

Supporting Information

Cuprous iodide implanted in hot-water-soluble-starch coating of ferrite nanoparticles: efficient catalysts for on–water click synthesis of 1,2,3-triazoles

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Table of contents

S₁. The EDS spectrum of CuI@HWSS@CF

S₂. The EDS spectrum and the elemental map of CuI@HWSS@FF

S₃. The FT-IR spectrum of HWSS and CuI

S₄. The ¹H NMR spectrum of 1-benzyl-4-phenyl-1*H*-1,2,3-triazole

S₅. The ¹H NMR spectrum of 1-(4-bromobenzyl)-4-phenyl-1*H*-1,2,3-triazole

S₆. The ¹H NMR spectrum of 1-(4-methylbenzyl)-4-phenyl-1*H*-1,2,3-triazole

S₇. The ¹H NMR spectrum of 1-(2,3-dichlorobenzyl)-4-phenyl-1*H*-1,2,3-triazole

S₈. The ¹H NMR spectrum of 1-(4-chlorobenzyl)-4-phenyl-1*H*-1,2,3-triazole

S₉. The ¹H NMR spectrum of 1-(3,4-dichlorobenzyl)-4-phenyl-1*H*-1,2,3-triazole

S₁₀. The ¹H NMR spectrum of 1-(2-chlorobenzyl)-4-phenyl-1*H*-1,2,3-triazole

S₁₁. The ¹H NMR spectrum of 1-(3-chlorobenzyl)-4-phenyl-1*H*-1,2,3-triazole

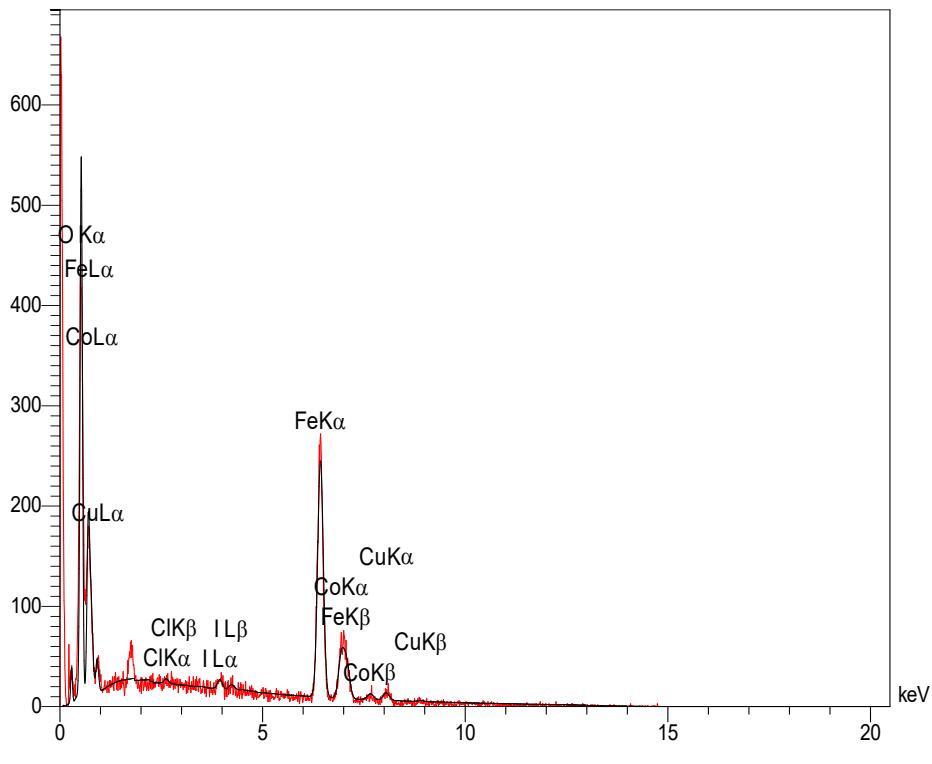
S₁₂. The ¹³C NMR spectrum of 1-benzyl-4-phenyl-1*H*-1,2,3-triazole

S₁₃. The ¹³C NMR spectrum of 1-(4-bromobenzyl)-4-phenyl-1*H*-1,2,3-triazole

S₁₄. The ¹³C NMR spectrum of 1-(3-chlorobenzyl)-4-phenyl-1*H*-1,2,3-triazole

S₁₅. The ¹³C NMR spectrum of 1-(4-chlorobenzyl)-4-phenyl-1*H*-1,2,3-triazole

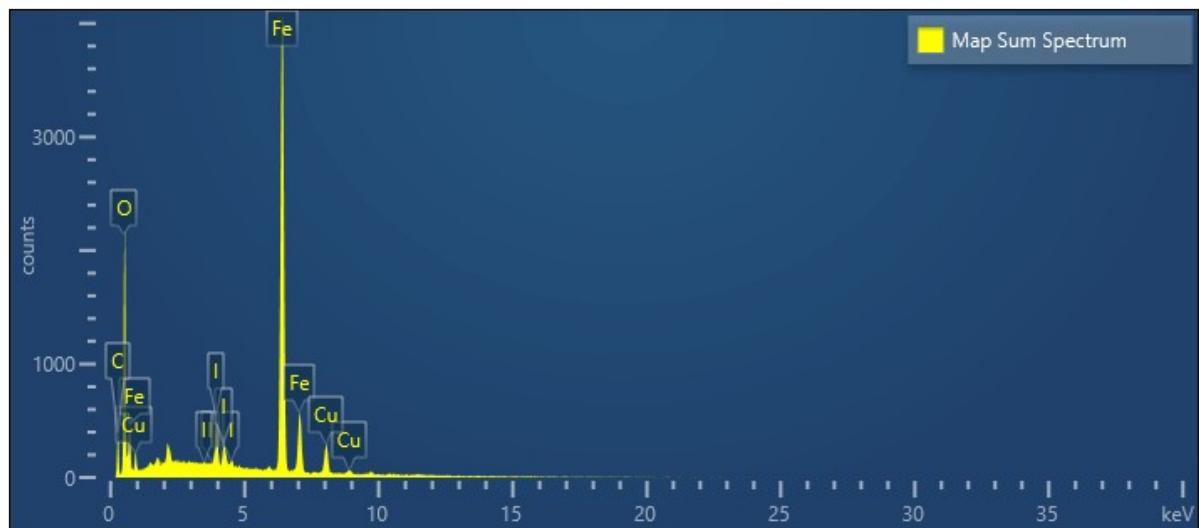
S₁. The EDS spectrum of CuI@HWSS@CF



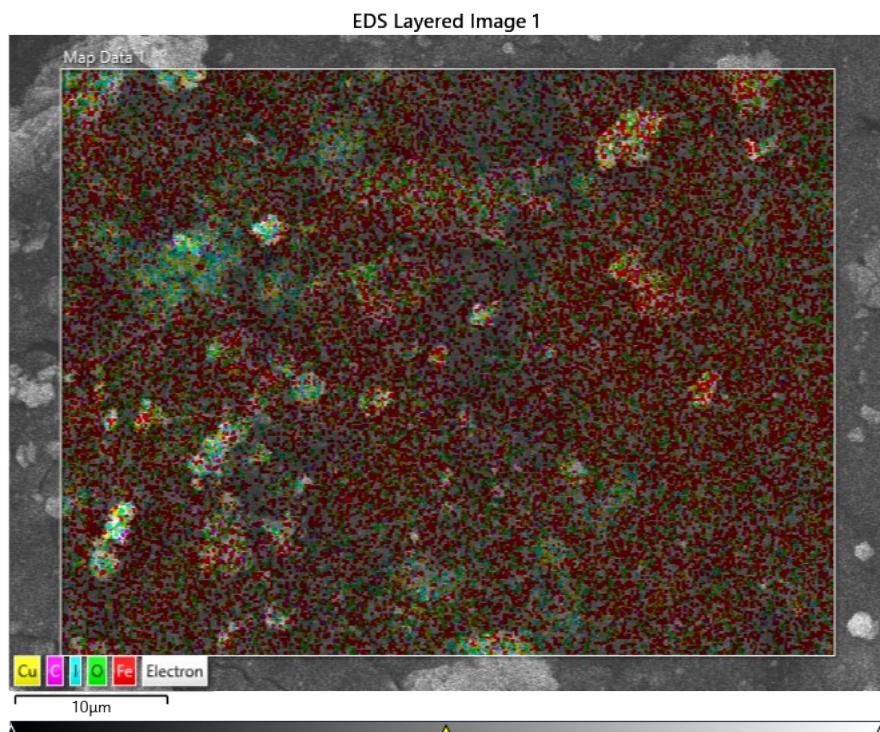
Quantitative Results

Elt	Line	Int	Error	K	Kr	W%	A%	ZAF	Formula	Ox%	Pk/Bg	Class	LConf	HConf	Cat#
C	Ka	6.1	12.2346	0.0266	0.0202	6.61	14.74	0.3051		0.00	19.16	A	5.64	7.59	0.00
O	Ka	129.7	12.2346	0.2837	0.2150	34.68	58.02	0.6199		0.00	26.21	A	33.57	35.79	0.00
Cl	Ka	1.8	0.4142	0.0020	0.0015	0.18	0.13	0.8681		0.00	2.19	B	0.13	0.22	0.00
Fe	Ka	135.0	0.6706	0.5131	0.3889	43.15	20.68	0.9012		0.00	26.51	A	41.80	44.50	0.00
Co	Ka	25.3	0.6706	0.1189	0.0901	10.24	4.65	0.8800		0.00	8.07	A	9.50	10.98	0.00
Cu	Ka	4.7	0.6706	0.0365	0.0277	3.34	1.40	0.8296		0.00	3.18	B	2.78	3.89	0.00
I	La	4.7	0.3816	0.0191	0.0145	1.81	0.38	0.8028		0.00	2.54	B	1.50	2.11	0.00
				1.0000	0.7578	100.00	100.00			0.00					0.00

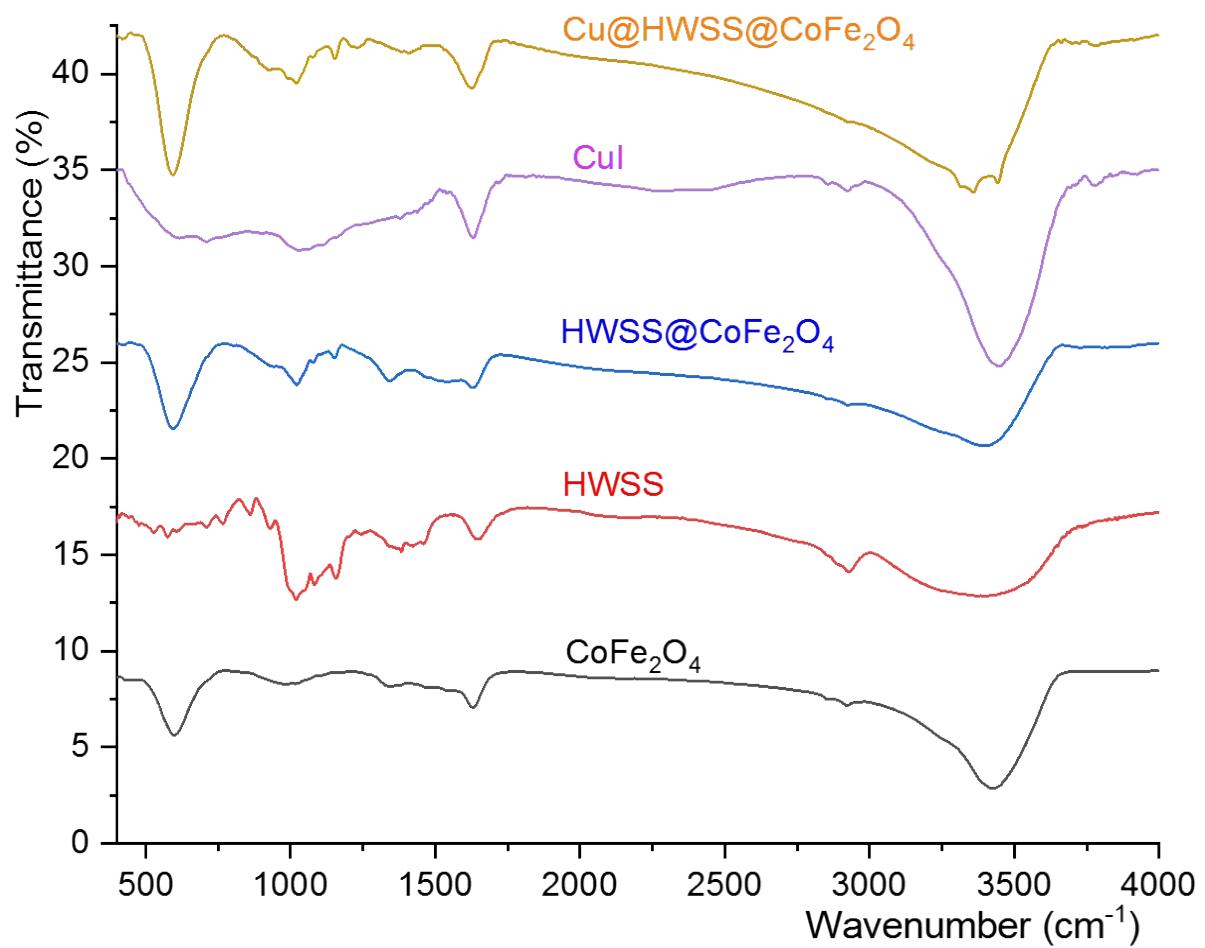
S₂. The EDS spectrum and the elemental map of CuI@HWSS@FF



Map Sum Spectrum				
Element	Line Type	Weight %	Weight % Sigma	Atomic %
C	K series	29.59	0.94	45.55
O	K series	38.64	0.70	44.65
Fe	K series	25.73	0.42	8.52
Cu	K series	2.76	0.13	0.80
I	L series	3.27	0.13	0.48
Total		100.00		100.00

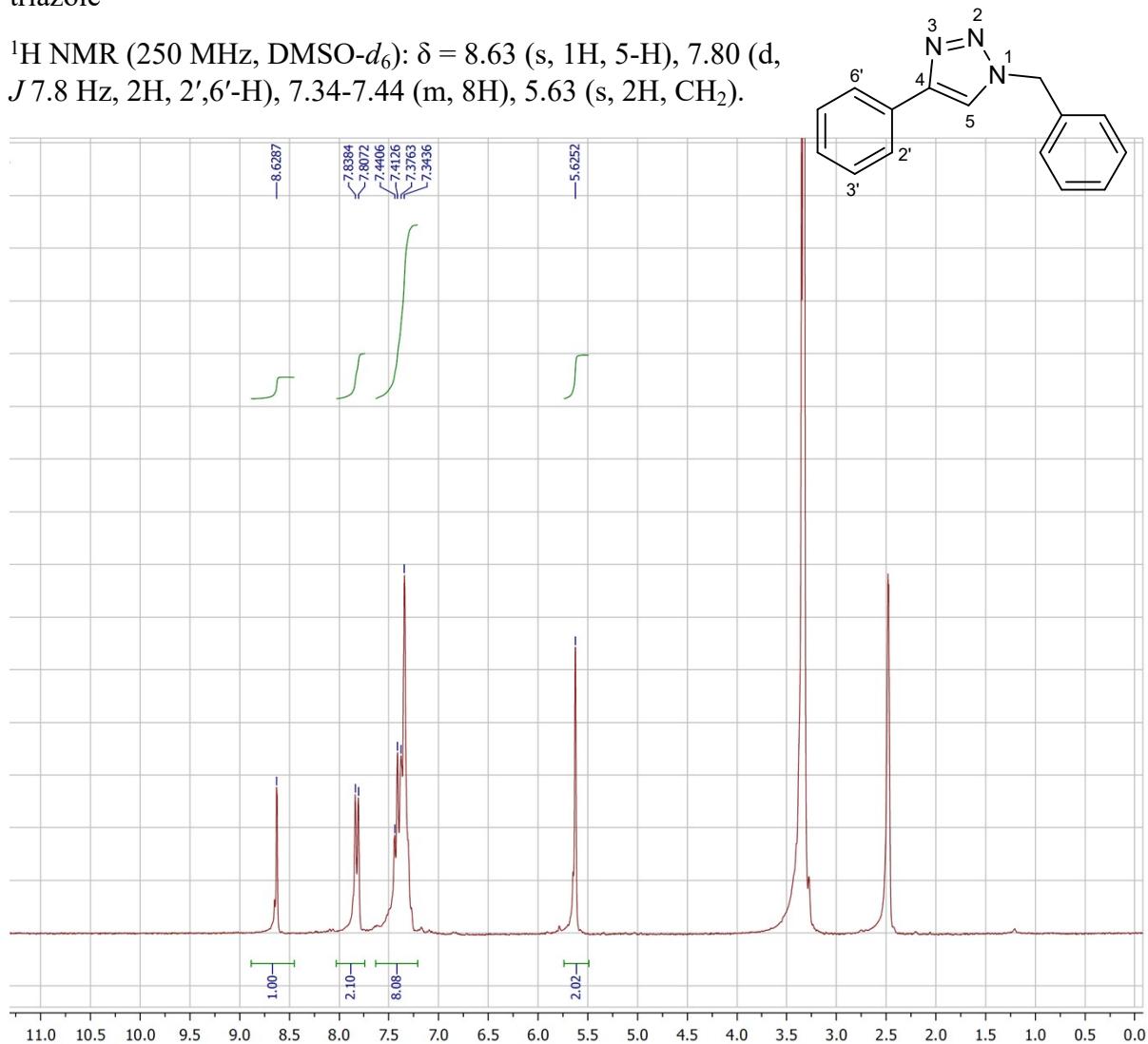


S₃. The FT-IR spectrum of HWSS and CuI



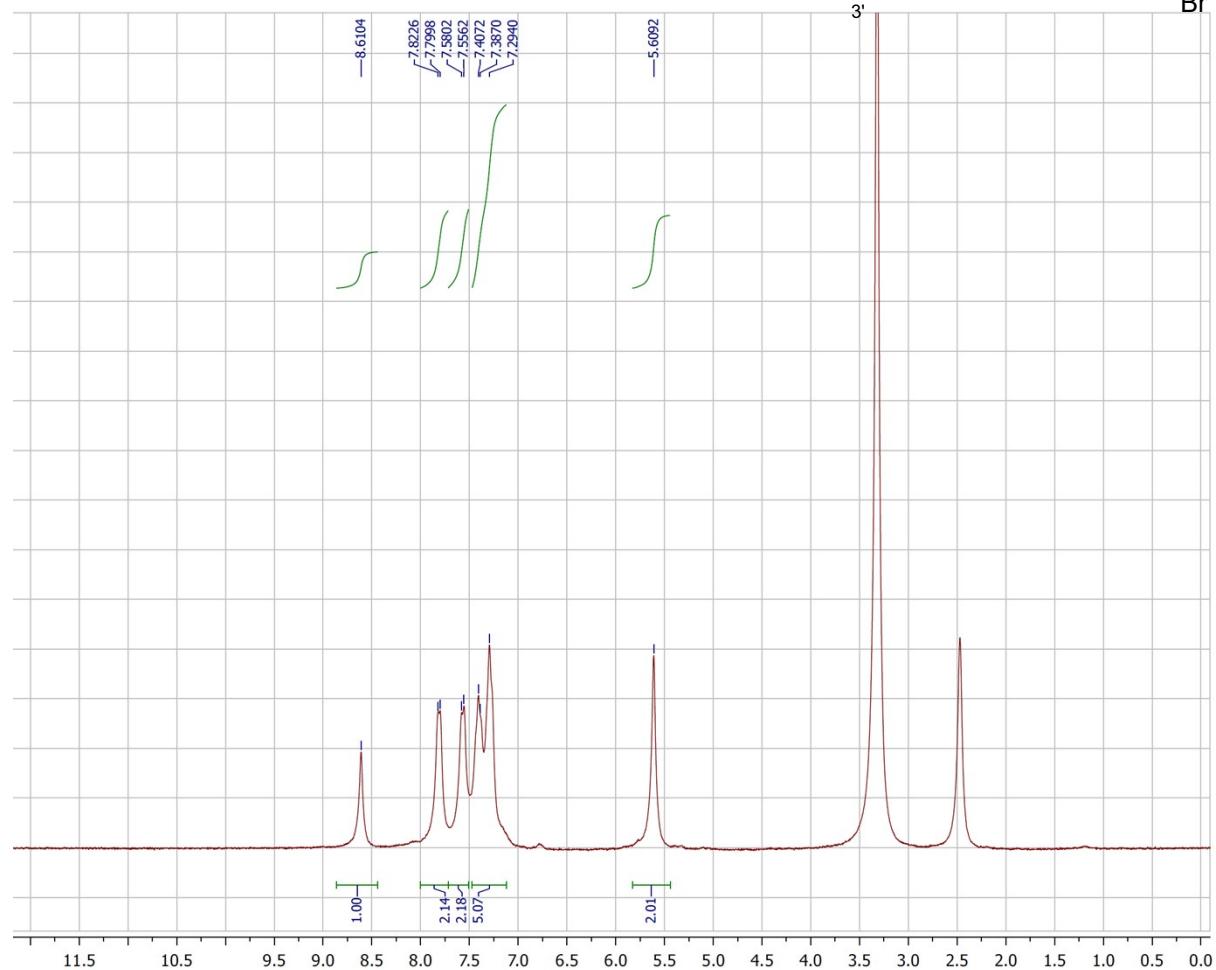
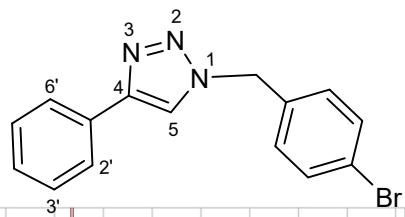
S₄. The ¹H NMR spectrum of 1-benzyl-4-phenyl-1*H*-1,2,3-triazole

¹H NMR (250 MHz, DMSO-*d*₆): δ = 8.63 (s, 1H, 5-H), 7.80 (d, *J* 7.8 Hz, 2H, 2',6'-H), 7.34-7.44 (m, 8H), 5.63 (s, 2H, CH₂).



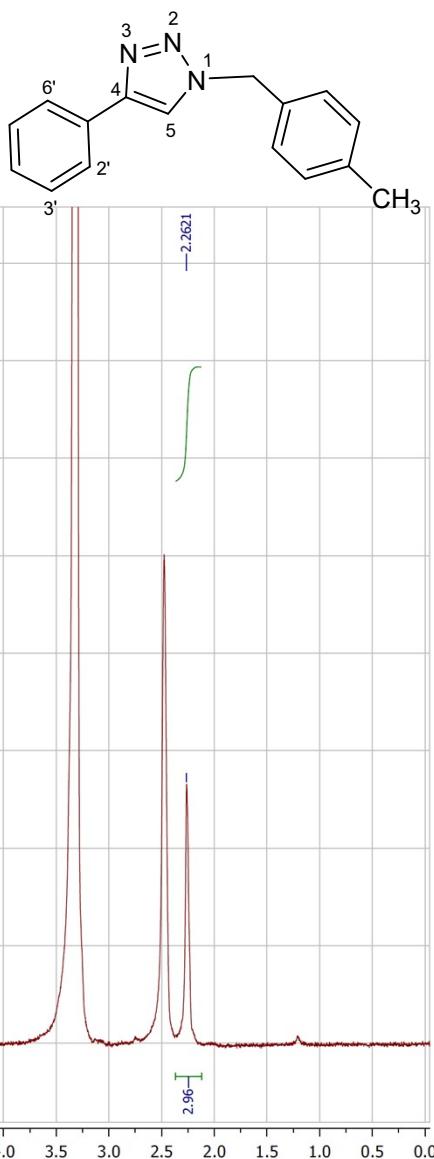
S₅ The ¹H NMR spectrum of 1-(4-bromobenzyl)-4-phenyl-1*H*-1,2,3-triazole

¹H NMR (250 MHz, DMSO-*d*₆): δ = 8.61 (s, 1H, 5-H), 7.81 (d, *J* 6 Hz, 2H), 7.57 (d, *J* 6 Hz, 2H), 7.40-7.38 (m, 5H), 5.61 (s, 2H, CH₂).



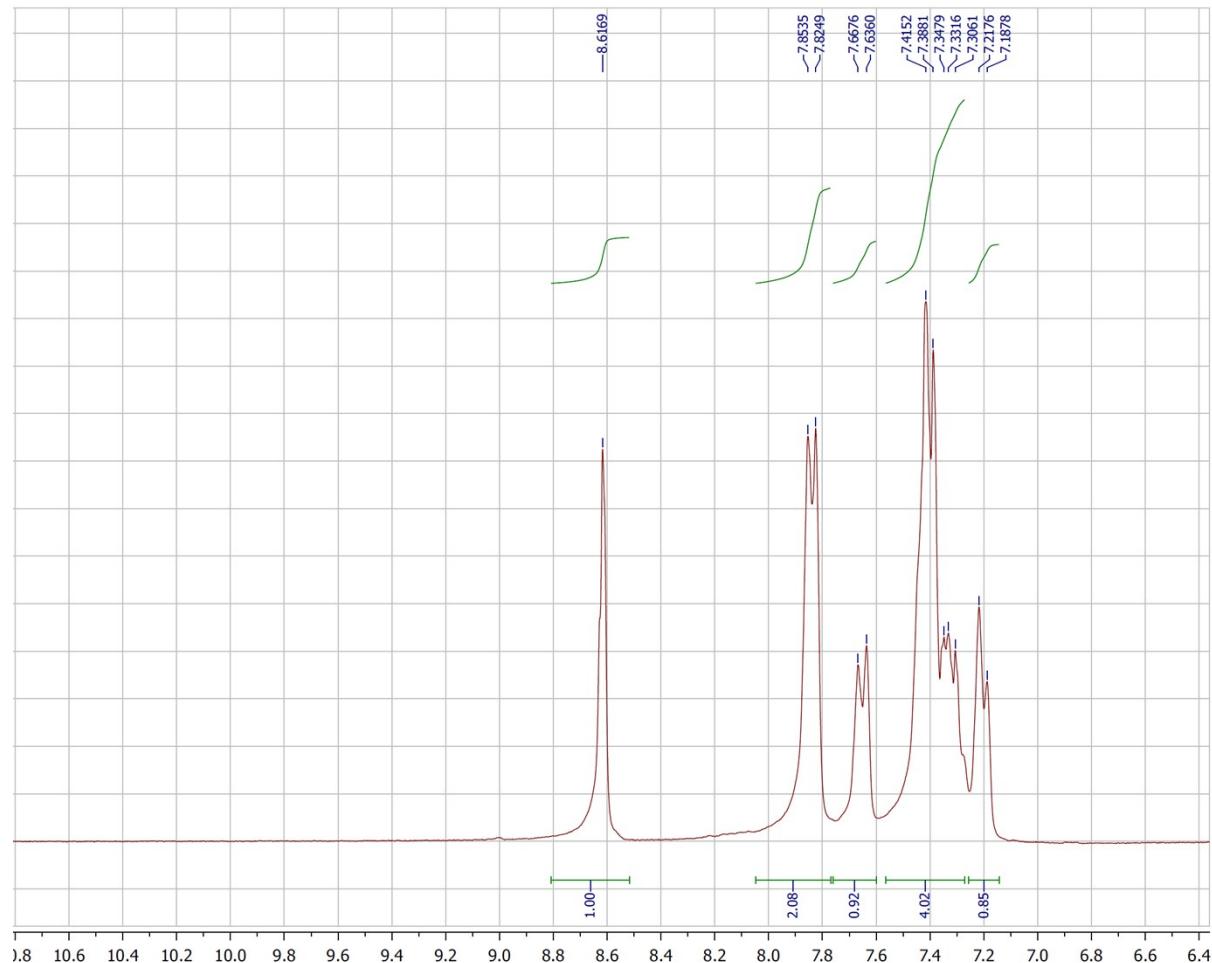
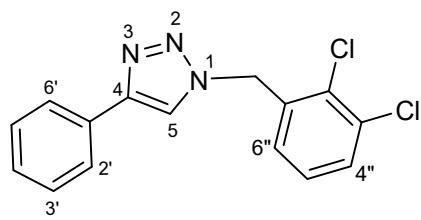
S₆. The ¹H NMR spectrum of 1-(4-methylbenzyl)-4-phenyl-1*H*-1,2,3-triazole

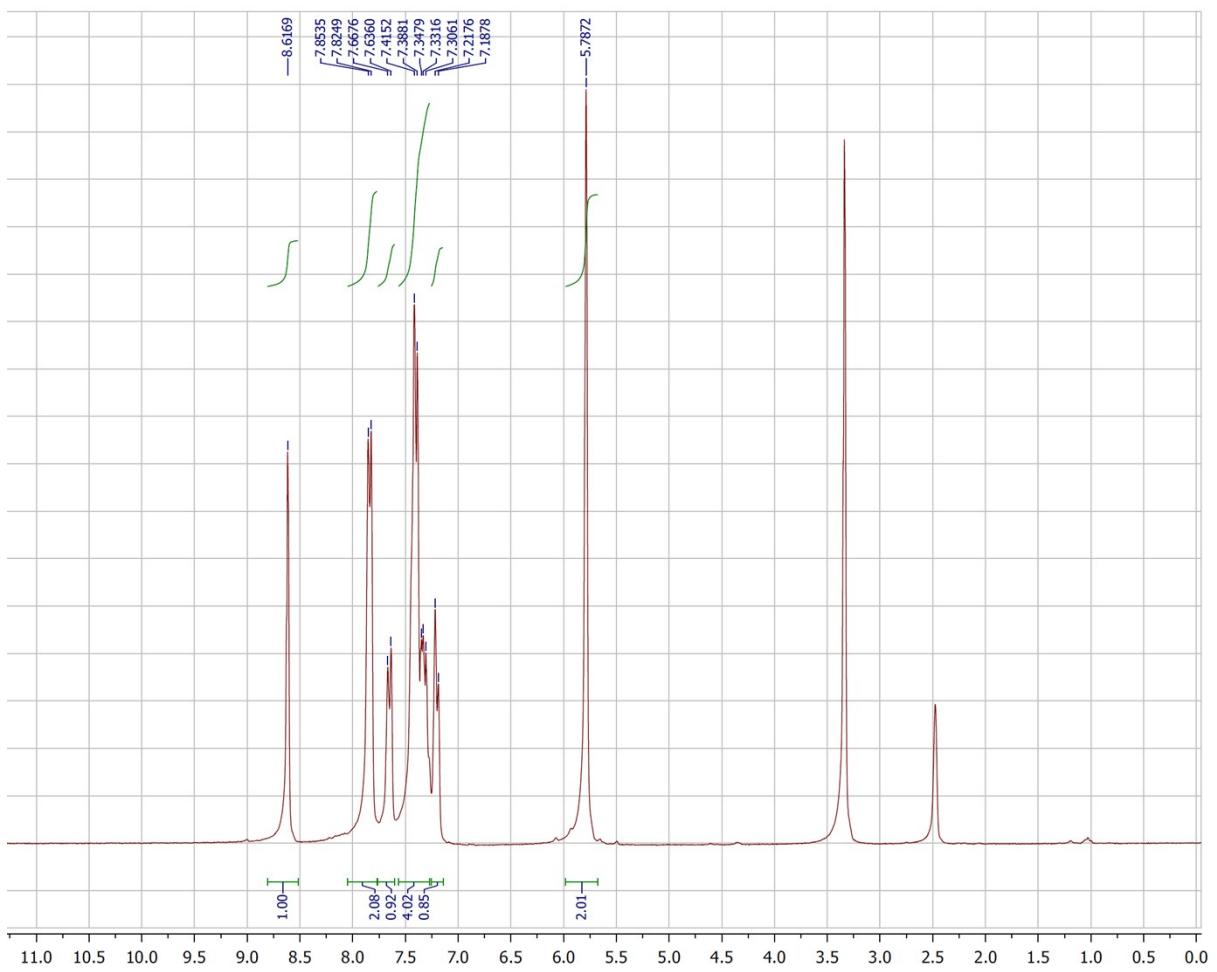
¹H NMR (250 MHz, DMSO-*d*₆): δ = 8.59 (s, 1H, 5-H), 7.81 (d, *J* 6.3 Hz, 2',6'-H), 7.41 (t, *J* 6.6 Hz, 2H, 3',5'-H), 7.30-7.18 (m, 5H), 5.56 (s, 2H, CH₂), 2.26 (s, 3H, CH₃).



S₇. The ¹H NMR spectrum of 1-(2,3-dichlorobenzyl)-4-phenyl-1*H*-1,2,3-triazole

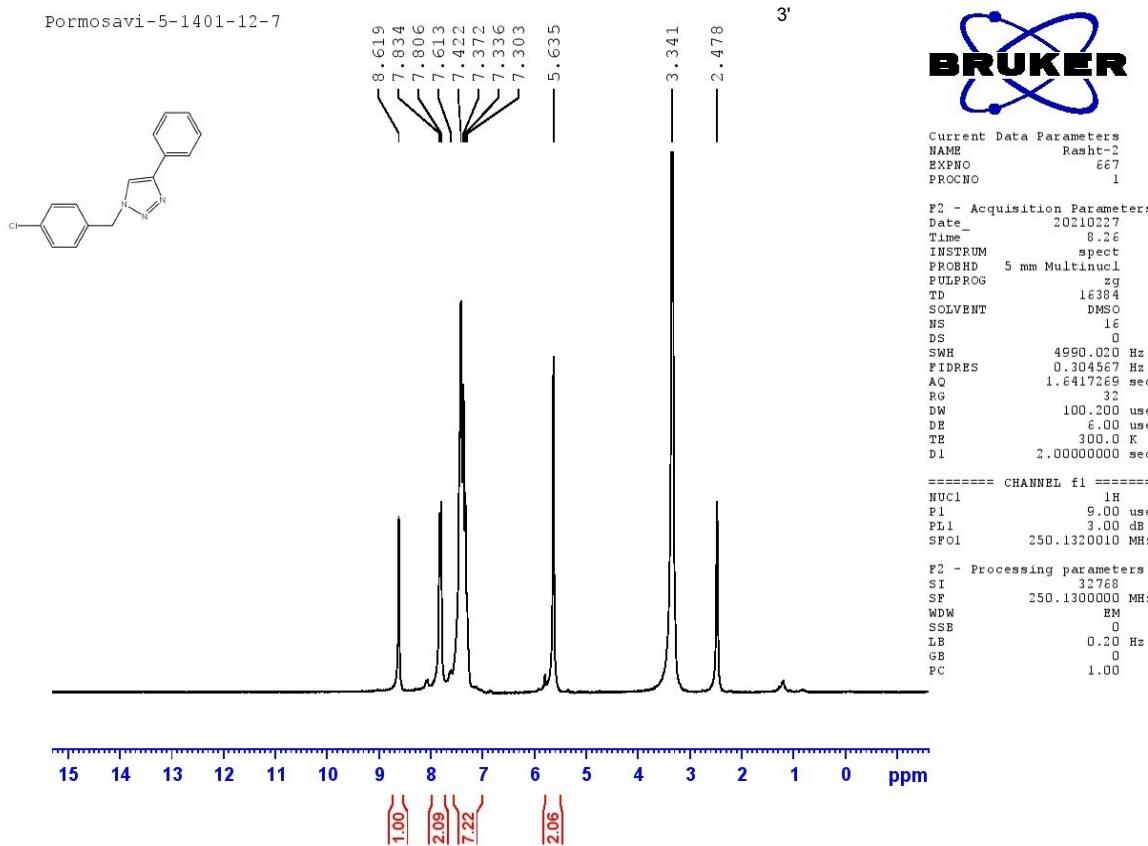
¹H NMR (250 MHz, DMSO-*d*₆): δ = 8.62 (s, 1H), 7.84 (d, *J* 7.2 Hz, 2H, 2',6'-H), 7.65 (d, *J* 7.9 Hz, 1H, 4"-H), 7.41-7.30 (m, 4H), 7.20 (d, *J* 7.4 Hz, 1H, 6"-H), 5.79 (s, 2H, CH₂).





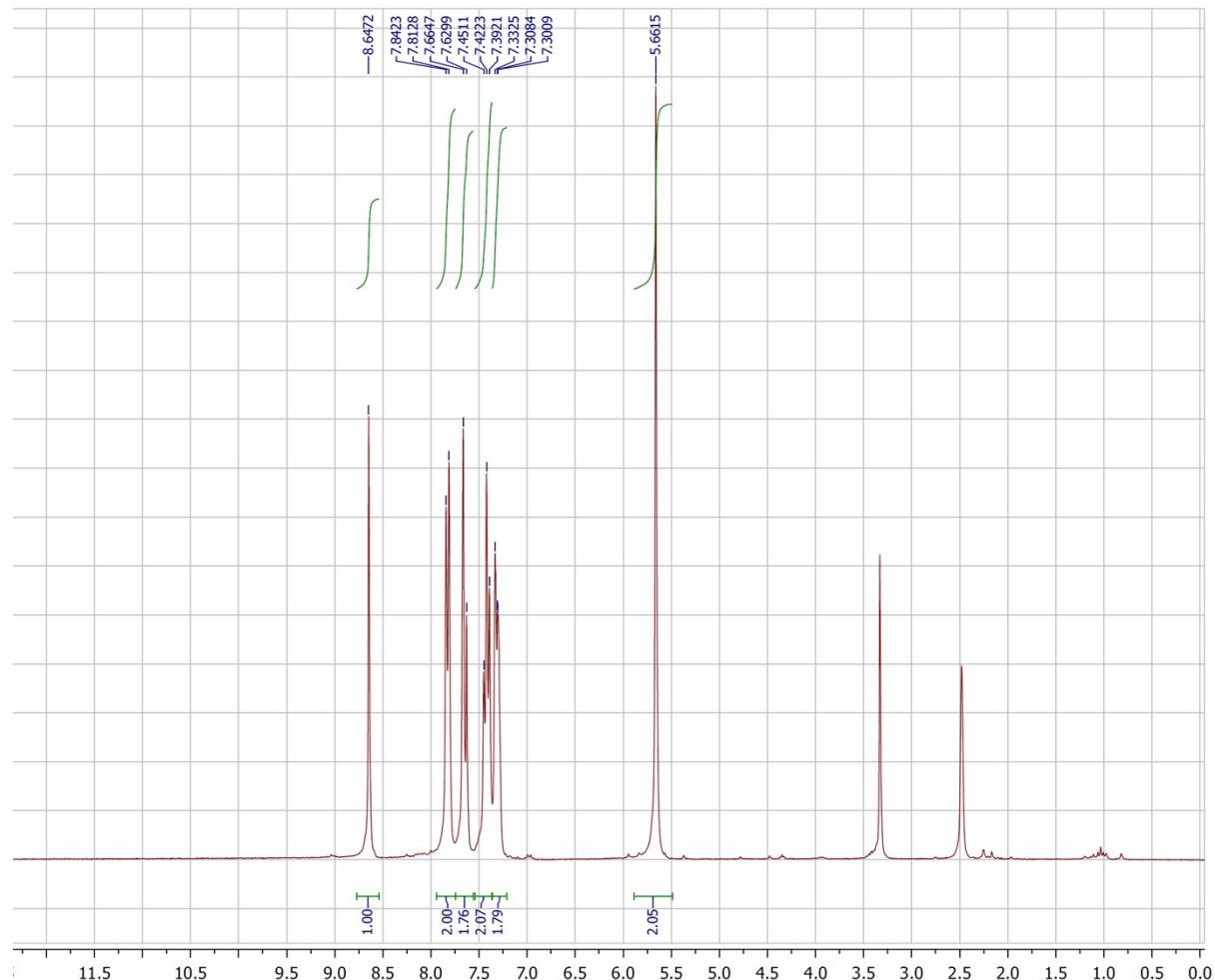
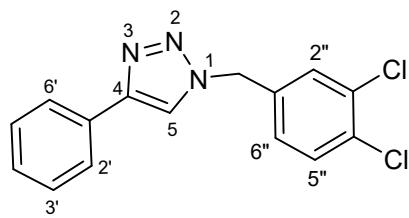
S₈. The ¹H NMR spectrum of 1-(4-chlorobenzyl)-4-phenyl-1*H*-1,2,3-triazole

¹H NMR (250 MHz, DMSO-*d*₆): δ 8.62 (s, 1H), 7.82 (d, *J* 7.0 Hz, 2H, 2',6'-H), 7.61-7.30 (m, 7H), 5.64 (s, 2H, CH₂).



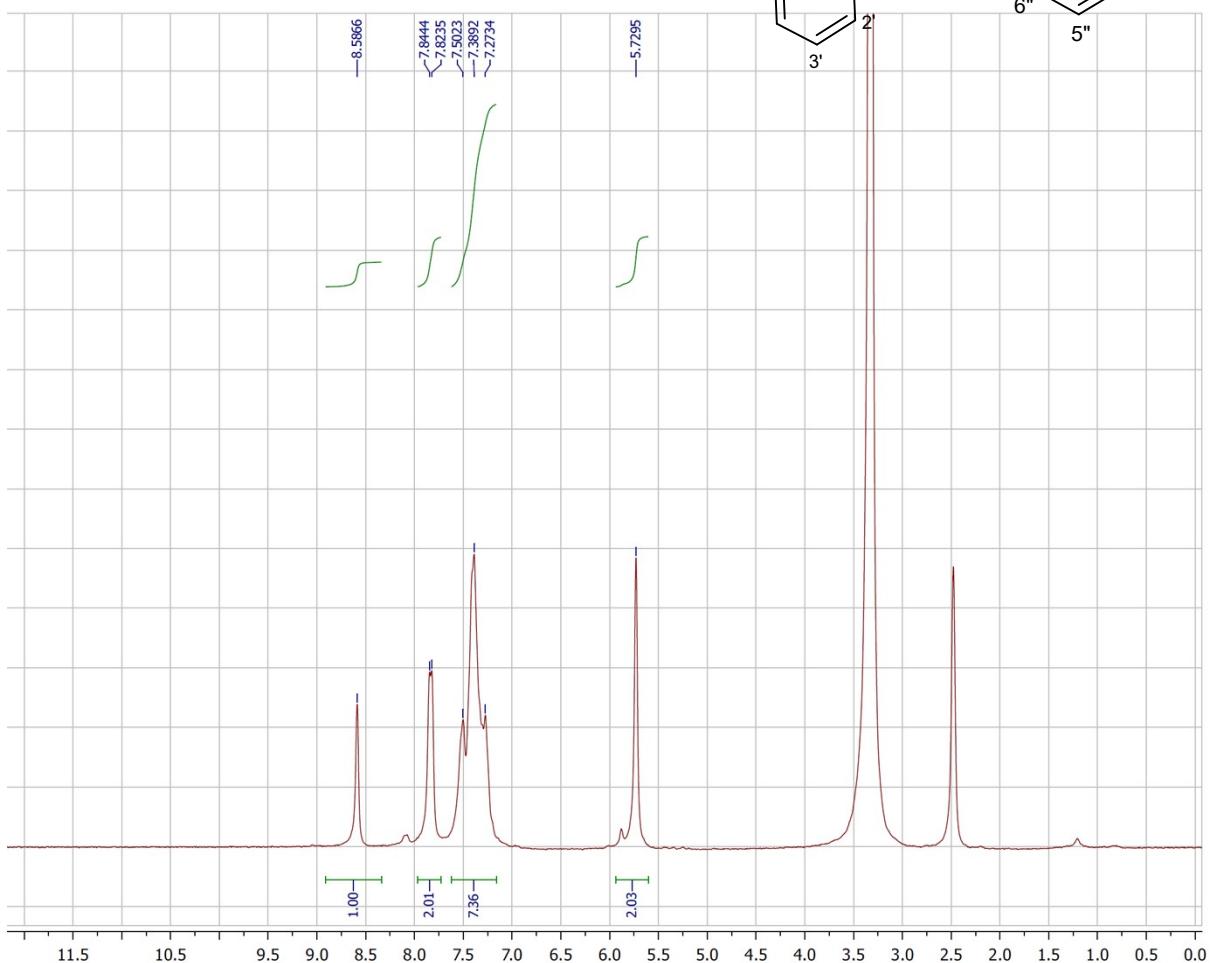
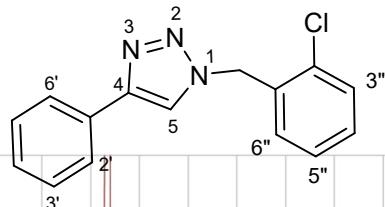
S₉. The ¹H NMR spectrum of 1-(3,4-dichlorobenzyl)-4-phenyl-1*H*-1,2,3-triazole

¹H NMR (250 MHz, DMSO-*d*₆): δ 8.65 (s, 1H, 5-H), 7.83 (d, *J* 7.4 Hz, 2H, 2',6'-H), 7.66 (s, 1H, 2"-H), 7.65 (d, *J* 8.7 Hz, 1H, 5"-H), 7.42 (t, *J* 7.4 Hz, 2H, 3',5'-H), 7.33-7.30 (m, 2H, 4'-H and 6"-H), 5.66 (s, 2H).



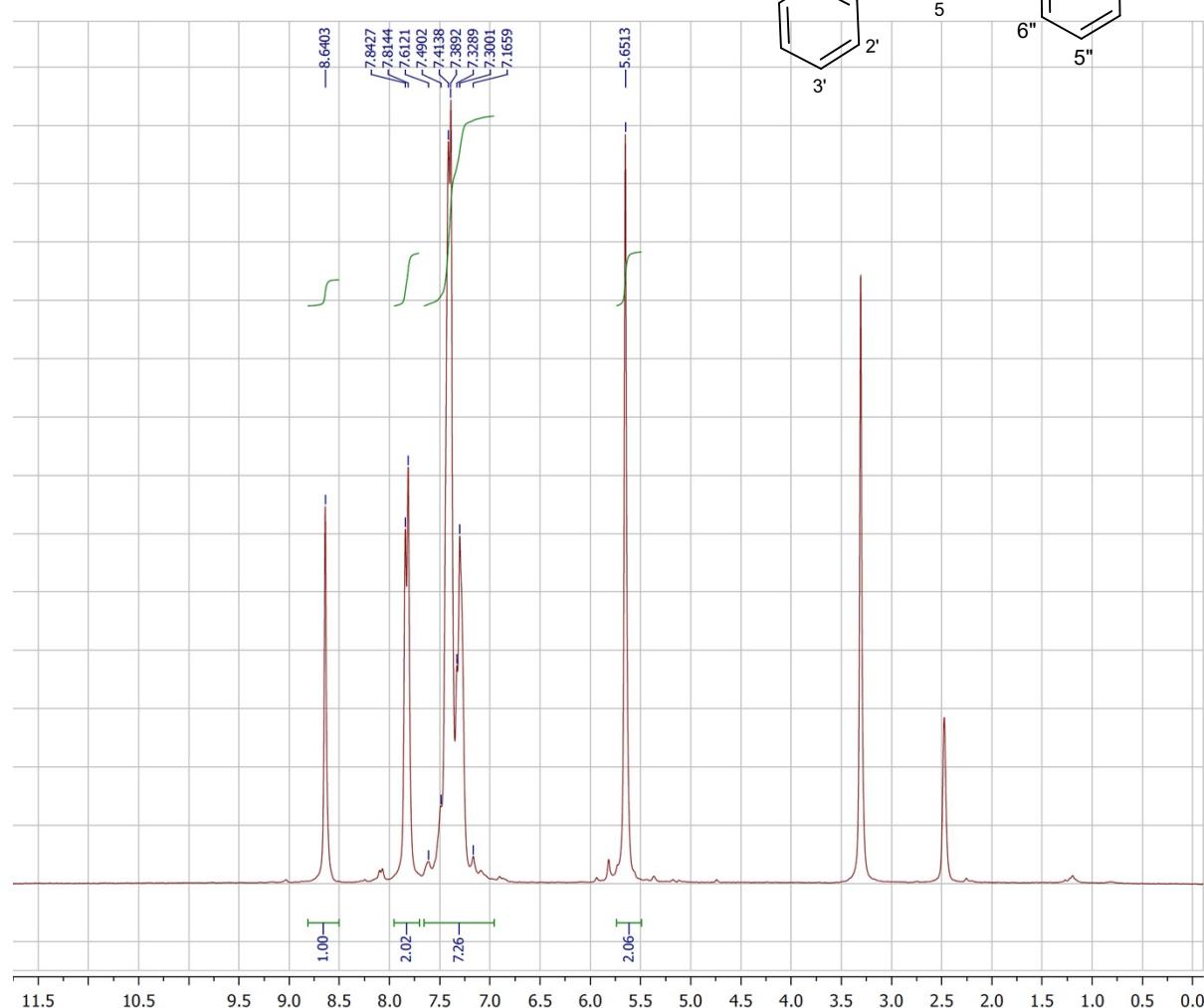
S₁₀. The ¹H NMR spectrum of 1-(2-chlorobenzyl)-4-phenyl-1*H*-1,2,3-triazole

¹H NMR (250 MHz, DMSO-*d*₆): δ 8.59 (s, 1H, 5-H), 7.83 (d, *J* 5.2Hz, 2H, 2',6'-H), 7.27-7.50 (m, 7 H), 5.73 (s, 2H, CH₂).



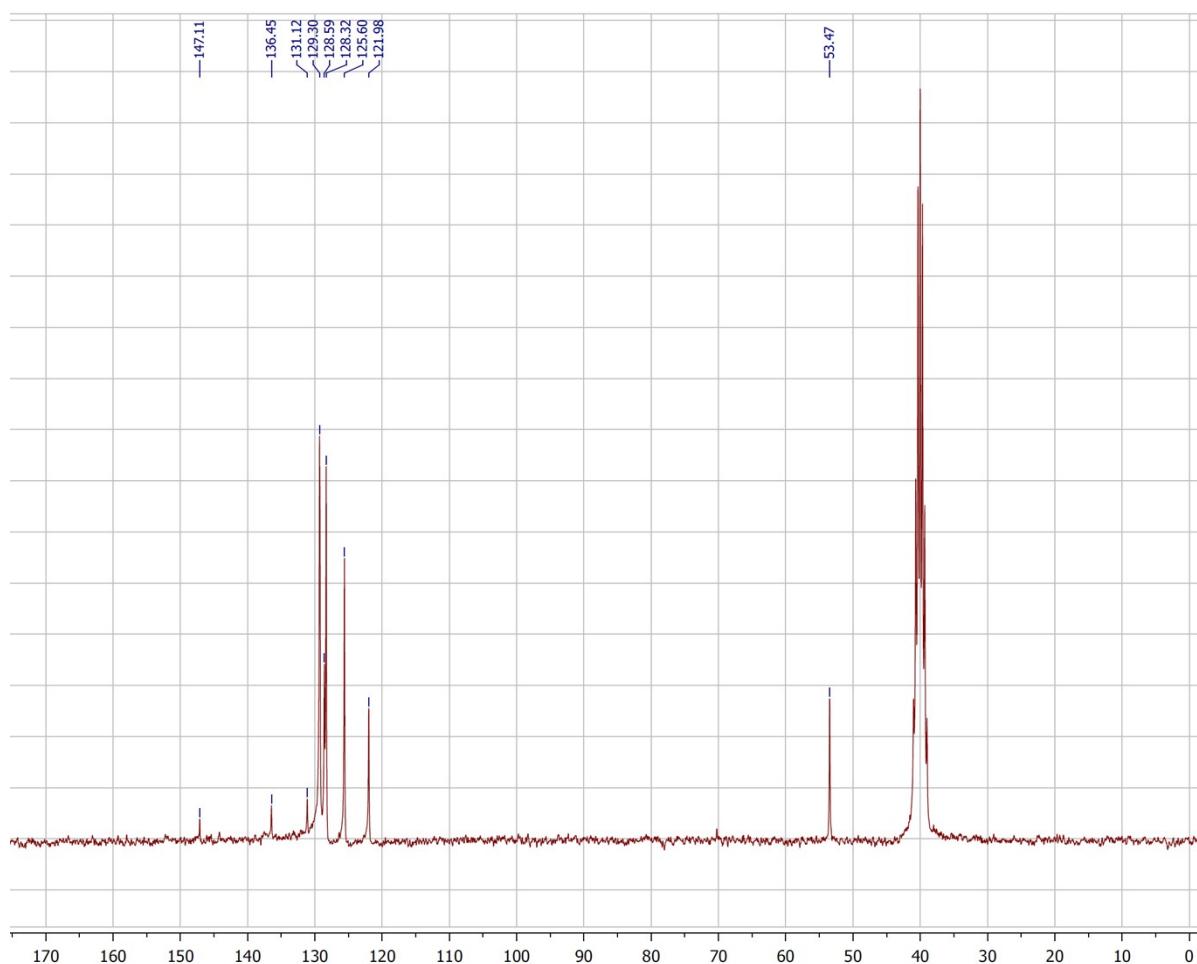
S₁₁. The ¹H NMR spectrum of 1-(3-chlorobenzyl)-4-phenyl-1*H*-1,2,3-triazole

¹H NMR (250 MHz, DMSO-*d*₆): δ 8.64 (s, 1H, 5-H), 7.83 (d, *J* 7.1 Hz, 2H, 2',6'-H), 7.61-7.16 (m, 7H), 5.65 (s, 2H, CH₂).



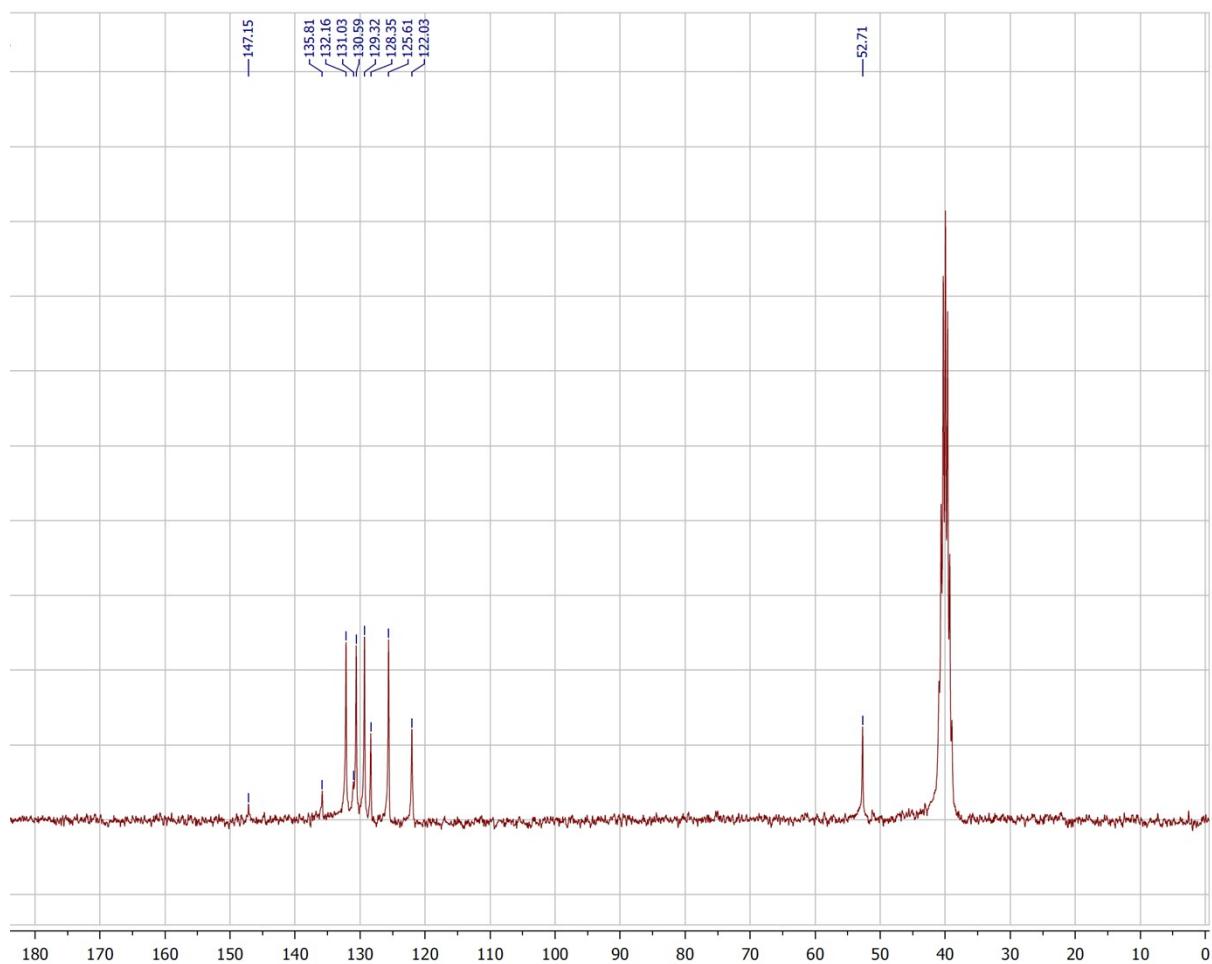
S₁₂. The ¹³C NMR spectrum of 1-benzyl-4-phenyl-1*H*-1,2,3-triazole

^{13}C NMR (62.5 MHz, DMSO-d₆): δ = 147.11, 136.45, 131.12, 129.30, 128.59, 128.32, 125.60, 121.98, 53.47.



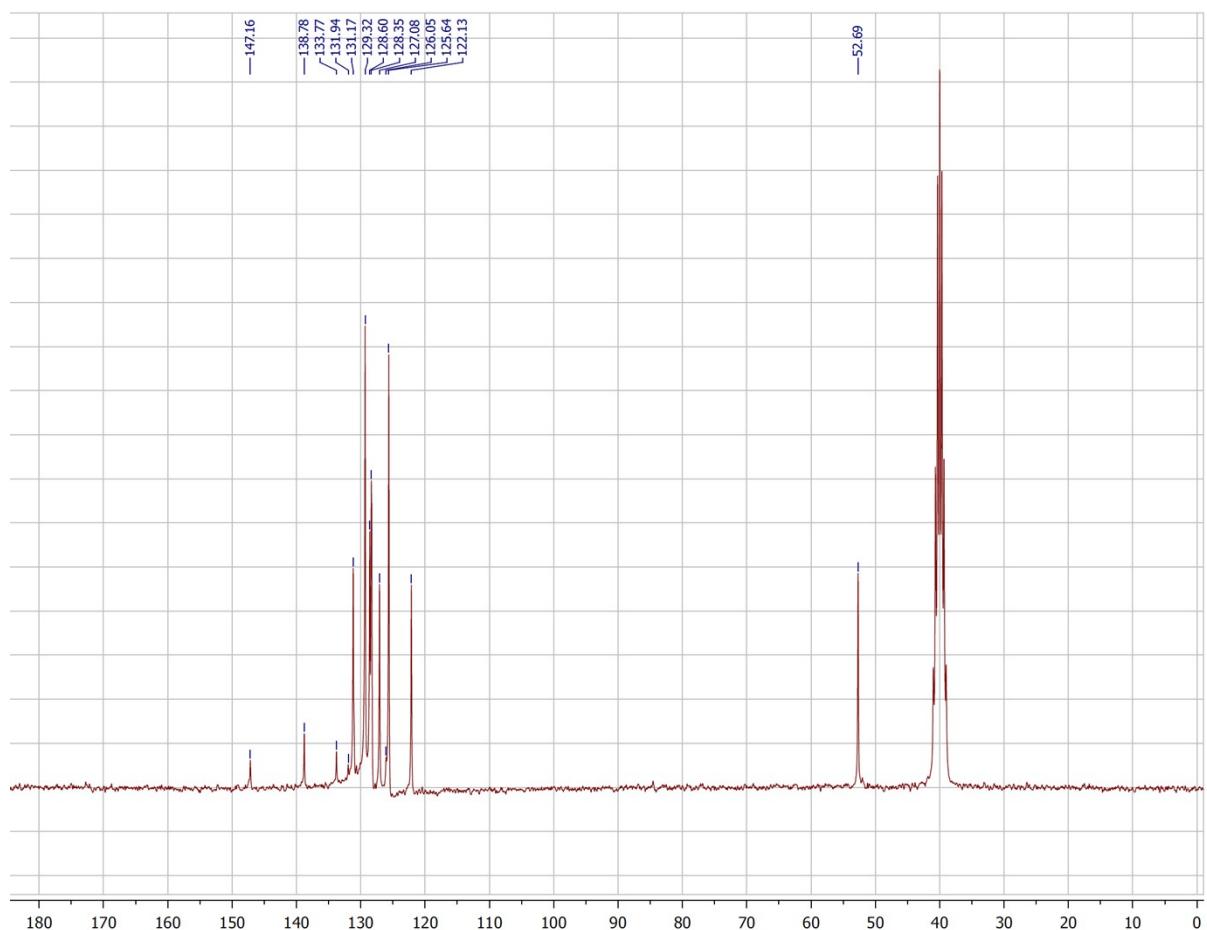
S₁₃. The ^{13}C NMR spectrum of 1-(4-bromobenzyl)-4-phenyl-1*H*-1,2,3-triazole

^{13}C NMR (62.5 MHz, DMSO- d_6): δ 147.2, 135.8, 132.2, 131.0, 130.6, 129.3, 128.4, 125.6, 122.0, 52.7.



S₁₄. The ^{13}C NMR spectrum of 1-(3-chlorobenzyl)-4-phenyl-1*H*-1,2,3-triazole

^{13}C NMR (62.5 MHz, DMSO- d_6): δ 147.2, 138.8, 133.8, 131.9, 131.2, 129.3, 128.6, 128.4, 127.1, 125.6, 122.1, 52.7.



S₁₅. The ^{13}C NMR spectrum of 1-(4-chlorobenzyl)-4-phenyl-1*H*-1,2,3-triazole

^{13}C NMR (62.5 MHz, DMSO-*d*₆): δ 159.8, 147.6, 130.8, 130.5, 129.4, 128.6, 125.8, 122.1, 120.0, 115.4, 56.0.

