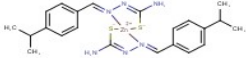
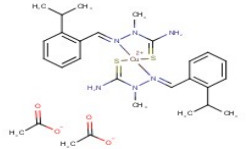
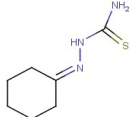
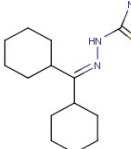
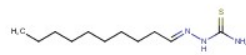
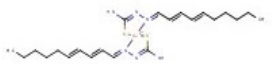
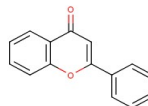
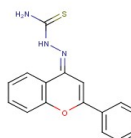
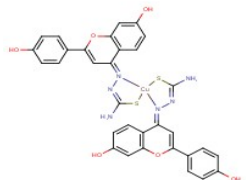
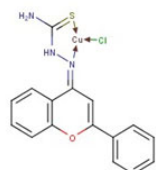
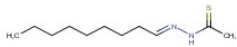
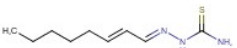
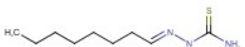
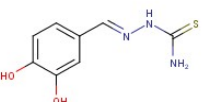
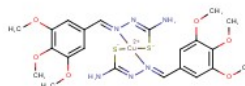
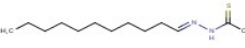
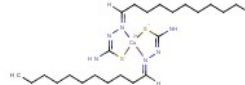
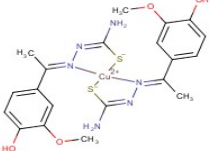
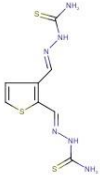
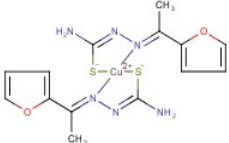
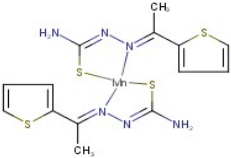
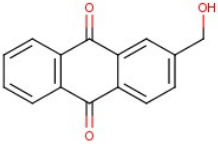
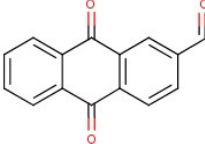
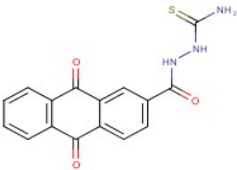
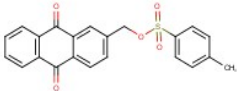
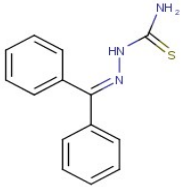
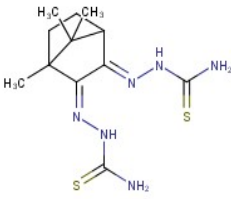
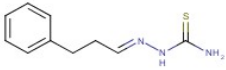
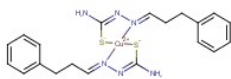
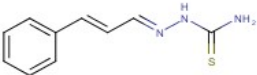


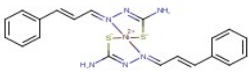
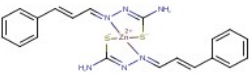
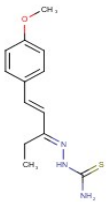
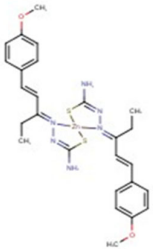
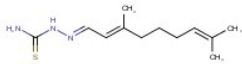
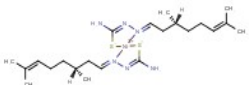
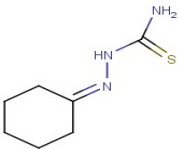
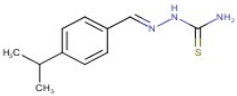
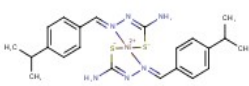
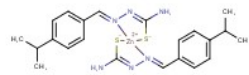
Compounds effective in inhibiting the <i>A. flavus</i> growth more than 50% at the concentration 50 µM					
Compound	Structure	MW	Formula	Group	G.I. (%)
Tosylate -2-methyleneanthraquinone		392,43	C22H16O5S	Anthraquinone	66,0
3-Phenylpropanal thiosemicarbazone		207,30	C10H13N3S	Cinnamaldehyde	100
Cu(II) cinnamaldehyde bithiosemicarbazone		564,14	C22H24CuN6O4S2	Cinnamaldehyde	58,0
Cu(II) 3-phenylpropanal bithiosemicarbazone		476,12	C20H24CuN6S2	Cinnamaldehyde	69,0
Ni(II) Cinnamaldehyde bithiosemicarbazone		467,24	C20H20NiS2	Cinnamaldehyde	87,9
Zn(II) Cinnamaldehyde bithiosemicarbazone		473,92	C20H20ZnS2	Cinnamaldehyde	56,0
(E)-1-(4-methoxyphenyl)-1-pentene-3-one-3-thiosemicarbazone		263,36	C13H17N3OS	Cinnamaldehyde	62,0
Zn(II) (E)-1-(4-methoxyphenyl)-1-pentene-3-one-bis 3-thiosemicarbazone		590,08	C26H32ZnN6O2S2	Cinnamaldehyde	86,0
Cuminaldehyde thiosemicarbazone		221,32	C11H15N3S	Cuminaldehyde	80,0
Ni(II) Cuminaldehyde bithiosemicarbazone		499,32	C22H28NiS2	Cuminaldehyde	84,0

Zn(II) Cuminaldehyde bisthiosemicarbazone		506,01	C22H28N6S2Zn	Cuminaldehyde	56,0
Cu(II) bis acetate 2- isopropylbenzaldehyde bisthiosemicarbazone		652,33	C28H40CuN6O4S2	Cuminaldehyde	90,0
Cyclohexanone thiosemicarbazone		171,26	C7H13N3S	Cyclohexanone	80,0
Dicyclohexanone thiosemicarbazone		267,44	C14H25N3S	Dicyclohexyl ketone	90,0
Decanal thiosemicarbazone		229,39	C11H23N3S	Decanal	96,0
Cu(II) 2,4-decadienal bisthiosemicarbazone		512,24	C22H36CuN6S2	Decanal	91,0
Flavone		222,24	C15H10O2	Flavone	66,0
Flavone thiosemicarbazone		295,36	C16H13N3OS	Flavone	100
Cu(II) 4,7'-dihydroxyflavone bisthiosemicarbazone		716,25	C32H24CuN6O6S2	Flavone	100
Cu(I) chloroqua flavone thiosemicarbazone		395,36	C16H14ClCuN3OS	Flavone	60,0

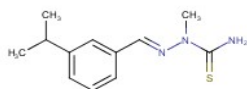
Nonanal thiosemicarbazone		214,37	C11H22N2S	Nonanal	95,0
2-Octenal thiosemicarbazone		199,32	C9H17N3S	Octanal	93,0
Octanal thiosemicarbazone		201,33	C9H19N3S	Octanal	82,0
2,3-dihydroxybenzaldehyde thiosemicarbazone		211,24	C8H9N3O2S	Protocatechol- aldehyde	53,0
Cu(II) 2,3,4- trimethoxybenzaldehyde bisthiosemicarbazone		600,17	C22H28CuN6O6S2	Syringaldehyde	55,0
Undecanal thiosemicarbazone		242,43	C13H26N2S	Undecanal	78,0
Cu(II)undecanal bisthiosemicarbazone		548,36	C24H48CuN6S2	Undecanal	60,4
Cu(II) apocynin bisthiosemicarbazone		540,12	C20H24CuN6O4S2	Vanillin	61,0

Compounds effective in inhibiting the <i>A. flavus</i> growth more than 50% at the concentration 100 $\mu$ M					
Compound	Structure	MW	Formula	Group	G.I. (%)
Acetylthiophene bisthiosemicarbazone		286,39	C8H10N6S3	2- Acetylthiophene	65,0
Cu(II) 2-acetylthiophene bisthiosemicarbazone		427,99	C14H16CuN6O2S2	2- Acetylthiophene	63,4

Cu(II) acetylthiophene bisthiosemicarbazone		451,50	C14H16MnN6S4	2-Acetylthiophene	53,0
2-hydroxymethyl- anthraquinone		238,24	C15H10O3	Anthraquinone	62,0
2-Formylanthraquinone		236,23	C15H8O3	Anthraquinone	58,0
Anthraquinone-2-carbonyl-1- thiosemicarbazide		325,34	C16H11N3O3S	Anthraquinone	58,0
Tosylate -2- methylenanthraquinone		392,43	C22H16O5S	Anthraquinone	87,0
Benzophenone thiosemicarbazone		255,34	C14H13N3S	Benzophenone	53,0
Camphorquinone bis thiosemicarbazone		312,45	C12H20N6S2	Camphorquinone	58,0
3-Phenylpropanal thiosemicarbazone		207,30	C10H13N3S	Cinnamaldehyde	107,0
Cu(II) 3-phenylpropanal bisthiosemicarbazone		476,12	C20H24CuN6S2	Cinnamaldehyde	68,0
Cinnamaldehyde thiosemicarbazone		205,28	C10H11N3S	Cinnamaldehyde	56,0

Ni(II) Cinnamaldehyde bisthiosemicarbazone		467,24	C <sub>20</sub> H <sub>20</sub> N <sub>6</sub> NiS <sub>2</sub>	Cinnamaldehyde	100
Zn(II) Cinnamaldehyde bisthiosemicarbazone		473,92	C <sub>20</sub> H <sub>20</sub> N <sub>6</sub> S <sub>2</sub> Zn	Cinnamaldehyde	76,0
(E)-1-(4-methoxyphenyl)-1- pentene-3-one-3- thiosemicarbazone		263,36	C <sub>13</sub> H <sub>17</sub> N <sub>3</sub> OS	Cinnamaldehyde	74,0
Zn(II) (E)-1-(4- methoxyphenyl)-1-pentene- 3-one-bis 3- thiosemicarbazone		590,08	C <sub>26</sub> H <sub>32</sub> N <sub>6</sub> O <sub>2</sub> S <sub>2</sub> Zn	Cinnamaldehyde	89,0
Citral thiosemicarbazone		239,38	C <sub>12</sub> H <sub>21</sub> N <sub>3</sub> S	Citral	57,0
Ni(II) citronellal bisthiosemicarbazone		511,42	C <sub>22</sub> H <sub>40</sub> N <sub>6</sub> NiS <sub>2</sub>	Citronellal	58,9
Cyclohexanone thiosemicarbazone		171,26	C <sub>7</sub> H <sub>13</sub> N <sub>3</sub> S	Cyclohexanone	95,0
Cuminaldehyde thiosemicarbazone		221,32	C <sub>11</sub> H <sub>15</sub> N <sub>3</sub> S	Cuminaldehyde	90,0
Ni(II) Cuminaldehyde bisthiosemicarbazone		499,32	C <sub>22</sub> H <sub>28</sub> N <sub>6</sub> NiS <sub>2</sub>	Cuminaldehyde	90,0
Zn(II) Cuminaldehyde bisthiosemicarbazone		506,01	C <sub>22</sub> H <sub>28</sub> N <sub>6</sub> S <sub>2</sub> Zn	Cuminaldehyde	60,3

3-isopropyl benzaldehyde-2-methyl-thiosemicarbazone



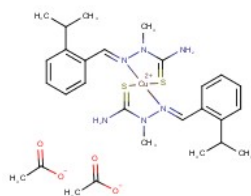
235,35

C12H17N3S

Cuminaldehyde

70,6

Cu(II) 2-isopropyl benzaldehyde-2-methyl-thiosemicarbazone di acetate



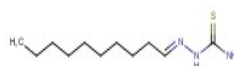
652,33

C28H40CuN6O4S2

Cuminaldehyde

95

Decanal thiosemicarbazone



229,39

C11H23N3S

Decanal

96,0

Cu(II) 2,4-decadienal bithiosemicarbazone



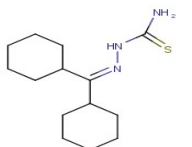
512,24

C22H36CuN6S2

Decanal

80,0

Dicyclohexanone thiosemicarbazone



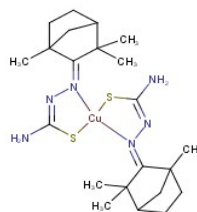
267,44

C14H25N3S

Dicyclohexyl ketone

99,00

Cu(II) fenchone bithiosemicarbazone



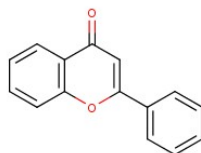
512,24

C22H36CuN6S2

Fenchone

57,0

Flavone



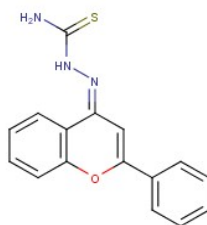
222,24

C15H10O2

Flavone

83,0

Flavone thiosemicarbazone



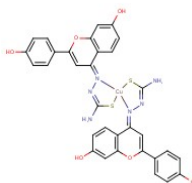
295,36

C16H13N3OS

Flavone

100

Cu(II) 4,7'-dihydroxyflavone bithiosemicarbazone



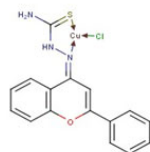
716,25

C32H24CuN6O6S2

Flavone

100

Cu(I) chloro aqua  
flavonethiosemicarbazone



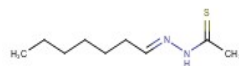
395,36

C<sub>16</sub>H<sub>14</sub>ClCuN<sub>3</sub>O<sub>3</sub>

Flavone

79,0

Heptanal  
thiosemicarbazone



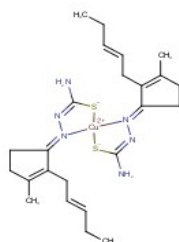
186,32

C<sub>9</sub>H<sub>18</sub>N<sub>2</sub>S

Heptanal

58,00

Cu(II) jasmone  
bisthiosemicarbazone



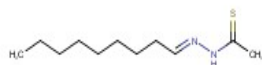
536,26

C<sub>24</sub>H<sub>36</sub>CuN<sub>6</sub>S<sub>2</sub>

Jasmone

74,3

Nonanal  
thiosemicarbazone



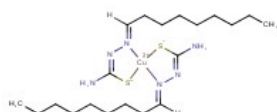
214,37

C<sub>11</sub>H<sub>22</sub>N<sub>2</sub>S

Nonanal

100

Cu(II) nonanal  
bisthiosemicarbazone



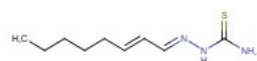
492,25

C<sub>20</sub>H<sub>40</sub>CuN<sub>6</sub>S<sub>2</sub>

Nonanal

84,1

2-Octenal  
thiosemicarbazone



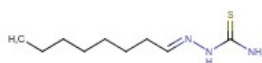
199,32

C<sub>9</sub>H<sub>17</sub>N<sub>3</sub>S

Octanal

96,0

Octanal thiosemicarbazone



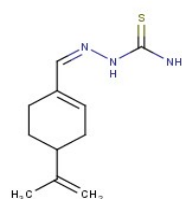
201,33

C<sub>9</sub>H<sub>19</sub>N<sub>3</sub>S

Octanal

93,0

Perillaldehyde  
thiosemicarbazone



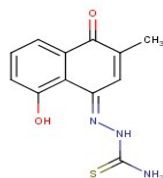
223,34

C<sub>11</sub>H<sub>17</sub>N<sub>3</sub>S

Perillaldehyde

73,5

Plumbagin  
thiosemicarbazone



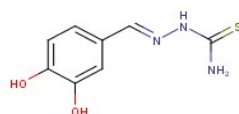
261,30

C<sub>12</sub>H<sub>11</sub>N<sub>3</sub>O<sub>2</sub>S

Plumbagin

61,9

3,4-dihydroxybenzaldehyde  
thiosemicarbazone

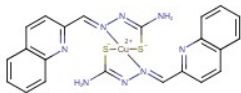
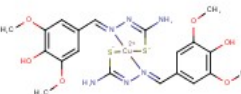
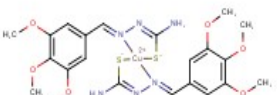
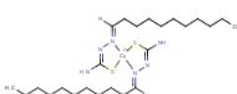
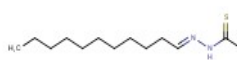
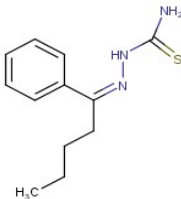
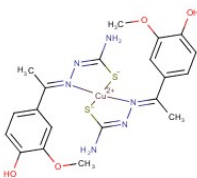
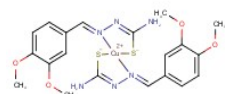
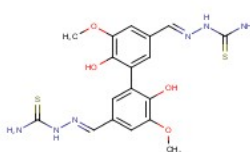
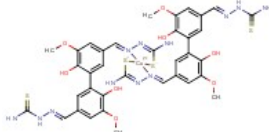


211,24

C<sub>8</sub>H<sub>9</sub>N<sub>3</sub>O<sub>2</sub>S

Protocatechol-  
aldehyde

77,0

<p>Cu(II) Quinolinecarboxaldehyde bisthiosemicarbazonate</p>		522,11	C22H18CuN8S2	2-Quinoline carboxaldehyde	60,7
<p>Cu(II) syringaldehyde bisthiosemicarbazonate</p>		572,11	C20H24CuN6O6S2	Syringaldehyde	61,0
<p>Cu(II) 3,4,5- trimethoxybenzaldehyde bisthiosemicarbazonate</p>		600,17	C22H28CuN6O6S2	Syringaldehyde	54,0
<p>Cu(II) undecanal bisthiosemicarbazonate</p>		548,36	C24H48CuN6S2	Undecanal	94,0
<p>Undecanal thiosemicarbazone</p>		242,43	C13H26N2S	Undecanal	62,0
<p>Valerophenone thiosemicarbazone</p>		235,35	C12H17N3S	Valerophenone	54,0
<p>Cu(II) apocynin bisthiosemicarbazonate</p>		540,12	C20H24CuN6O4S2	Vanillin	72,0
<p>Cu(II) 3,4- dimethoxybenzaldehyde bisthiosemicarbazonate</p>		540,12	C20H24CuN6O4S2	Vanillin	51,0
<p>Bisvanillin thiosemicarbazone</p>		448,52	C18H20N6O4S2	Vanillin	57,0
<p>Cu(II) bisvanillin thiosemicarbazonate</p>		958,56	C36H38CuN12O8S4	Vanillin	65,5