

Tyrosinase-mediated synthesis of larvicidal active 1,5-diphenyl pent-4-en-1-one derivatives against *Culex quinquefasciatus* and investigation of their ichthyotoxicity

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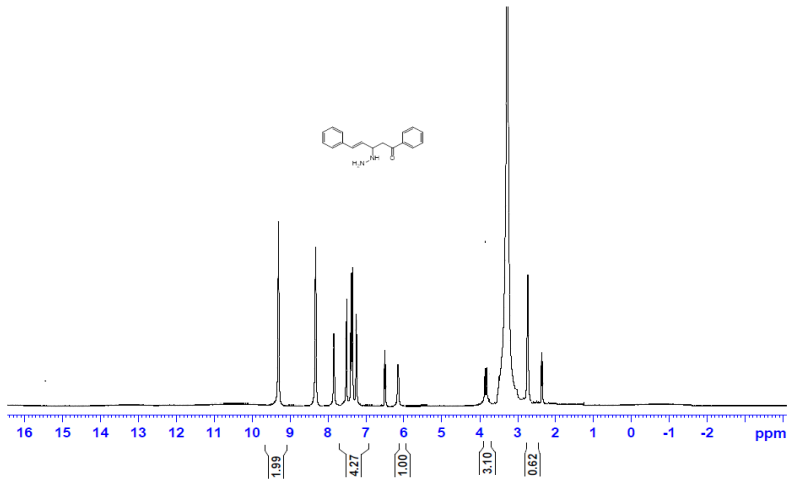
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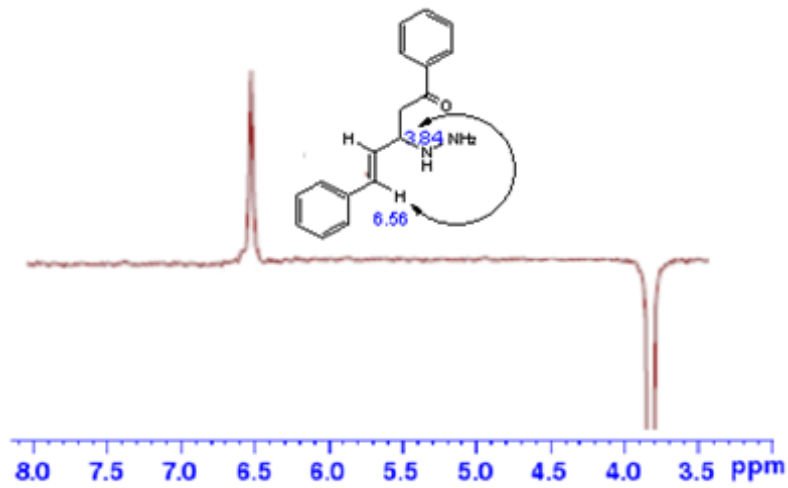
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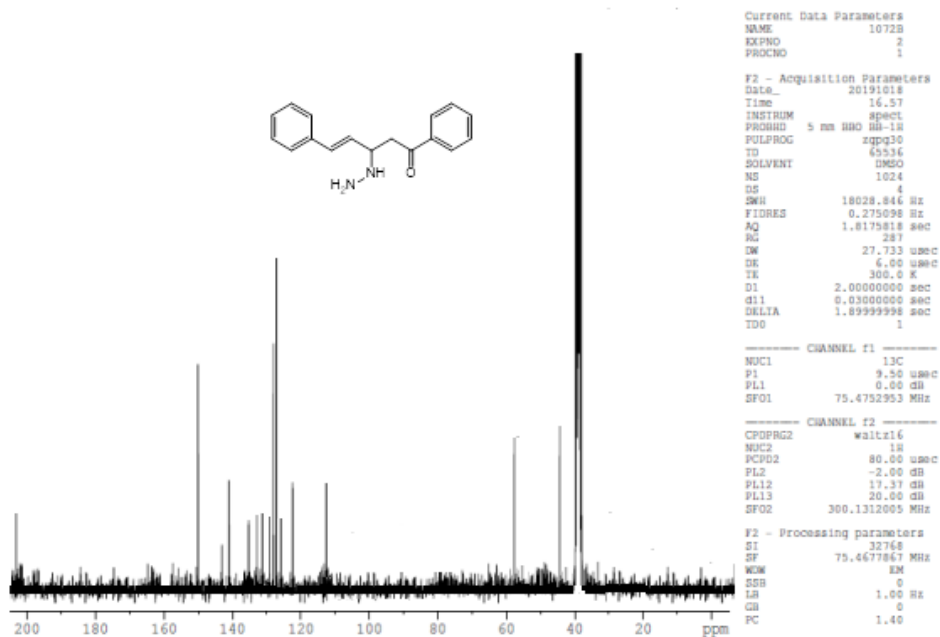
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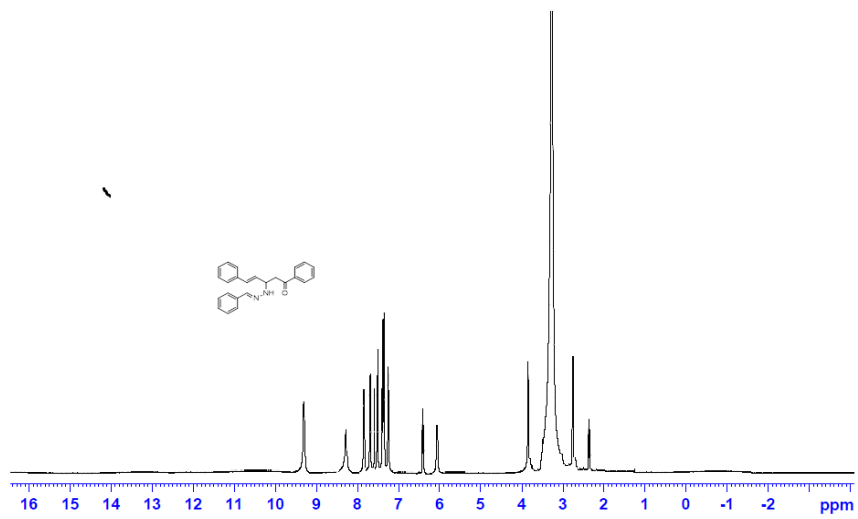
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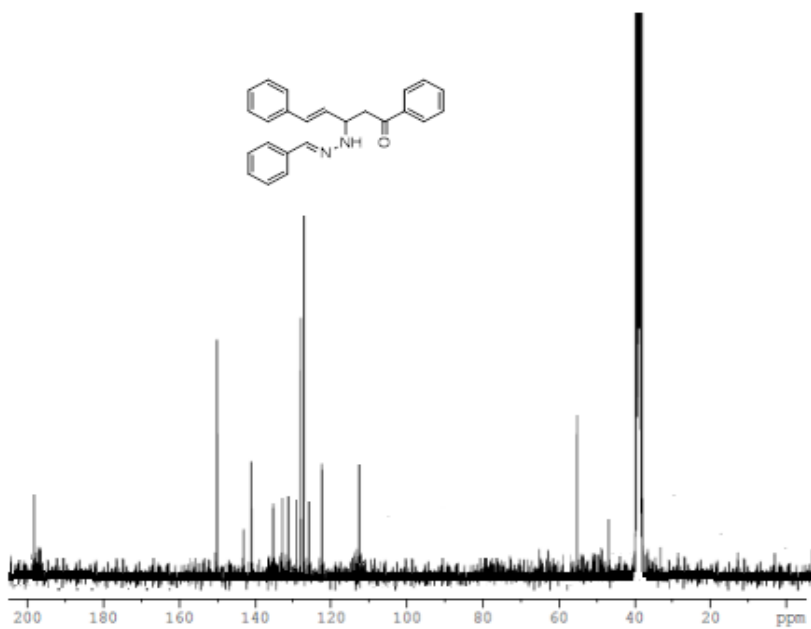
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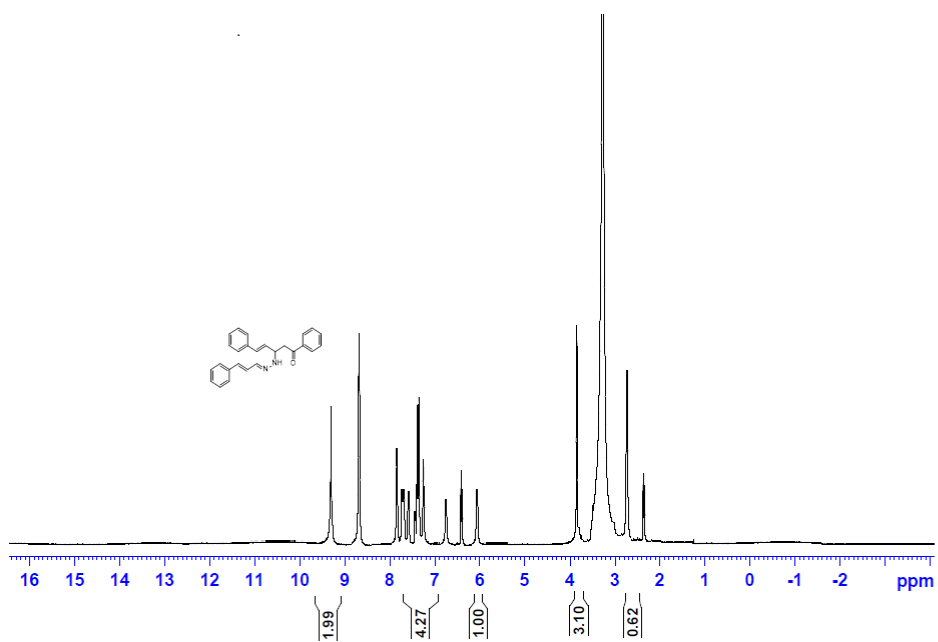
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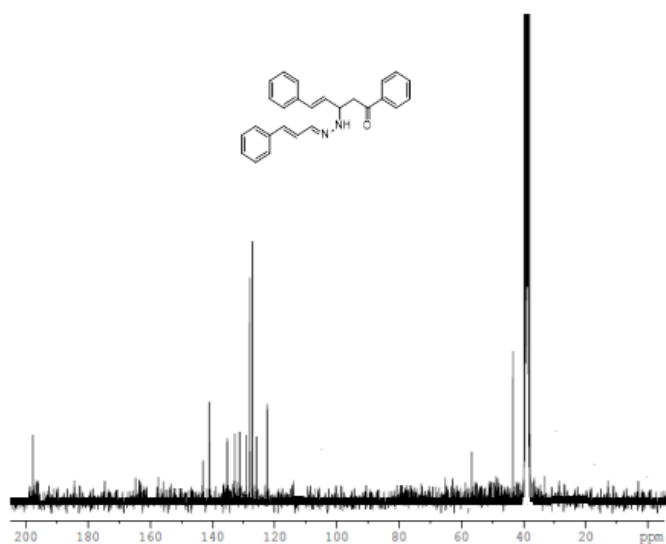
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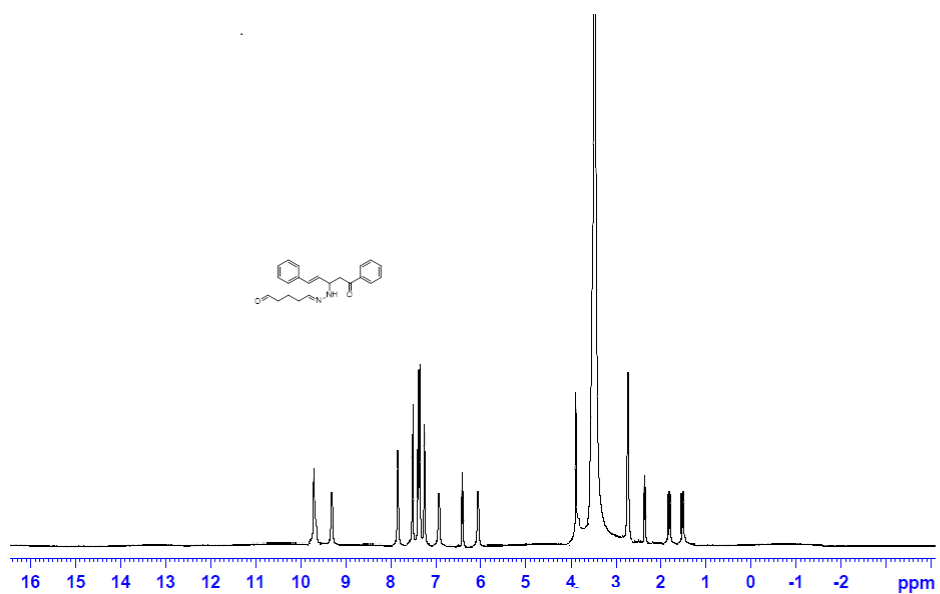
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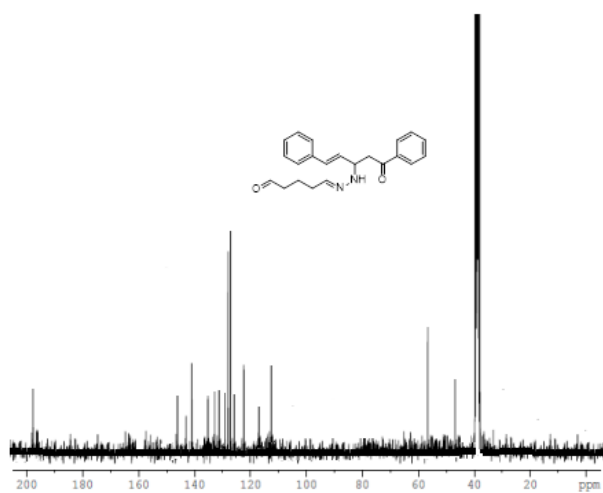
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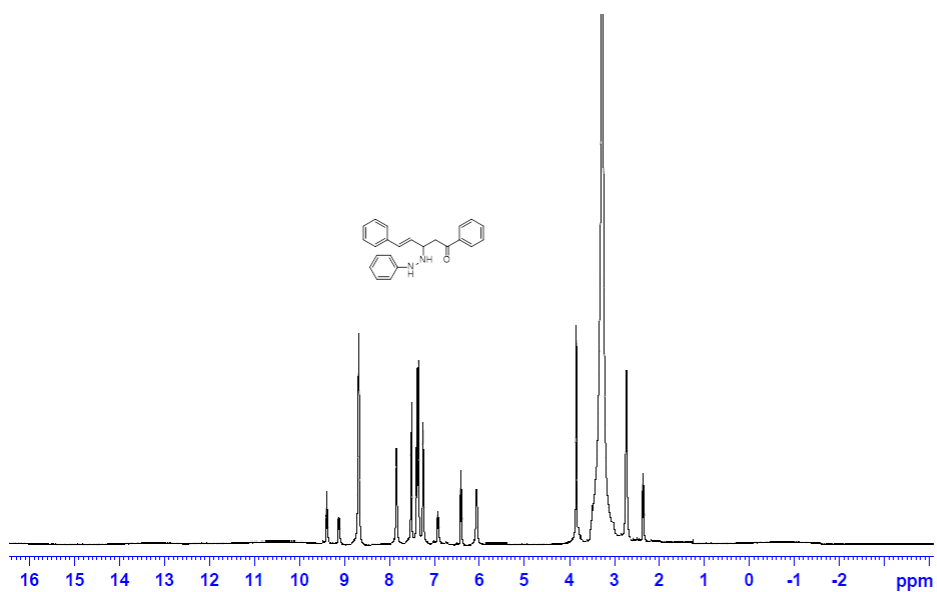
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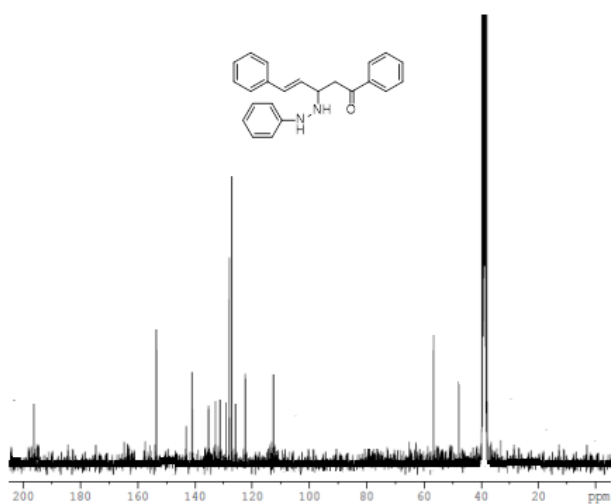
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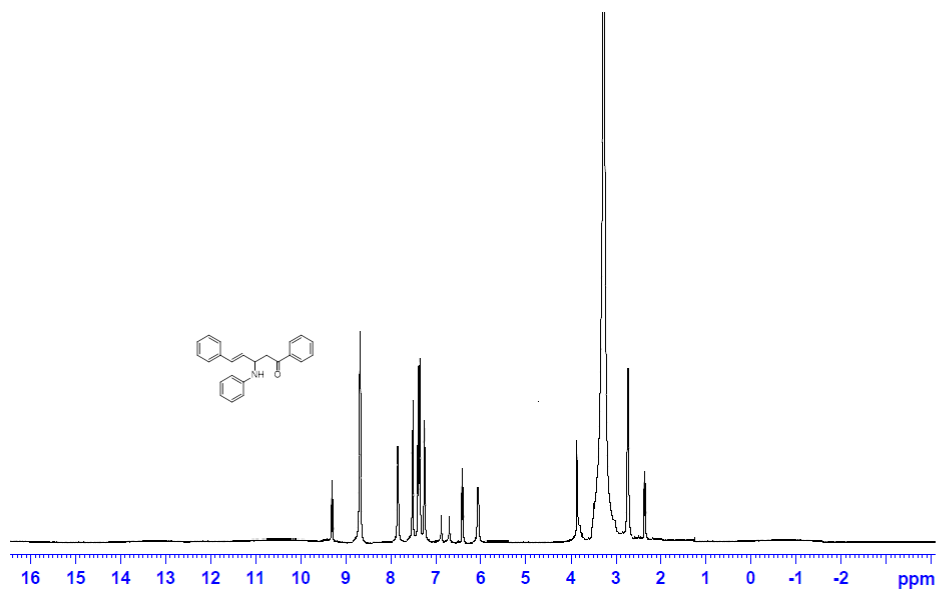
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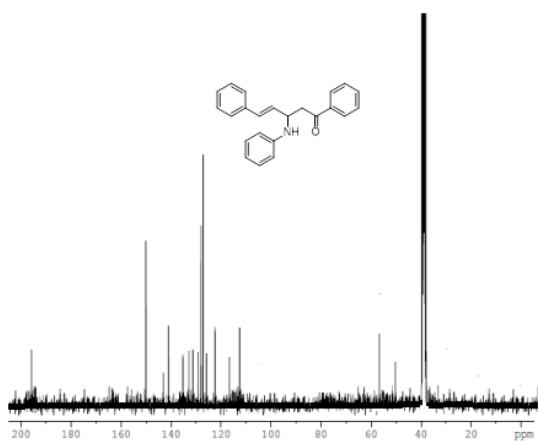
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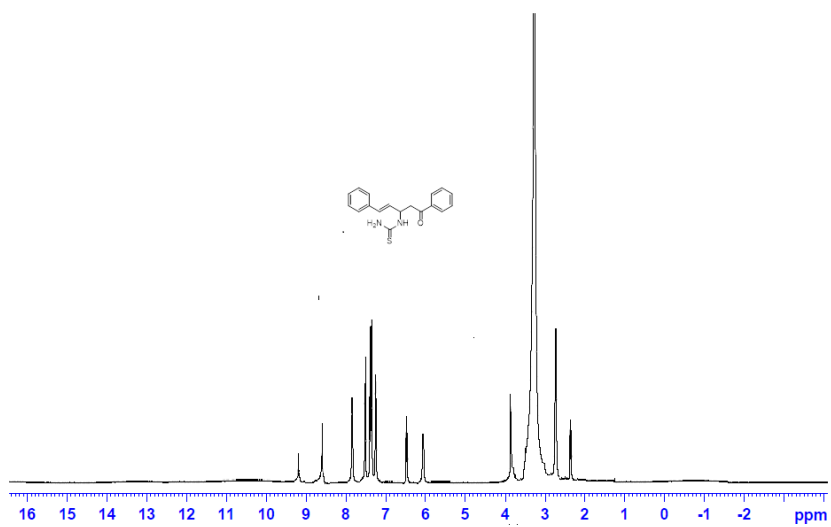
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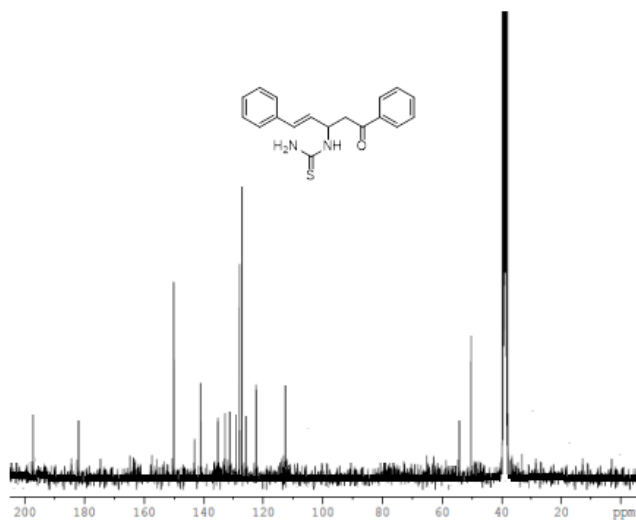
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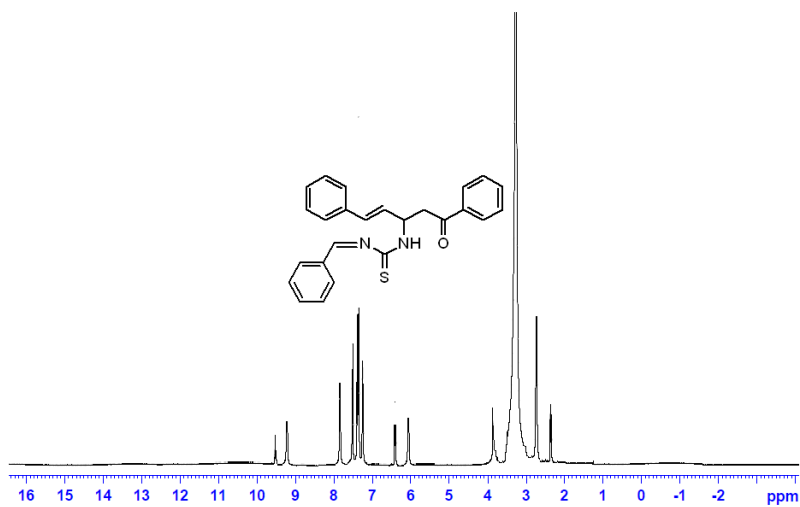
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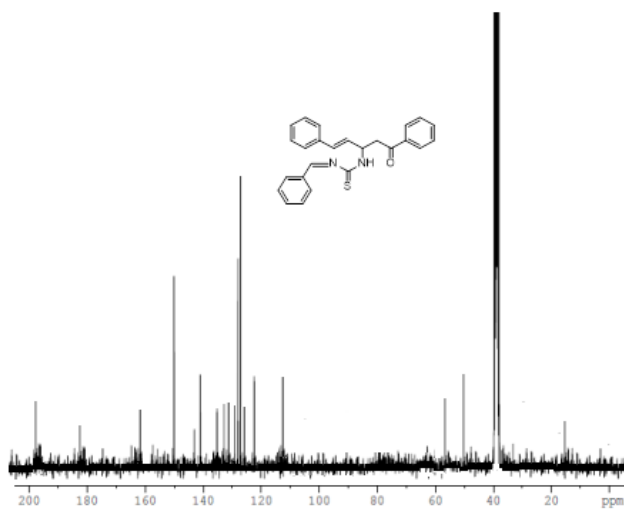
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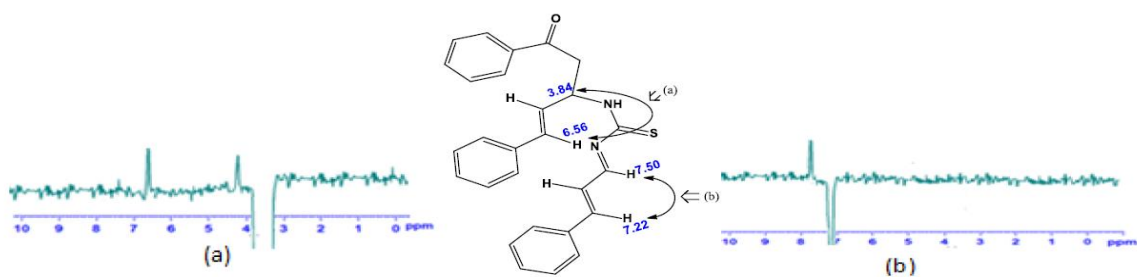
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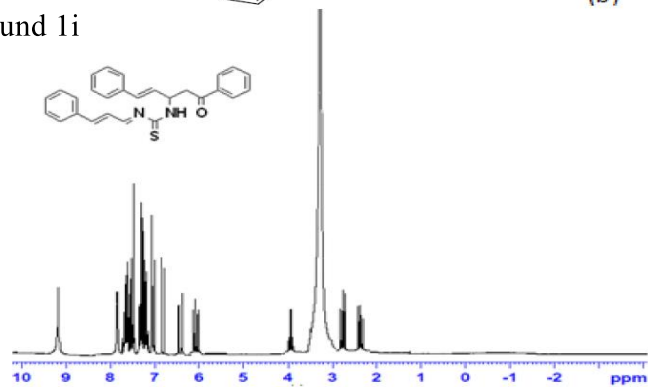
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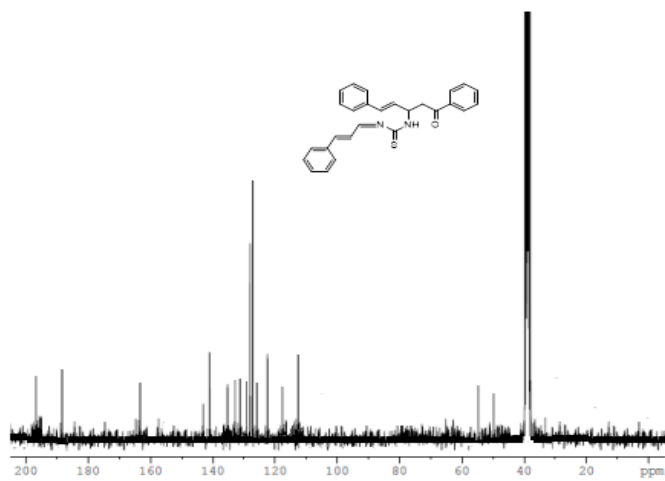
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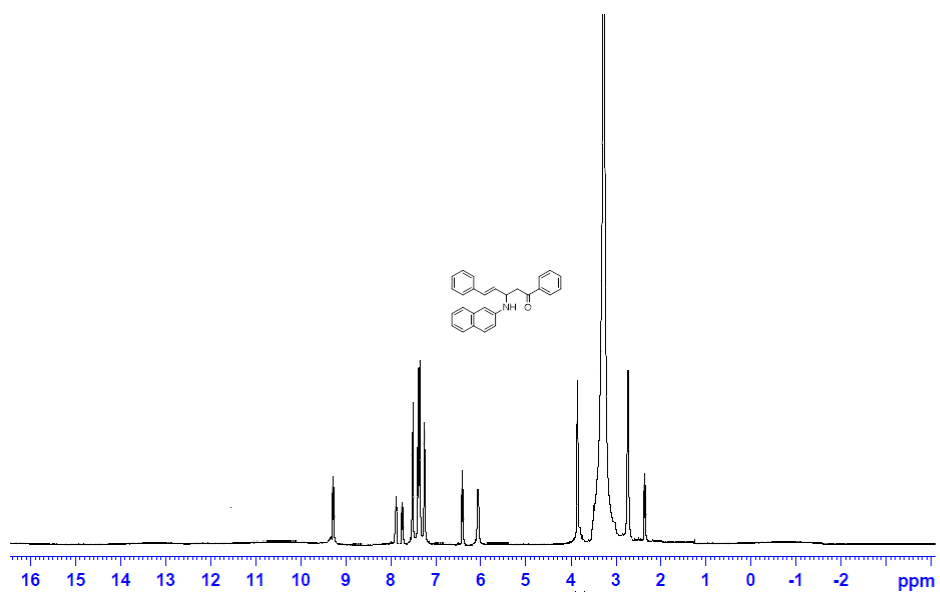
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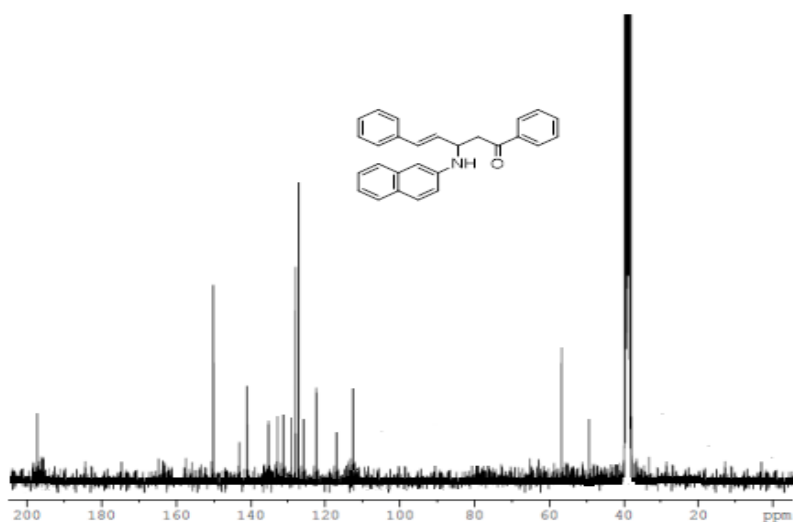
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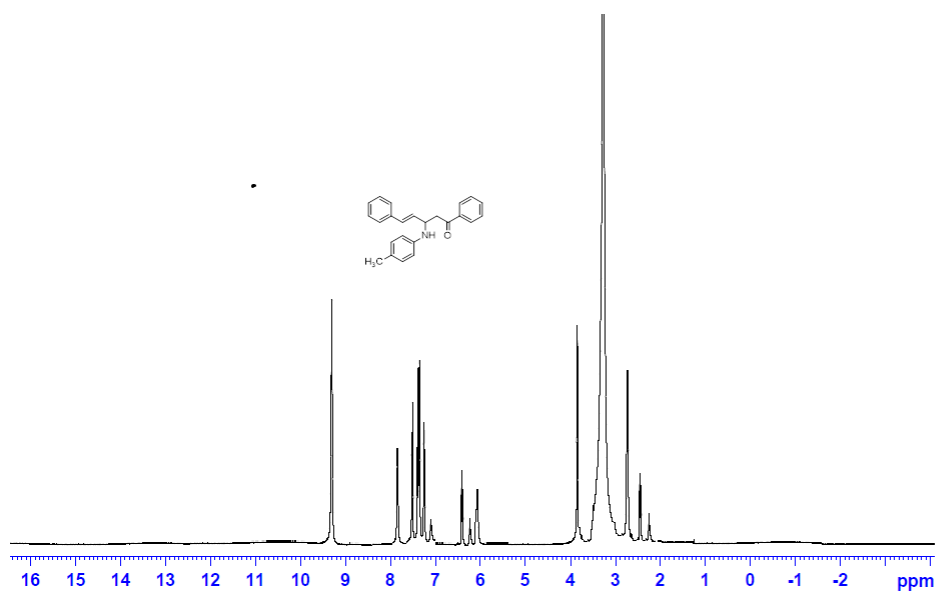
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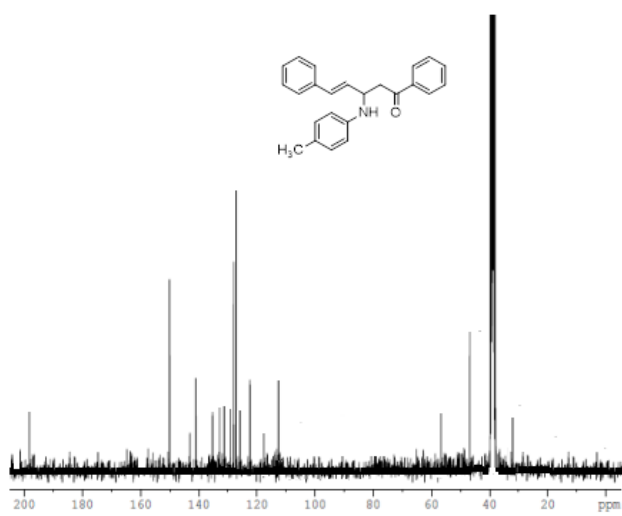
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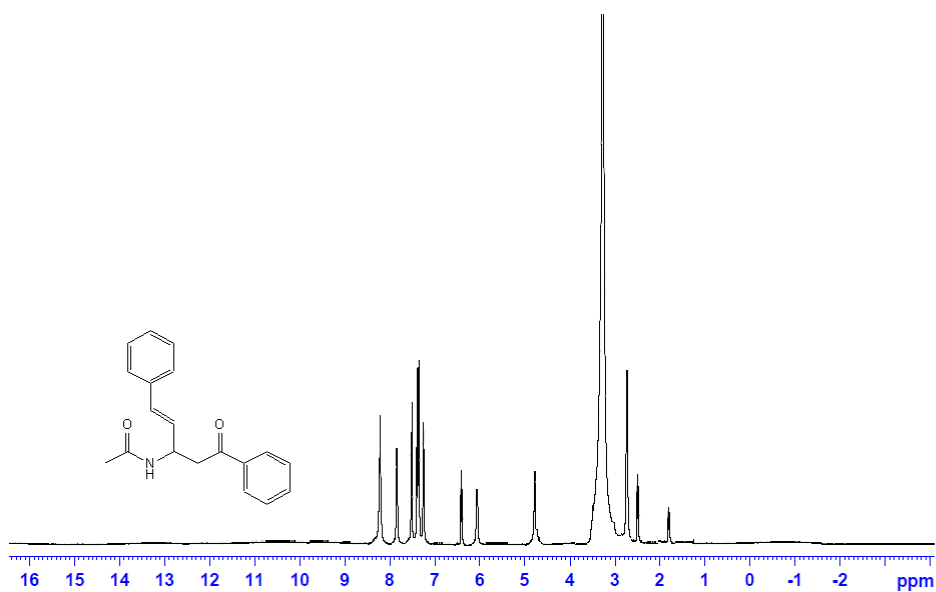
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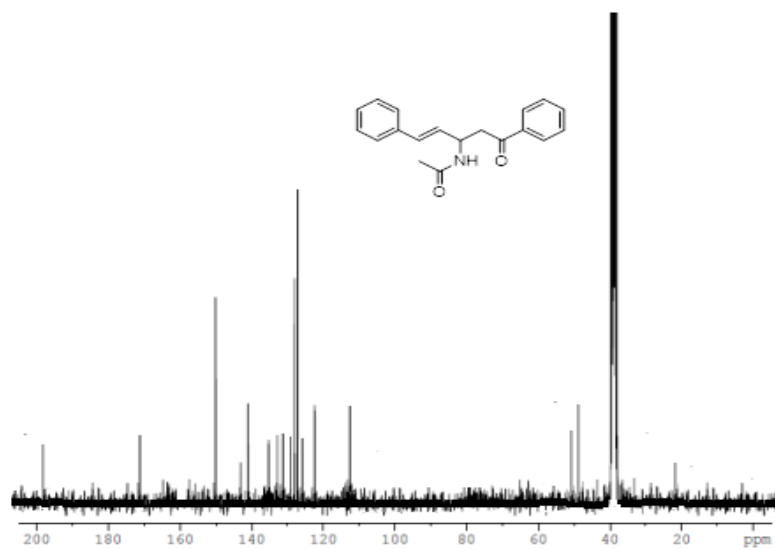
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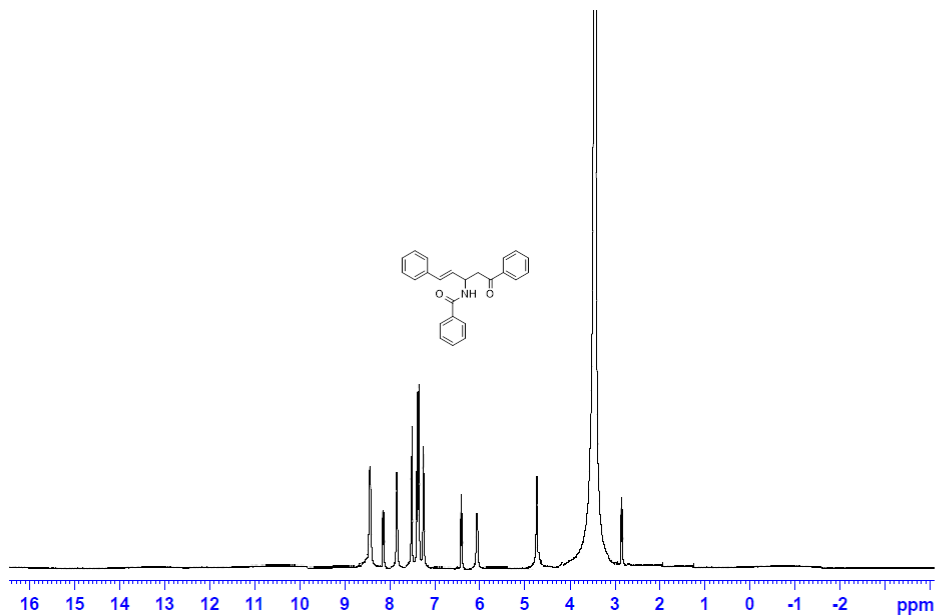
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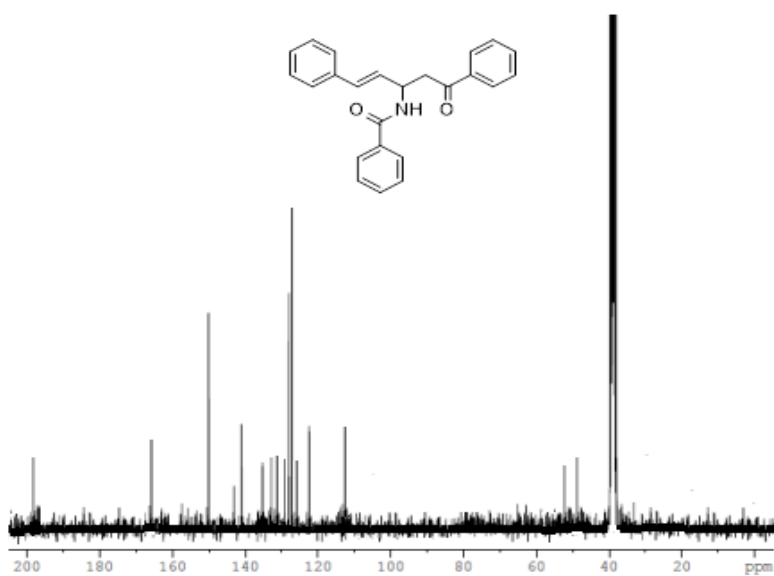
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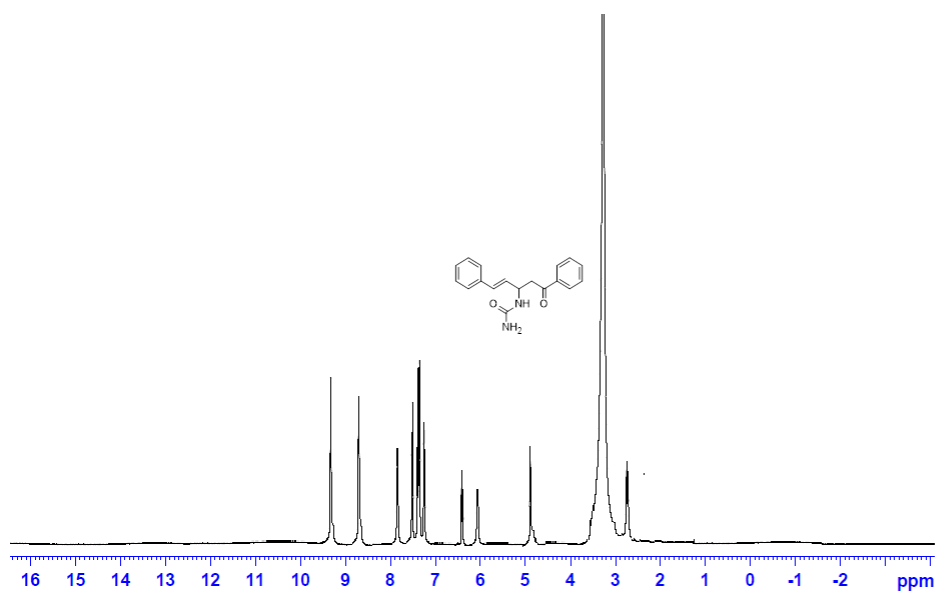
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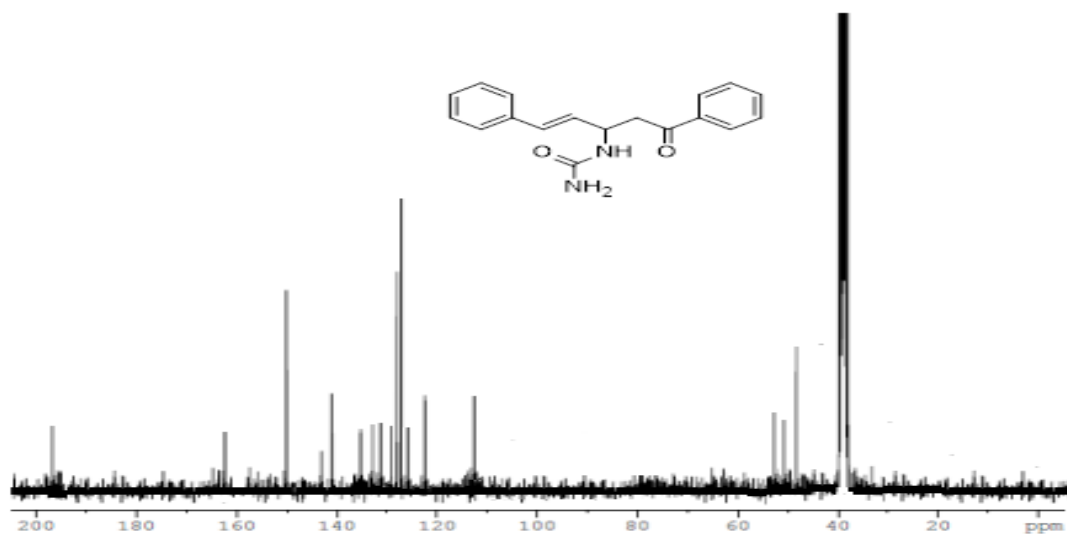
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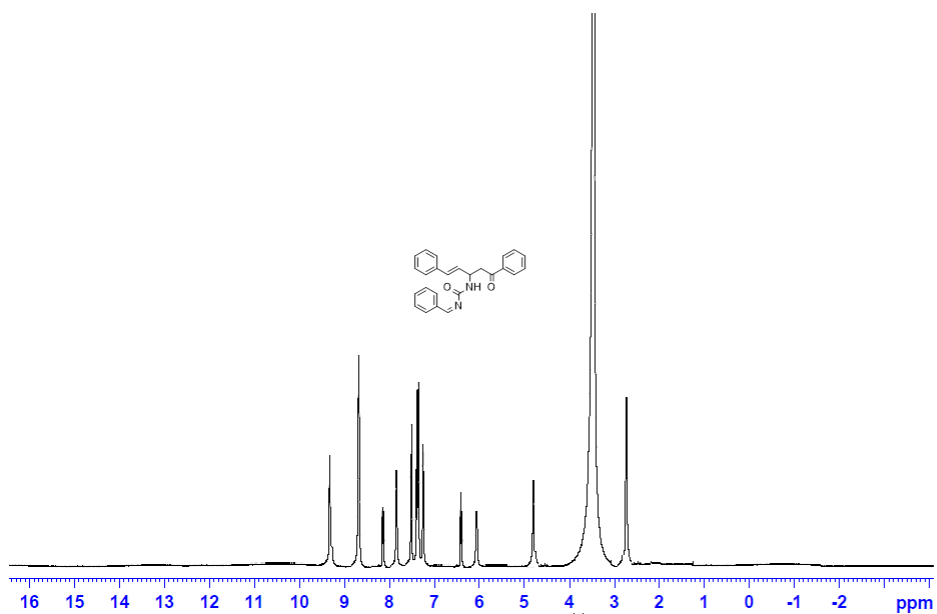
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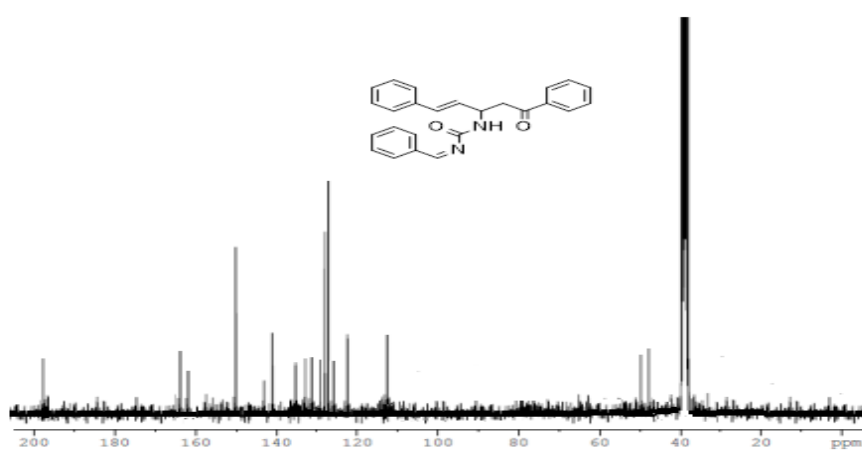
$^1\text{H NMR}$ of the compound n



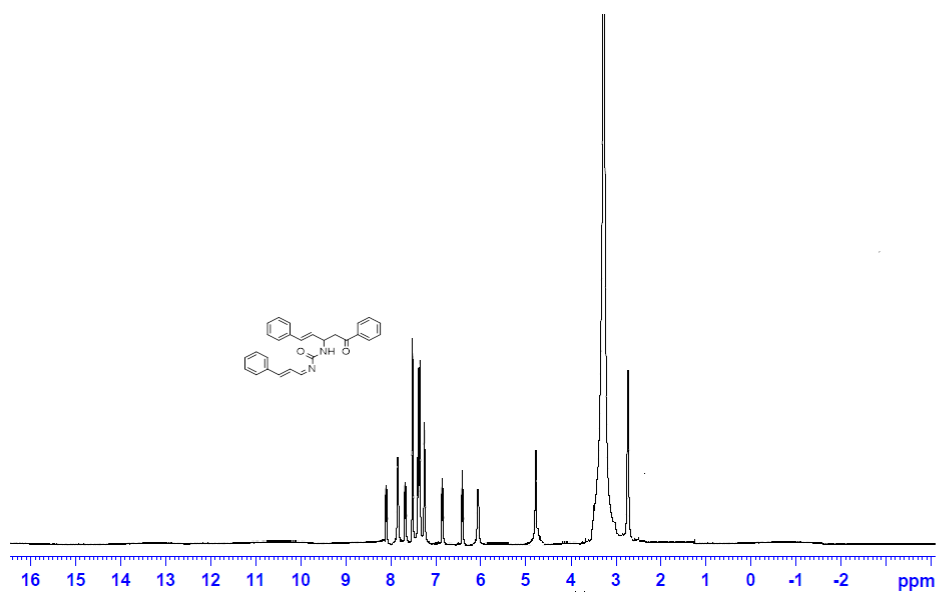
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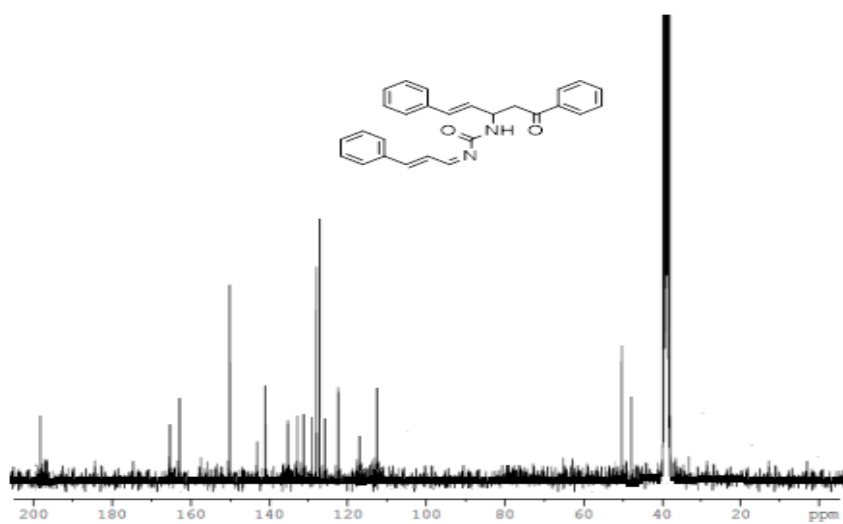
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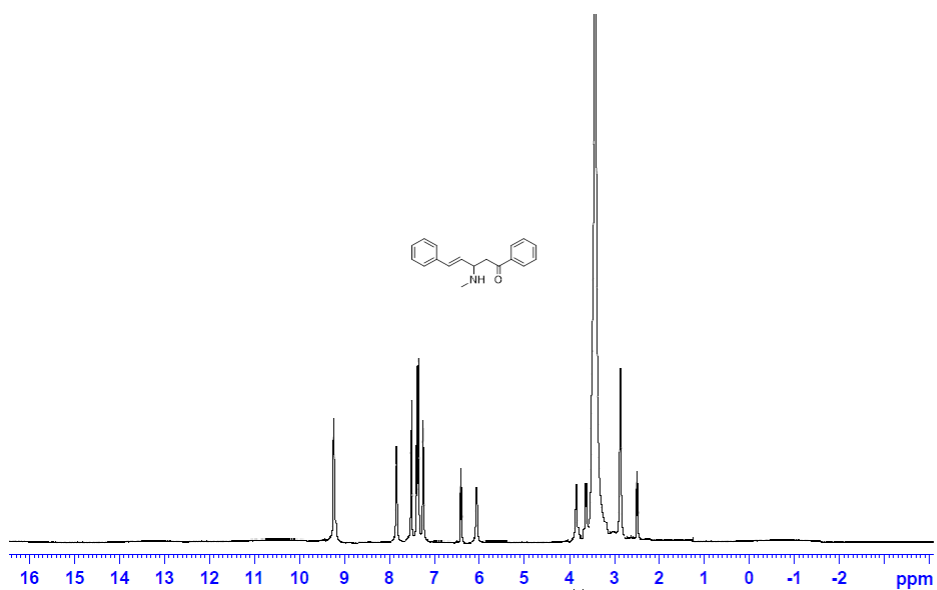
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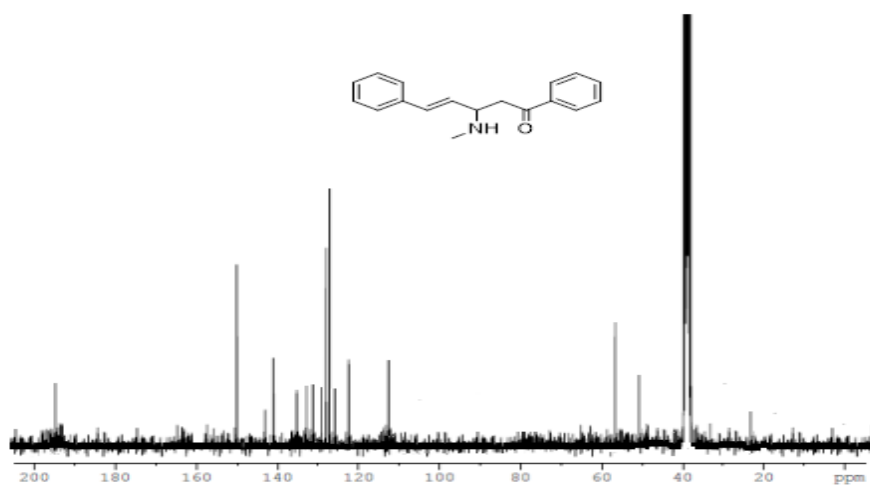
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¹³C NMR of the compound 1p



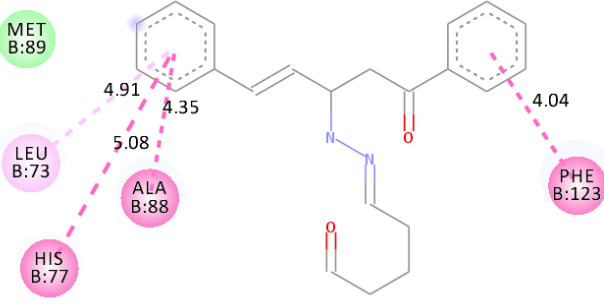
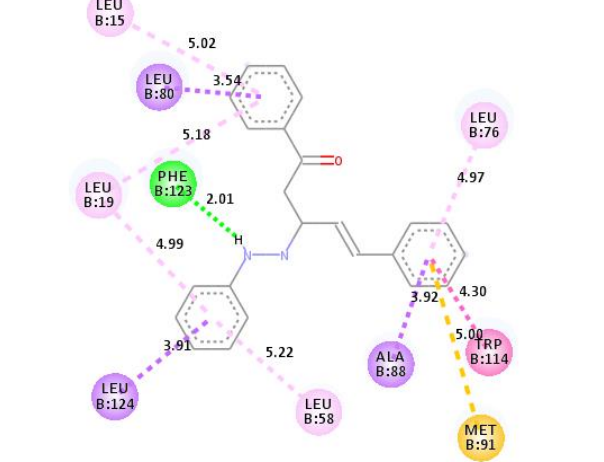
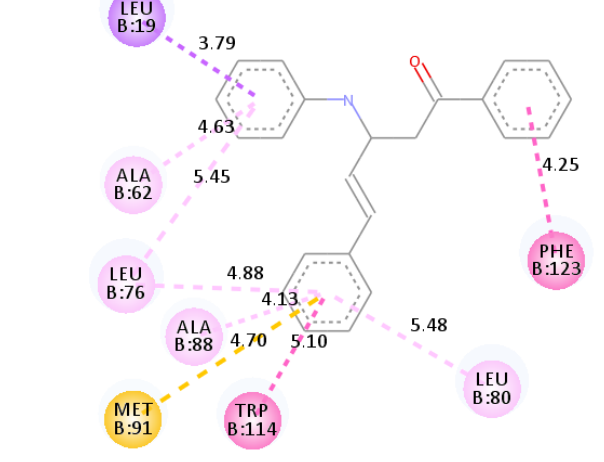
^1H NMR of the compound 1q

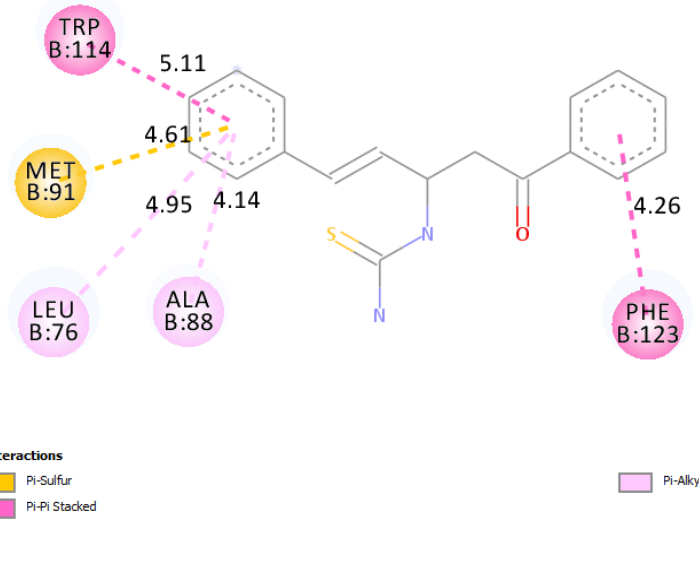
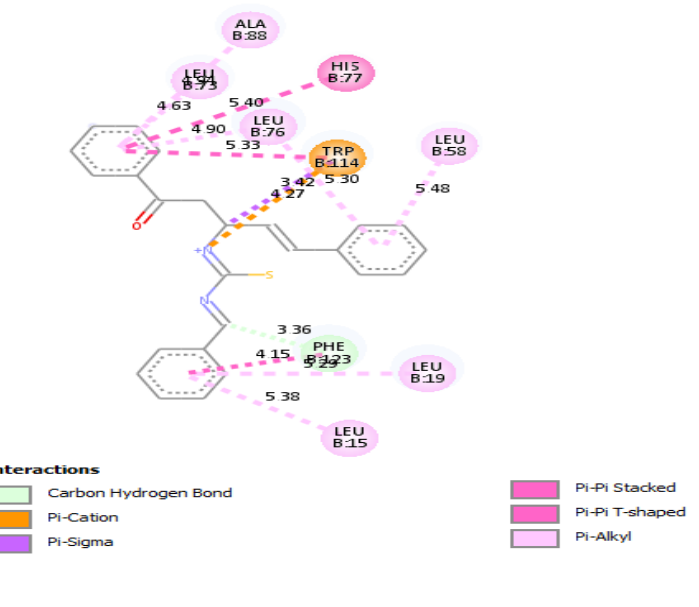
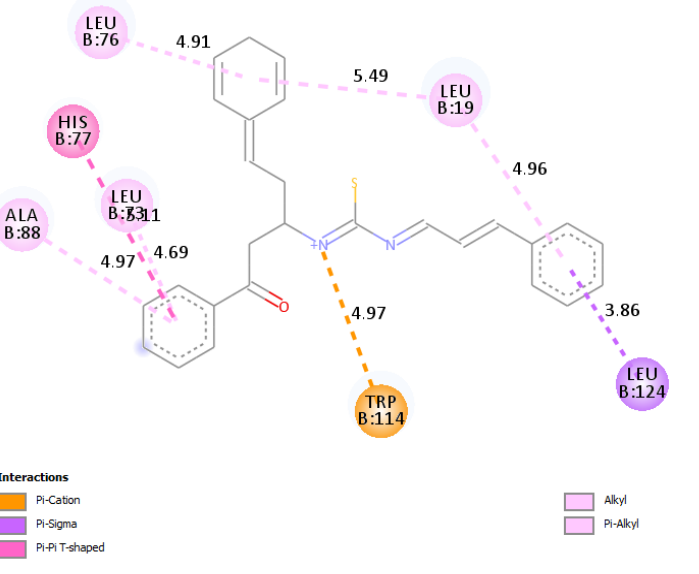


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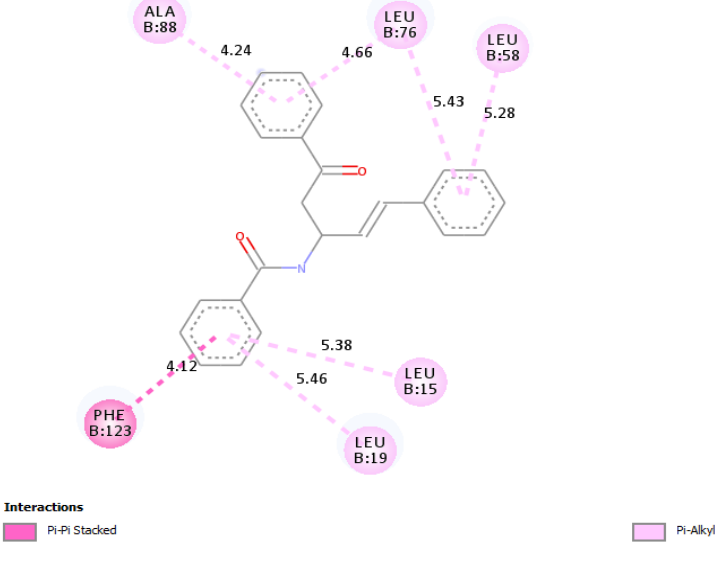
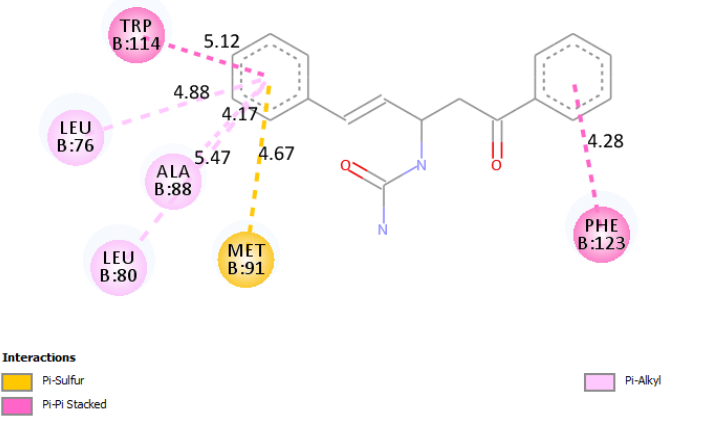
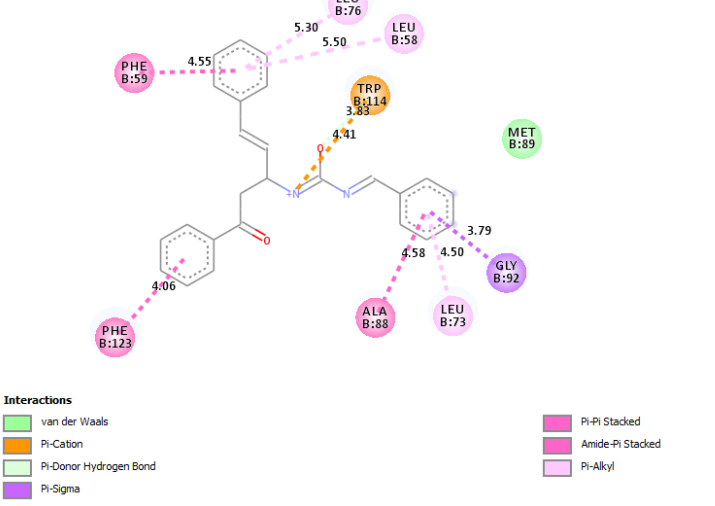
Table S1. Molecular docking interaction of compounds (**1a-1q**) and controls **Temephos**, **Permethrin**

Compounds	Mosquito odorant-binding protein 3OGN			
	Binding affinity (kcal/mol)	No. of H-bonds	H-bonding residues	Interaction
1a	-9.0	2	His121, Phe123	
1b	-9.7	0	-	
1c	-9.0	0	-	

1d	-8.8	0	-	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Pi-Pi Stacked Pi-Pi T-shaped Amide-Pi Stacked Pi-Alkyl
1e	-9.7	1	Phe123	 <p>Interactions</p> <ul style="list-style-type: none"> Conventional Hydrogen Bond Pi-Sigma Pi-Sulfur Pi-Pi Stacked Pi-Alkyl
1f	-9.6	0	-	 <p>Interactions</p> <ul style="list-style-type: none"> Pi-Sigma Pi-Sulfur Pi-Pi Stacked Pi-Alkyl

1g	-8.3	0	-	 <p>Interactions</p> <ul style="list-style-type: none"> Pi-Sulfur Pi-Alkyl Pi-Pi Stacked
1h	-9.3	0	-	 <p>Interactions</p> <ul style="list-style-type: none"> Carbon Hydrogen Bond Pi-Cation Pi-Sigma Pi-Pi Stacked Pi-Pi T-shaped Pi-Alkyl
1i	-10.0	0	-	 <p>Interactions</p> <ul style="list-style-type: none"> Pi-Cation Pi-Sigma Pi-Pi T-shaped Alkyl Pi-Alkyl

1j	-9.8	0	-	<p>Interactions</p> <ul style="list-style-type: none"> van der Waals Pi-Pi Stacked Amide-Pi Stacked Pi-Alkyl
1k	-9.8	0	-	<p>Interactions</p> <ul style="list-style-type: none"> Pi-Sigma Pi-Sulfur Pi-Pi Stacked Alkyl Pi-Alkyl
1l	-8.9	0	-	<p>Interactions</p> <ul style="list-style-type: none"> Pi-Sulfur Pi-Pi Stacked Pi-Alkyl

1m	-9.8	0	-	 <p>Interactions</p> <ul style="list-style-type: none"> Pi-Pi Stacked Pi-Alkyl
1n	-8.8	0	-	 <p>Interactions</p> <ul style="list-style-type: none"> Pi-Sulfur Pi-Pi Stacked Pi-Alkyl
1o	-9.5	0	-	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Pi-Cation Pi-Donor Hydrogen Bond Pi-Sigma Pi-Pi Stacked Amide-Pi Stacked Pi-Alkyl

1p	-9.2	0	-	<p>Interactions</p> <ul style="list-style-type: none"> Orange square: Pi-Cation Green square: Pi-Donor Hydrogen Bond Pink square: Pi-Pi T-shaped Light pink square: Pi-Alkyl
1q	-8.3	0	-	<p>Interactions</p> <ul style="list-style-type: none"> Yellow square: Pi-Sulfur Pink square: Pi-Pi Stacked Light pink square: Pi-Alkyl
Temephos	-7.6	3	Ser79, Ala88	<p>Interactions</p> <ul style="list-style-type: none"> Green square: Conventional Hydrogen Bond Light green square: Pi-Donor Hydrogen Bond Purple square: Pi-Sigma Pink square: Pi-Pi Stacked Light pink square: Alkyl Light purple square: Pi-Alkyl

