

SUPPLEMENTARY MATERIAL

Active Essential Oils and their Components in Use Against Neglected Diseases and Arboviruses

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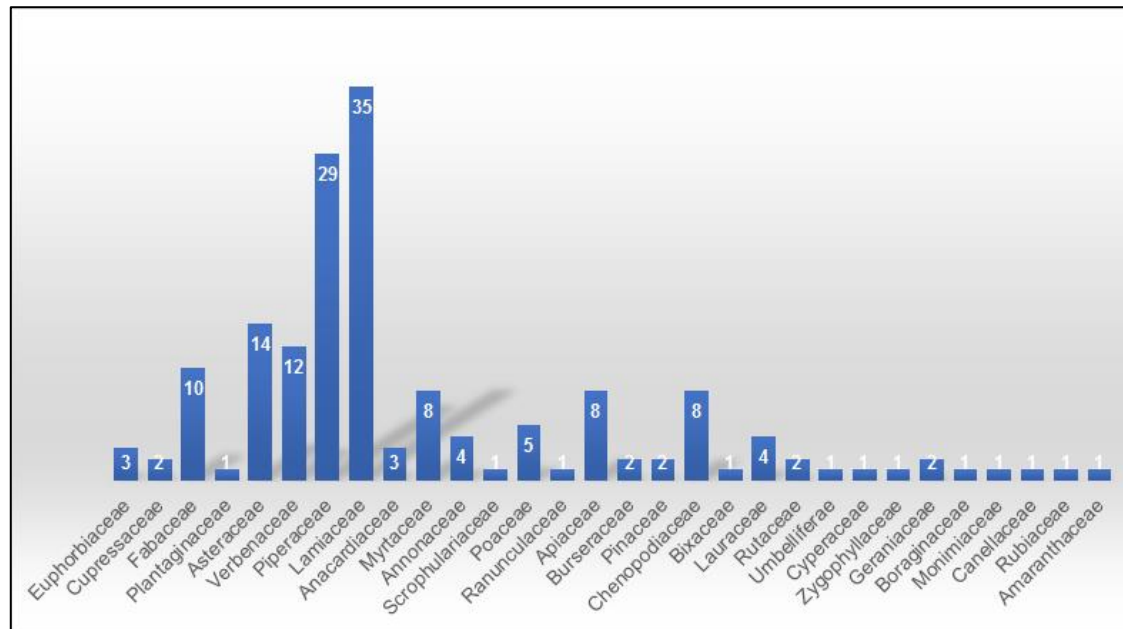


FIGURE S1: Plant families and number of OEs evaluated between the years 2000 and 2018 against at least one species of *Leishmania*.

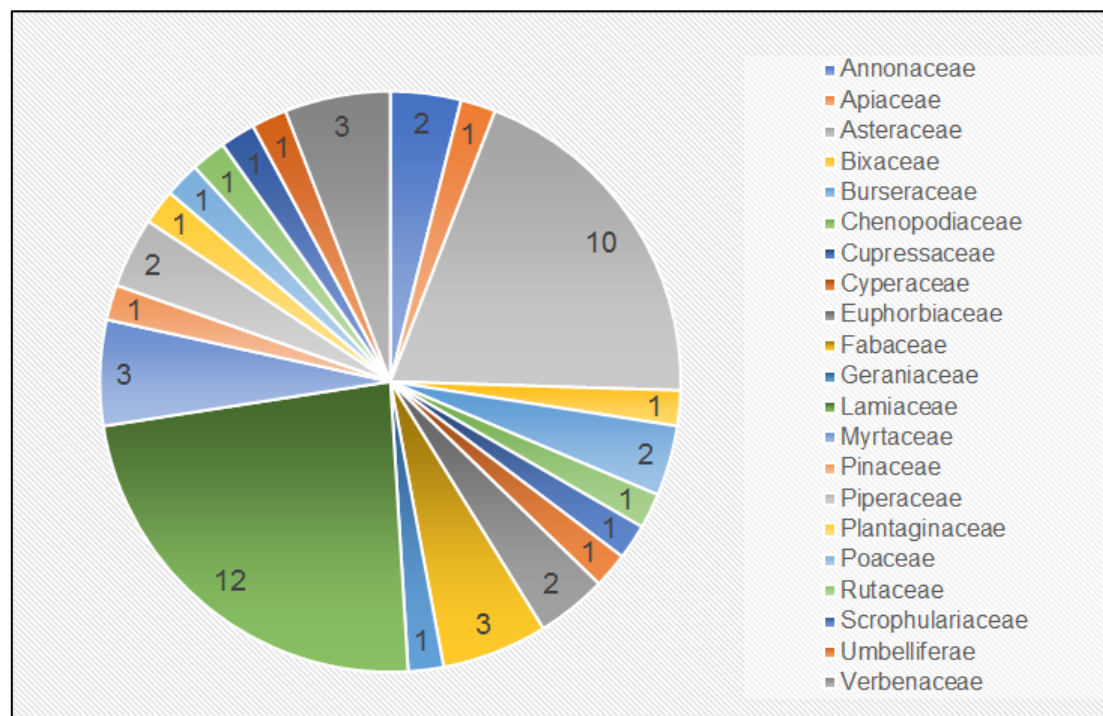


FIGURE S2: Plant families and the number of active EOs ($IC_{50} \leq 10 \mu\text{g/mL}$) against at least one *Leishmania* species and parasite form.

Table S1. Inactive or moderated active EOs against *Leishmania* species.

Plant family	Plant specie	Plant origin	Part of plant	Major Constituents (%)	Activity (IC ₅₀)/ <i>Leishmania</i> specie (evolutive form)	SI	Ref.
Lauraceae	<i>Litsea cubeba</i>	QUINARI Cosmetic and Fragrances Inc. (Maringá-Pr, Brazil)	Fruits	nd	nd	nd	[147]
	<i>Cinnamomum camphora</i>		Barks	nd	>500.0 µg/mL/ <i>L. amazonensis</i> (promastigote)	nd	[147]
	<i>Licaria canella</i>	Brazil/Amazonas State	Leaves	Benzyl benzoate (69.7%)	19.0 µg/mL/ <i>L. amazonensis</i> (promastigote)	nd	[237]
	<i>Aniba canelilla</i>			1-Nitro-2-phenylethane (88.9%)	40.0 µg/mL/ <i>L. amazonensis</i> (promastigote)	nd	[237]
	<i>Laurus nobilis</i>	Northen Tunisia	Aerial parts	1,8-Cineole (43.35%)	13.24 µg/mL/ <i>L. infantum</i> (promastigote) 24.36 µg/mL/ <i>L. major</i> (promastigote)	28.73 for <i>L. infantum</i> and 15.61 for <i>L. major</i>	[261]
Zingiberaceae	<i>Elettaria cardamomum</i>	QUINARI Cosmetic and Fragrances Inc. (Maringá-Pr, Brazil)	Seeds	nd	>500.0 µg/mL/ <i>L. amazonensis</i> (promastigote)	nd	[147]
Zygophyllaceae	<i>Bulnesia sarmientoi</i>		Barks	Guaiol (48.29%) 2-Undecanone (19.49%) 1,8-Cineole (8.71%)	85.56 µg/mL/ <i>L. amazonensis</i> (promastigote)	1.91	[147]
Apiaceae	<i>Ferula galbaniflua</i>		Resin	Methyl 8-pimaren-18-oate (41.82%) β-Pinene (17.34%) Diethyl phthalate (13.09%)	95.70 µg/mL/ <i>L. amazonensis</i> (promastigote)	3.94	[147]
	<i>Foeniculum officinalis</i>		Leaves	nd	328.28 µg/mL/ <i>L. amazonensis</i> (promastigote)	1.12	[147]

	<i>Coriandrum sativum</i>	Brazil/Ceará State	Seeds	β -Linalool (73.21%) Camphor (4.25%) α -Pinene (4.20%)	181.0 $\mu\text{g/mL/L. chagasi}$ (promastigote) 1.51 $\mu\text{g/mL/L. chagasi}$ (amastigote)	nd	[239]
Geraniaceae	<i>Pelargonium graveolens</i>	QUINARI Cosmetic and Fragrances Inc. (Maringá-Pr, Brazil)	Leaves and stems	nd	363.71 $\mu\text{g/mL/L. amazonensis}$ (promastigote)	1.01	[147]
Boraginaceae	<i>Cordia verbenaceae</i>		Leaves	nd	64.75 $\mu\text{g/mL/L. amazonensis}$ (promastigote)	2.01	[147]
Monimiaceae	<i>Siparuna guianensis</i>	Brazil/Lavras		Bicyclogermancrene (16.71%) β -Myrcene (13.14%) Germancrene-D (8.68%)	48.55 $\mu\text{g/mL/L. amazonensis}$ (promastigote)	1.60	[147]
Canellaceae	<i>Cinnamodendron dinisii</i>			α -Pinene (35.41%) β -Pinene (17.81%) Sabinense (12.01%)	54.05 $\mu\text{g/mL/L. amazonensis}$ (promastigote)	2.23	[147]
Fabaceae	<i>Copaifera reticulata</i>	Brazil/Acre State	Trunks	α -Copaene (25.1%) β -Caryophyllene (13.1%) Copalic acid (7.7%)	22.0 $\mu\text{g/mL/L. amazonensis}$ (promastigote)	nd	[156]
	<i>Copaifera martii</i>	Brazil/Pará State		Kovalenic acid (29.0%) β -Bisabolene (10.7%) Kaurenoic acid (7.9%)	14.0 $\mu\text{g/mL/L. amazonensis}$ (promastigote)	nd	[156]
	<i>Copaifera cearenses</i>	Brazil/Minas Gerais State		β -Caryophyllene (19.7%) α -Copaene (8.2%) Hardwickiic acid (6.2%)	18.0 $\mu\text{g/mL/L. amazonensis}$ (promastigote)	nd	[156]
	<i>Copaifera paupera</i>	Brazil/Acre State		β -Bisabolene (20.2%) α -Zingiberene (19.4%) Kaurenoic acid (13.3%)	11.0 $\mu\text{g/mL/L. amazonensis}$ (promastigote)	nd	[156]
	<i>Copaifera langsdorfii</i>	Brazil/São Paulo State		Kaurenoic acid (44.3%) β -Caryophyllene (32.8%) Hardwickiic acid (8.2%)	20.0 $\mu\text{g/mL/L. amazonensis}$ (promastigote)	nd	[156]

	<i>Copaifera officinalis</i>	Brazil/Roraima State		Hardwickiic acid (30.7%) Copalic acid (13.9%) β -Caryophyllene (8.5%)	20.0 $\mu\text{g/mL}$ / <i>L. amazonensis</i> (promastigote)	nd	[156]
	<i>Copaifera lucens</i>	Brazil/Rio de Janeiro State		Polyalthic acid (69.8%) Copalic acid (11.1%)	20.0 $\mu\text{g/mL}$ / <i>L. amazonensis</i> (promastigote)	nd	[156]
	<i>Myroxylon peruiferum</i> (Fabaceae)	QUINARI Cosmetic and Fragrances Inc. (Maringá-Pr, Brazil)	Barks	α -copaene (13.41%) Guaiol (9.35%) Safrole (8.35%)	162.25 $\mu\text{g/mL}$ / <i>L. amazonensis</i> (promastigote)	0.99	[147]
nd	<i>Copaifera</i> ssp. (C2) commercial oil	Brazil/Acre State	nd	Daniellic acid (33.65%) <i>trans</i> - β -Caryophyllene (12.83%) β -Bisabolene (12.65%)	nd	nd	[160]
nd	<i>Copaifera</i> ssp. (C3) commercial oil		nd	α -Copaene (36.46%) Kaurenoic acid (10.10%) Hardwickiic acid (9.00%)	nd	nd	[160]
nd	<i>Copaifera</i> ssp. sesquiterpene-rich fraction		nd	<i>trans</i> - β -Caryophyllene (42.36%) α -Copaene (11.22%) α -Bergamotene (9.11%)	nd	nd	[160]
nd	<i>Copaifera</i> ssp. Diterpene-rich fraction		nd	Copalic acid (49.87%) Acetoxy-copalic acid (19.56%) Hydroxy-copalic acid (9.39%)	nd	nd	[160]
nd	<i>Tea tree</i> commercial oil	nd	nd	nd	ED ₅₀ = 403.0 $\mu\text{g/mL}$ / <i>L. major</i> (promastigote)	0.1	[240]
nd	<i>Clove</i> commercial oil	nd	nd	nd	ED ₅₀ = 58.4 $\mu\text{g/mL}$ / <i>L. major</i> (promastigote)	0.6	[240]
nd	<i>Kanuka</i> commercial oil	nd	nd	nd	ED ₅₀ = 26.2 $\mu\text{g/mL}$ / <i>L. major</i> (promastigote)	0.6	[240]

nd	<i>Manuka</i> commercial oil	nd	nd	nd	ED ₅₀ = 208.1 µg/mL/ <i>L. major</i> (promastigote)	1.2	[240]
nd	<i>Anise</i> commercial oil	nd	nd	nd	ED ₅₀ = 286.1 µg/mL/ <i>L. major</i> (promastigote)	1.1	[240]
nd	<i>Dwarf pine</i> commercial oil	nd	nd	nd	ED ₅₀ = 111.8 µg/mL/ <i>L. major</i> (promastigote)	0.2	[240]
nd	<i>Pine</i> commercial oil	nd	nd	nd	ED ₅₀ = 123.2 µg/mL/ <i>L. major</i> (promastigote)	1.2	[240]
nd	<i>Spruce</i> commercial oil	nd	nd	nd	ED ₅₀ = 29.9 µg/mL/ <i>L. major</i> (promastigote)	8.8	[240]
nd	<i>Balmmint</i> commercial oil	nd	nd	nd	ED ₅₀ = 7.0 µg/mL/ <i>L. major</i> (promastigote)	3.6	[240]
nd	<i>Peppermint</i> commercial oil	nd	nd	nd	ED ₅₀ = 227.0 µg/mL/ <i>L. major</i> (promastigote)	0.9	[240]
nd	<i>Rosemary</i> commercial oil	nd	nd	nd	ED ₅₀ = 282.1 µg/mL/ <i>L. major</i> (promastigote)	0.3	[240]
nd	<i>Thyme</i> commercial oil	nd	nd	nd	ED ₅₀ = 127.4 µg/mL/ <i>L. major</i> (promastigote)	0.2	[240]
Asteraceae	<i>Matricaria chamomilla</i> (Asteraceae)	QUINARI Cosmetic and Fragrances Inc. (Maringá-Pr, Brazil)	Flowers	(<i>E</i>)-β-Farnesene (52.73%) Bisabolol oxide B (12.09%) (<i>E,E</i>)-α-Farnesene (10.34%)	60.16 µg/mL/ <i>L. amazonensis</i> (promastigote)	2.87	[147]
	<i>Artemisia abyssinica</i>	Inchini/Addis Abada	Leaves	Yomogi alcohol (38.47%) Artemisyl acetate (24.88%) Artemisia alcohol (6.70%)	312.5 µg/mL/ <i>L. donovani</i> (promastigote)	2.7 for <i>L. donovani</i> and 28 for <i>L. aethiopica</i>	[162]

					76.5 µg/mL/ <i>L. aethiopica</i> (promastigote) 131.00 µg/mL/ <i>L. donovani</i> (axenic amastigote) 12.44 µg/mL/ <i>L. aethiopica</i> (axenic amastigote)		
	<i>Artemisia abrotanum</i>	Cuba	Aerial parts	nd	MIC = 116.5 mg/mL/ <i>L. amazonensis</i> (promastigote)	nd	[241]
	<i>Pluchea carolinensis</i>		Leaves	selin-11-en-4 α -ol (51.0%)	24.7 µg/mL/ <i>L. amazonensis</i> (promastigote) 6.2 µg/mL/ <i>L. amazonensis</i> (amastigote)	5	[242]
	<i>Baccharis dracunculifolia</i> DC.	Brazil/ São Paulo	Aerial parts	α -muurolol (4.66%) spathulenol (16.24%) nerolidol (33.51%)	42.0 µg/mL/ <i>L. donovani</i> (promastigote)	nd	[243]
	<i>Crithmum maritimum</i>	nd		γ -terpinene (48.7%) dillapiole (13.8%)	122.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
	<i>Distichoselinum tenuifolium</i>	nd		Myrcene (84.6%)	295.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
	<i>Eryngium maritimum</i>	nd		Germacrene D (41.1%)	205.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
	<i>Seseli tortuosum</i>	nd		α -Pinene (27.4%) β -pinene (16.0%) Limonene (10.0%)	133.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
Annonaceae	<i>Cananga odorata</i>	QUINARI Cosmetic and Fragrances Inc. (Maringá-Pr, Brazil)	Flowers	nd	nd	nd	[147]
	<i>Annona coriacea</i> Mart.	Brazil/São Paulo State	Leaves	Bicyclogermacrene (39.8%) γ -Muurolene (7.9%) δ -Cadinene (6.0%)	160.20 µg/mL/ <i>L. amazonensis</i> (promastigote) 261.20 µg/mL/ <i>L. braziliensis</i> (promastigote)	nd	[245]

					39.93 µg/mL/ <i>L. chagasi</i> (promastigote) 305.20 µg/mL/ <i>L. major</i> (promastigote)		
Lamiaceae	<i>Lavandula officinalis</i>	QUINARI Cosmetic and Fragrances Inc. (Maringá-Pr, Brazil)	Flowers	-	>500.0 µg/mL/ <i>L. amazonensis</i> (promastigote)	nd	[147]
	<i>Salvia sclarea</i>		Leaves	Linalyl acetate (60.08%) Linalool (28.80%)	325.92 µg/mL/ <i>L. amazonensis</i> (promastigote)	1.15	[147]
	<i>Melissa officinalis</i>			Geranial (52.02%) Neral (37.18%)	132.02 µg/mL/ <i>L. amazonensis</i> (promastigote)	2.25	[147]
	<i>Ocimum basilicum</i>	German	Stems, leaves and flowers	(-)-Linalool (30.7%) (+)- δ -Cadinene (3.43%) Eucalyptol (2.66%)	48.3 µg/mL/ <i>L. amazonensis</i> (promastigote)	nd	[262]
	<i>Ocimum basilicum</i>	Mesten		(-)-Linalool (30.7%) Eugenol (9.68%)	49.6 µg/mL/ <i>L. donovani</i> (promastigote)	nd	[262]
	<i>Ocimum sanctum</i>	Mississippi		Eugenol (18.0%) Methylchavicol (14.7%) Eucalyptol (5.45%)	37.7 µg/mL/ <i>L. donovani</i> (promastigote)	nd	[262]
	Basil Bulgaria commercial oil	nd	nd	(-)-Linalool (37.1%) Eucalyptol (2.97%)	40.0 µg/mL/ <i>L. donovani</i> (promastigote)	nd	[262]
	Basil sweet commercial oil	nd	nd	(-)-Bornyl acetate Methylchavicol (71.3%)	50.0 µg/mL/ <i>L. donovani</i> (promastigote)	nd	[262]
	<i>Ocimum canum</i>	Brazil/Maranhão State	Leaves	Thymol (42.15%) <i>p</i> -Cymene (21.17%) γ -Terpinene (19.81%)	17.4 µg/mL/ <i>L. amazonensis</i> (promastigote) 13.1 µg/mL/ <i>L. amazonensis</i> (intracellular amastigote)	18.1 for promastigote and 24.0 for intracellular amastigote	[163]
	<i>Ocimum gratissimum</i> L.	Brazil/ Teresina, Piauí	Leaves	Eugenol (40%) 1,8-Cineole (24%)	75.0 µg/mL/ <i>L. chagasi</i> (promastigote)	nd	[246]
	<i>Lavandula stoechas</i>	Morocco/ Province of Quezzane	Aerial parts	nd	>10.0 µg/mL/ <i>L. tropica</i> (promastigote)	nd	[175]

	<i>Rosmarinus officinalis</i>	Northern Tunisia		1,8-Cineole (43.77%)	16.34 µg/mL/ <i>L. infantum</i> (promastigote) 20.92 µg/mL/ <i>L. major</i> (promastigote)	15.35 for <i>L. infantum</i> and 11.99 for <i>L. major</i>	[178]
	<i>Lavandula viridis</i>	nd	Leaves	α-Pinene (9.2%) 1,8-Cineole (29.7%) Camphor (10.0%)	263.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
	<i>Mentha cervine</i>	nd	Aerial parts	Limonene (5.4%), Isomenthone (10.6%) Pulegone (74.8%)	178.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
	<i>Mentha x piperita</i>	nd		Menthone (9.8%) Menthofuran (10.9%) Menthol (44.0%)	198.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
	<i>Origanum virens</i>	nd		<i>p</i> -Cymene (7.4%) γ-Terpinene (7.9%) Carvacrol (68.2%)	196.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
	<i>Rosmarinus officinalis</i>	nd		Myrcene (32.0%) 1,8-Cineole (13.7%) Camphor (11.9%)	nd	nd	[244]
	<i>Thymbra capitata</i>	nd		<i>p</i> -Cymene (5.5%) Carvacrol (74.6%)	130.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
	<i>Thymus capitatus</i>	nd		Camphene (6.5%) 1,8-Cineole (58.6%) Borneol (10.0%)	37.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
	<i>Thymus mastichina</i>	nd		1,8-Cineole (64.6%)	133.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
	<i>Thymus zygis</i> (chemotype geraniol)	nd		Geraniol (33.1%) Geranyl acetate (44.5%)	162.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
	<i>Thymus zygis</i> (chemotype thymol)	nd		<i>p</i> -Cymene (36.6%) γ-Terpinene (21.0%) Thymol (15.2%)	293.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]

	<i>Thymus capitellatus</i>	Portugal		1,8-Cineole (58.6%) Borneol (10.1%)	37.0 µg/mL/ <i>L. infantum</i> (promastigote) 35.0 µg/mL/ <i>L. tropica</i> (promastigote) 62.0 µg/mL/ <i>L. major</i> (promastigote)	nd	[247]
Myrtaceae	<i>Syzygium cumini</i> (L.) Skeels	São Luís State/Brazil	Leaves	α-Pinene (31.85%) (Z)-β-Ocimene (28.98%) (E)-β-Ocimene (11.71%)	60.0 µg/mL/ <i>L. amazonensis</i> (promastigote) 43.9 µg/mL/ <i>L. amazonensis</i> (axenic amastigote) 38.1 µg/mL/ <i>L. amazonensis</i> (intracellular amastigote)	10.2 for promastigote, 13.9 for axenic amastigote and 16.1 for intracellular amastigote	[173]
	<i>Syzygium cumini</i> (L.) SKEELS	Brazil/ São Luiz (Maranhão)	Leaves	α-Pinene (31.85%) (Z)-β-Ocimene (28.98%) (E)- β-Ocimene (11.71%)	36.0 mg.L ⁻¹ / <i>L. amazonensis</i> (promastigote)	nd	[248]
	<i>Eucalyptus globulus</i>	Northern Tunisia	Aerial parts	1,8-cineole (42.31%)	16.28 µg/mL/ <i>L. infantum</i> (promastigote) 18.30 µg/mL/ <i>L. major</i> (promastigote)	19.04 for <i>L. infantum</i> and 16.94 for <i>L. major</i>	[178]
	<i>Syzygium aromaticum</i> (L.) (commercial oil)	nd	Buds	Eugenol (85.3%) α-Humulene (6.8%)	220.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
Piperaceae	<i>Piper rivinoides</i> Kunth	Brazil/ Paraná (Antonina)	Leaves	α-Humulene (10.0%) Bicyclogermacrene (11.8%) (Z)-α-Bisabolene (10.9%)	10.9 µg/mL/ <i>L. amazonensis</i> (promastigote) >200.0 µg/mL/ <i>L. amazonensis</i> (axenic amastigote)	nd	[249]

	<i>Piper mosenii</i> C. DC.	Brazil/ Paraná (Antonina)		(E)-Caryophyllene (8.6%) α -Humulene (11.3%) Caryophyllene oxide (12.1%)	17.4 $\mu\text{g/mL/L. amazonensis}$ (promastigote) >200.0 $\mu\text{g/mL/L. amazonensis}$ (axenic amastigote)	nd	[249]
	<i>Piper cernuum</i> Vell.	Brazil/ Paraná (Antonina)		α -Pinene (11.4%) β -Elemene (10.1%) Spathuleol (11.5%)	27.1 $\mu\text{g/mL/L. amazonensis}$ (promastigote) >200.0 $\mu\text{g/mL/L. amazonensis}$ (axenic amastigote)	nd	[249]
	<i>Piper diospyrifolium</i> Kunth	Brazil/ Paraná (Antonina)		(E)-Caryophyllene (7.4%) γ -Gurjunene (6.9%) Selin-11-en-4- α -ol (17.7%)	13.5 $\mu\text{g/mL/L. amazonensis}$ (promastigote) 76.1 $\mu\text{g/mL/L. amazonensis}$ (axenic amastigote)	2.35 for axenic amastigote	[249]
	<i>Piper arboretum</i> Aubl.	Brazil/ Paraná (Antonina)		Spathulenol (7.9%) Caryophyllene oxide (5.9%) 1-epi-Cubenol (10.4%)	15.2 $\mu\text{g/mL/L. amazonensis}$ (promastigote) >200.0 $\mu\text{g/mL/L. amazonensis}$ (axenic amastigote)	nd	[249]
	<i>Piper aduncum</i> L.	Brazil/ Paraná (Cerro Azul)		(E)- β -Ocimene (13.9%) Safrole (6.2%) Bicyclogermacrene (20.9%)	25.9 $\mu\text{g/mL/L. amazonensis}$ (promastigote) 36.2 $\mu\text{g/mL/L. amazonensis}$ (axenic amastigote)	>5.52 for axenic amastigote	[249]
	<i>Piper gaudichaudianum</i> Kunth	Brazil/ Paraná (Antonina)		δ -3-Carene (5.9%) γ -Elemene (5.4%) δ -Cadinene (45.3%)	93.5 $\mu\text{g/mL/L. amazonensis}$ (promastigote)	nd	[249]
	<i>Piper xylosteoides</i> (Kunth) Steud.	Brazil/Paraná State		α -Thujene (7.9%) β -Phellandrene (22.6%) (E)-Nerolidol (8.5%)	>100.0 $\mu\text{g/mL/L. amazonensis}$ (promastigote)	nd	[249]

	<i>Piper mikanianum</i> (Kunth) Steudel	Brazil/Santa Catarina State		α -Thujene (6.0%) Safrole (72.4%)	>100.0 $\mu\text{g/mL/L. amazonensis}$ (promastigote)	nd	[249]
	<i>Piper rivinoides</i> Kunth	Brazil/Paraná State		α -Humulene (10.0%) Bicyclogermacrene (11.8%) (Z)- α -Bisabolene (10.9%)	10.9 $\mu\text{g/mL/L. amazonensis}$ (promastigote) >200.0 $\mu\text{g/mL/L. amazonensis}$ (axenic amastigote)	nd	[249]
	<i>Piper aduncum</i>	Brazil/Minas Gerais State		Nerolidol (25.22%) Linalool (13.42%)	77.9 $\mu\text{g/mL/L. braziliensis}$ (promastigote)	1.12 for promatigotes (macrophages) and >6.42 for promastigote (red blood cells)	[250]
	<i>Piper cubeba</i> (commercial oil)	nd	Fruits	Sabinene (19.99%) Eucalyptol(11.87%) 4-Terpineol (6.36%)	326.5 $\mu\text{g/mL/L. amazonensis}$ (promastigote)	nd	[251]
	<i>Piper auritum</i>	Cuba	Aerial parts	nd	490.7 mg/mL/L. <i>amazonensis</i> (promastigote)	nd	[241]
	<i>Piper aduncum</i>			nd	50.8 mg/mL/L. <i>amazonensis</i> (promastigote)	nd	[241]
	<i>Piper aduncum</i> var. <i>ossanum</i>	Cuba/Bauta	Leaves	Camphene (7.41%) Piperitone (20.07%) Viridiflorol (12.97%)	32.5 $\mu\text{g/mL/L. infantum}$ (intracellular amastigote) 19.3 $\mu\text{g/mL/L. amazonensis}$ (intracellular amastigote)	nd	[252]

	<i>Piper aduncum</i> var. <i>ossanum</i>	Cuba/Ceiba		Camphor (9.41%) Piperitone (19.01%) Viridiflorol (18.80%)	32.5 µg/mL/ <i>L. infantum</i> (intracellular amastigote) >64.0 µg/mL/ <i>L. amazonensis</i> (intracellular amastigote)	nd	[252]
	<i>Piper auritum</i> Kunth	Colombia/Valle del Cauca	Aerial parts	Safrole (91.3%) Myristicin (4.8%)	>100.0 µg/mL/ <i>L. infantum</i> (promastigote) >100.0 µg/mL/ <i>L. infantum</i> (amastigote)	nd	[253]
	<i>Piper bredemeyeri</i>	Colombia/Cesar	Aerial parts	α-Pinene (20.3%) β-Pinene (32.3%) Limonene (4.1%)	>100.0 µg/mL/ <i>L. infantum</i> (promastigote) >100.0 µg/mL/ <i>L. infantum</i> (amastigote)	nd	[253]
	<i>Piper bogotense</i>	Colombia/Nariño		α-Pinene (20.3%) β-Pinene (32.3%) <i>trans</i> -β-Caryophyllene (6.3%)	>100.0 µg/mL/ <i>L. infantum</i> (promastigote) >100.0 µg/mL/ <i>L. infantum</i> (amastigote)	nd	[253]
	<i>Piper marginatum</i>	Colombia/Tolima		α-Phellandrene (11.2%) Limonene (7.6%) <i>trans</i> -β-Caryophyllene (11.1%)	88.70 µg/mL/ <i>L. infantum</i> (promastigote) >100.0 µg/mL/ <i>L. infantum</i> (amastigote)	nd	[253]
	<i>Piper cf divaricatum</i>			α-Pinene (11.4%) 1,8-Cineole (18.3%) Linalool (15.0%)	73.29 µg/mL/ <i>L. infantum</i> (promastigote) >100.0 µg/mL/ <i>L. infantum</i> (amastigote)	nd	[253]
	<i>Piper cf. brachypodon</i> var. <i>hirsuticaule</i> <i>Yunck</i>	Colombia/Chocó		β-Elemene (6.4%) <i>trans</i> -β-Caryophyllene (9.8%) Germacrene D (16.7%)	93.60 µg/mL/ <i>L. infantum</i> (promastigote) >100.0 µg/mL/ <i>L. infantum</i> (amastigote)	nd	[253]

	<i>Piper obrutum</i>			Linalool (15.8%) β-Elemene (7.6%) α-Humulene (6.4%)	35.87 µg/mL/ <i>L. infantum</i> (promastigote) 89.02 µg/mL/ <i>L. infantum</i> (amastigote)	>1.12	[253]
	<i>Piper septuplinervium</i>			epi-Cubebol (9.0%) δ-Cadinene (10.9%) Viridiflorol (7.9%)	30.05 µg/mL/ <i>L. infantum</i> (promastigote) 64.80 µg/mL/ <i>L. infantum</i> (amastigote)	1.54	[253]
	<i>Piper lanceifolium</i>			<i>trans</i> -β-Caryophyllene (11.6%) Germacrene D (10.7%) β-Selinene (7.8%)	37.81 µg/mL/ <i>L. infantum</i> (promastigote) >100.0 µg/mL/ <i>L. infantum</i> (amastigote)	nd	[253]
	<i>Piper brachypodom</i>			<i>trans</i> -β-Caryophyllene (20.2%) 9-epi- <i>trans</i> -Caryophyllene (5.8%) Caryophyllene oxide (10.8%)	23.43 µg/mL/ <i>L. infantum</i> (promastigote) >100.0 µg/mL/ <i>L. infantum</i> (amastigote)	2.83	[253]
	<i>Piper var brachypodon</i> (Benth.) C. DC.			<i>trans</i> -β-Caryophyllene (20.2%) Bicyclogermacrene (8.5%) Caryophyllene oxide (10.7%)	23.68 µg/mL/ <i>L. infantum</i> (promastigote) >100.0 µg/mL/ <i>L. infantum</i> (amastigote)	2.65	[253]
	<i>Piper clausenianum</i>	Castelo	Fresh Leaves	(<i>E</i>)-Nerodiol (81.41%) Linalool (5.20%) γ-Murolene (1.09%)	nd	nd	[254]
	<i>Piper auritum</i>	Cuba	Aerial parts	Safrole (86.91%)	29.1 µg/mL/ <i>L. major</i> (promastigote) 63.3 µg/mL/ <i>L. mexicana</i> (promastigote) 52.1 µg/mL/ <i>L. braziliensis</i> (promastigote)	4.0 for <i>L. major</i> , 2.0 for <i>L. mexicana</i> , 2.0 for <i>L. braziliensis</i>	[255]

					12.8 µg/mL/ <i>L. donovani</i> (promastigote)	and 8.0 for <i>L. donovani</i>	
Verbenaceae	<i>Lantana camara</i> L	Brazil/Ceará State	Leaves	(<i>E</i>)-Caryophyllene (23.75%) Bicyclgermacrene (15.80%) Germacrene D (11.73%)	72.31 µg/mL/ <i>L. braziliensis</i> (promastigote)	nd	[255]
	<i>Lippia alba</i>	Santander/Bucara manga	Aerial parts	Carvone (31.8%) Limonene (29%) Bicyclosquiphellandrene (11.3%)	>100.0 µg/mL/ <i>L. chagasi</i> (promastigote)	nd	[194]
	<i>Lippia alba</i>	Boyacá/Cubará		Carvone (49.4%) Limonene (31.9%)	>100.0 µg/mL/ <i>L. chagasi</i> (promastigote)	nd	[194]
	<i>Lippia alba</i>	Santander/Bucara manga		Carvone (49.6%) Limonene (28.8%)	>100.0 µg/mL/ <i>L. chagasi</i> (promastigote)	nd	[194]
	<i>Lippia alba</i>	Cundinamarca/Ca chipai		Carvone (47.6%) Limonene (10.8%)	>100.0 µg/mL/ <i>L. chagasi</i> (promastigote)	nd	[194]
	<i>Lippia alba</i>	Cundinamarca, Anolaima		Carvone (25.6%) Limonene (18.2%)	>100.0 µg/mL/ <i>L. chagasi</i> (promastigote)	nd	[194]
	<i>Lippia alba</i>	Tolima/Flandes		Carvone (48.3%) Limonene (19.1%)	>100.0 µg/mL/ <i>L. chagasi</i> (promastigote)	nd	[194]

	<i>Lippia alba</i>	Boívar/Colorado		Limonene (3.2%) <i>trans</i> - β -Caryophyllene (7.3%) Geranial (28.9%)	79.5 $\mu\text{g/mL}$ / <i>L. chagasi</i> (promastigote)	nd	[194]
	<i>Lippia alba</i>	Santander/Bucaramanga		<i>trans</i> - β -Caryophyllene (6.6%) Geranial (23.3%)	18.9 $\mu\text{g/mL}$ / <i>L. chagasi</i> (promastigote)	nd	[194]
	<i>Lippia alba</i>	Bolívar/Turbaco		Limonene (3.2%) <i>trans</i> - β -Caryophyllene (5.5%) Geranial (26.7%)	91.5 $\mu\text{g/mL}$ / <i>L. chagasi</i> (promastigote)	nd	[194]
	<i>Lippia citriodora</i>	Quindío/Armenia		Limonene (10.7%) Neral (15.6%) Geranial (18.9%)	77.9 $\mu\text{g/mL}$ / <i>L. chagasi</i> (promastigote)	nd	[194]
	<i>Lippia micromera</i>	Cesar/Manaure		<i>p</i> -Cymene (13.1%) Methyl thymyl ether (14.9%) Thymol (29.1%)	51.8 $\mu\text{g/mL}$ / <i>L. chagasi</i> (promastigote)	nd	[194]
	<i>Lippia origanoides</i>	Santander/Piedecuesta		<i>p</i> -Cymene (12.0%) Carvacrol (46.2%) γ -Terpinene (9.5%)	13.7 $\mu\text{g/mL}$ / <i>L. chagasi</i> (promastigote)	nd	[194]
	<i>Lippia origanoides</i>	Santander/Jordán Sube		<i>p</i> -Cymene (13.9%) Thymol (9.2%) Carvacrol (36.5%)	63.2 $\mu\text{g/mL}$ / <i>L. chagasi</i> (promastigote)	nd	[194]

	<i>Lippia origanoides</i>			<i>p</i> -Cymene (15.7%) <i>trans</i> - β -caryophyllene (9.4%)	>100.0 $\mu\text{g/mL/L. chagasi}$ (promastigote)	nd	[194]
	<i>Lippia origanoides</i>	Santander/Bucaramanga		Thymol (15.1%) Carvacrol (38.8%) γ -Terpinene (12.6%)	16.0 $\mu\text{g/mL/L. chagasi}$ (promastigote)	nd	[194]
	<i>Lippia origanoides</i>	Santander/Los Santos		<i>p</i> -Cymene (11.2%) <i>trans</i> - β -Caryophyllene (11.3%)	>100.0 $\mu\text{g/mL/L. chagasi}$ (promastigote)	nd	[194]
	<i>Lippia dulcis</i>	Santander/Bucaramanga		α -Copaene (8.4%) <i>trans</i> - β -Caryophyllene (10.4%) α -Bisabolol (8.2%)	37.1 $\mu\text{g/mL/L. chagasi}$ (promastigote)	nd	[194]
	<i>Lippia sidoides</i>	Brazil/Sergipe State	Leaves	<i>p</i> -Cymene (34.1%; 17.8) Thymol (38.7%; 6.0) Carvacrol (0.6% 43.7%) (Due different accessions)	74.1 and 54.8 $\mu\text{g/mL/L. chagasi}$ (promastigote) (Due different accessions)	nd	[256]
	<i>Lippia sidoides</i>		Aerial parts	Thymol (78.37%) <i>p</i> -cymene (6.32%)	44.38 $\mu\text{g/mL/L. amazonensis}$ (promastigote) 34.4 $\mu\text{g/mL/L. amazonensis}$ (amastigote)	4.91 for promastigote and 6.32 for amastigote	[238]
	<i>Lippia gracilis</i>		Leaves	Thymol (61.84%) Carvacrol (48.92%) (Two different genotypes)	86.32 and 77.26 $\mu\text{g/mL/L. chagasi}$ (promastigote) (Two different genotypes)	nd	[208]
	<i>Lippia sidoides</i> Cham.	Brazil/Piauí State		Thymol (68.3%) <i>p</i> -Cymene (14.4%)	89.0 $\mu\text{g/mL/L. chagasi}$ (promastigote)	nd	[246]

	<i>Lippia sidoides</i> comercial oil	nd	nd	Thymol (59.65%) β -Caryophyllene (10.60%)	19.76 $\mu\text{g/mL}$ / <i>L. chagasi</i> (promastigote) 5.07 $\mu\text{g/mL}$ / <i>L. chagasi</i> (amastigote)	nd	[239]
	<i>Lippia graveolens</i>	nd	Aerial parts	<i>p</i> -Cymene (16.9%) 1,8-Cineole (6.6%) Thymol (19.8%)	171.0 $\mu\text{g/mL}$ / <i>L. infantum</i> (promastigote)	nd	[244]
Anacardiaceae	<i>Myracrodruon urundeuva</i> (Engl.) Fr. All	Brazil/Piauí State	Leaves	β -Myrcene (42.46%) α -Myrcene (37.23%) Caryophyllene (4.28%)	205.0 $\mu\text{g/mL}$ / <i>L. amazonensis</i> (promastigote) 104.6 $\mu\text{g/mL}$ / <i>L. amazonensis</i> (axenic amastigote) 44.5 $\mu\text{g/mL}$ / <i>L. amazonensis</i> (intracellular amastigote)	12.3 for intracellular amastigote	[257]
		Brazil/Pernambuco State	Latex of fruits	β -Pinene (40.7%) Terpinolene (28.3%) α -Pinene (11.5%)	39.1 $\mu\text{g/mL}$ / <i>L. amazonensis</i> (promastigote)	3.7	[258]
	<i>Mangifera indica</i> var. Espada		Latex of fruits	Terpinolene (73.6 %) δ -3-Carene (5.7%)	23.0 $\mu\text{g/mL}$ / <i>L. amazonensis</i> (promastigote)	6.9	[258]
Ranunculaceae	<i>Nigella sativa</i>	Northen Tunisia	Aerial parts	<i>p</i> -Cymene (53.1%)	10.68 $\mu\text{g/mL}$ / <i>L. infantum</i> (promastigote) 13.25 $\mu\text{g/mL}$ / <i>L. major</i> (promastigote)	20.67 for <i>L. infantum</i> and 16.66 for <i>L. major</i>	[178]
Rubiaceae	<i>Mitracarpus frigidus</i>	Brazil/Minas Gerais State		Linalool (29.9%) Eugenol acetate (15.85%) 5-Hydroxy-isobornyl (8.41%)	47.2 $\mu\text{g/mL}$ / <i>L. major</i> (promastigote) 89.7 $\mu\text{g/mL}$ / <i>L. amazonensis</i> (promastigote)	nd	[259]

Amaranthaceae	<i>Chenopodium ambrosioides</i>	Cuba		nd	MIC= 27.8 mg/mL/ <i>L. amazonensis</i> (promastigote)	nd	[241]
Pinaceae	<i>Pinus caribaea</i>	Pinar del Río		nd	MIC = 0.16 mg/mL/ <i>L. amazonensis</i> (promastigote)	nd	[241]
Poaceae	<i>Cymbopogon citratus</i>	Angola/Luanda		Geranial (48.4%) Neral (32.6%) Myrcene (6.4%)	25.0 µg/mL/ <i>L. infantum</i> (promastigote) 52.0 µg/mL/ <i>L. tropica</i> (promastigote) 38.0 µg/mL/ <i>L. tropica</i> (promastigote)	nd	[260]
	<i>Cymbopogon citratus</i>	nd		Myrcene (6.4%) Neral (32.6%) Geranial (48.4%)	25.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
	<i>Cymbopogon citratus</i> (DC) Stapf.	Brazil/Piaui State	Leaves	Geranial (41.1%) Neral (40.4%)	45.0 µg/mL/ <i>L. chagasi</i> (promastigote)	nd	[246]
Cupressaceae	<i>Juniperus oxycedrus</i>	nd	Berries	α-Pinene (56.4%)	51.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
	<i>Juniperus oxycedrus</i>	nd	Leaves	α-Pinene (76.4 %)	127.0 µg/mL/ <i>L. infantum</i> (promastigote)	nd	[244]
Euphorbiaceae	<i>Croton leptostachyus</i>	Alvarado/Tolima	Leaves	nd	84.59 µg/mL/ <i>L. panamensis</i> (amastigote) 7.39 µg/mL/ <i>L. panamensis</i> (promastigote) 36.74 µg/mL/ <i>L. braziliensis</i> (amastigote) 22.74 µg/mL/ <i>L. braziliensis</i>	0.2 for <i>L. panamensis</i> amastigote, 2.24 for <i>L. panamensis</i> promastigote,	[204]

					(promastigote)	0.45 for <i>L. braziliensis</i> Amastigote and 0.73 for <i>L. braziliensis</i> promastigote	
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