

**A FACILE ENVIRON-FRIENDLY ONE-POT WATER-PROMOTED
SYNTHESIS OF BIS 1,2,3-TRIAZOLE LINKED BIS 2
AMINOPYRIMIDINE HYBRIDS**

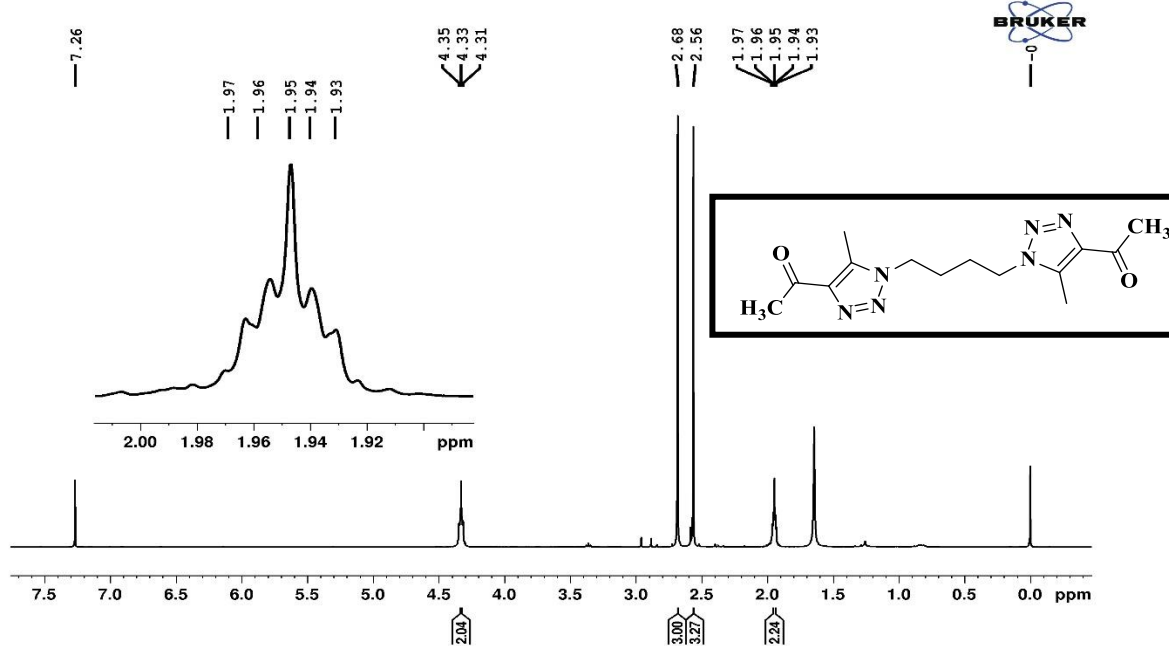
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School of Chemistry, Madurai Kamaraj University, Madurai 625021, Tamilnadu, India.

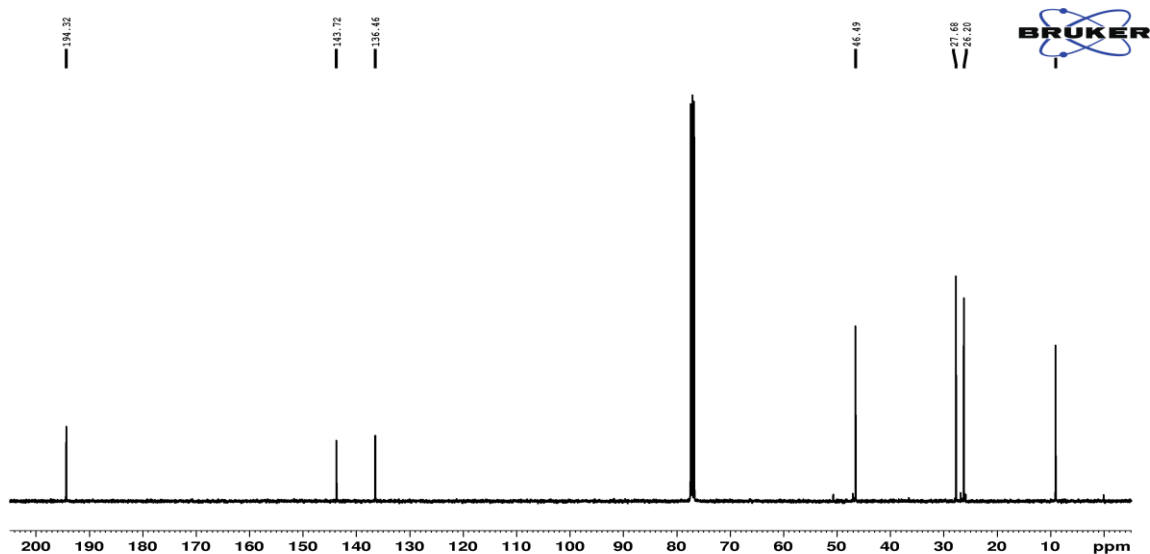
Correspondence

Alagusundaram Ponnuswamy, Department of Organic Chemistry, School of Chemistry, Madurai Kamaraj University, Madurai 625021, Tamilnadu, India.

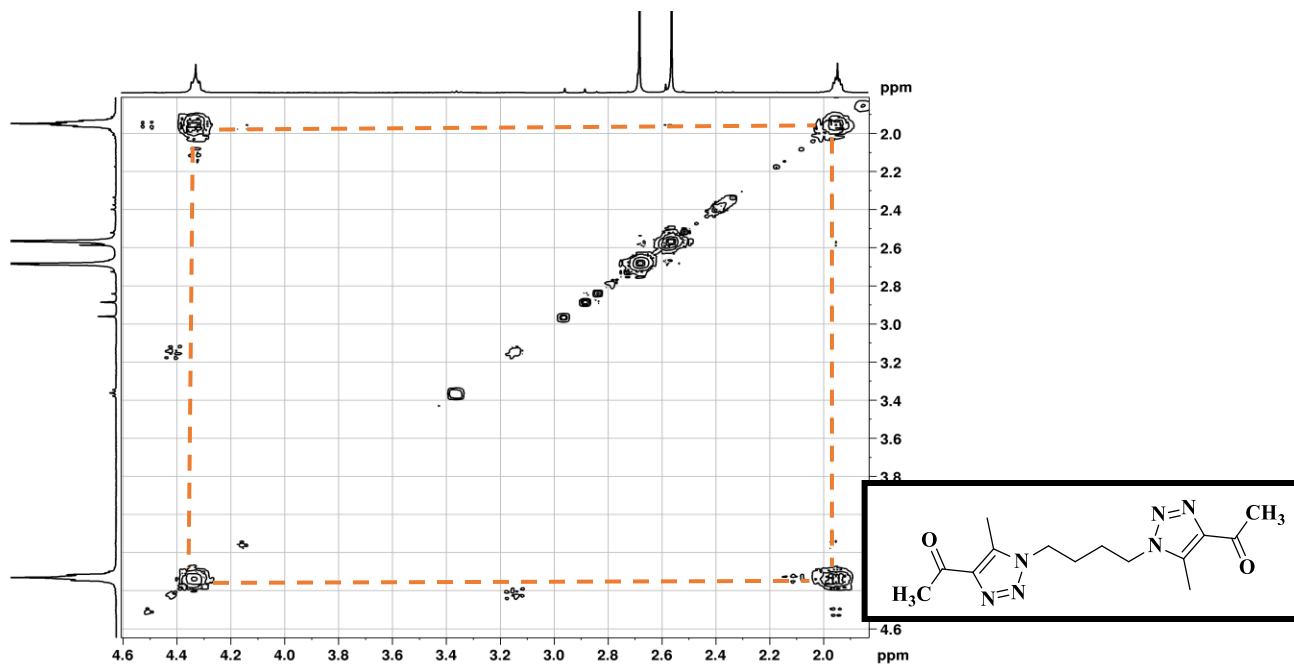
ramradsri11@gmail.com, rmmahaeswarim.phil@gmail.com.



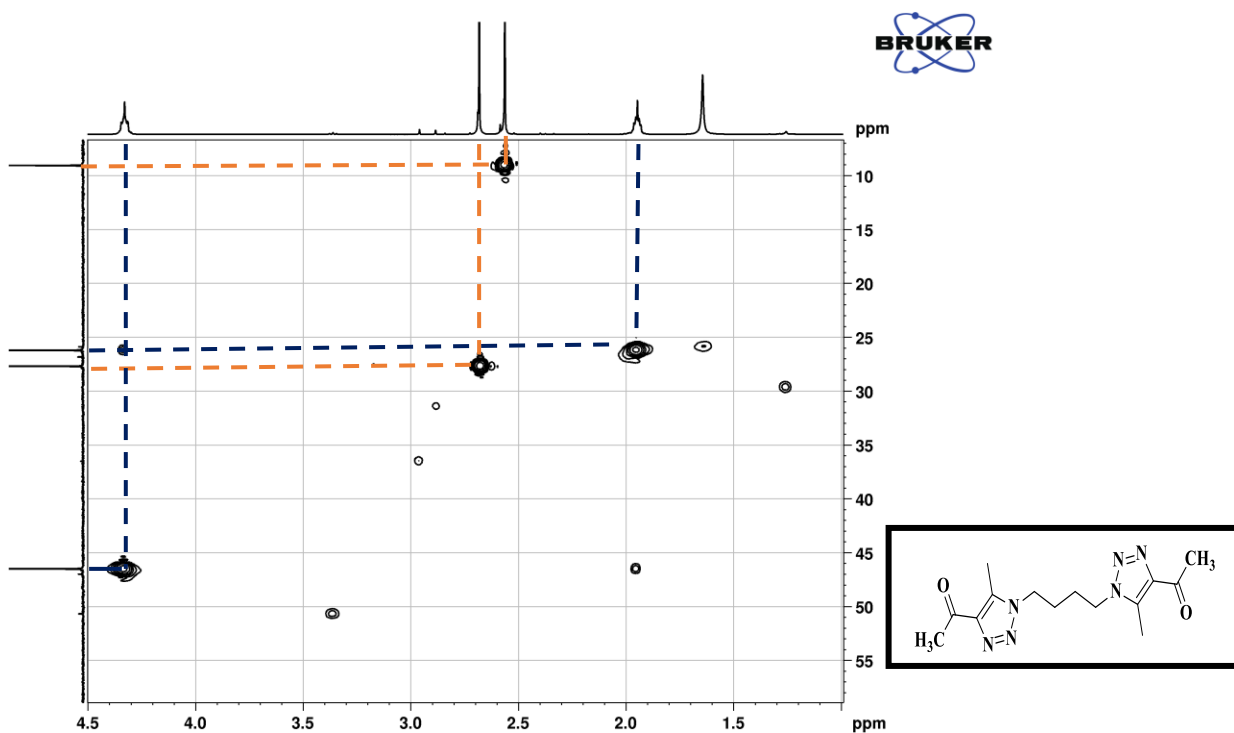
¹H NMR (400 MHz, CDCl₃): 1,1'-(1,1'-(Butane-1,4-diyl) bis(5-methyl-1*H*-1,2,3-triazole-4,1-diyl)) diethanone (1)



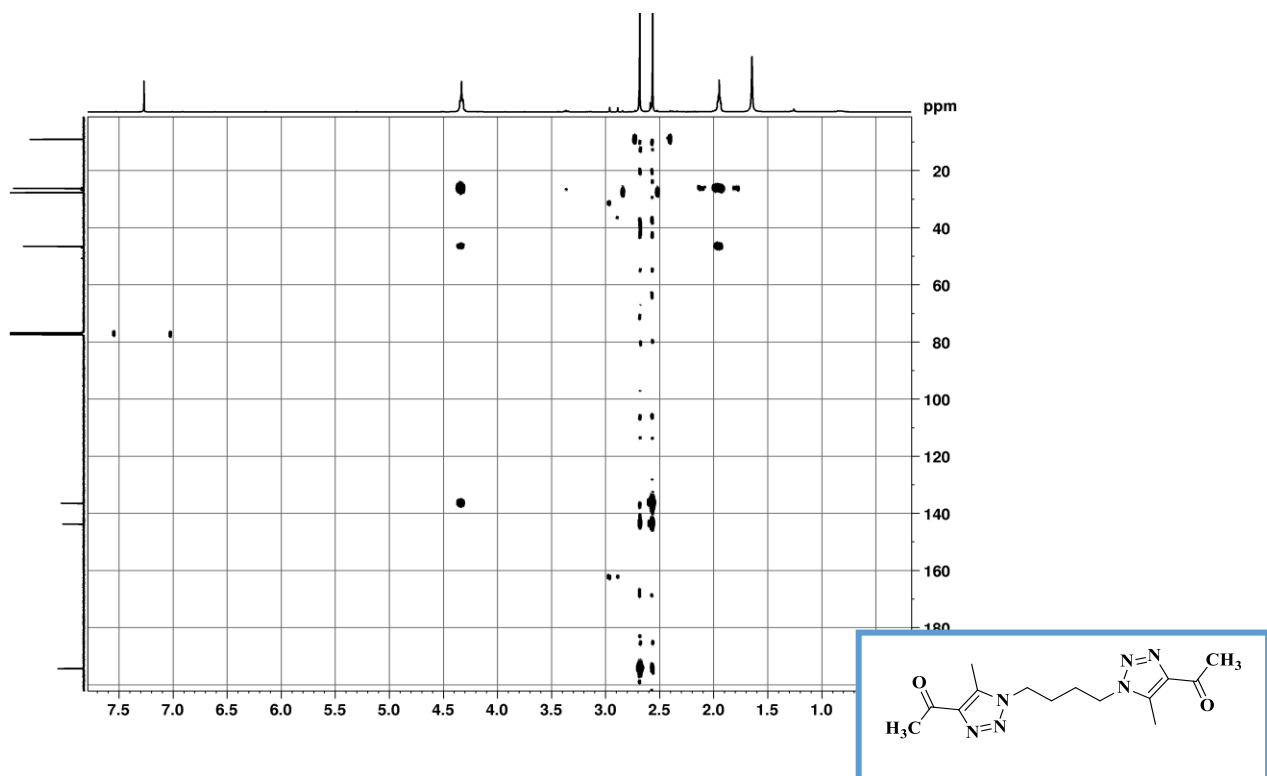
¹³C NMR (101 MHz, CDCl₃): 1,1'-(1,1'-(Butane-1,4-diyl) bis(5-methyl-1*H*-1,2,3-triazole-4,1-diyl)) diethanone (1)



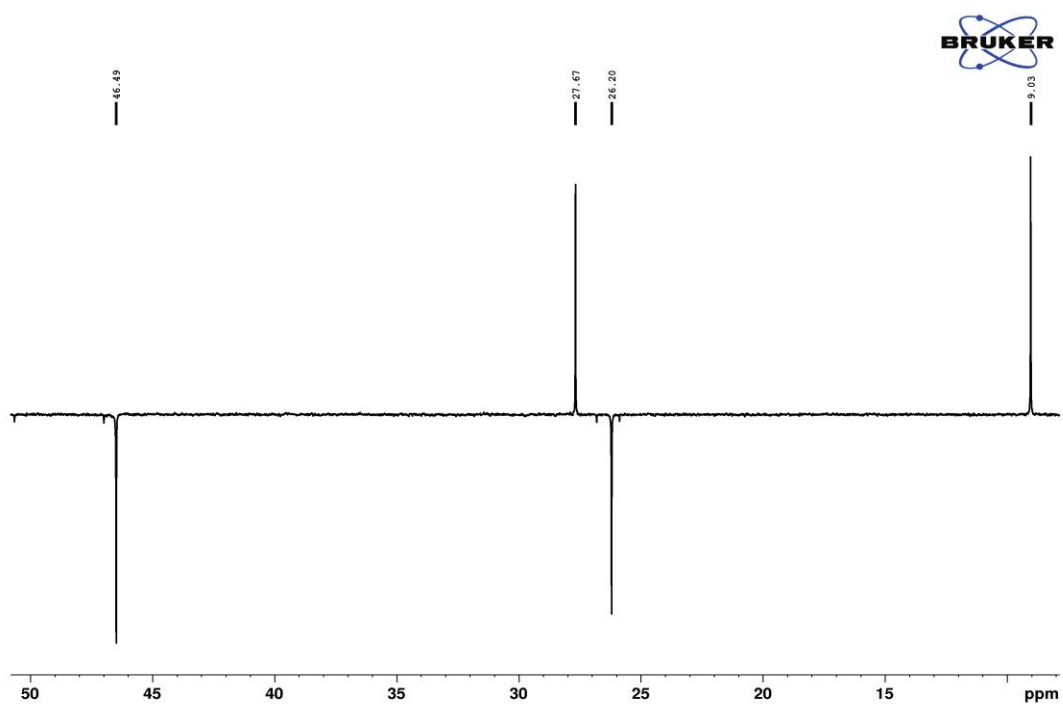
H,H-COSY: 1,1'-(1,1'-(Butane-1,4-diyl) bis(5-methyl-1*H*-1,2,3-triazole-4,1-diyl)) diethanone (1)



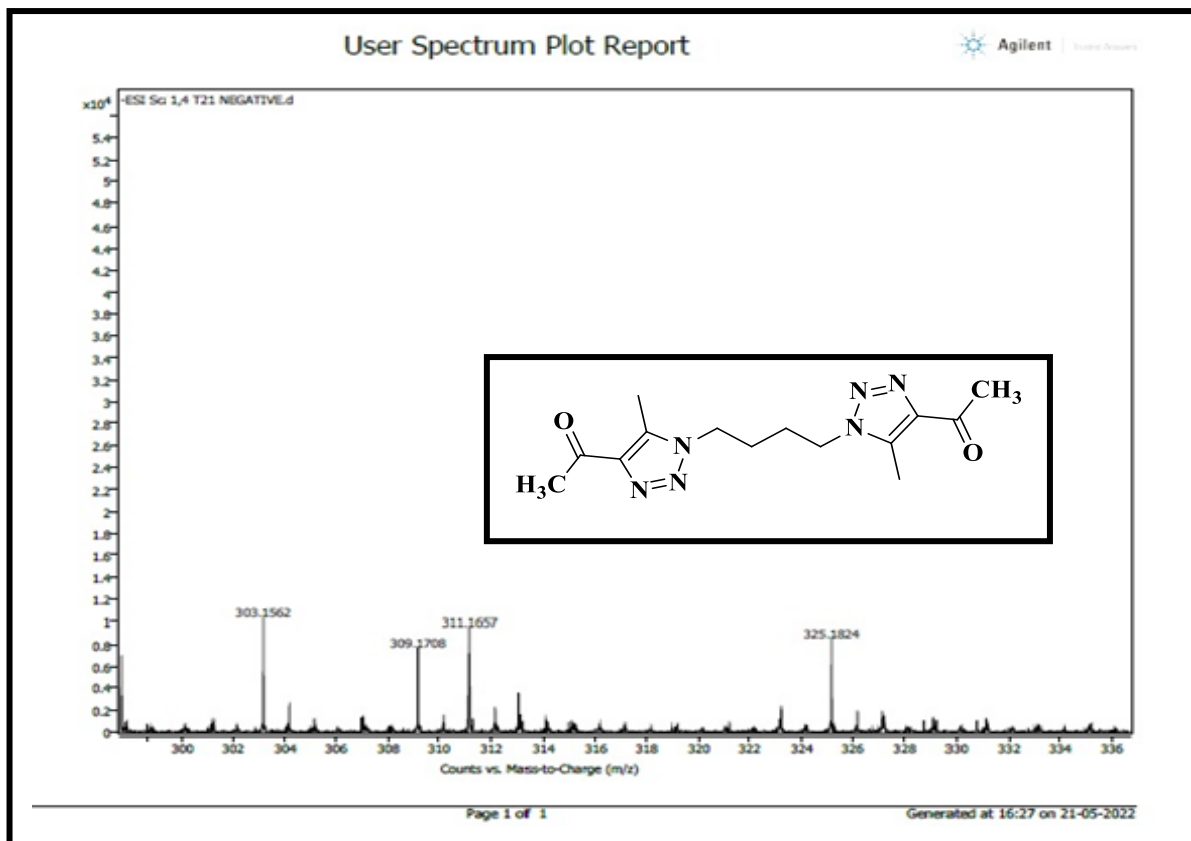
C,H-COSY: 1,1'-(1,1'-(Butane-1,4-diyl) bis(5-methyl-1*H*-1,2,3-triazole-4,1-diyl)) diethanone (1)



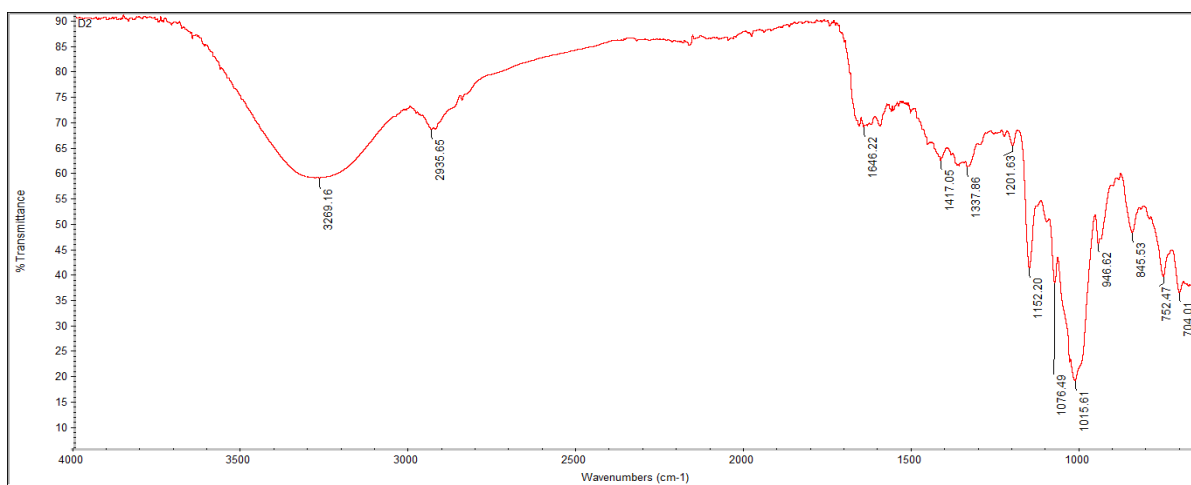
HMBC: 1,1'-(1,1'-(Butane-1,4-diyl) bis(5-methyl-1H-1,2,3-triazole-4,1-diyl)) diethanone (**1**)



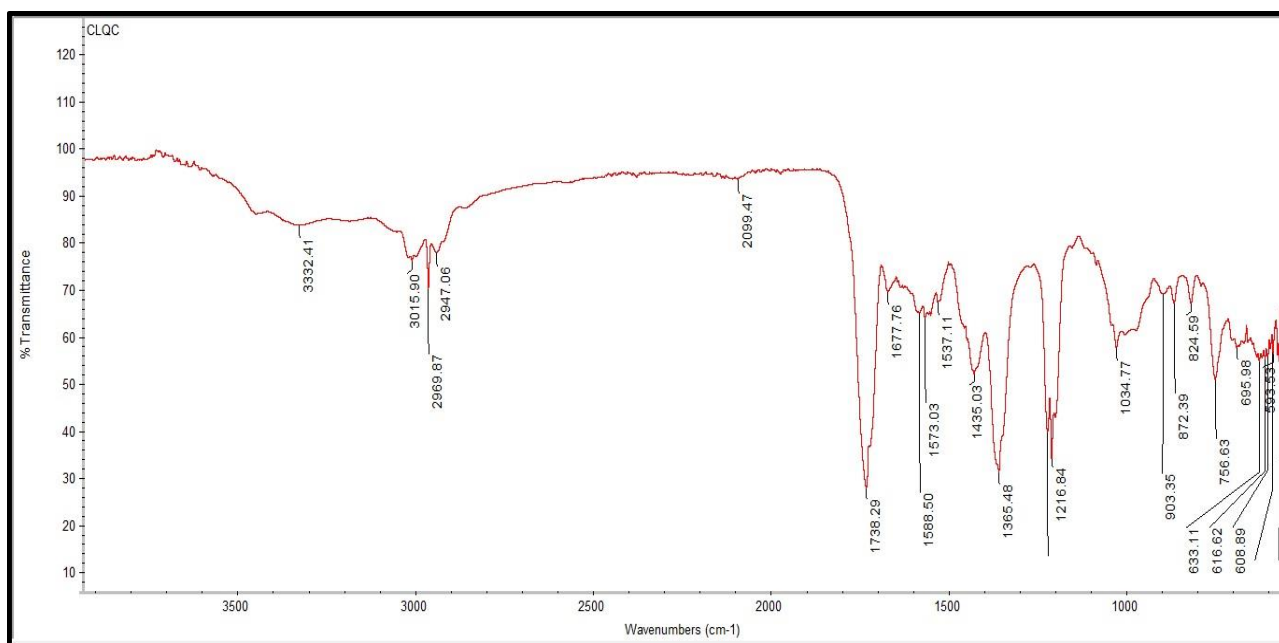
DEPT135: 1,1'-(1,1'-(Butane-1,4-diyl) bis(5-methyl-1H-1,2,3-triazole-4,1-diyl)) diethanone (**1**)



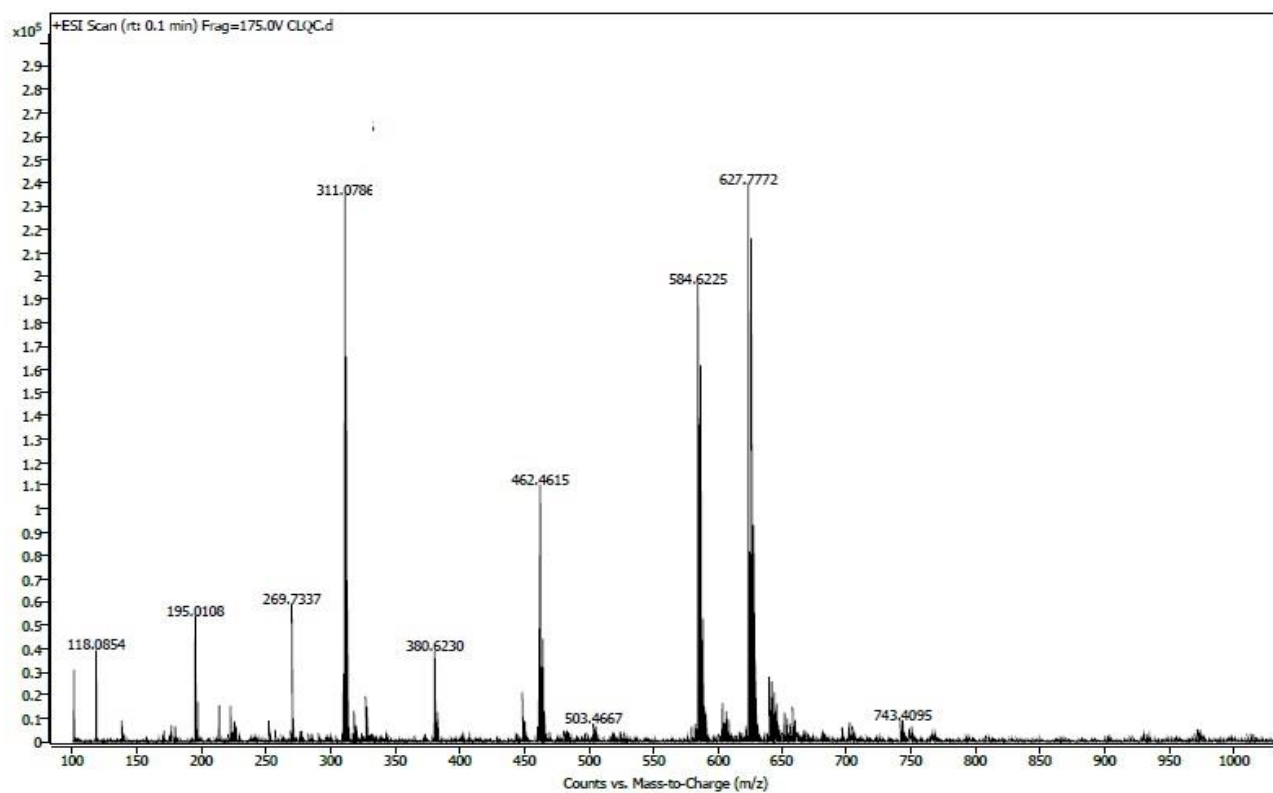
ESI-MS: 1,1'-(1,1'-(Butane-1,4-diyl) bis(5-methyl-1*H*-1,2,3-triazole-4,1-diyl)) diethanone (**1**)



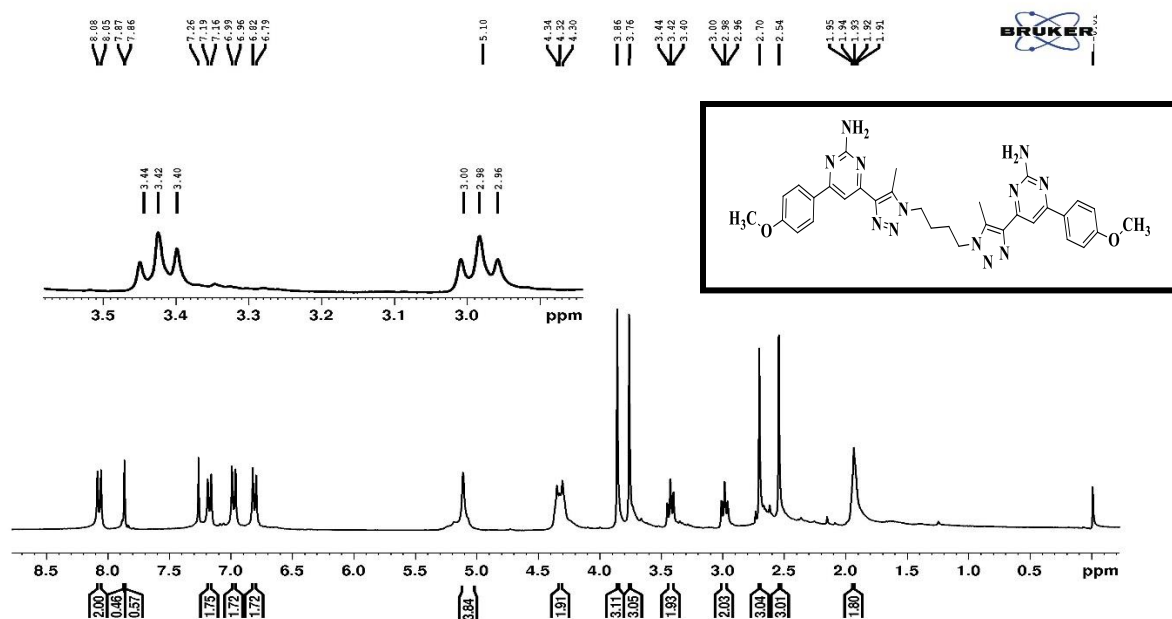
IR : 1,1'-(1,1'-(Butane-1,4-diyl) bis(5-methyl-1*H*-1,2,3-triazole-4,1-diyl)) diethanone (**1**)



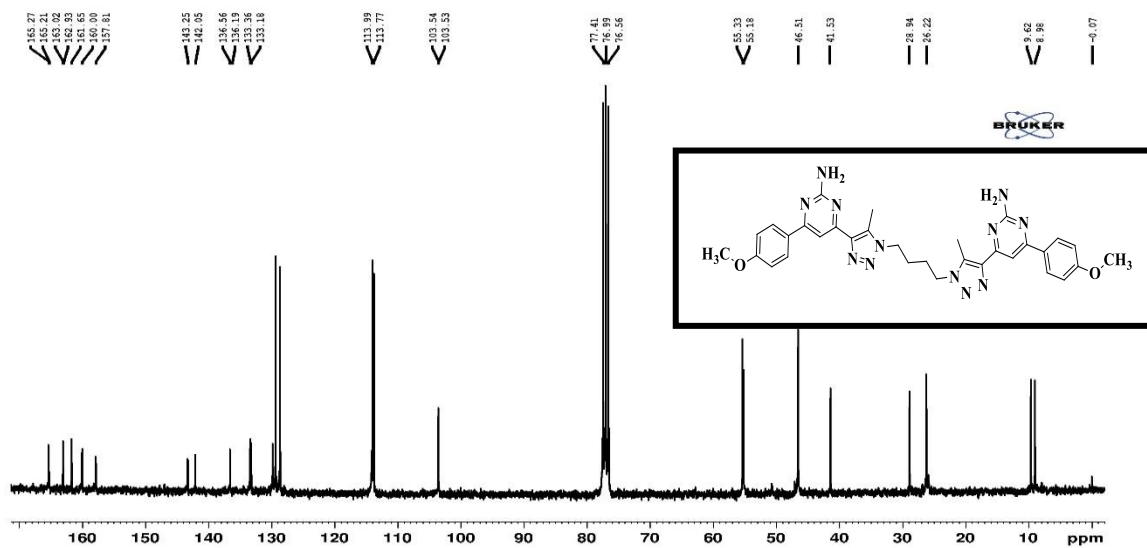
IR: 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-methoxyphenyl)pyrimidin-2-amine)(**5h**)



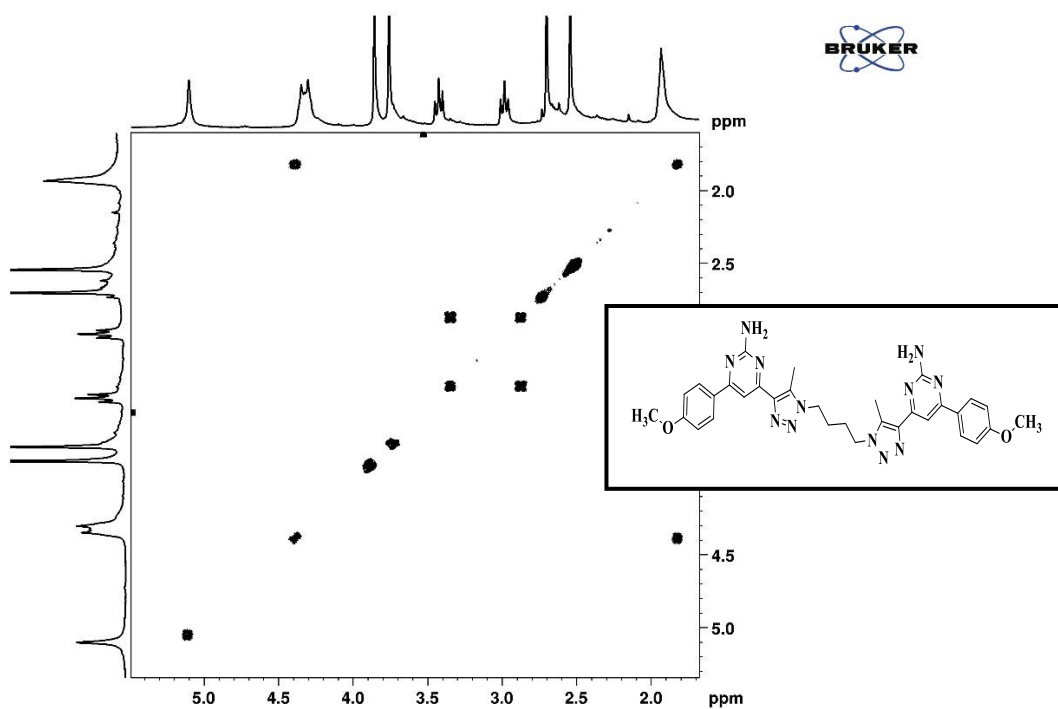
ESI-MS: 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-methoxyphenyl)pyrimidin-2-amine)(**5h**)



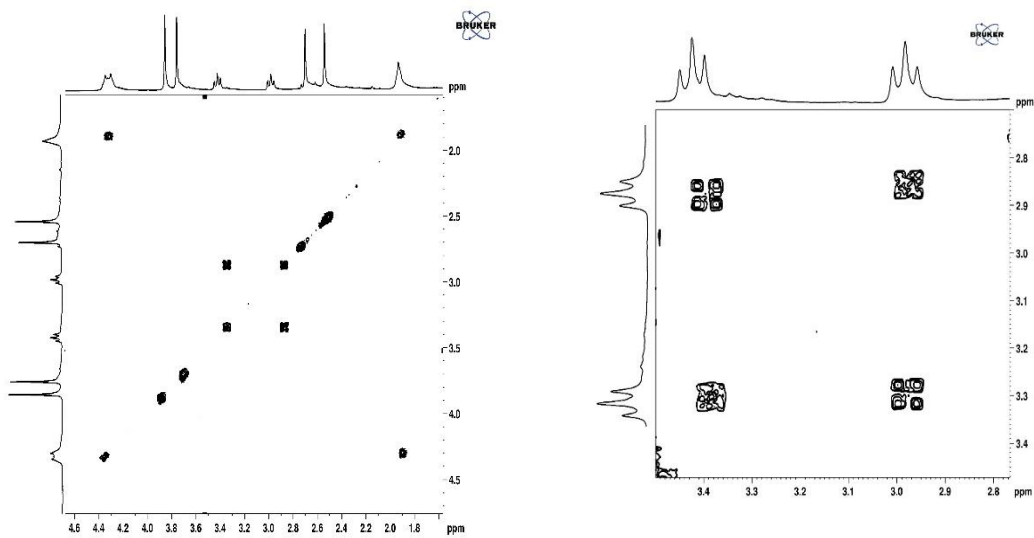
¹H NMR (300 MHz, CDCl₃): 6,6'-(1,1'-(Butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-methoxyphenyl)pyrimidin-2-amine)(5a)



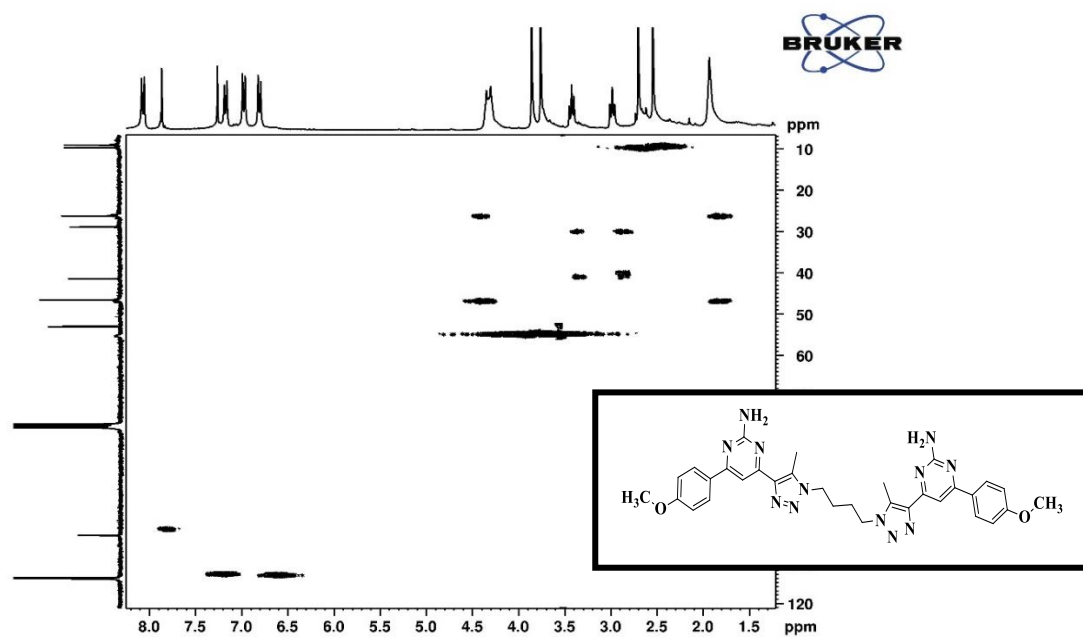
¹³C NMR (75 MHz, CDCl₃): 6,6'-(1,1'-(Butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-methoxyphenyl)pyrimidin-2-amine)(5a)



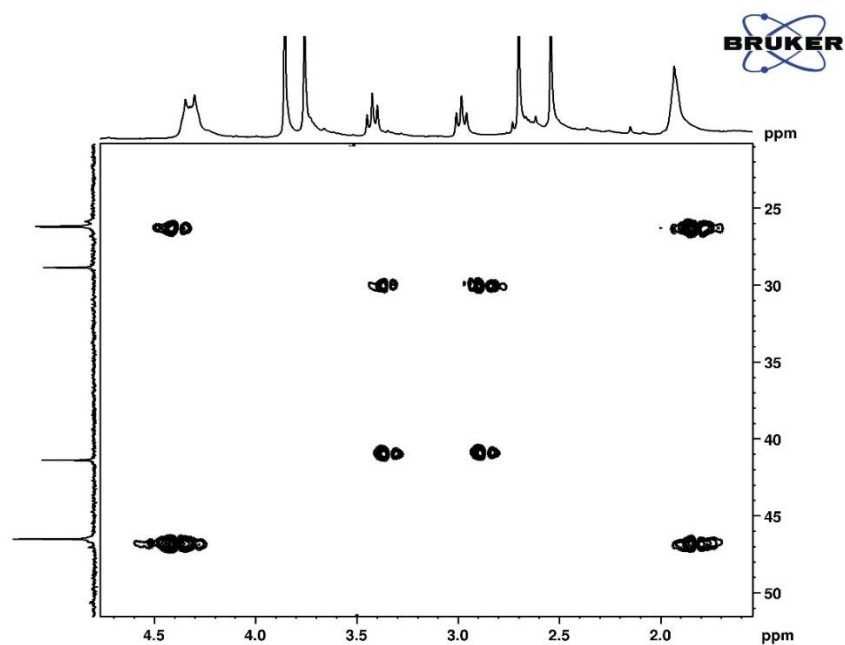
H,H-COSY: 6,6'-(1,1'-(Butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-methoxyphenyl)pyrimidin-2-amine)(5a)



H,H-COSY: 6,6'-(1,1'-(Butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-methoxyphenyl)pyrimidin-2-amine) (5a)

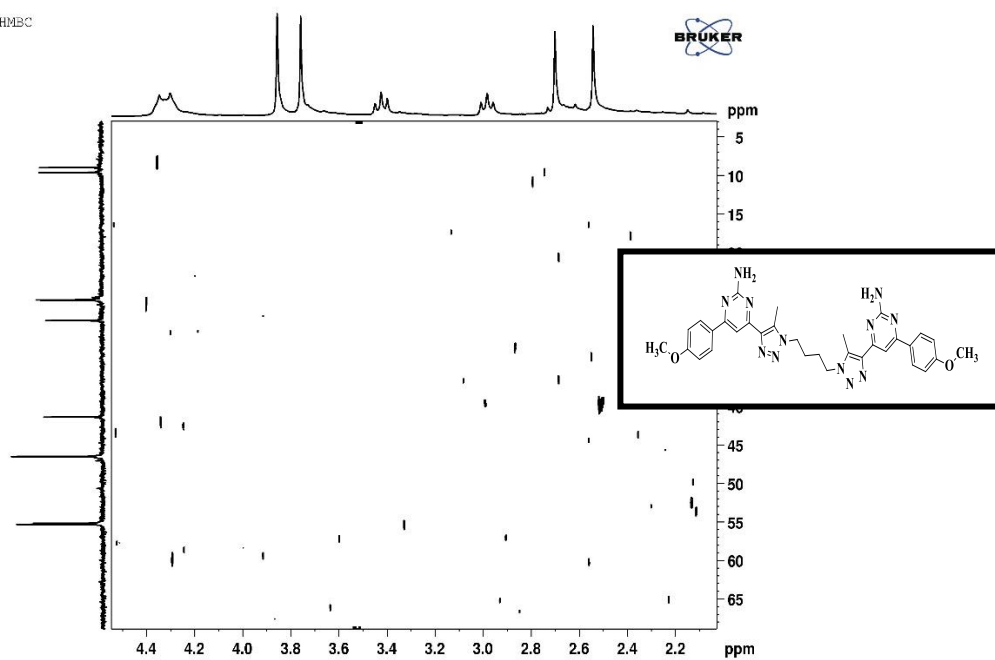


¹³C, ¹H-COSY: 6,6'-(1,1'-(Butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-methoxyphenyl)pyrimidin-2-amine)(5a)



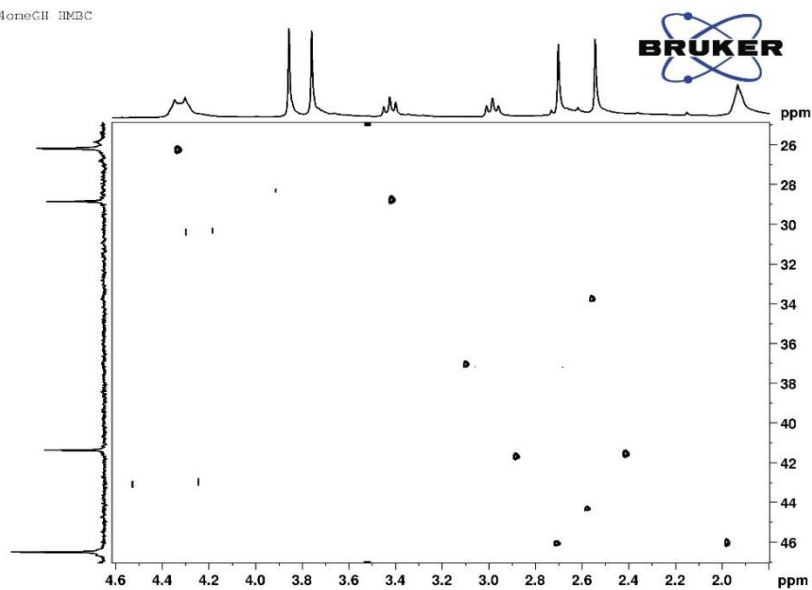
¹³C, ¹H-COSY: 6,6'-(1,1'-(Butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-methoxyphenyl)pyrimidin-2-amine)(5a)

(1,4)-4oneGH HMBC

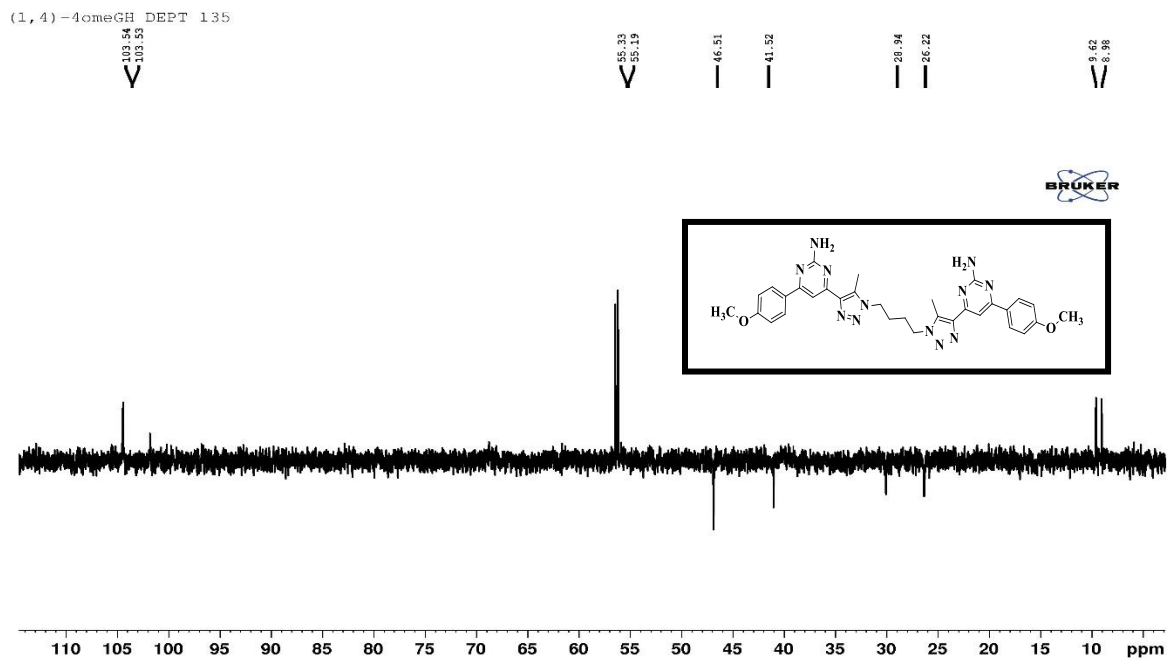


HMBC: 6,6'-(1,1'-(Butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-methoxyphenyl)pyrimidin-2-amine)(5a)

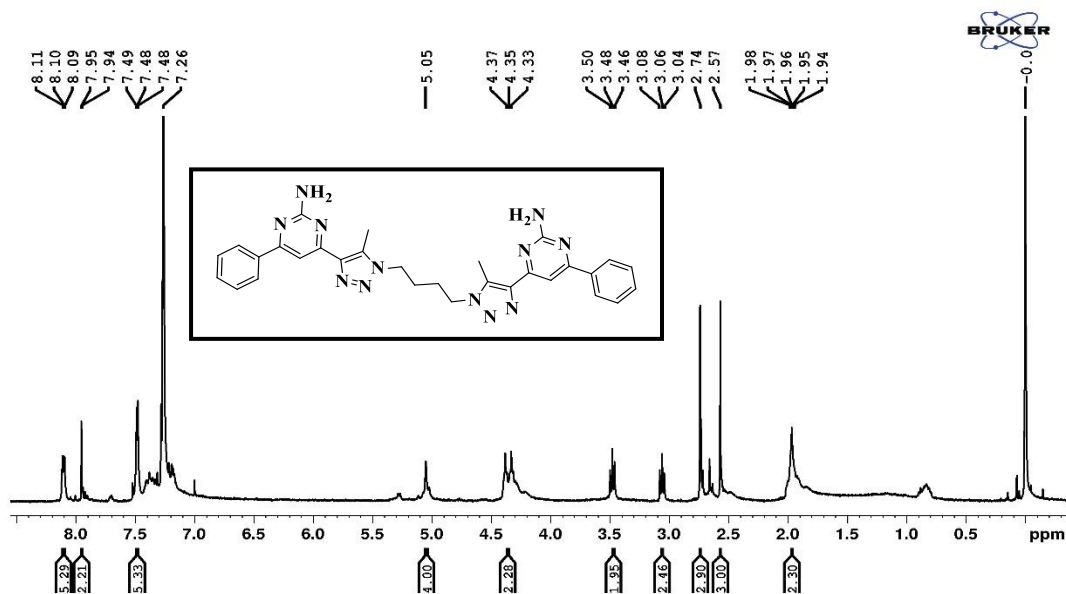
(1,4)-4oneGH HMBC



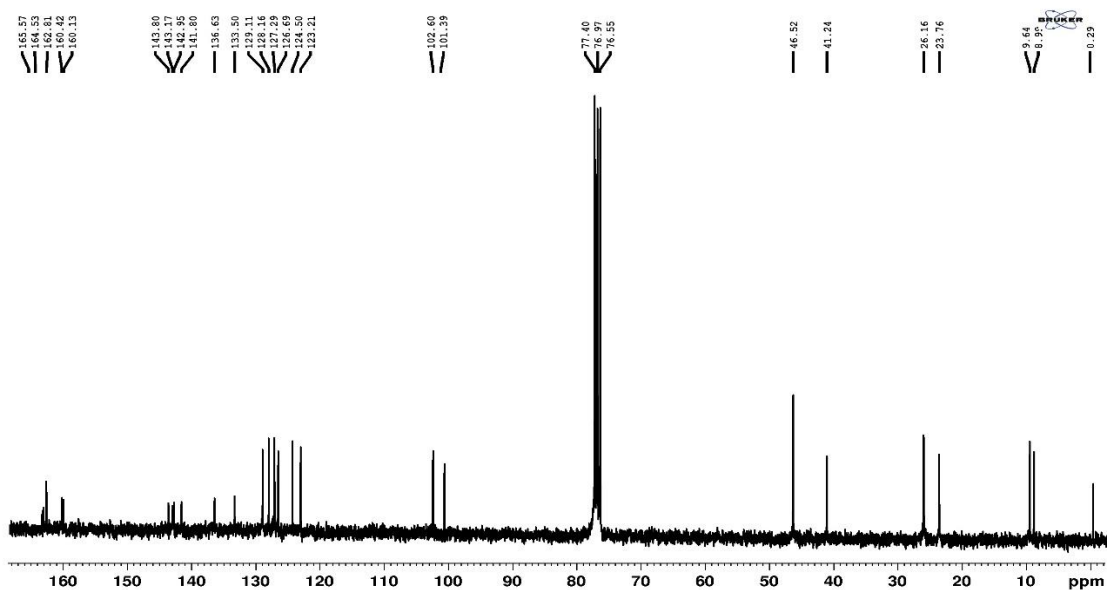
HMBC: 6,6'-(1,1'-(Butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-methoxyphenyl)pyrimidin-2-amine)(5a)



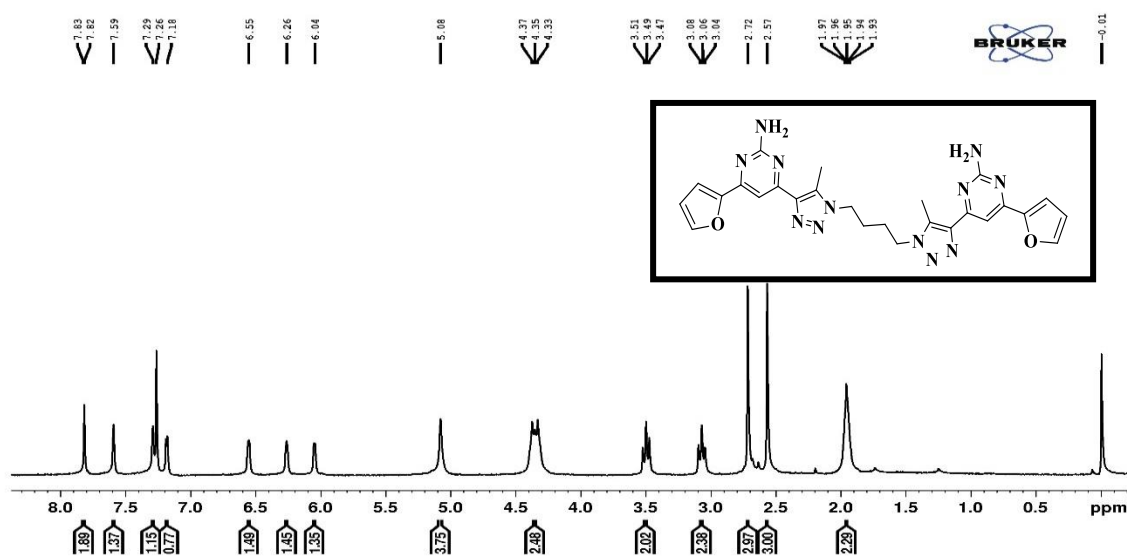
DEPT135: 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-methoxyphenyl)pyrimidin-2-amine)(**5a**)



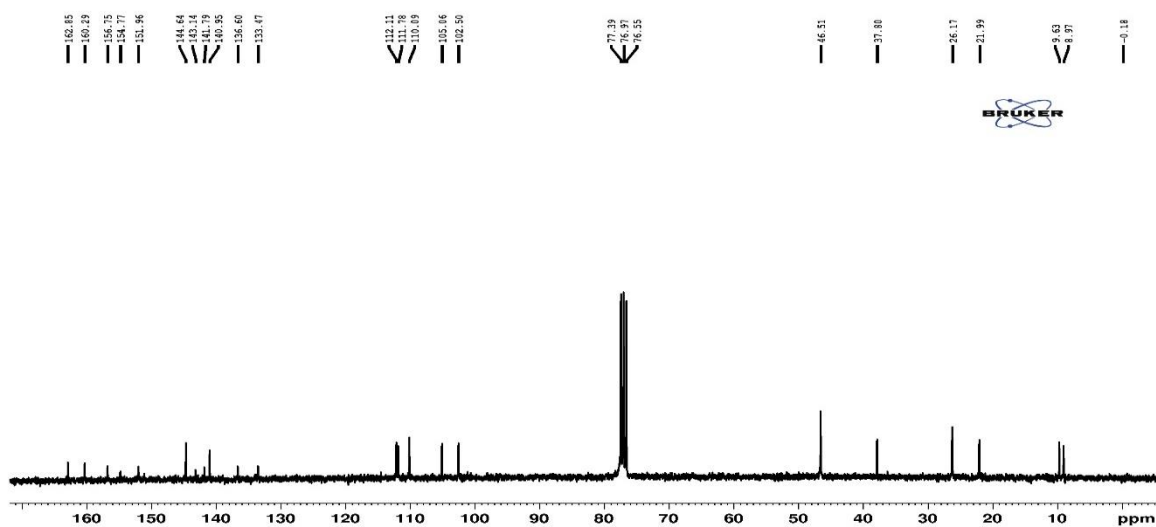
¹H NMR (300 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-phenylpyrimidin-2-amine)(**5b**)



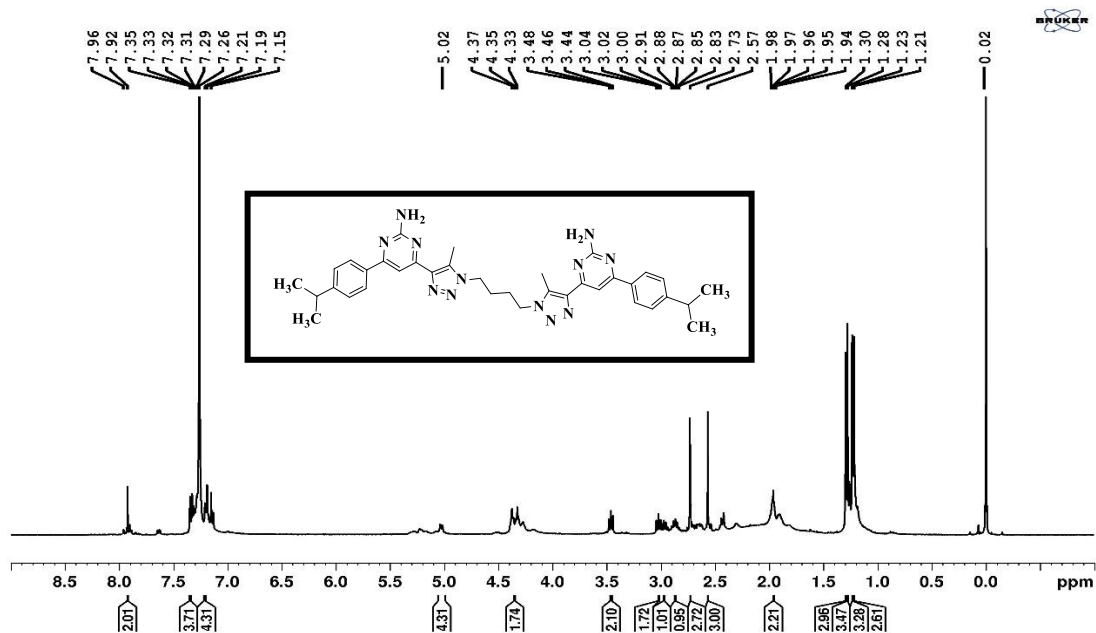
¹³C NMR (75 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-phenylpyrimidin-2-amine)(**5b**)



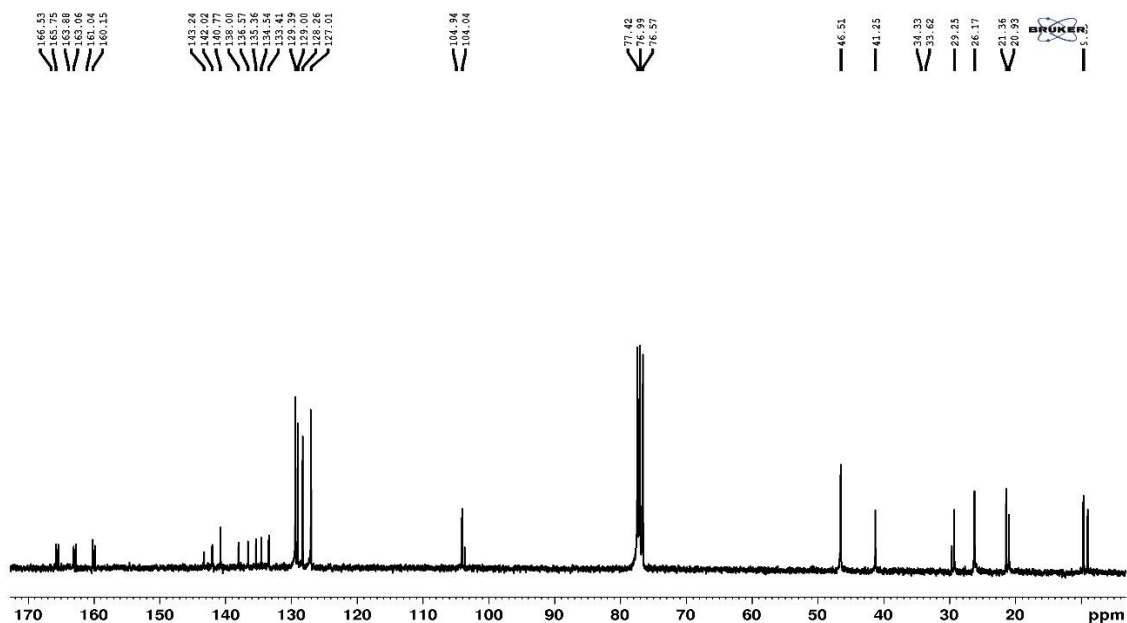
¹H NMR (300 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(furan-2-yl)pyrimidin-2-amine)(5c)



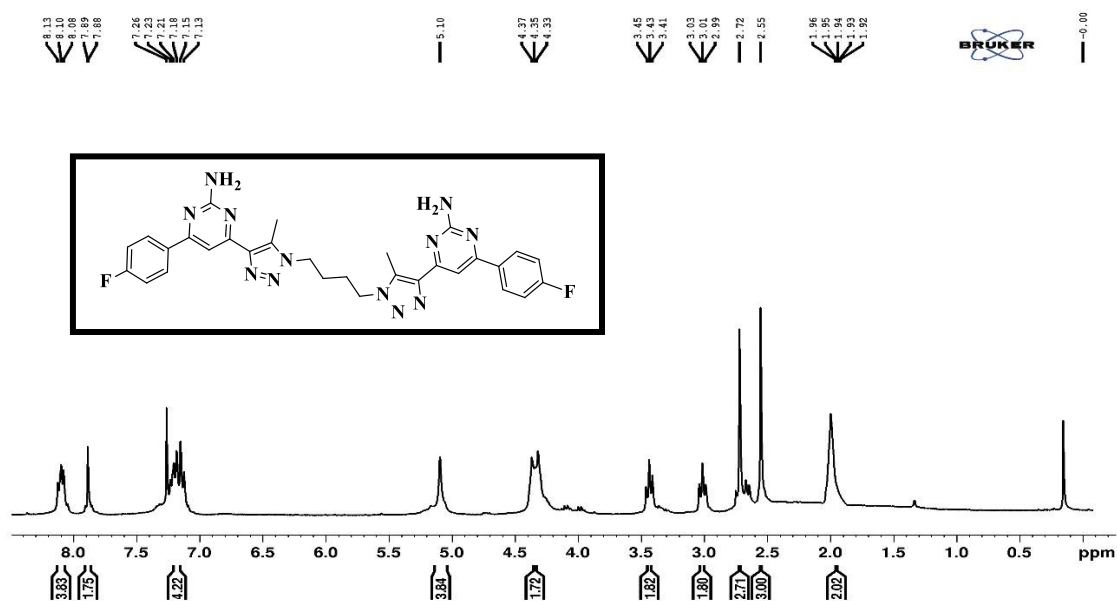
¹³C NMR (75 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(furan-2-yl)pyrimidin-2-amine)(5c)



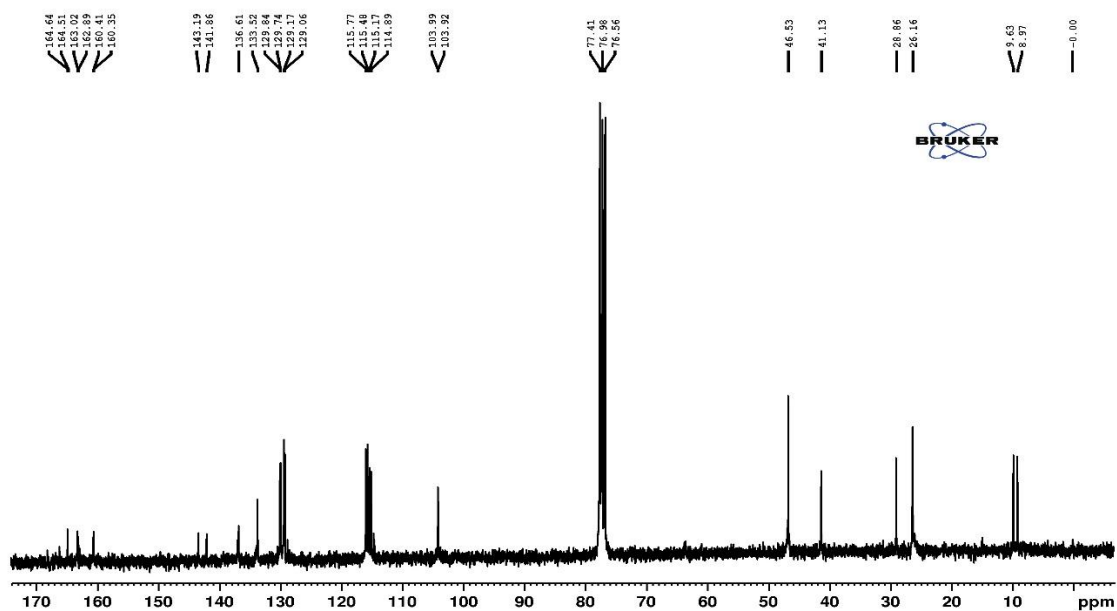
¹H NMR (300 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-isopropylphenyl)pyrimidin-2-amine)(**5d**)



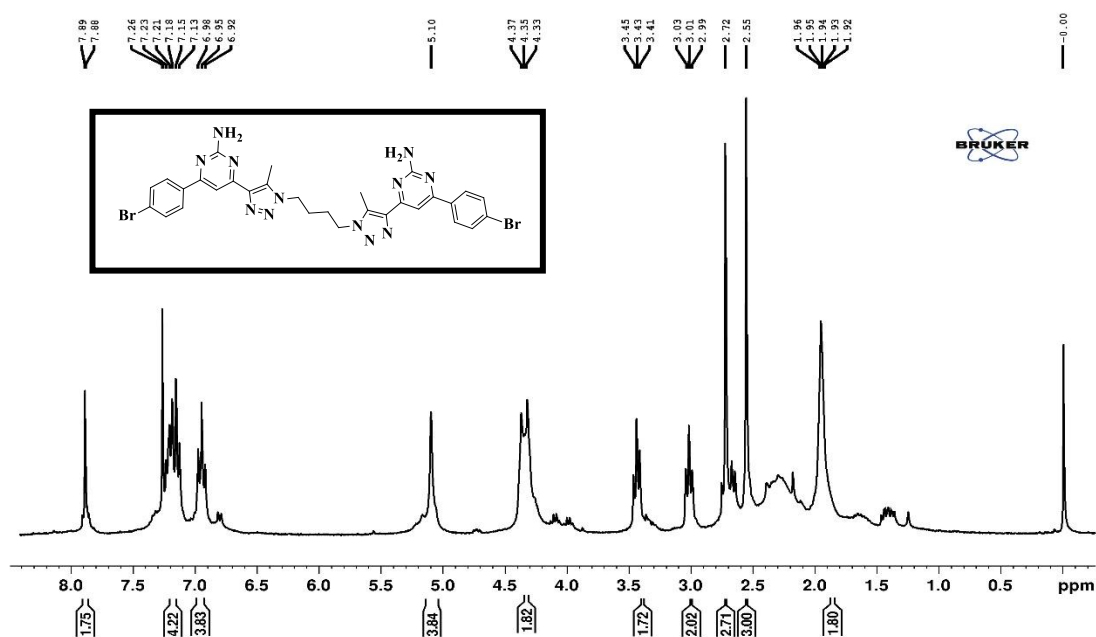
¹³C NMR (75 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-isopropylphenyl)pyrimidin-2-amine)(**5d**)



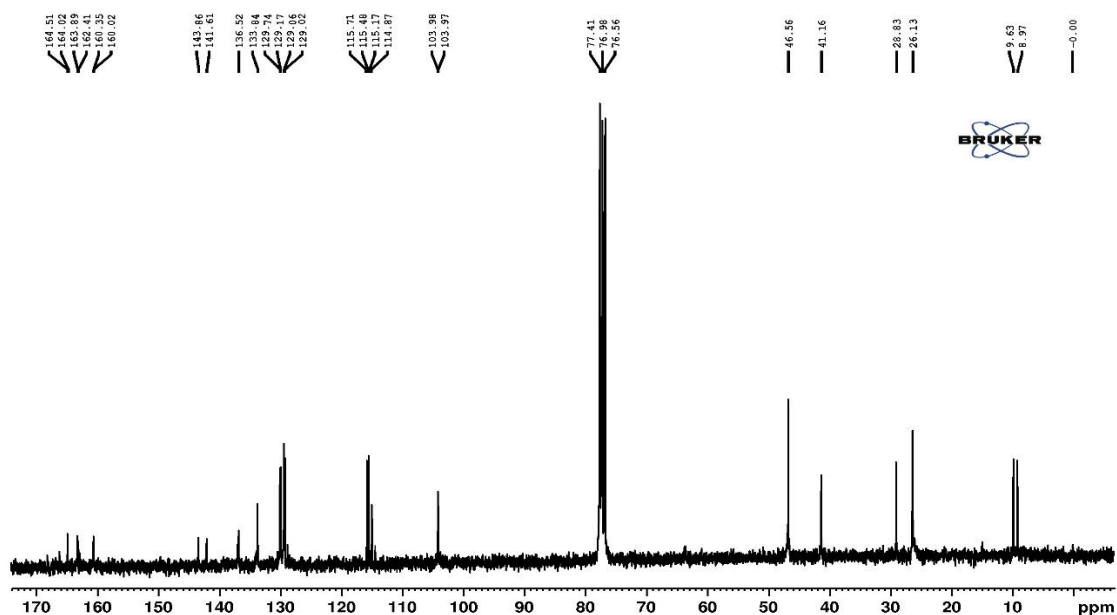
¹H NMR (300 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-fluorophenyl)pyrimidin-2-amine)(**5e**)



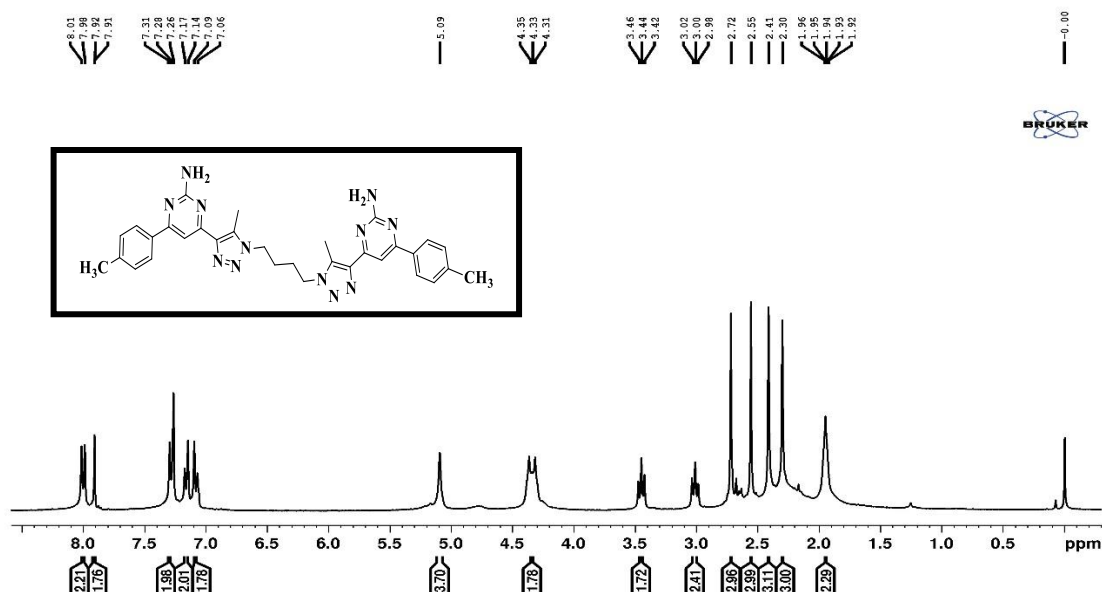
¹³C NMR (75 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-fluorophenyl)pyrimidin-2-amine)(**5e**)



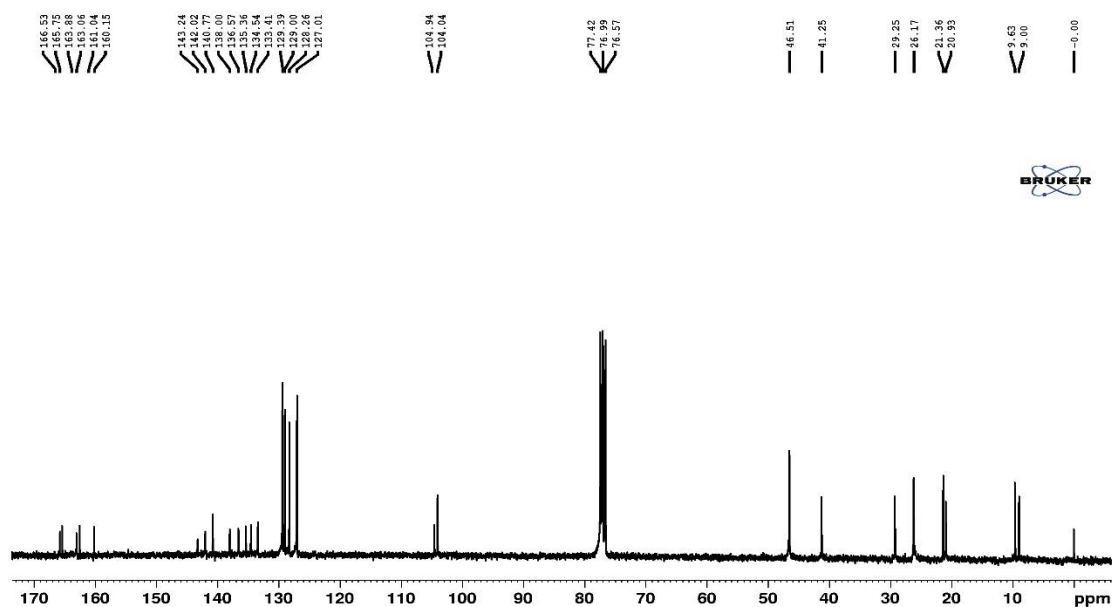
¹H NMR (300 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-bromophenyl)pyrimidin-2-amine)(5f)



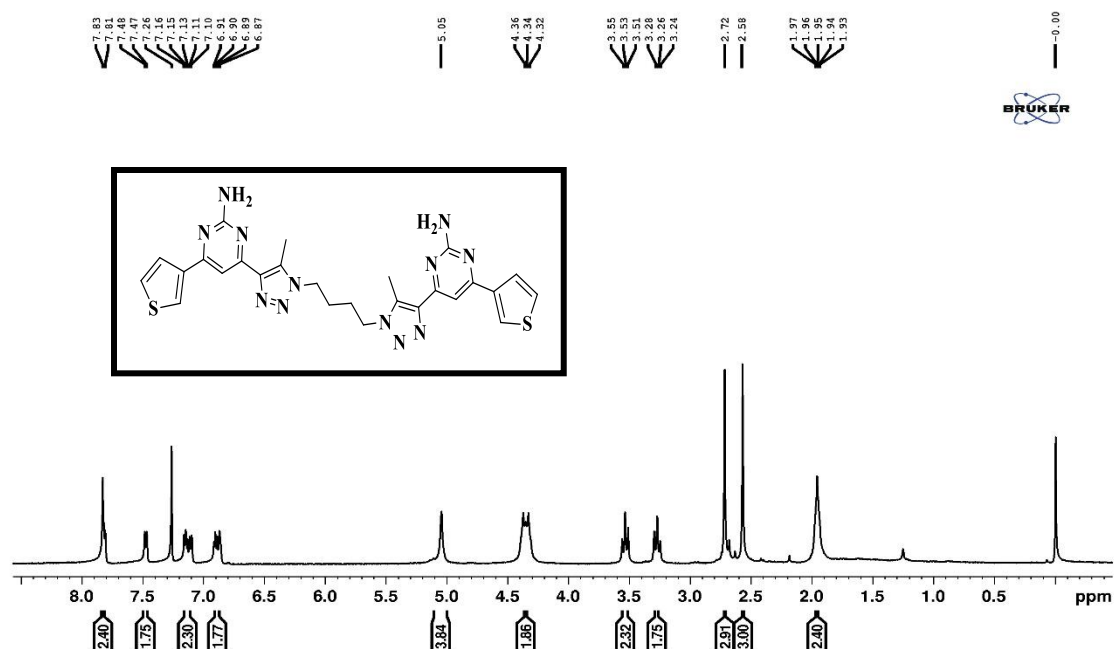
¹³C NMR (75 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-bromophenyl)pyrimidin-2-amine)(5f)



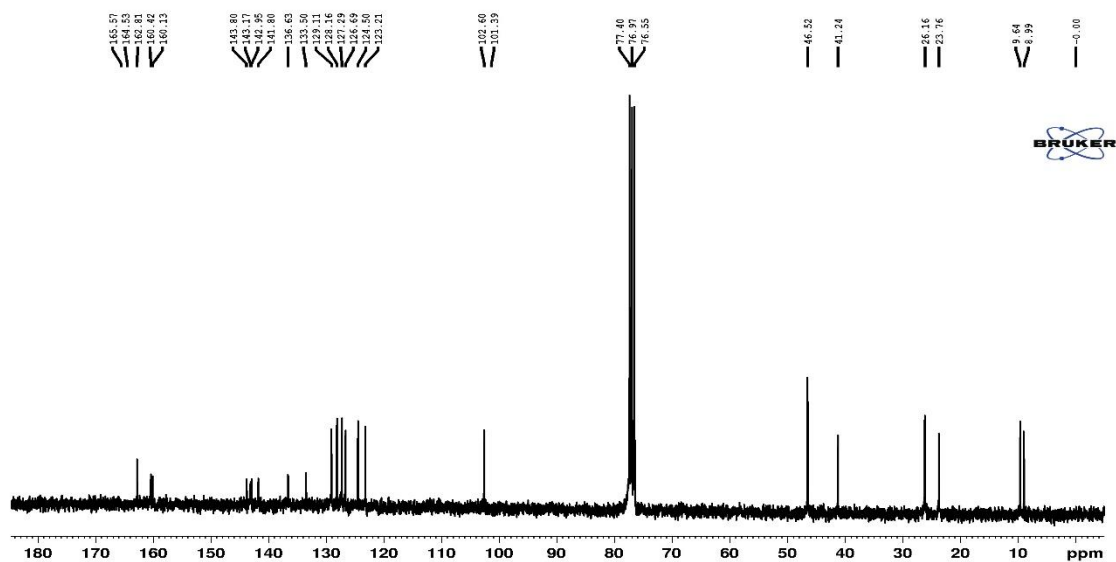
¹H NMR (300 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(p-tolyl)pyrimidin-2-amine) (**5g**)



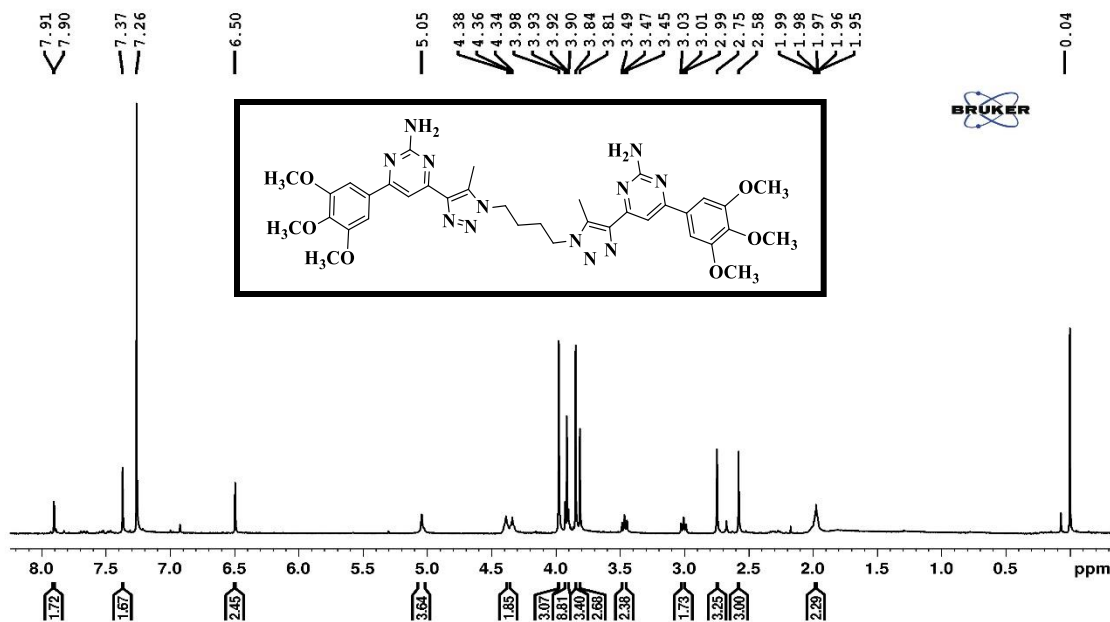
¹³C NMR (75 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(p-tolyl)pyrimidin-2-amine) (**5g**)



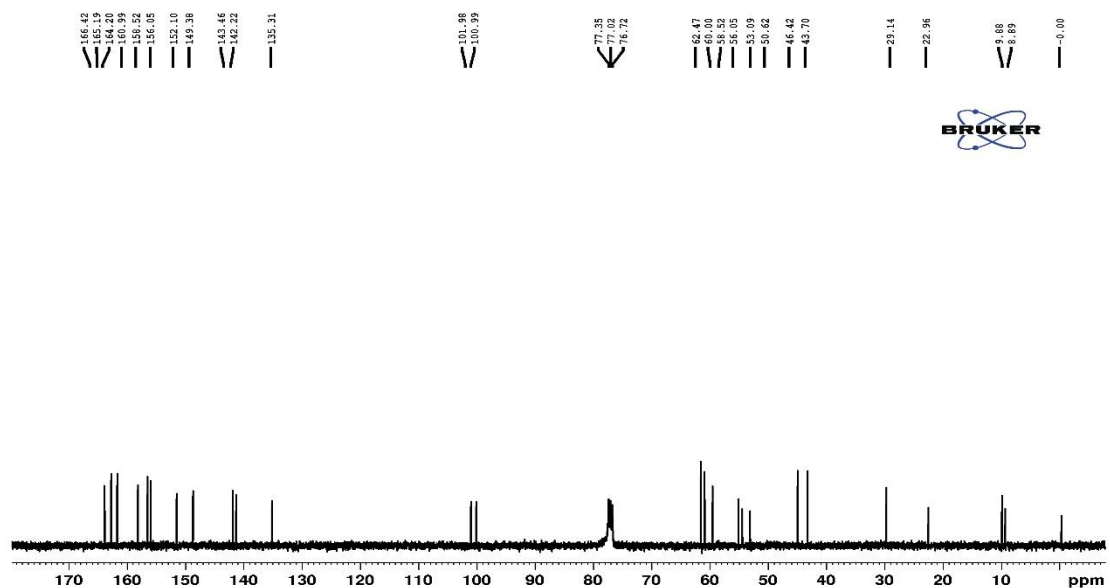
¹H NMR (300 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(thiophen-3-yl)pyrimidin-2-amine) (**5i**)



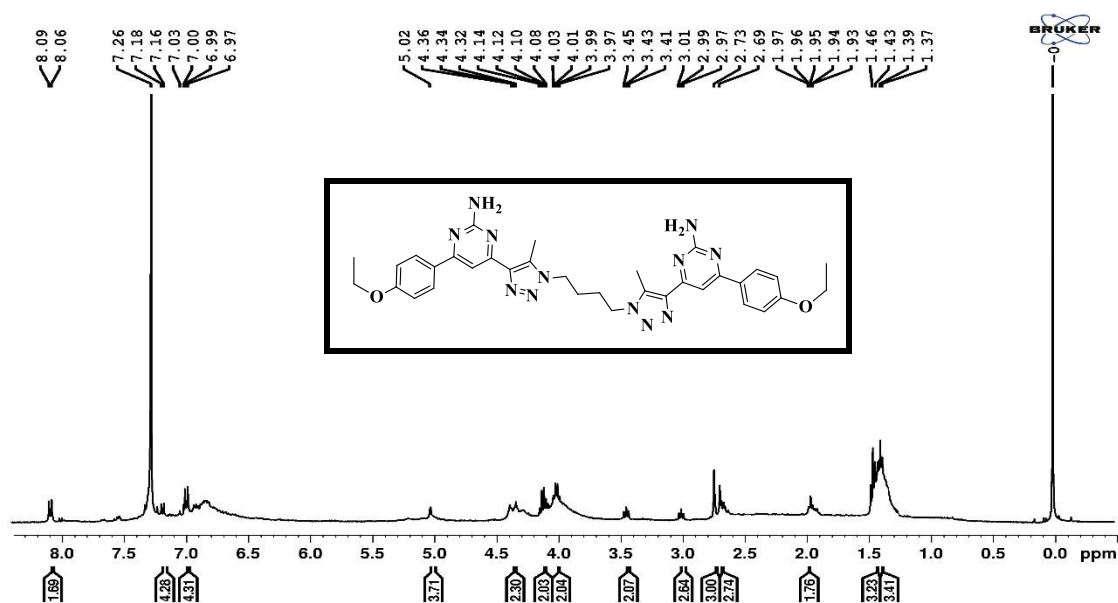
¹³C NMR (75 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(thiophen-3-yl)pyrimidin-2-amine) (**5i**)



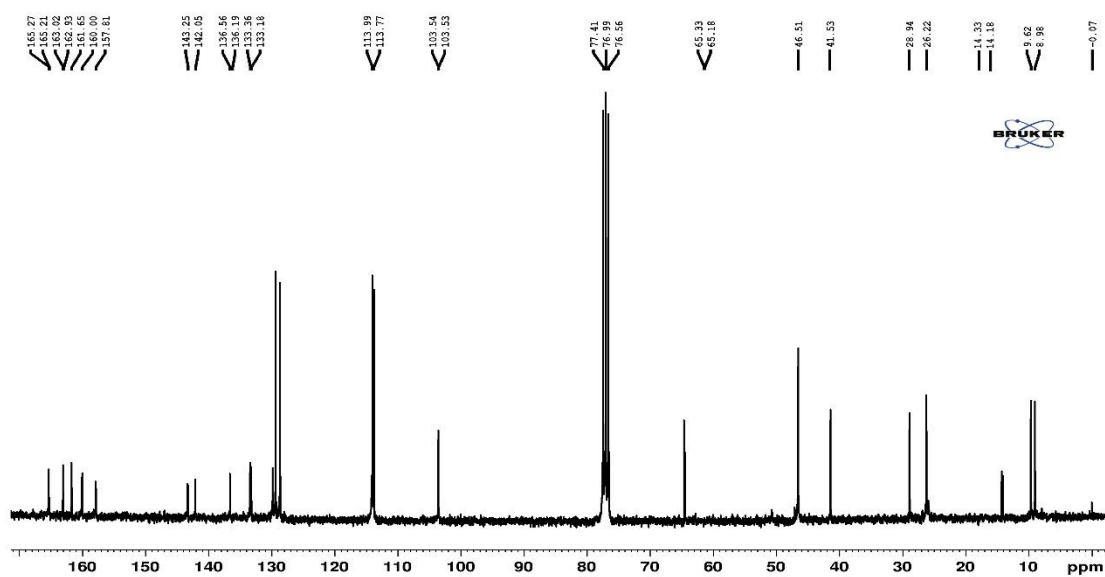
¹H NMR (300 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(3,4,5-trimethoxyphenyl)pyrimidin-2-amine)(**5j**)



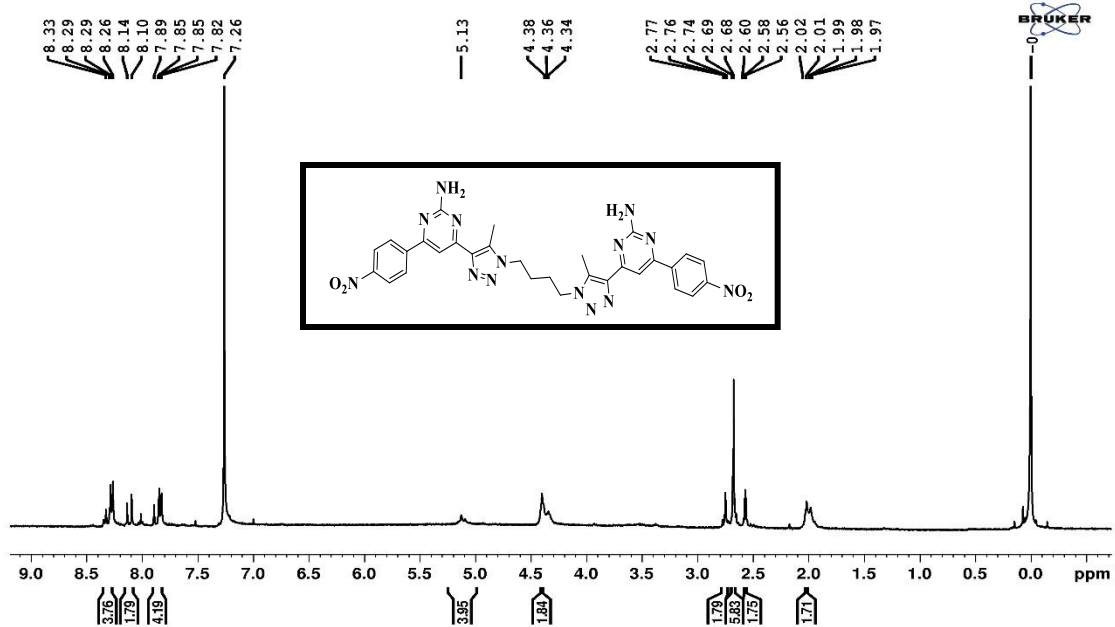
¹³C NMR (75 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(3,4,5-trimethoxyphenyl)pyrimidin-2-amine)(**5j**)



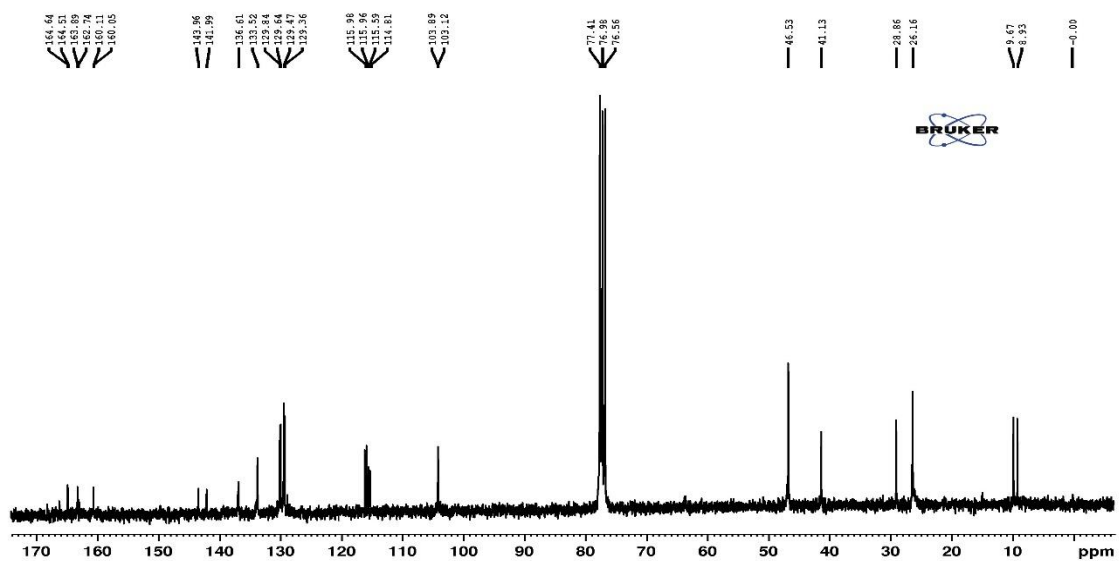
¹H NMR (300 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-ethoxyphenyl)pyrimidin-2-amine) (**5k**)



¹³C NMR (75 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-ethoxyphenyl)pyrimidin-2-amine) (**5k**)



¹H NMR (300 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-nitrophenyl)pyrimidin-2-amine)(5I)



¹³C NMR (75 MHz, CDCl₃): 6,6'-(1,1'-(butane-1,4-diyl)bis(5-methyl-1H-1,2,3-triazole-4,1-diyl))bis(4-(4-nitrophenyl)pyrimidin-2-amine)(5I)