Multi-anti-parasitic activity of arylideneketones and thiazolidenehydrazines against *Trypanosoma cruzi* and *Leishmania spp*.

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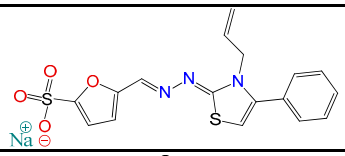
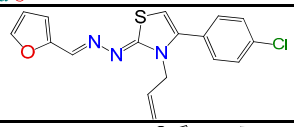
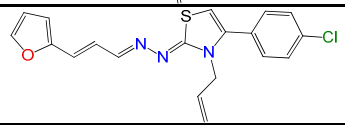
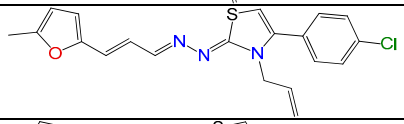
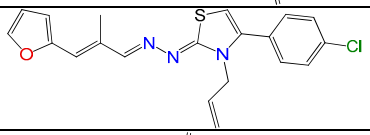
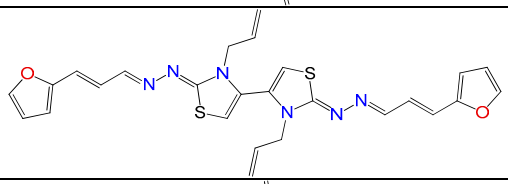
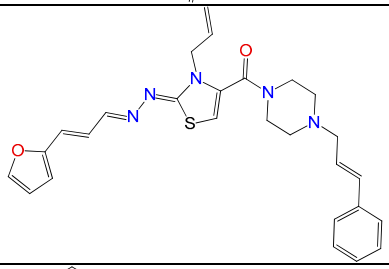
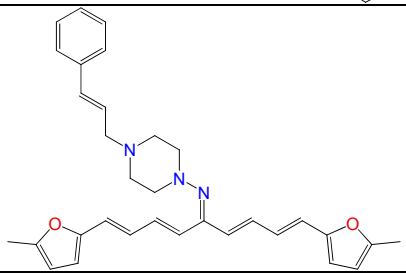
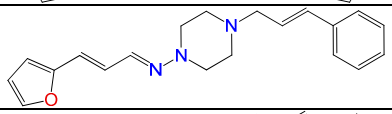
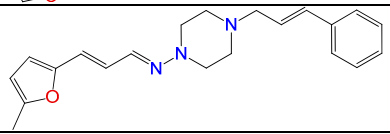
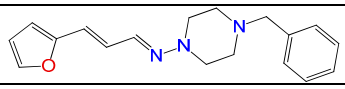
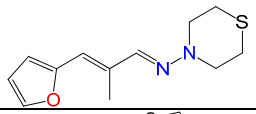
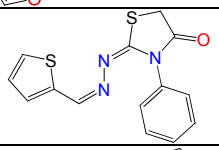
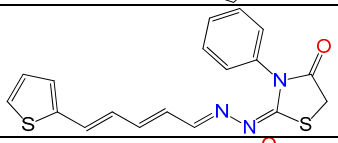
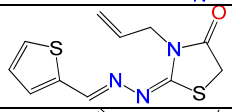
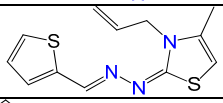
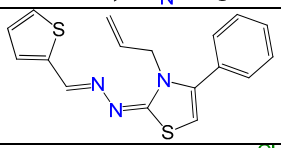
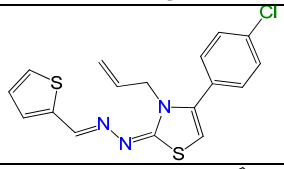
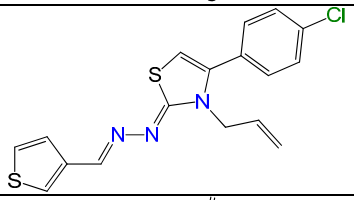
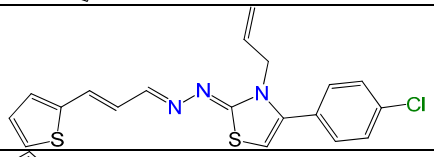
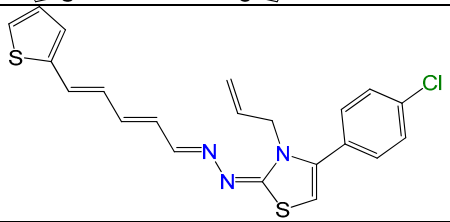
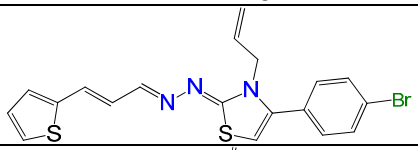
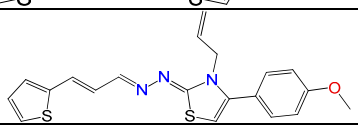
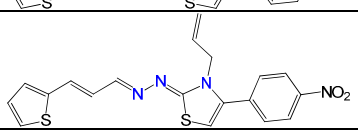
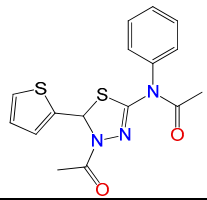
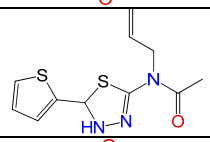
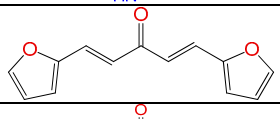
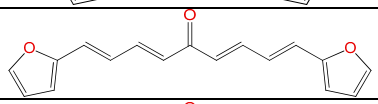
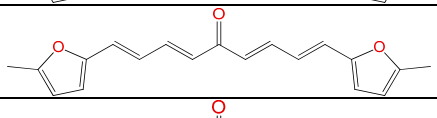
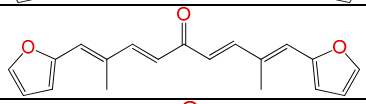
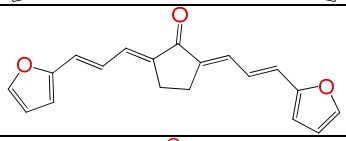
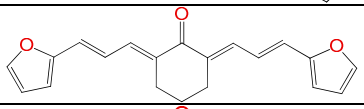
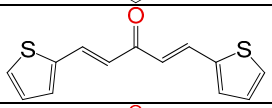
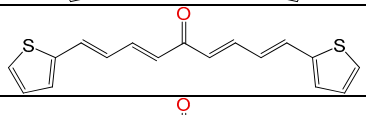
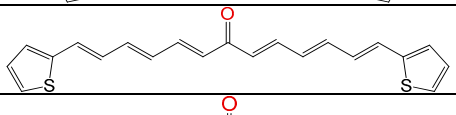
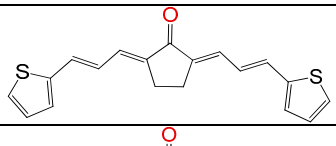
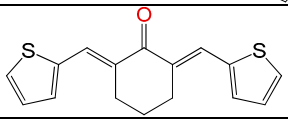
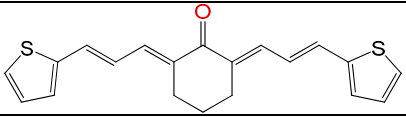
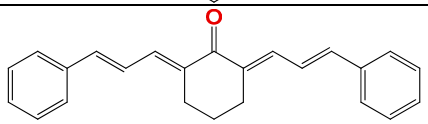
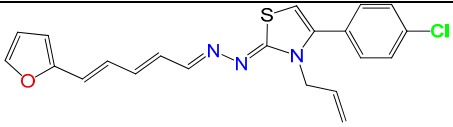
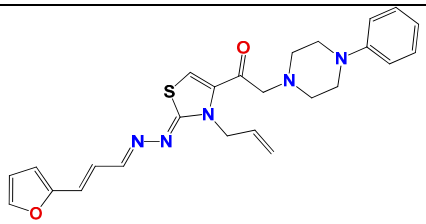
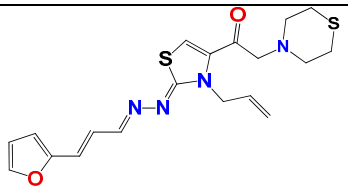
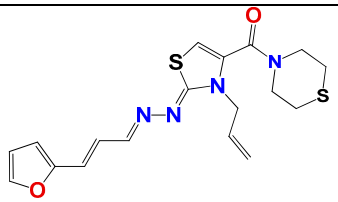
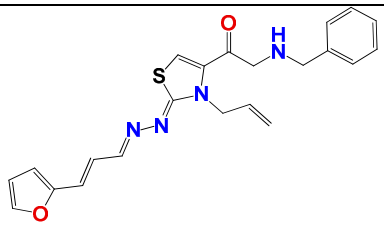
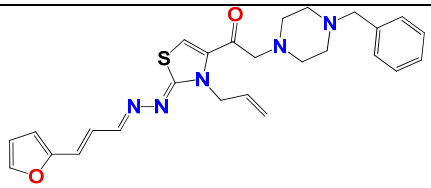
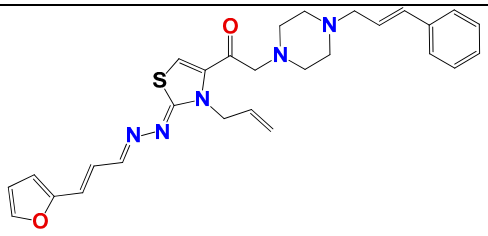
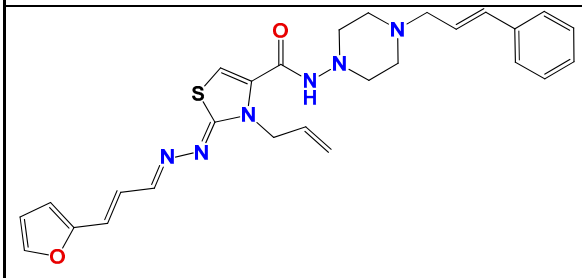
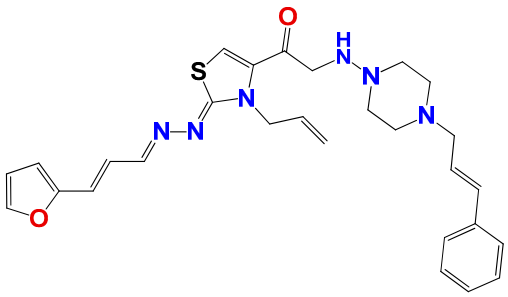
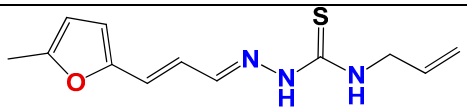
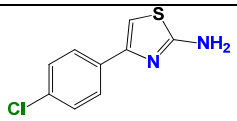
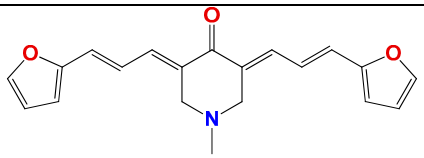
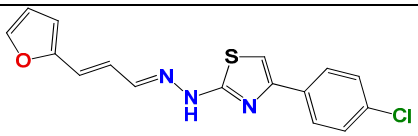
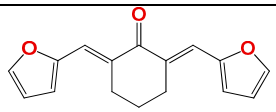
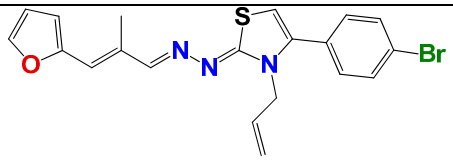
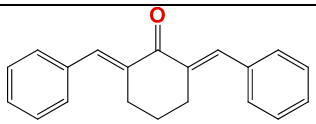
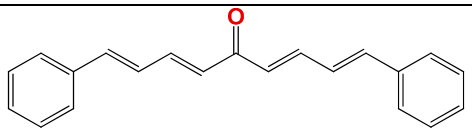
Table 1S. Total *in vitro* data on epimastigotes *T. cruzi*, promastigotes *L. braziliensis* and promastigotes *L. infantum*.

Structure	Compound	IC50 ± %DS (µM) epimastigotes *T. cruzi*	IC50 ± %DS (µM) promastigotes *L. braziliensis*	IC50± %DS (µM) promastigotes *L. infantum*
	**GAT0812**	>25	>100	>100
	**GAT03311**	>25	>100	22 ± 3
	**GAT1033**	1.6 ± 0.5	7 ± 1	2.0 ± 0.2
	**GAT0113A**	3.0 ± 0.5	10 ± 1	8 ± 2
	**GAT0513**	0.09 ± 0.02	33 ± 11	58 ± 12
	**GAT1082**	3.5 ± 0.2	> 100	> 100
	**HIT1**	3.1 ± 0.2	12 ± 5	4 ± 1
	**GAT1113**	1.6 ± 0.3	16 ± 4	14 ± 2
	**GAT0913b**	>25	18 ± 5	21 ± 2
	**GAT0413**	12 ± 2	>25	>25
	**GAT1912**	>25	> 100	> 100

	**GAT1013**	>25	>100	>100
	**GAT1075**	>25	>100	>100
	**GAT10117**	>25	>100	>100
	**GAT1049**	>25	>100	>100
	**GAT1050**	>25	>100	72 ± 15
	**GAT1048**	>25	90 ± 20	51 ± 11
	**GAT0921**	>25	>100	33 ± 3
	**GATR22**	15 ± 3	23 ± 9	32 ± 12
	**GAT02111**	>25	>100	39 ± 11
	**GAT1066**	13 ± 2	>100	>100
	**GAT02211**	>25	>100	>100
	**GAT01811**	31 ± 10	>100	34 ± 12
	**GAT01911**	>50	>100	>100

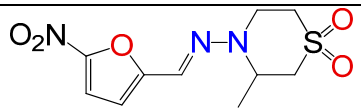
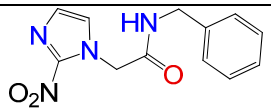
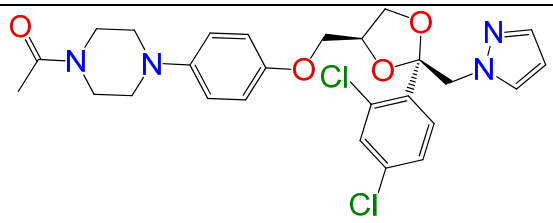
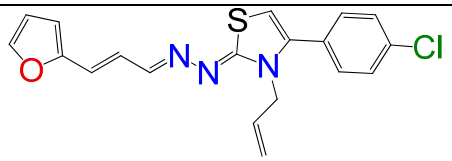
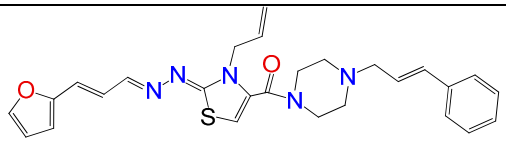
	**GAT1057**	>25	>100	>100
	**GAT1058**	>25	>100	>100
	**EA134**	24 ± 2	10 ± 6	6 ± 2
	**EA128**	5.0 ± 0.7	36 ± 9	31 ± 9
	**GAT0813**	9.4 ± 1.4		
	**EA155**	8.2 ± 2.0	16 ± 2	6 ± 1
	**EA161**	5.4 ± 1.6	18 ± 4	16 ± 4
	**HIT2**	0.6 ± 0.2	7 ± 1	13 ± 7
	**EA138**	5.0 ± 0.8	8 ± 2	4.0 ± 0.5
	**EA141**	12.6 ± 1.4	36 ± 3	19 ± 5
	**EA152**	>25	>100	30 ± 8
	**EA160**	0.04 ± 0.01	>100	11±3
	**EA153**	3.6 ± 0.9	>100	>100
	**EA156**	0.6 ± 0.2	>100	16±3
	**EA143**	14 ± 3	>25	>25
	**GATA2**	10 ± 2	nd*	nd

	**GATk1**	>25	nd	Nd
	**GATk2**	8 ± 1	nd	Nd
	**GATjm18**	2.7 ± 0.5	nd	Nd
	**GATk4**	>25	nd	Nd
	**GATk5**	>25	nd	Nd
	**GATk6**	1.2 ± 0.2	>25	>25
	**GAT1613**	20 ± 2	nd	Nd

	**GAT0613**	11 ± 4	25	>25
	**GAT2512**	5 ± 1	>25	23
	**GAT2012**	>25	nd	nd
	**Pg 150**	>25	>25	>25
	**GAT2212B**	1.2 ± 0.3	>25	25
	**EA154**	7 ± 2	>25	>25
	**GAT2015**	nd	>25	>25
	**EA142**	5.1 ± 0.3	4.2 ± 0.7	9.6 ± 0.9
	**EA139**	11 ± 1	>25	>25

*nd not determined

Table 2S. Some calculated properties for the compound utilized in this work. Commercial drugs for Chagas disease. Nifurtimox (A) and Benznidazole (B). Drug in clinical stages, ketoconazole (C) and two candidates in preclinical stage (**GAT1033** and **HIT1**).

	Structures	cLopP*	Solubility*
A		-0.25	-3.0
B		0.66	-2.8
C		3.0	-3.3
D		6.0	-5.9
E		5.3	-4.8

*theoretically calculated by http://molinspiration.com/cgi-bin/properties plataform.

Table 3S. LD_{50} of the assayed compounds.

Compound	LD_{50} (µM) with chorion	LD_{50} (µM) without chorion
Caffeine	nd	3000 ± 100
Benznidazole	>1000	>1000
Nifurtimox	>300	314 ± 4
Ketoconazole	>25	12 ± 3
GAT1033	>100*	27± 1
HIT1	>100*	61± 2

* The chorions were dark, because the aggregation of the compound in it. It was not possible visualize the toxic effect.

Figure 1S. Characteristic morphology of caffeine treatment on zebrafish embryo at 2.4 mM. The tail of the zebrafish embryo treated with caffeine is like a pig tail.

Table 4S. Absorbance data and concentration of the **GAT1033** in zebrafish embryos

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	$O.D._{\lambda=396\ nm}$ 24 h		conc. (μM)	$O.D._{\lambda=396\ nm}$ 48 h		conc. (μM)	$O.D._{\lambda=396\ nm}$ 72 h		conc. (μM)	Volume of measurement (μL)
control	0.002	0.003	0.0	0.007	0.006	0.0	0.004	0.015	0.0	100
With chorion	0.004	0.006	0.3	0.072	0.058	4.8	0.028	0.024	1.8	100
Without chorion	0.005		0.4	0.109		7.3	0.121		8.1	100