsilyl)ethynyl)benzonitrile (3d)

^1H NMR (700 MHz, CDCl_3)



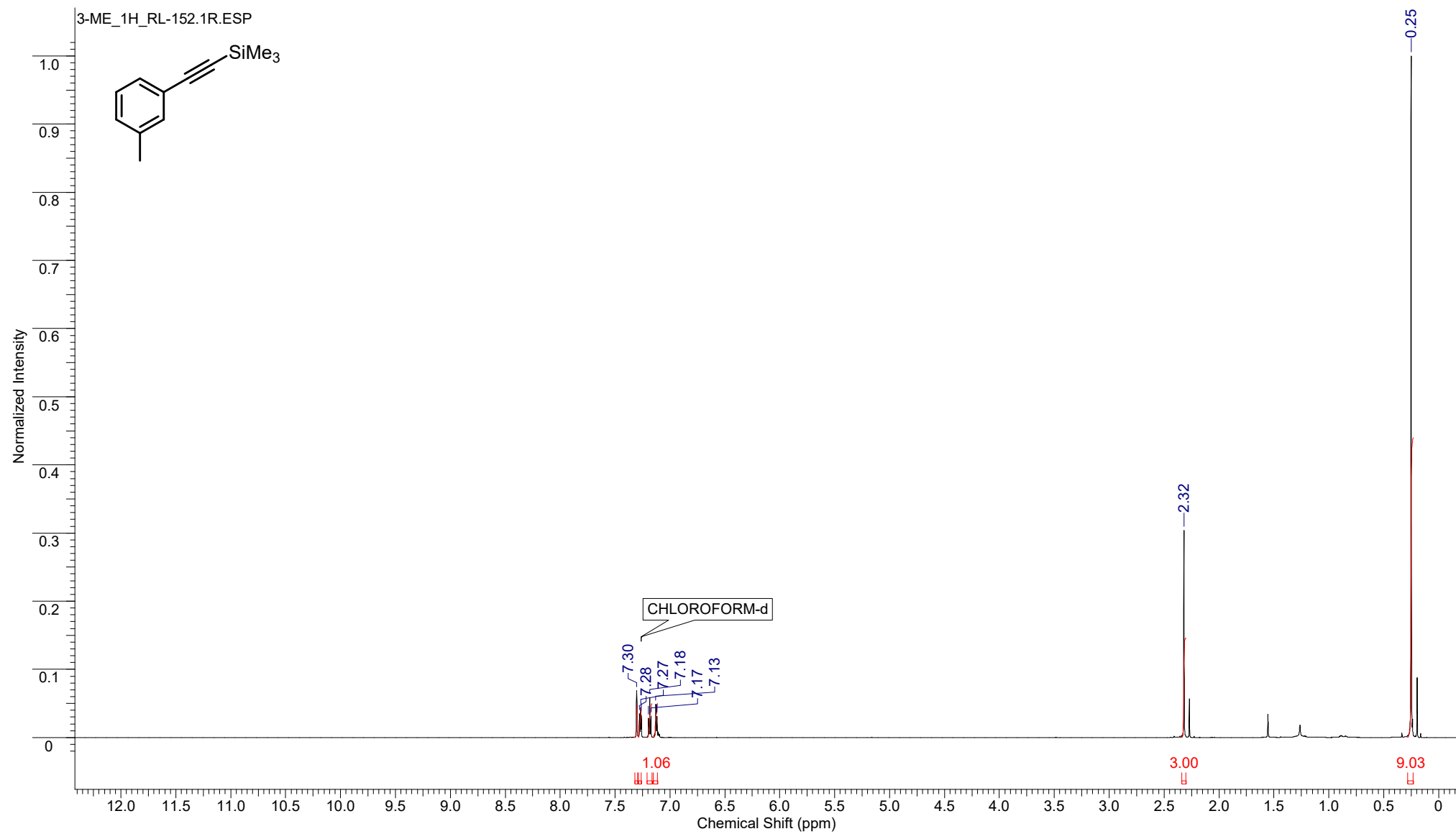
4-((Trimethylsilyl)ethynyl)benzonitrile (3d)

^{13}C NMR (176 MHz, CDCl_3)



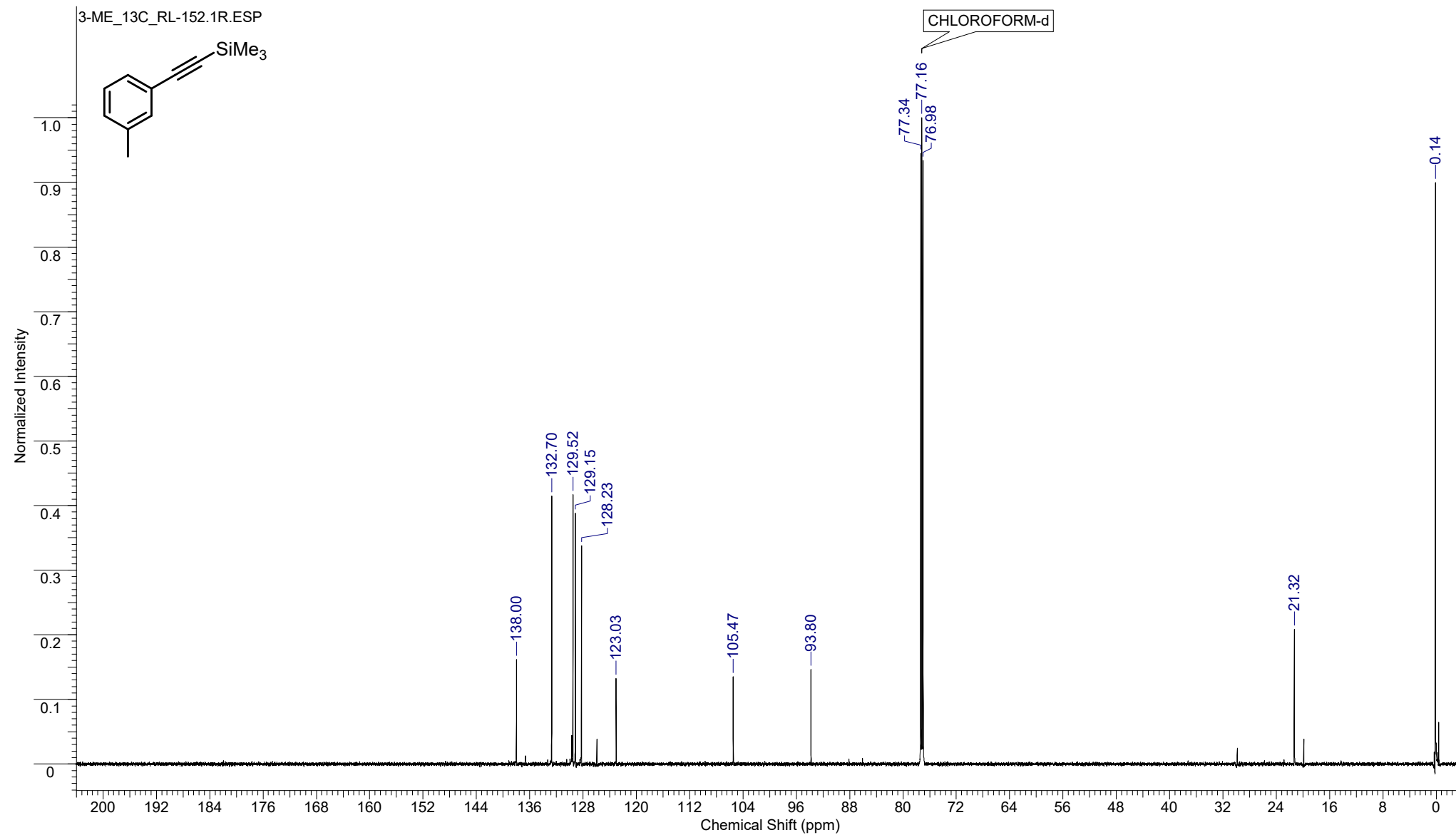
Trimethyl(*m*-tolylethynyl)silane (3e)

¹H NMR (700 MHz, CDCl₃)



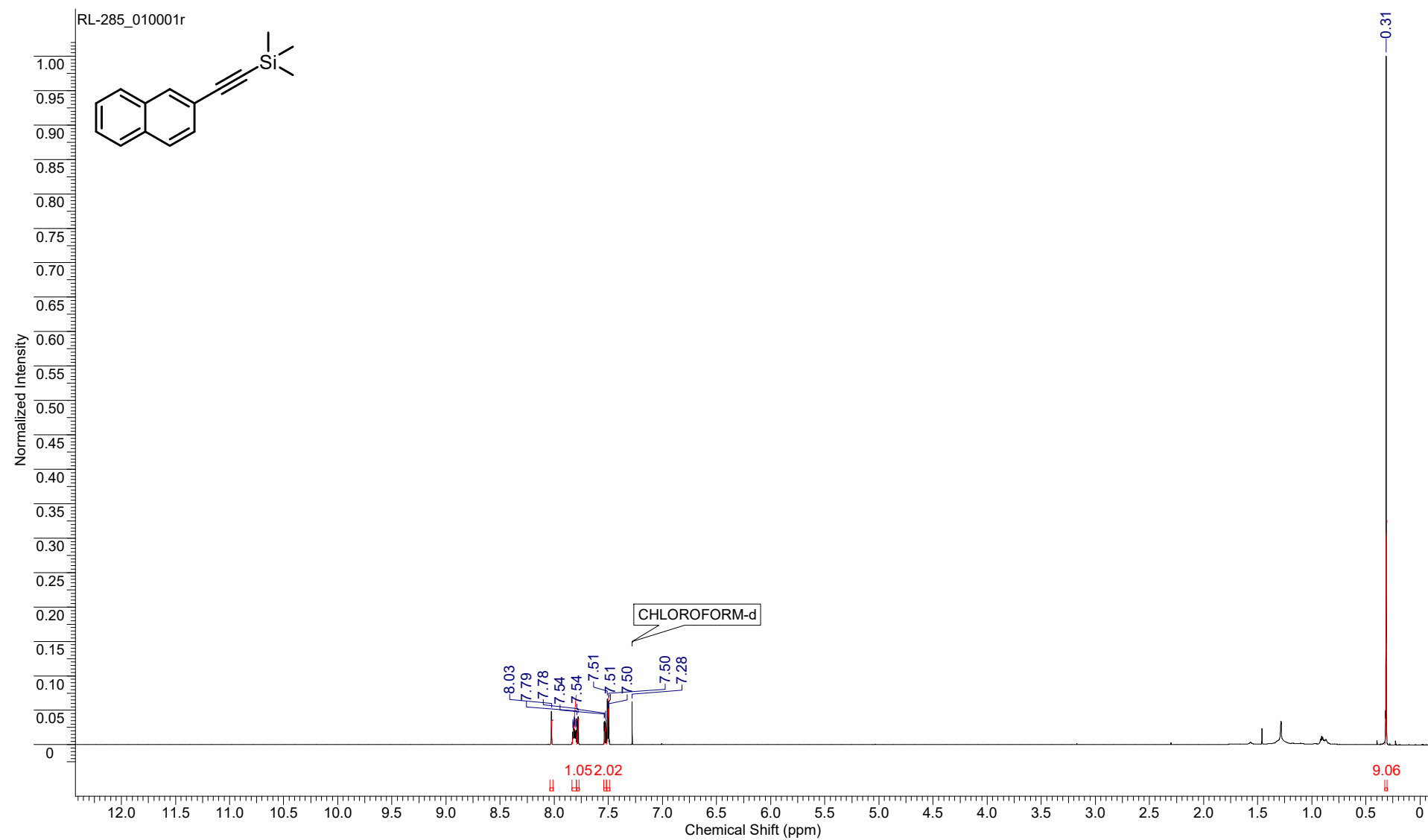
Trimethyl(*m*-tolylethynyl)silane (3e)

^{13}C NMR (176 MHz, CDCl_3)



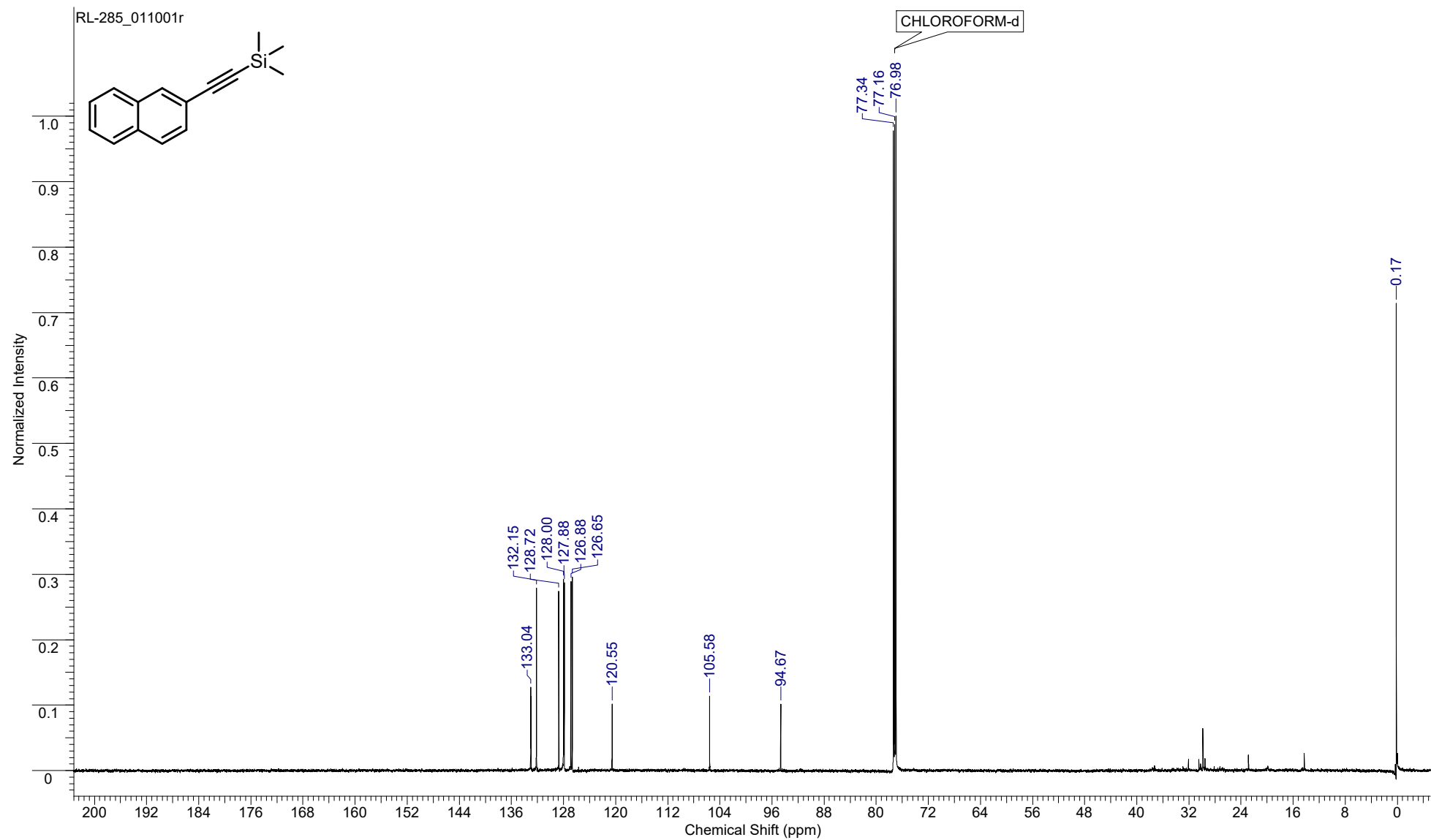
Trimethyl(naphthalen-2-ylethynyl)silane (3f)

^1H NMR (700 MHz, CDCl_3)



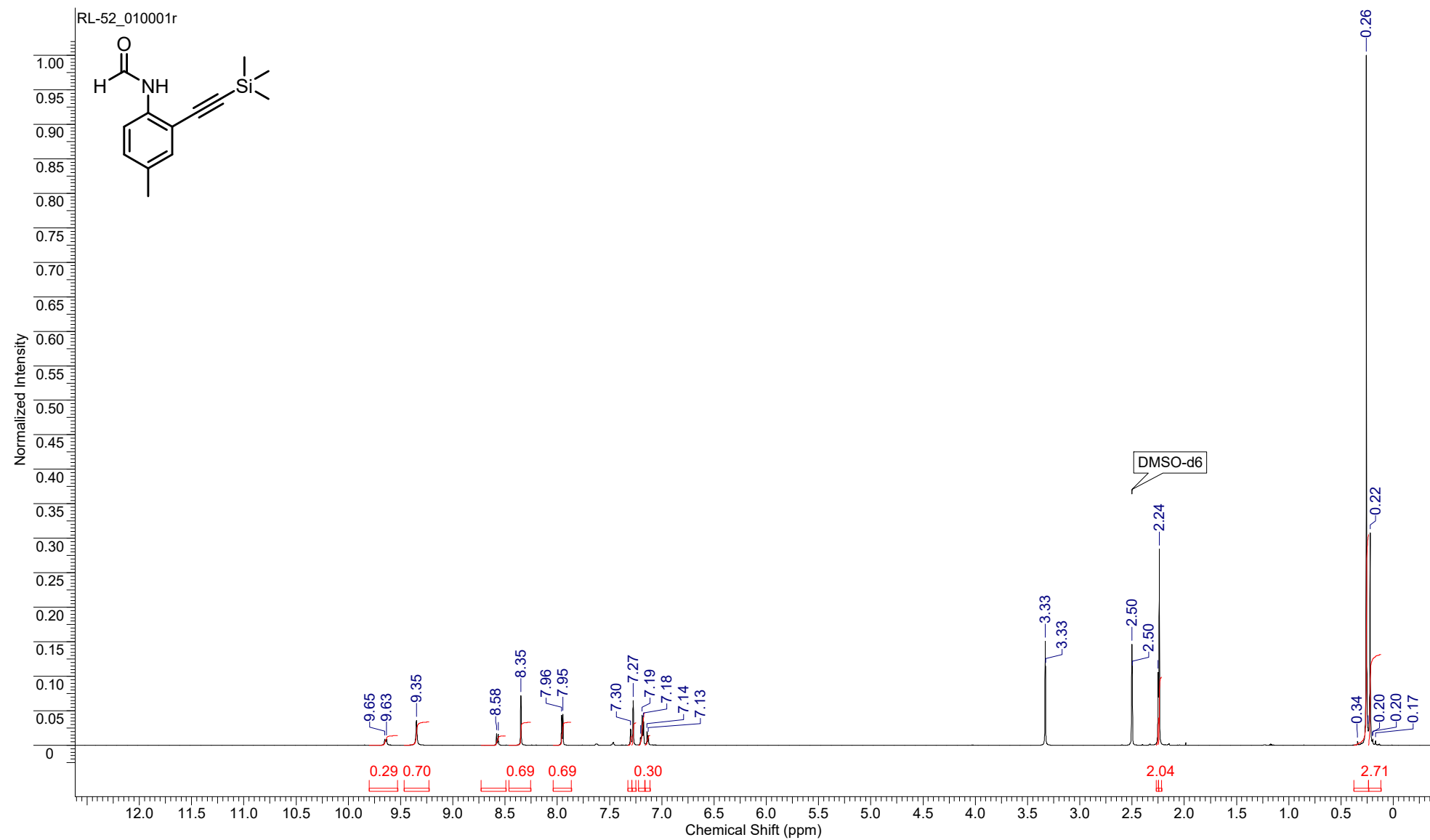
Trimethyl(naphthalen-2-ylethynyl)silane (3f)

^{13}C NMR (176 MHz, CDCl_3)



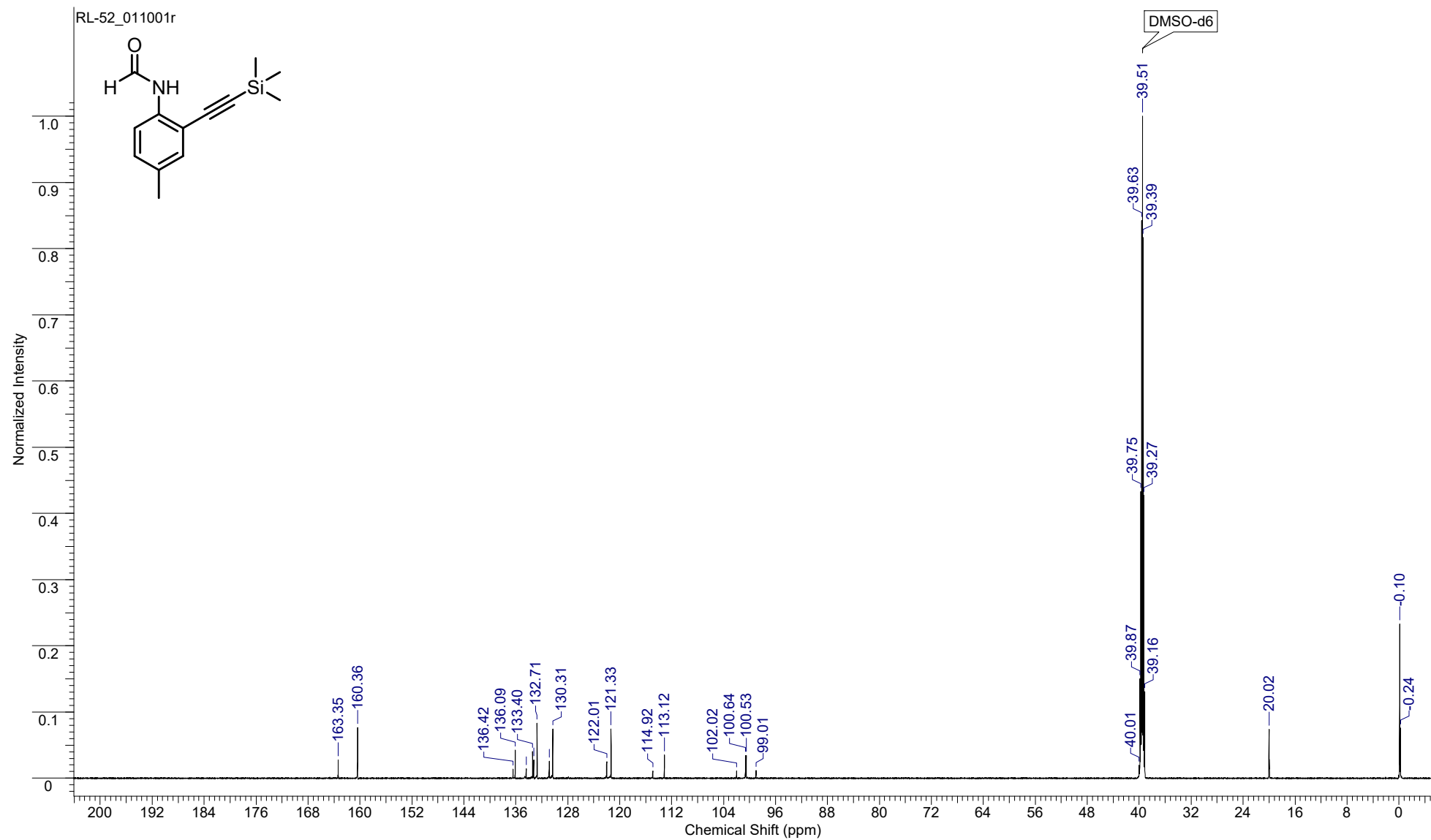
***N*-(4-methyl-2-((trimethylsilyl)ethynyl)phenyl)formamide (3g)**

^1H NMR (700 MHz, DMSO)



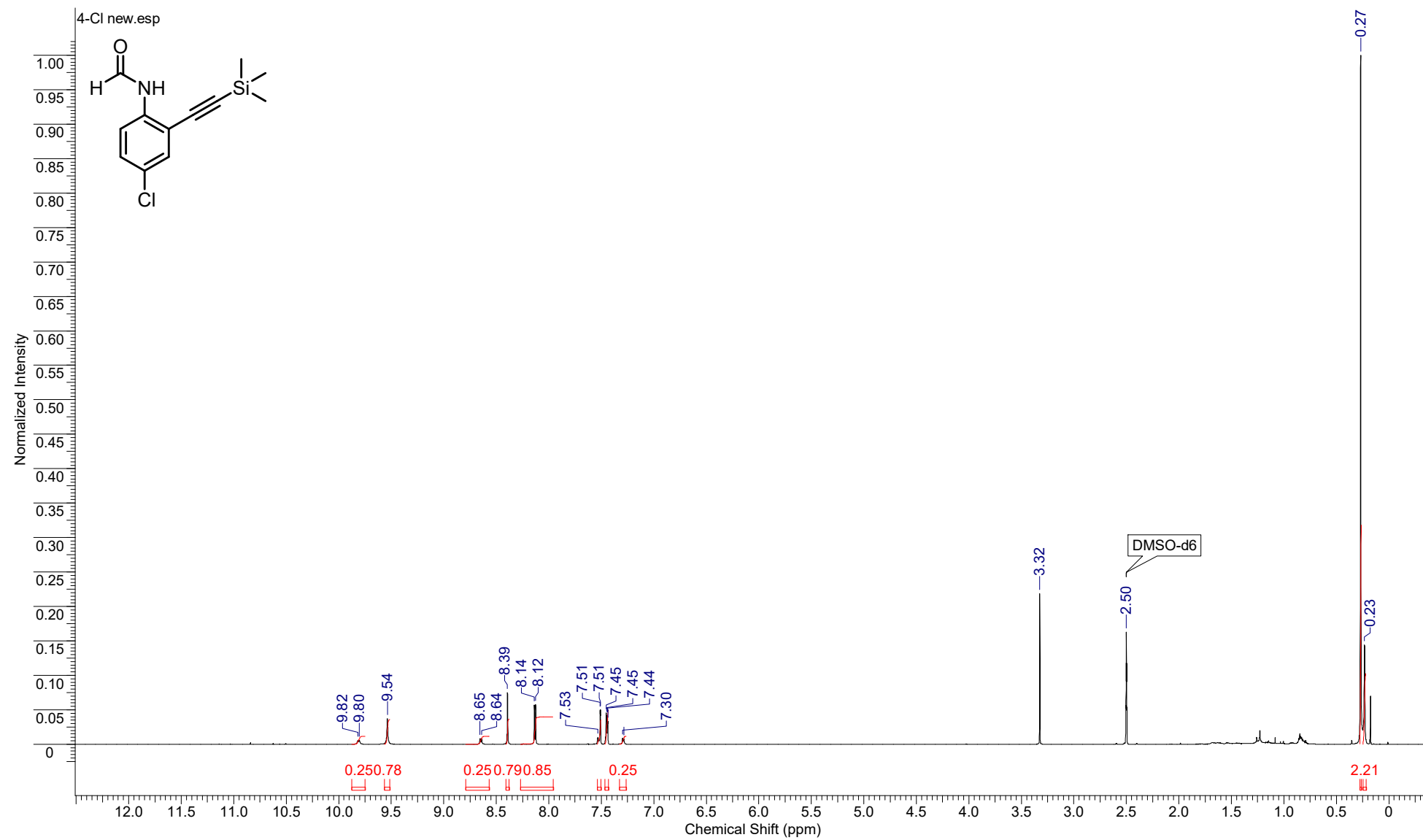
***N*-(4-methyl-2-((trimethylsilyl)ethynyl)phenyl)formamide (3g)**

¹³C NMR (176 MHz, DMSO)



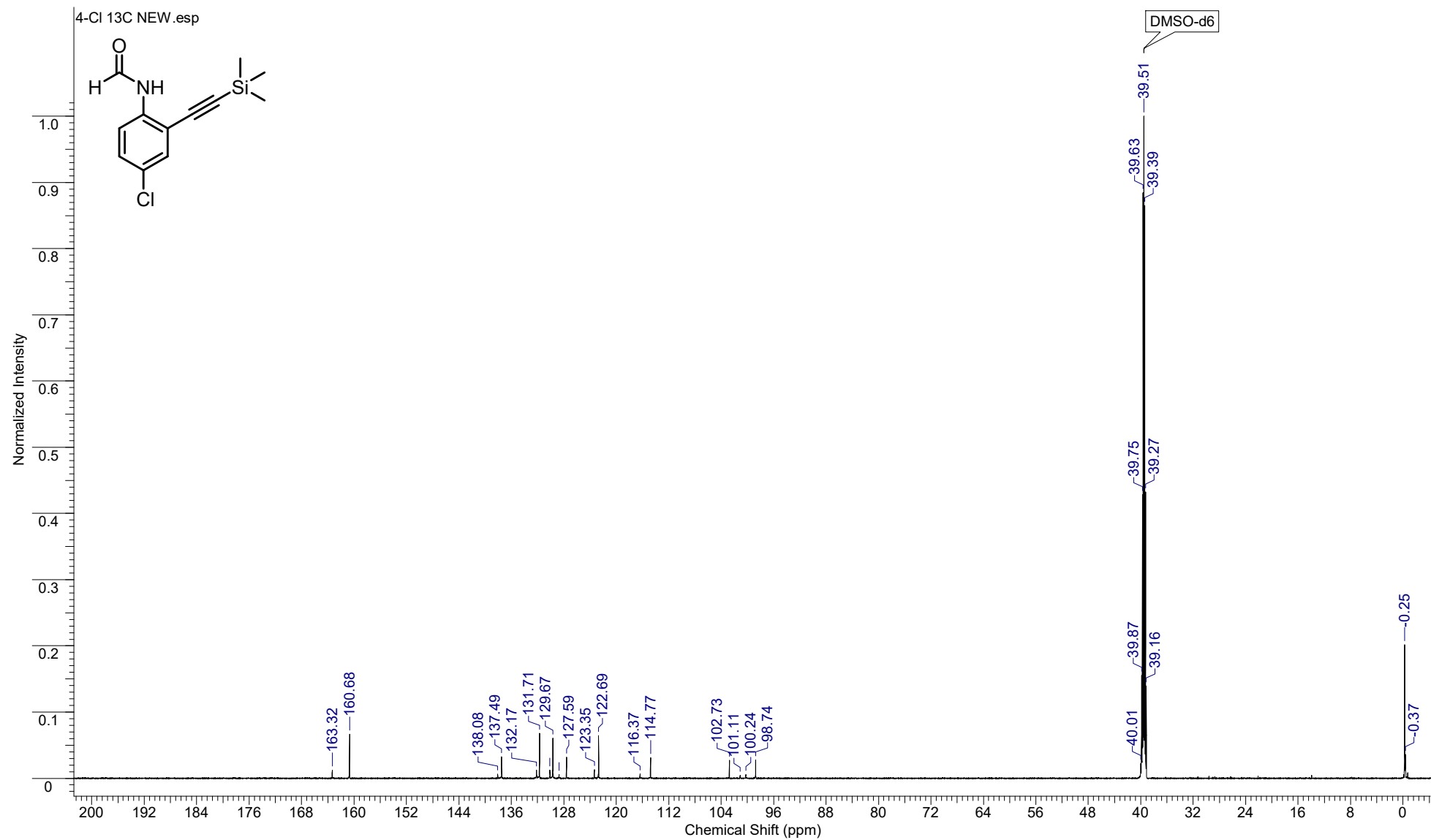
***N*-(4-chloro-2-((trimethylsilyl)ethynyl)phenyl)formamide (3h)**

¹H NMR (700 MHz, DMSO)



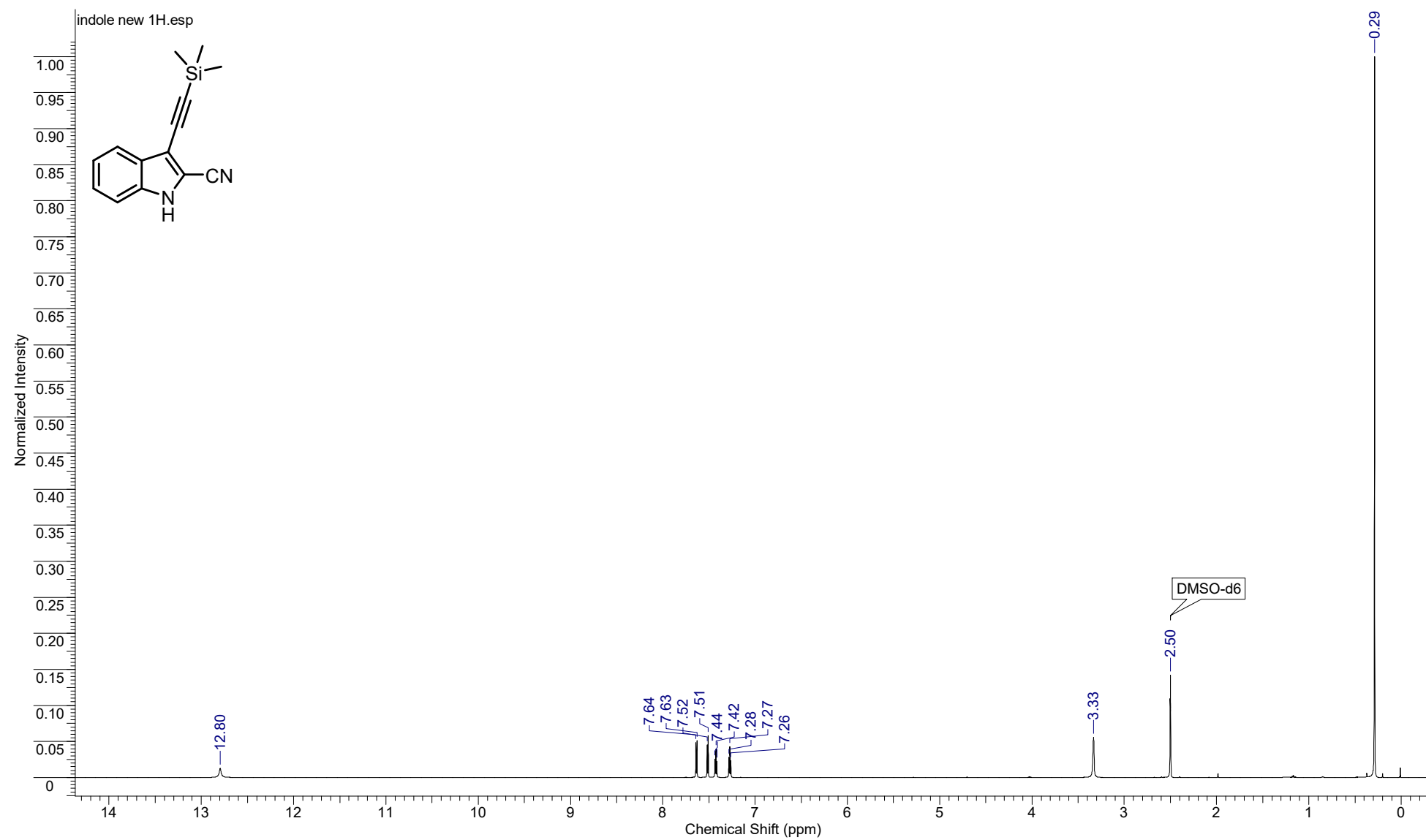
***N*-(4-chloro-2-((trimethylsilyl)ethynyl)phenyl)formamide (3h)**

¹³C NMR (176 MHz, DMSO)



3-((Trimethylsilyl)ethynyl)-1H-indole-2-carbonitrile (3i)

^1H NMR (700 MHz, DMSO)



3-((Trimethylsilyl)ethynyl)-1H-indole-2-carbonitrile (3i)

^{13}C NMR (176 MHz, DMSO)

