

A Scoping Review of Genus *Viscum*: Biological and Chemical Aspects of Alcoholic Extracts - Supplementary material

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Michelle Nonato de Oliveira Melo, João Vitor da Costa Batista, Evelyn Maribel Condori Peñaloza, Adriana Passos Oliveira, Rafael Garrett, Stephan Baumgartner, Carla Holandino

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Table S1. Secondary metabolite total content and antioxidant capacity in alcoholic *Viscum* sp.

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Antioxidant activity			
<i>Viscum</i> species	Total content or method for antioxidant capacity assay	Results	Author(s)
<i>Viscum album</i>	Total phenolic content (TPC)	TPC: 19.43 mg gallic acid equivalent/g of dry weight	[29]
		TPC: between 170.71 and 443.99 mg gallic acid equivalent/mg of dry matter	[13]
		TPC: 4.78 to 10.43 mg gallic acid equivalent/g of dry extract	[39]
		TPC: 28.141±0.942 mg gallic acid equivalent/g of dry weight	[48]
		TPC: 5.86 ± 0.63 mg gallic acid equivalent/g of dry weight	[52]
		TPC: 182 mg tannic acid equivalent/100 g	[67]
		TPC: 1232.00 ±0.02 mg galic acid equivalent/g dry sample	[68]
		TPC: 6.33 ± 1.21 mg caffeoic acid equivalent/g of dry plant	[69]
		TPC: 57.673 mg gallic acid equivalent/g of dry weight	[70]
		TPC: between 0.65 ± 0.19 and 0.40 ± 0.19 mg gallic acid equivalent/g fresh weight	[71]
		TPC: between 21.2 ± 2.0 and 35.8 ± 1.3 mg gallic acid equivalent/g of dry weight	[46,71]
		TPC: between 58.97 ± 0.009 and 51.96 ± 0.006 mg gallic acid equivalent/g of fresh matter depend on the host tree and part of the plant	[72]
		TPC: leaves between 31.32±0.008 to 65.30±0.002 mg galic acid equivalent/100g of fresh matter depend on the host tree TPC: stems between 23.86±0.013 to 42.45±0.008 mg galic acid equivalent/100g of fresh matter depend on the host tree	[83]
		TPC: 39 ± 6.88 mg gallic acid equivalent/g dry weight plant material	[92]
		TPC: 13-19 mg gallic acid equivalent/g crude extract	[93]
		TPC: 94.38 ± 0.62 mg gallic acid equivalent/g extract	[97]

	TPC: $21.26 \pm 0.003$ (EtOH) and $23.51 \pm 0.002$ (MeOH) mg gallic acid equivalent/g extract	[98]
	TPC: $30.56 - 56.75$ mg gallic acid equivalent/g dry extract	[99]
	TPC: $15 - 31$ mg gallic acid equivalent/g dry extract	[102]
	TPC: $31.19 \pm 0.60$ mg gallic acid equivalent/g of dry weight	[46]
Total proanthocyanidin content (TPAC)	TPC: $60.43 \pm 3.38$ mg catechin equivalent/g of extract	[31]
	TPC: $668.5$ mg (+)-catechin equivalents/100 g of dry weight	[49]
Total flavonoids content (TFC)	TFC: $36.38 \pm 1.89$ mg quercetin equivalent/g of extract	[31]
	TFC: $0.27$ to $0.428$ mg quercetin equivalent/g of dry extract	[39]
	TFC: $6.60 \pm 0.55$ mg quercetin equivalent/g of dry weight	[46]
	TFC: $5.998 \pm 0.215$ mg quercetin equivalent/g of dry weight	[48]
	TFC: $0.54 \pm 0.04$ mmol/g dry matter $0.20 \pm 0.02$ µmol quercetin equivalent/g of dry material; $5.79 \pm 0.24$ µmol rutin equivalent/g of dry matter; $0.16 \pm 0.02$ µmol kaempferol equivalent/g of dry material	[52]
	TFC: $2.38 \pm 0.31$ mg rutin equivalent/g dry weight	[52]
	TFC: $9.72 \pm 2.81$ µg quercetin equivalent/g of dry plant	[69]
	TFC: $9.955$ mg quercetin equivalent/g of dry weight	[70]
	TFC: $31.38$ mg rutin equivalents/g of fresh material	[22]
	TFC: $3067 \pm 17.2$ mg quercetin equivalent/g dry weight plant material	[92]
	TFC: $3.38 - 2.61$ mg rutin equivalents/g crude extract	[93]
	TFC: $65.24 \pm 0.23$ mg rutin equivalents/g extract	[97]
	TFC: $22.36 \pm 0.45$ (EtOH) $19.38 \pm 0.35$ (MeOH) mg quercetin/g extract	[98]
	TFC: $10.11 - 16.90$ mg quercetin equivalents/g dry extract	[99]
	TFC: $2.8 - 23$ mg rutin equivalents/g dry extract	[102]
Total carotenoids content (TCC)	TCC: between $0.22 \pm 0.01$ and $7.00 \pm 0.15$ mg β-carotene equivalent/g fresh weight	[71]
DPPH (2,2-diphenyl-1-picrylhydrazyl) scavenging assay	DPPH: $4.66 \pm 0.09$ mol quercetin equivalent	[73]
	DPPH: 86.74%	[49]
	DPPH: $IC_{50} 4.65 \pm 0.06$ mg/mL	[68]
	DPPH: between $31.91 \pm 0.00\%$ to $77.19 \pm 0.00\%$ higher for the leaves than for the stems, depend on the host tree and part of the plant	[83]
	DPPH: 70% inhibition	[67]
	DPPH: $IC_{50} 2.650 \pm 0.100$ g of dry extract per g of DPPH	[70]
	DPPH: $82.99 \pm 0.31$ % inhibition	[46]

	DPPH: $7.20 \pm 2.71$ % inhibition	[69]
	DPPH: $IC_{50} 0.046 \pm 0.061$ mg/mL	[48]
	DPPH: $IC_{50} 25.34 \pm 3.8\mu\text{g}/\text{mL}$ (for olive <i>V. album</i> ) and $15.37 \pm 2.2\mu\text{g}/\text{mL}$ (for almond <i>V. album</i> )	[25]
	DPPH (%) clearance $> 50\%$ (three isolated substances)	[75]
	DPPH: $IC_{50} 27.7 \mu\text{M}$ of gallic acid	[74]
	DPPH: $IC_{50} 222 \mu\text{M}$ of 3-(3'-carbomethoxypropyl) gallic acid	
	DPPH: between $59.52 \pm 4.51\%$ to $95.12 \pm 2.37\%$	[76]
	DPPH: 20.23 % inhibition = equivalent 0.0388 mM Trolox, 0.1249 mM Ascorbic acid, 0.0366 Mm Chlorogenic acid	[91]
	DPPH: 87 – 93% inhibition depending on plant part and solvent (methanol or ethanol)	[93]
	DPPH: $IC_{50} 7.28 \pm 0.83$ mg/mL	[97]
	DPPH: $EC_{50} 2.14 - 4.35$ mg dry extract/ mg DPPH	[99]
	DPPH: 14.8 – 49 mg equivalent Trolox/ g dry extract	[102]
TEAC (Trolox Equivalent Antioxidant Capacity) assay	TEAC assay: leaves from <i>V. album</i> from <i>Fraxinus excelsior</i> ( $461.09 \pm 0.11$ mM Trolox equivalent/g of fresh matter) and from <i>Populus nigra</i> stems extract ( $306.68 \pm 0.01$ mM Trolox equivalent/g of fresh mater).	[72]
	TEAC assay: $0.96 \pm 0.005$ and $0.95 \pm 0.106$ mM Trolox equivalents/g fresh matter depend on the host tree and part of the plant	[83]
<b>bioassays</b>	FRAP (ferric reducing antioxidant power) assay	FRAP in mg galic acid equivalent-1 of the $1698.00 \pm 0.03$
		FRAP: between $0.003 \pm 0.10$ and $0.14 \pm 0.87$ mg/L vitamin C equivalent /g of fresh leaves
	$\beta$ -Carotene-linoleic acid assay	$\beta$ -Carotene-linoleic acid assay: 82.23 % antioxidant activity
	SOD (Superoxide dismutase assay) assay	SOD: 53.55%
	SRSA (Superoxide anion radical scavenging activity) assay	SRSA: $30.05 \pm 4.11$ % inhibition
		SRSA: 16.66% of inhibition
		3-(4-acetoxy-3,5-dimethoxy)-phenyl-2E-propenyl- $\beta$ -D-glucopyranoside and 4',5-dimethoxy-7-hydroxyflavanone showed antioxidant activity.
		SRSA = $IC_{50} \mu\text{M}$ : $211.7 \pm 7.0$ SRSA = $IC_{50} \mu\text{M}$ : $58.5 \pm 3.0$
	ORAC (Oxygen Radical Absorbance Capacity) assay	ORAC: 10.73 mM Trolox equivalents/g fresh matter ( <i>V. album</i> from <i>Populus nigra</i> leaf extract).
		ORAC: $< 10.73 \pm 1.90$ mM Trolox equivalents/g fresh matter depend on the host tree and part of the plant
	$\alpha$ -amylase / $\alpha$ -glucosidase inhibitory activity	$\alpha$ -amylase assay: $8.7 \pm 2.3 \mu\text{g}/\text{mL}$ and $44.3 \pm 4.1 \mu\text{g}/\text{mL}$ $\alpha$ -glucosidase: $IC_{50}$ (0.7962 mg/mL) and (0.6653 mg/mL)
		ABTS <sup>•+</sup> : $50.2 \pm 1.64$ and $56.6 \pm 0.45$ mg/g
		[46]

	ABTS <sup>•+</sup> (radical cation 2,2-azinobis-(3-ethylbenzothiazoline-6-sulphonic acid scavenging activity) assay	ABTS <sup>•+</sup> : IC <sub>50</sub> 0.038 ± 0.079 mg/mL ABTS <sup>•+</sup> : 41 – 75 mg Trolox equivalente/ g dry extract	[48] [102]
	Reducing power capacity (FeCl <sub>3</sub> solution)	Reduce Fe <sup>+3</sup> to Fe <sup>+2</sup> dose-dependent pattern Reducing power capacity: 1.18 ± 0.01	[67] [77]
	Chelation Power on (Fe <sup>2+</sup> ) ions activity assay	Fe chelation (II) assay: ca 60% Fe chelation (II) assay: 54.68 ± 2.77%	[67] [69]
	FRSA (Free radical scavenging activity) assay	FRSA: 34.01 ± 2.68 % inhibition	[31]
	HRSA (Hydroxyl radical scavenging activity) assay	HRSA = 40.19 ± 1.61 % inhibition HRSA = 34.44% of inhibition	[31] [69]
	H <sub>2</sub> O <sub>2</sub> Hydrogen peroxide scavenging activity assay	H <sub>2</sub> O <sub>2</sub> = 0.37 % of inhibition	[69]
	DMPD (N, N-dimethyl-p-phenylenediamine radical scavenging activity) assay	DMPD 7.40 ± 1.38 % inhibition	[77]
	NO (Nitric oxide radical scavenging activity) assay	NO = 37.08 ± 1.05 % inhibition NO = 28.34% of inhibition	[77] [69]
	PRAP (Phosphomolibdenum-reducing antioxidant power) assay	PRAP = 0.148 ± 0.024	[77]
	Metal-chelation capacity (FeCl <sub>2</sub> ) assay	Metal-chelation capacity = 83.79 ± 1.91 % Chelating metal ions IC <sub>50</sub> 0.241±0.013 mg/mL	[77] [48]
	AChE, BChE, and Tyrosinase activity assays	AChE: 9.78 ± 1.78 % inhibition; BChE: 26.30 ± 2.44 % inhibition; TYRO: 6.40 ± 1.32 % inhibition	[77]
	TBARS (Thiobarbituric acid reactive species) assay	TBARS: IC <sub>50</sub> : 0.575 ± 0.120 mg/mL	[48]
	Thiobarbituric acid (TBA) methods	TBA: the results are more effective than Vitamin E	[76]
	XOD (Xanthine oxidase) assay	XOD (%) inhibitory activity > 50% (three isolated substances)	[75]
	Chemiluminescence	Chemiluminescence: 17.02 % inhibition	[73]
	FTM Ferric thiocyanate method	FTM: highest activity in comparison with Vitamin E	[76]
<i>Viscum angulatum</i>	Total phenolic content (TPC)	TPC: 41.80 µg gallic acid equivalent/mg of dry extract TPC: 284.1±7.643 µg gallic acid equivalent/mg TFC: 98.80 ± 6.445 µg quercetin equivalent/mg	[106] [105] [105]
	Total proanthocyanidin content (TPAC)	TPAC: 112.9 ± 5.939 µg epicatechin equivalent/mg	[105]
	DPPH (2,2-diphenyl-1-picrylhydrazyl) scavenging assay	DPPH: 57.88 + 0.66 %	[106]
	Total phenolic content (TPC)	TPC: 3.03 ± 0.02 g p-coumaric acid equivalente/100 g of dry material	[112]
	Total flavonoid content (TFC)	TFC: 1.75 ± 0.3 g quercetin equivalent/100 g of dry material	[112]
<i>Viscum articulatum</i>	Total proanthocyanidin content (TPAC)	TPAC: 1.37 ± 0.2 g catechin equivalent/100 g of dry material	[112]
	Total terpenoid content (TTC)	TTC: 19.5613 g (oleanolic acid+betulinic acid) equivalent/100 g of dry material	[112]

<i>Viscum capitellatum</i>	Total phenolic content (TPC)	TPC: $372.024 \pm 09.572$ mg gallic acid equivalent/100g dry weight	[116]
	Total phenolic content (TPC)	TPC: $47.84 \pm 4.12$ mg gallic acid equivalent/g dry extract	[117]
	Total flavonoid content (TFC) (flavanone; flavonol)	Total flavanone content: $51.917 \pm 08.131$ mg ( $\pm$ )-eriodictyol equivalent/100g of dry weight Total flavonol content: $37.246 \pm 01.787$ mg quercetin equivalent/100g of dry weight	[116]
	Total flavonoid content (TFC)	$29.25 \pm 2.20$ mg quercetin equivalent/g dry extract	[117]
	Total carotenoids content (TCC)	TCC: $29.508 \pm 02.467$ mg $\beta$ -carotene equivalent /100 g dry weight	[116]
	ABTS <sup>•+</sup> (radical cation 2,2-azinobis-(3-ethylbenzothiazoline-6-sulphonic acid scavenging activity) assay	ABTS <sup>•+:</sup> $407.109 \pm 12.153$	[116]
<i>Viscum coloratum</i>	Total phenolic content (TPC)	TPC: $11.14 \pm 0.05$ mg caffeic acid equivalent/g of dry weight	[14]
	Total flavonoid content (TFC)	TFC: $83.51 \pm 0.56$ mg quercetin equivalent /g of dry weight	[14]
	Total triterpene content (TTC)	TTC: $> 25.8 \pm 1.1$ mg oleanolic acid equivalent/g of dry weight	[118,130]
<i>Viscum cruciatum</i>	Total phenolic content (TPC)	TPC: 36.5 mg gallic acid equivalent/g of dry weight	[130]
	ABTS <sup>•+</sup> (radical cation 2,2-azinobis-(3-ethylbenzothiazoline-6-sulphonic acid scavenging activity) assay	ABTS <sup>•+:</sup> $590.5 \mu\text{mol}$ Trolox equivalent/ g of dry weight	[130]
<i>Viscum orientale</i>	Total phenolic content (TPC)	TPC: 73.4 mg gallic acid equivalent/g of dried weight	[135]
	Total flavonoids content (TFC)	TFC: 170.6 mg quercetin equivalent/g of dried weight	[135]
	DPPH (2,2-diphenyl-1-picrylhydrazyl) scavenging assay	DPPH: IC <sub>50</sub> 6.63 $\mu\text{g/mL}$	[135]
<i>Viscum rotundifolium</i>	Total phenolic content (TPC)	TPC: $748.899 \pm 3.170$ mg gallic acid equivalent/g extract	[136]
	Total flavonoid content (TFC)	TFC: $2.869c \pm 0.405$ mg quercetin equivalent/g extract	[136]
<i>Viscum schimperi</i>	Total phenolic content (TPC)	TPC: 7 mg gallic acid equivalent/g dry weight	[137]
	Total flavonoid content (TFC)	TFC: 3 mg rutin equivalent/g dry weight	[137]
	DPPH (2,2-diphenyl-1-picrylhydrazyl) scavenging assay	DPPH IC <sub>50</sub> : 10.0-22.0 $\mu\text{g/mL}$	[137]

Table S2. Preliminary phytochemical analysis in alcoholic *Viscum* sp.

Species	Preliminarily phytochemical analysis	Author(s)
<i>Viscum album</i>	Positive for alkaloids, saponins, tannins, glycosides, flavonoids, terpenoids, triterpenoids, steroids, cardiac steroid glycosides, emodin, anthraquinone glycosides, reducing sugar, coumarin, phenols and proteins.	[30,50,65,79]
<i>Viscum articulatum</i>	Positive for flavonoids, steroids, alkaloids, terpenoids and saponins.	[107,110]
<i>Viscum congolensis</i>	Positive for tannins, flavonoids and terpenes, as well as saponin, alkaloids, phenols and steroids.	[126]
<i>Viscum cruciatum</i>	Positive for alkaloids, coumarins, flavonoids, saponins, sterols, tannins, and terpenes.	[129]
<i>Viscum monoicum</i>	Positive for reducing sugars, tannins, saponins, gums, and alkaloids.	[132]
<i>Viscum orientale</i>	Positive for sugars, alkaloids, tannins and flavonoids.	[134]

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Table S3. Fatty acids in alcoholic *Viscum* sp.

Fatty acids				
Identified compounds	Chemical group	Species	Analytical method	Author(s)
10-Hydroxyoctadecenoic acid	Fatty acid unsaturated	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[138]
Arachidic	Fatty acid saturated	<i>Viscum album</i>	TLC; UV-light; IR-810; CD-J 500C; <sup>1</sup> H and <sup>13</sup> C-NMR; GLC; HPLC.	[80]
Behenic acid	Fatty acid saturated	<i>Viscum album</i>	TLC; UV-light; IR-810; CD-J 500C; <sup>1</sup> H and <sup>13</sup> C-NMR; GLC; HPLC.	[80]
Cerotic acid	Fatty acid saturated	<i>Viscum album</i>	TLC; UV-light; IR-810; CD-J 500C; <sup>1</sup> H and <sup>13</sup> C-NMR; GLC; HPLC.	[80]
Dihydroxy-oleana-dien-oic acid	Fatty acid unsaturated	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[138]
Hepracosainc acid	n.d.	<i>Viscum album</i>	TLC; UV-light; IR-810; CD-J 500C; <sup>1</sup> H and <sup>13</sup> C-NMR; GLC; HPLC.	[80]
Hydroxy-8,12-octadecadienoic acid	Fatty acid unsaturated	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[138]
Hydroxy-octadecatrienoic acid	Fatty acid unsaturated	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[138]
Lignoceric acid	Fatty acid saturated	<i>Viscum album</i>	TLC; UV-light; IR-810; CD-J 500C; <sup>1</sup> H and <sup>13</sup> C-NMR; GLC; HPLC.	[80]
Montanic acid	Fatty acid saturated	<i>Viscum album</i>	TLC; UV-light; IR-810; CD-J 500C; <sup>1</sup> H and <sup>13</sup> C-NMR; GLC; HPLC.	[80]
Stearic acid	Fatty acid saturated	<i>Viscum album</i>	TLC; UV-light; IR-810; CD-J 500C; <sup>1</sup> H and <sup>13</sup> C-NMR; GLC; HPLC; GC-MS;	[80]

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Table S4. Carbohydrates in alcoholic *Viscum* sp.

Carbohydrates				
Identified compounds	Chemical group	Species	Analytical method	Author(s)
<b>Arabinose</b>	Monosaccharides	<i>Viscum album</i>	GC-MS	[81]
<b>Galactose</b>	Monosaccharides	<i>Viscum album</i>	GC-MS	[81]
<b>Glucose</b>	Monosaccharides	<i>Viscum album</i>	GC-MS	[81]
<b>Inositol</b>	Sugar alcohols	<i>Viscum album</i>	GC-MS	[81]
<b>Mannose</b>	Monosaccharides	<i>Viscum album</i>	GC-MS	[81]
<b>Xylitol</b>	Sugar alcohols	<i>Viscum album</i>	GC-MS	[81]
<b>Xylose</b>	Monosaccharides	<i>Viscum album</i>	GC-MS	[81]

Table S5. Phenolic acids and their derivatives in alcoholic *Viscum* sp.

Phenolic acids and their derivatives – Hydroxycinnamic and Hydroxybenzoic acid derivatives				
Identified compounds	Chemical group	Species	Analytical method	Author(s)
<b>1-O-caffeoylequinic acid</b>	Hydroxycinnamic acid derivatives	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[92,137,138]
<b>3-O-caffeoylequinic acid</b>	Hydroxycinnamic acid derivatives	<i>Viscum album</i>	UPLC- PDA-ESI-MS/MS	[90,92]
<b>4-O-caffeoylequinic acid</b>	Hydroxycinnamic acid derivatives	<i>Viscum schimperi</i> , <i>Viscum album</i>	UPLC- PDA-ESI-MS/MS	[90,92]
<b>5-O-caffeoylequinic acid</b>	Hydroxycinnamic acid derivatives	<i>Viscum schimperi</i> , <i>Viscum album</i>	UPLC- PDA-ESI-MS/MS	[90,96,137,138]
<b>3-(3'-carbomethoxypropyl) gallic acid;</b>	Hydroxybenzoic acid derivatives	<i>Viscum album</i>	<sup>13</sup> C and <sup>1</sup> H 1D and 2D NMR; HPLC-UV-MS	[74]
<b>3-(3'-carbomethoxypropyl) -7-3"- protocatechoyl galloate</b>	-7-3"- Hydroxybenzoic acid derivatives	<i>Viscum album</i>	<sup>13</sup> C and <sup>1</sup> H 1D and 2D NMR; HPLC-UV-MS	[74]
<b>3-(4-hydroxy-3,5-dimethoxy) -phenyl- 2E-propenyl-β-D-glucopyranoside</b>	Hydroxycinnamic acid derivatives	<i>Viscum album</i>	IR, UV, HPLC, HR-FAB-MS, <sup>1</sup> H- and <sup>13</sup> C-NMR.	[45]
<b>3-(4-acetoxy-3,5-dimethoxy) -phenyl-2E- propenyl-β-D-glucopyranoside</b>	Hydroxycinnamic acid derivatives	<i>Viscum album</i>	IR, UV, HPLC, HR-FAB-MS, <sup>1</sup> H- and <sup>13</sup> C-NMR.	[45]
<b>3-OH-cinnamic acid (syn. <i>m</i>-coumaric acid)</b>	Hydroxycinnamic acid derivatives	<i>Viscum album</i>	LC-ESI-MS/MS	[39]
<b>Alangilignoside C</b>	Hydroxybenzoic acid derivatives - lignan	<i>Viscum album</i>	TLC, HPLC-PDA-MS, UFLC-PDA-MS/MS, UHPLC-HRMS/MS	[35]
<b>Caffeic acid</b>	Hydroxycinnamic acid derivatives	<i>Viscum cruciatum</i> , <i>Viscum album</i>	LC-ESI-MS/MS	[23,97]
<b>Chlorogenic acid</b>	Hydroxycinnamic acid derivatives	<i>Viscum album</i> , <i>Viscum capitellatum</i> , <i>Viscum schimperi</i> , <i>Viscum combreticola</i>	TLC, UV, NMR, HPLC-PDA-MS, UFLC-PDA-MS/MS, UHPLC-HRMS/MS, UPLC- PDA-ESI-MS/MS	[7,35,72,83,97,116,125,137,138]
<b>Coniferin (syn. coniferylalcohol 4-O-β-D-glucopyranoside)</b>	Hydroxycinnamic acid derivatives	<i>Viscum album</i>	<sup>1</sup> H and <sup>13</sup> C-NMR, HPLC-MS, HPLC-UV, CG-FID, UV-Vis, TLC, HPLC, UV, IR, and FAB-MS	[21,84]

Table S5. Continued.

Phenolic acids and their derivatives – Hydroxycinnamic and Hydroxybenzoic acid derivatives				
Identified compounds	Chemical group	Species	Analytical method	Author(s)
Coniferylalcohol 4-O-apiosyl (1→2) glucoside (syn. Coniferylalcohol-4'-[apiosyl (1 → 2)] glucoside)	Hydroxycinnamic acid derivatives	<i>Viscum album</i>	<sup>1</sup> H and <sup>13</sup> C-NMR, HPLC-MS, HPLC-UV, CG-FID, UV-Vis, TLC, UV-light, IR-810, CD-J 500C, Gas Liquid Chromatography (GLC)	[21,80]
Ellagic acid	Hydroxybenzoic acid derivatives	<i>Viscum orientale</i>	UHPLC-LC-MS/MS	[135]
Ferulic acid	Hydroxycinnamic acid derivatives	<i>Viscum album</i> , <i>Viscum articulatum</i>	HPLC-DAD, LC-ESI-MS/MS	[39,72,83,108]
Feruloyl quinic acid	Hydroxycinnamic acid derivatives	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[137,138]
Feruloyl quinic acid-methyl ether	Hydroxycinnamic acid derivatives	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[137,138]
Gallic acid	Hydroxybenzoic acid derivatives	<i>Viscum articulatum</i> , <i>Viscum album</i> , <i>Viscum orientale</i>	HPLC-DAD, <sup>13</sup> C and <sup>1</sup> H 1D and 2D NMR, HPLC-UV-MS, LC-ESI-MS/MS	[39,72,74,83,99,108,135]
Kalopanaxin D	Hydroxycinnamic acid derivatives	<i>Viscum album</i>	HPLC, UV, IR, <sup>1</sup> H and <sup>13</sup> C-NMR, and FAB-MS	[84]
Ligalbumoside A	Hydroxybenzoic acid derivatives	<i>Viscum album</i>	TLC, HPLC-PDA-MS, UFLC-PDA-MS/MS, UHPLC-HRMS/MS	[35]
Lyorinesinol	Hydroxybenzoic acid derivatives - lignan	<i>Viscum album</i>	LC-ESI-MS/MS	[90]
p-coumaric acid (syn. (E)-3-(4-hydroxyphenyl)-prop-2-enoic acid)	Hydroxycinnamic acid derivatives	<i>Viscum capitellatum</i> , <i>Viscum album</i>	TLC, UV, NMR, HPLC-DAD, LC-ESI-MS/MS	[39,72,83,116]
p-hydroxybenzoic acid (syn. 4-OH-benzoic acid)	Hydroxybenzoic acid derivatives	<i>Viscum album</i>	HPLC-DAD, LC-ESI-MS/MS	[39,72,83]
Protocatechuic acid	Hydroxybenzoic acid derivatives	<i>Viscum album</i>	HPLC-DAD, LC-ESI-MS/MS	[39,72,83]

Table S5. Continued.

Phenolic acids and their derivatives - Hydroxycinnamic and Hydroxybenzoic acid derivatives				
Identified compounds	Chemical group	Species	Analytical method	Author(s)
Rosmarinic acid	Hydroxycinnamic acid derivatives	<i>Viscum album</i> , <i>Viscum schimperi</i>	HPLC-DAD, UPLC-PDA-ESI-MS/MS, LC-ESI-MS/MS	[23,39,72,83,99,138]
Salicylic acid	Hydroxybenzoic acid derivatives	<i>Viscum album</i>	HPLC-DAD, LC-ESI-MS/MS	[39,72,83]
Sinapic acid	Hydroxycinnamic acid derivatives	<i>Viscum album</i>	HPLC-DAD, LC-ESI-MS/MS	[39,72,83,97,102]
Sinapoylquinic acid	Hydroxycinnamic acid derivatives	<i>Viscum schimperi</i>	UPLC-PDA-ESI-MS/MS	[137,138]
Syringenin 4-O-apiosyl-glucoside (syn. Polygalatenoside E; Syringenin 4-O-apiosyl (1→2) glucoside)	Hydroxycinnamic acid derivatives	<i>Viscum album</i>	<sup>1</sup> H and <sup>13</sup> C-NMR, HPLC-MS, HPLC-UV, CG-FID, UV-Vis, TLC, HPLC-PDA-MS, UFCPDA-MS/MS, UHPLC-HRMS/MS	[21,35]
Syringenin 4-O-β-D-glucopyranoside (syn. Syringin; Eleutheroside B)	Hydroxycinnamic acid derivatives	<i>Viscum album</i> <i>Viscum articulatum</i>	TLC, HPLC-PDA-MS, UFCPDA-MS/MS, UHPLC-HRMS/MS, <sup>1</sup> H and <sup>13</sup> C-NMR, HPLC-MS, HPLC-UV, CG-FID, UV-Vis, TLC, UV-light, IR-810, CD-J 500C, Gas Liquid Chromatography	[7,21,35,80,84,85,102,131]
Eleutheroside E	Hydroxycinnamic acid derivatives – lignan	<i>Viscum coloratum</i>	UPLC/Q-TOF-MS	[124]
Syringic acid	Hydroxybenzoic acid derivatives	<i>Viscum album</i>	HPLC-DAD, LC-ESI-MS/MS	[39,72,83]
trans-cinnamic acid	Hydroxycinnamic acid derivatives	<i>Viscum album</i>	HPLC-DAD	[72,83]
Vanillic acid	Hydroxybenzoic acid derivatives	<i>Viscum album</i> , <i>Viscum orientale</i>	LC-ESI-MS/MS	[39,97,135]
Veratric acid	Hydroxybenzoic acid derivatives	<i>Viscum album</i>	LC-ESI-MS/MS	[39]

Table S6. Flavonoids and their derivatives in alcoholic *Viscum* sp.

Flavonoids and their derivatives – Chalcones				
Identified compounds	Species	Analytical method	Author(s)	
2',4-dihydroxy-4',6'-dimethoxy chalcone	<i>Viscum album</i>	TLC densitometric method, UV (366 nm); ATR-IR, <sup>1</sup> H and <sup>13</sup> C – NMR.	[79]	
2'-hidroxy-4',6'- dimethoxychalcone-4-O-[apiosyl (1→2)]glucoside	<i>Viscum album</i>	TLC; UV-light, IR-810, CD-J 500C, <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC), HPLC	[82]	
2'-hydroxy-3,4',6'-trimethoxychalcone-4-O-glucoside	<i>Viscum album</i>	TLC; UV-light, IR-810; CD-J 500C; <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC), HPLC	[80,82]	
2'-hydroxy-4',6' – dimethoxychalcone-4-O-glucoside	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C, <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC), HPLC	[82]	
2'-hydroxy-4',6'-dimethoxychalcone-4-O-[apiosyl (1 → 2)]glucoside	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C, <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC), HPLC	[80]	
2'-hydroxy-4',6-dimethoxychalcone-4-O-glucoside	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C, <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC), HPLC	[80]	

## Flavonoids and their derivatives – Anthocyanins

Malvidin-3-O-glucoside	<i>Viscum cruciatum</i>	LC-ESI-MS/MS	[23]
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## Flavonoids and their derivatives – Flavan

Identified compounds	Chemical group	Species	Analytical method	Author(s)
Luteoliflavan-O- [pentosyl hexoside]	Flavan-O-glycosides	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[137,138]
Viscutin III (syn. Viscutin 3)	Flavans	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[137,138]
Epicatechin gallate	Flavan-3-ol	<i>Viscum articulatum</i>	HPLC	[131]

Table S6. Continued

Flavonoids and their derivatives – Flavanones				
(2R)-5,7-Dimethoxyflavanone-4'-O-glucoside	Flavanones	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C, <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC), HPLC	[80,82]
(2S) Homoeriodictyol-7-O-[apiosyl (1 → 2)] glucoside	Flavanones	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C, <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC), HPLC	[80]
(2S) Homoeriodictyol-7-O-glucoside	Flavanones	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C, <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC), HPLC	[80]
(2S) -3',5,7-Trimethoxyflavanone-4'-O-glucoside	Flavanones	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C, <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC), HPLC	[80,82]
4',5-dimethoxy-7-hydroxyflavanone	Flavanones	<i>Viscum album</i>	IR, UV, HPLC, HR-FAB-MS, <sup>1</sup> H- and <sup>13</sup> C-NMR	[45]
4'-O- [β-D-apiosyl (1→2)] -β-D-glucopyranosyl] -5-hydroxyl-7-O-sinapylflavanone	Flavanones	<i>Viscum album</i>	IR, UV, HPLC, HR-FAB-MS, <sup>1</sup> H- and <sup>13</sup> C-NMR	[45]
5,7-dimethoxy-4'-hydroxyflavanone	Flavanones	<i>Viscum album</i>	IR, UV, HPLC, HR-FAB-MS, <sup>1</sup> H- and <sup>13</sup> C-NMR	[45]
5,7-dimethoxy-4'-O-β-D-glucopyranoside flavanone	Flavanones	<i>Viscum album</i>	IR, UV, HPLC, HR-FAB-MS, <sup>1</sup> H- and <sup>13</sup> C-NMR	[45]
7-O-β-D-glucopyranosyl eriodictyol	Flavanones	<i>Viscum capitellatum</i>	TLC, UV, NMR	[116]
Eriodictyol (syn. (2S)-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-4-chromanone)	Flavanones	<i>Viscum 13lbum</i> , <i>Viscum capitellatum</i> , <i>Viscum schimperi</i>	TLC, UV, NMR, LC-ESI-MS/MS; UPLC-PDA-ESI-MS/MS	[39,116,137,138]
Eriodictyol hexoside	Flavanones	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[137,138]
Eriodictyol-7-O-β-D-glucopyranoside	Flavanones	<i>Viscum album</i>	IR, UV, NMR, ESI-MS, HR-ESI-MS, HPLC	[75]
Homeriodictyol-7-O-β-D-apiofuranosyl (1 → 2) -O-β-D-glucopyranoside	Flavanones	<i>Viscum album</i>	IR, UV, NMR, ESI-MS, HR-ESI-MS, HPLC	[75]
Homoeriodictyol-7-O-β-D-glucopyranoside	Flavanones	<i>Viscum 13lbum</i> , <i>Viscum coloratum</i>	<sup>1</sup> H and <sup>13</sup> C-NMR, MS, HPLC, IR, UV, ESI-MS, HR-ESI-MS, HPLC	[75,120]

Table S6. Continued.

Flavonoids and their derivatives – Flavanones				
Identified compounds	Chemical group	Species	Analytical method	Author(s)
Homoeriodictyol (syn. Hedt-I)	Flavanones	<i>Viscum coloratum</i>	UHPLC-LC-MS/MS, HPLC-MS	[14,121,123]
Homoeriodictyol-7-O-β-D-glycoside (syn. Hedt-II)	Flavanones	<i>Viscum coloratum</i>	UHPLC-LC-MS/MS, HPLC-MS	[14,121,123]
Homoeriodictyol-7-O-β-D-apiose (1→2)-β-D-glycoside (syn. Hedt-III)	Flavanones	<i>Viscum coloratum</i>	UHPLC-LC-MS/MS, HPLC-MS	[14,121,123]
Homoeriodictyol-7-O-β-D-apiose (1→5)-β-D-apiose (1→2)-β-D-glycoside (syn. Hedt-IV)	Flavanones	<i>Viscum coloratum</i>	UHPLC-LC-MS/MS, HPLC-MS	[14,121]
Homoeriodictyol-7-O-β-D-glucopyranoside-4'-O-β-D-apioside	Flavanones	<i>Viscum album</i>	IR, UV, NMR, ESI-MS, HR-ESI-MS, HPLC	[75]
Naringenin	Flavanones	<i>Viscum album</i> , <i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS, HPLC-DAD, LC-ESI-MS/MS	[7,39,72,83,102,137,138]
Naringenin-5-methyl ether	Flavanones	<i>Viscum album</i>	TLC; HPLC-PDA-MS, UFLC-PDA-MS/MS, UHPLC-HRMS/MS	[35]
Naringin	Flavanones	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[137,138]
Pinobanksin	Flavanones	<i>Viscum album</i>	HR-ESI-MS	[90]
Sakuranetin	Flavanones	<i>Viscum album</i>	TLC, HPLC-PDA-MS, UFLC-PDA-MS/MS, UHPLC-HRMS/MS, LC-ESI-MS/MS	[35,39,96,99]
Trihydroxyflavanone-Di-Me-ether-O-[pentosylhexoside]	Flavanones	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[137,138]
Trihydroxyflavanone-Di-Me-ether-O-hexoside	Flavanones	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[137,138]
Viscumneoside I	Flavanones	<i>Viscum coloratum</i>	UPLC/Q-TOF-MS	[124]

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Table S6. Continued.

Flavonoids and their derivatives – Flavanonols				
Identified compounds	Chemical group	Species	Analytical method	Author(s)
<b>Taxifolin</b>	Flavanonols	<i>Viscum album</i>	LC-ESI-MS/MS	[39]
<b>Tetrahydroxyflavan-O-β-D-hexoside</b>	Flavanonols	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[137,138]
Flavonoids and their derivatives – Flavones				
<b>3',7-dimethoxyluteolin-4'-O-[apiosyl (1→2)]glucoside</b>	Flavones	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C, <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC); HPLC	[80]
<b>3',7-dimethoxyluteolin-4'-O-glucoside</b>	Flavones	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C, <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC), HPLC	[80]
<b>Apigenin</b>	Flavones	<i>Viscum 15bum</i> , <i>Viscum articulatum</i>	HPLC, LC-ESI-MS/MS, TLC – densitometric method	[39,57,92,99,108]
<b>Chrysin</b>	Flavones	<i>Viscum album</i>	LC-ESI-MS/MS	[39]
<b>Chrysin-O-di-α-rhamnopyranoside</b>	Flavones	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[137,138]
<b>Flavoyadorinin B</b>	Flavones	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C, <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC), HPLC	[60,80]
<b>Homoflavoyadorinin B</b>	Flavones	<i>Viscum album</i>	HPLC, TLC, UV-light, IR-810, CD-J 500C, <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC), HPLC.	[60,80]
<b>Liquidamboside</b>	Flavones	<i>Viscum album</i>	IR, UV, NMR, ESI-MS, HR-ESI-MS, HPLC	[75]
<b>Luteolin</b>	Flavones	<i>Viscum album</i>	LC-ESI-MS/MS	[39,97,99]

Table S6. Continued.

Flavonoids and their derivatives – Flavonols					
Identified compounds	Chemical group	Species	Analytical method	Author(s)	
3-O-Methylquercetin	Flavonols	<i>Viscum album</i>	LC-ESI-MS/MS	[39]	
5,7,4'-trihydroxy-3,3'-dimethoxyflavone (syn. Tddf)	Flavonols	<i>Viscum coloratum</i>	HPLC-MS, UHPLC-LC-MS/MS	[14,121]	
5-hydroxy-3,7,3'-trimethoxyflavone-4'-O- $\beta$ -D-glucoside (syn. Httf)	Flavonols	<i>Viscum coloratum</i>	HPLC-MS	[121]	
7-hydroxy-3,5,6,3',4'-pentamethoxyflavone (syn. Quercetagetin 3,5,6,3',4'-pentamethylether)	Flavonols	<i>Viscum capitellatum</i>	TLC, UV, NMR	[116]	
Isorhamnetin	Flavonols	<i>Viscum album</i>	LC-ESI-MS/MS	[39,102]	
Isorhamnetin-3-O-apiosyl glucosyl-7-O-rhamnoside (1→6)	Flavonols	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C, <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC), HPLC	[80]	
Isorhamnetin-3-O-glucoside	Flavonols	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[137,138]	
Isorhamnetin-3-O-rutinoside	Flavonols	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C, <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC), HPLC	[80]	
Isorhamnetin-3-O- $\beta$ -D-glucoside (syn. Isor)	Flavonols	<i>Viscum coloratum</i>	HPLC-MS, UHPLC-LC-MS/MS	[14,121]	
Isorhamnetin-O-pentosyl-O- $\alpha$ -L-rhamnopyranoside	Flavonols	<i>Viscum schimperi</i>	UPLC- PDA-ESI-MS/MS	[137,138]	
Hyperoside	Flavonols	<i>Viscum cruciatum</i>	LC-ESI-MS/MS	[23]	
Kaempferol	Flavonols	<i>Viscum album</i> <i>Viscum cruciatum</i>	HPLC-UV, LC-ESI-MS/MS, HPLC-DAD	[23,39,72,73,78,83]	
Morin	Flavonols	<i>Viscum album</i>	LC-ESI-MS/MS	[39]	

Table S6. Continued.

Flavonoids and their derivatives - Flavonols				
Identified compounds	Chemical group	Species	Analytical method	Author(s)
<b>Myricetin</b>	Flavonols	<i>Viscum album</i>	LC-ESI-MS/MS	[39]
<b>Pachypodol (syn. Pach)</b>	Flavonols	<i>Viscum coloratum</i>	HPLC-MS, UHPLC-LC-MS/MS	[14,121]
<b>Prunetin</b>	Flavones	<i>Viscum album</i>	LC-ESI-MS/MS	[39]
<b>Quercetin</b>	Flavonols	<i>Viscum album</i> , <i>Viscum orientale</i>	TLC - densitometric method, HPLC-UV, LC-ESI-MS/MS	[39,57,72,73,78,83,90,135]
<b>Quercitrin</b>	Flavonols	<i>Viscum cruciatum</i>	LC-ESI-MS/MS	[23]
<b>Rhamnazin</b>	Flavonols	<i>Viscum album</i>	IR, UV, NMR, ESI-MS, HR-ESI-MS, HPLC	[39,75]
<b>Rhamnazin-3,4'-di-O-glucoside</b>	Flavonols	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C; <sup>1</sup> H and <sup>13</sup> C-NMR, Gas Liquid Chromatography (GLC), HPLC	[80]
<b>Rhamnazin-3-O-β-D-(6''-acetyl) -O-β-D-glucopyranoside</b>	Flavonols	<i>Viscum album</i>	IR, UV, NMR, ESI-MS, HR-ESI-MS, HPLC	[75]
<b>Rhamnazin-3-O-β-D-(6''-β-hydroxy-β-methylglutaryl) -glucoside (syn. Rham-II)</b>	Flavonols	<i>Viscum coloratum</i>	HPLC-MS	[121]
<b>Rhamnazin-3-O-β-D-glucopyranoside</b>	Flavonols	<i>Viscum album</i>	IR, UV, NMR, ESI-MS, HR-ESI-MS, HPLC	[75]
<b>Rhamnazin-3-O-β-D-glucoside (syn. Rham-I)</b>	Flavonols	<i>Viscum coloratum</i>	HPLC-MS	[121]
<b>Rhamnazine-3-O-β-D-apiofuranosyl (1→2) -[6''-(3-oxhydryl-3-methylgluaryl)] -O-β-D-glucopyranoside</b>	Flavonols	<i>Viscum album</i>	IR, UV, NMR, ESI-MS, HR-ESI-MS, HPLC	[75]
<b>Rhamnetin</b>	Flavonols	<i>Viscum album</i>	LC-ESI-MS/MS	[39]
<b>Rutin</b>	Flavonols	<i>Viscum album</i>	HPLC	[73,78]

Table S7. Terpenoids and their derivatives in alcoholic *Viscum* sp.

Terpenoids and their derivatives				
Identified compounds	Chemical group	Species	Analytical method	Author(s)
(1 R,7S)-1,12,13-trihydroxybisabola-3,10-diene	Sesquiterpene	<i>Viscum coloratum</i>	$^{13}\text{C}$ NMR, HR-ESI-MS	[122]
Roseoside	Sesquiterpene	<i>Viscum album</i>	HPLC-MS/MS	[102]
3-epi-betulinic acid	Pentacyclic triterpenoid derivatives	<i>Viscum coloratum</i>	TLC, $^{13}\text{C}$ and $^1\text{H}$ NMR, ESI-MS	[118]
Betulin (syn. 3 $\beta$ -lup-20(29)-en-3,28-diol)	Pentacyclic triterpenoid derivatives	<i>Viscum capitellatum</i> , <i>Viscum album</i>	TLC, UV, NMR, HPLC-UV	[52,116]
Betulinic acid (syn. 3 $\beta$ -hydroxy-lup-20(29)-en-28-oic acid, betulic acid)	Pentacyclic triterpenoid derivatives	<i>Viscum album</i> , <i>Viscum angulatum</i> , <i>Viscum articulatum</i> , <i>Viscum capitellatum</i> , <i>Viscum schimperi</i>	TLC, UV, UPLC- PDA-ESI-MS/MS, HPLC-UV, HPTLC, HPLC, UV-light, IR-810, CD-J 500C, $^1\text{H}$ and $^{13}\text{C}$ -NMR, Gas Liquid Chromatography (GLC)	[52,72,80,82,83,96,105,112,116,137,138]
Betulonic acid (syn. Liquidambaric acid)	Pentacyclic triterpenoid derivatives	<i>Viscum coloratum</i>	TLC, $^{13}\text{C}$ and $^1\text{H}$ NMR, ESI-MS	[118]
Campesterol	Steroid derivatives	<i>Viscum album</i>	GC-MS	[40]
Carotenoids	Tetraterpenoids	<i>Viscum capitellatum</i>	TLC, UV, NMR	[116]
Lupeol (syn. lup-20(29)-en-3 $\beta$ -ol)	Pentacyclic triterpenoid derivatives	<i>Viscum album</i> , <i>Viscum capitellatum</i>	TLC, UV, NMR, GC-MS	[40,116]

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Table S7. Continued.

Terpenoids and their derivatives				
Identified compounds	Chemical group	Species	Analytical method	Author(s)
Oleanolic acid (syn. 3 $\beta$ -hydroxyolean-12-en-28-oic acid)	Pentacyclic triterpenoid derivatives	<i>Viscum album</i> ,	TLC, UV, HPTLC, HPLC, UPLC-PDA-ESI-MS/MS, ESI-MS,	[80,82,96,105,108,112-
		<i>Viscum angulatum</i> ,	TLC; UV-light, IR-810, CD-J 500C, $^1\text{H}$ and $^{13}\text{C}$ -NMR, Gas	114,116,118,137,138]
		<i>Viscum articulatum</i> ,	Liquid Chromatography (GLC)	
		<i>Viscum capitellatum</i> ,		
		<i>Viscum coloratum</i> ,		
		<i>Viscum schimperi</i>		
Ursolic acid	Pentacyclic triterpenoid derivatives	<i>Viscum articulatum</i>	HPLC	[131]
phytosterol	Phytosterols	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C, $^1\text{H}$ and $^{13}\text{C}$ -NMR, Gas Liquid Chromatography (GLC), HPLC	[80,82]
phytosterol-glycoside	Phytosterols	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C, $^1\text{H}$ and $^{13}\text{C}$ -NMR, Gas Liquid Chromatography (GLC), HPLC	[80]
phytosterol- $\beta$ -D-glucoside	Phytosterols	<i>Viscum album</i>	TLC, UV-light, IR-810, CD-J 500C, $^1\text{H}$ and $^{13}\text{C}$ -NMR, Gas Liquid Chromatography (GLC), HPLC	[82]
Spinasterol (syn. stigmasta-7,22-dien-3 $\beta$ -ol)	Phytosterols	<i>Viscum capitellatum</i>	TLC, UV, NMR	[116]
$\alpha$ -tocopherol	Tocopherols	<i>Viscum album</i>	GC-MS	[40]
$\beta$ -amyrin acetate	Triterpenoids	<i>Viscum album</i> , <i>Viscum cruciatum</i> ,	TLC, UV, FAB-Mass, $^{13}\text{C}$ and $^1\text{H}$ NMR, TLC, $^{13}\text{C}$ and $^1\text{H}$ NMR,	[80,82,118,127]
$\beta$ -amyrin		<i>Viscum coloratum</i>	ESI-MS, TLC, UV-light, IR-810, CD-J 500C, Gas Liquid Chromatography (GLC), HPLC	
$\beta$ -sitosterol (syn. stigmast-5-en-3-ol)	Phytosterols	<i>Viscum album</i> , <i>Viscum capitellatum</i>	TLC; UV; NMR; GC-MS	[40,116]

Table S8. Miscelaneous in alcoholic *Viscum* sp.

Miscelaneous				
Identified compounds	Chemical group	Species	Analytical method	Author(s)
Capsaicin	Methoxyphenols	<i>Viscum articulatum</i>	HPLC	[108]
Lapachol	Naphtoquinones	<i>Viscum articulatum</i>	HPLC	[108]
Quinic acid	Cyclitol	<i>Viscum schimperi</i> , <i>Viscum album</i>	UPLC- PDA-ESI-MS/MS	[90,96,137,138]
2,4-heptadienal	Aldehydes	<i>Viscum album</i>	GC-MS	[33]
3-methylsilane	Silanes	<i>Viscum album</i>	GC-MS	[33]
2-methylfuran	Furans	<i>Viscum album</i>	GC-MS	[33]
1,7-Di-(3',4'-dihydroxyphenyl)-4-hepten-3-one	Diarylheptanoids	<i>Viscum cruciatum</i>	IR; <sup>13</sup> C and <sup>1</sup> H NMR, HR-MS	[128]
1 R,2S,3S,5S)-2,3-dihydroxy-3',3''-dimethoxy-4'-de-O-methylcentrolobine	Diarylheptanoids	<i>Viscum coloratum</i>	<sup>13</sup> C NMR, HR-ESI-MS	[122]
(2Z, 6Z)-dibutyl octa-2, 6-dien-4-yne dioate	Unsaturated organic acids	<i>Viscum album</i>	IR, UV, NMR, ESI-MS, HR-ESI-MS, HPLC	[75]
(2E, 6E)-dibutyl octa-2, 6-dien-4-yne dioate	Unsaturated organic acids	<i>Viscum album</i>	IR, UV, NMR, ESI-MS, HR-ESI-MS, HPLC	[75]
Arginine	Amino acid	<i>Viscum album</i>	UPLC-ESI-MS/MS	[7]
Glutamic acid	Amino acid	<i>Viscum album</i>	UPLC-ESI-MS/MS	[7]
Pinitol	Cyclitol	<i>Viscum album</i>	UPLC-ESI-MS/MS	[7]
Sinapyl alcohol	Monolignol	<i>Viscum album</i>	UPLC-ESI-MS/MS	[7]
Volatile compounds				
166 substances	53 esters; 32 alcohols; 25 terpenes; 18 carbonyl compounds, such as 12 aldehydes and 6 ketones; 12 alkanes; 9 acetals; 8 acids and; 9 other (undefined) organic compounds	<i>Viscum album</i>	GC-MS	[86]