SUPPLEMENTARY MATERIALS

Polar constituents of *Salvia willeana* (Holmboe) Hedge, growing wild in Cyprus.

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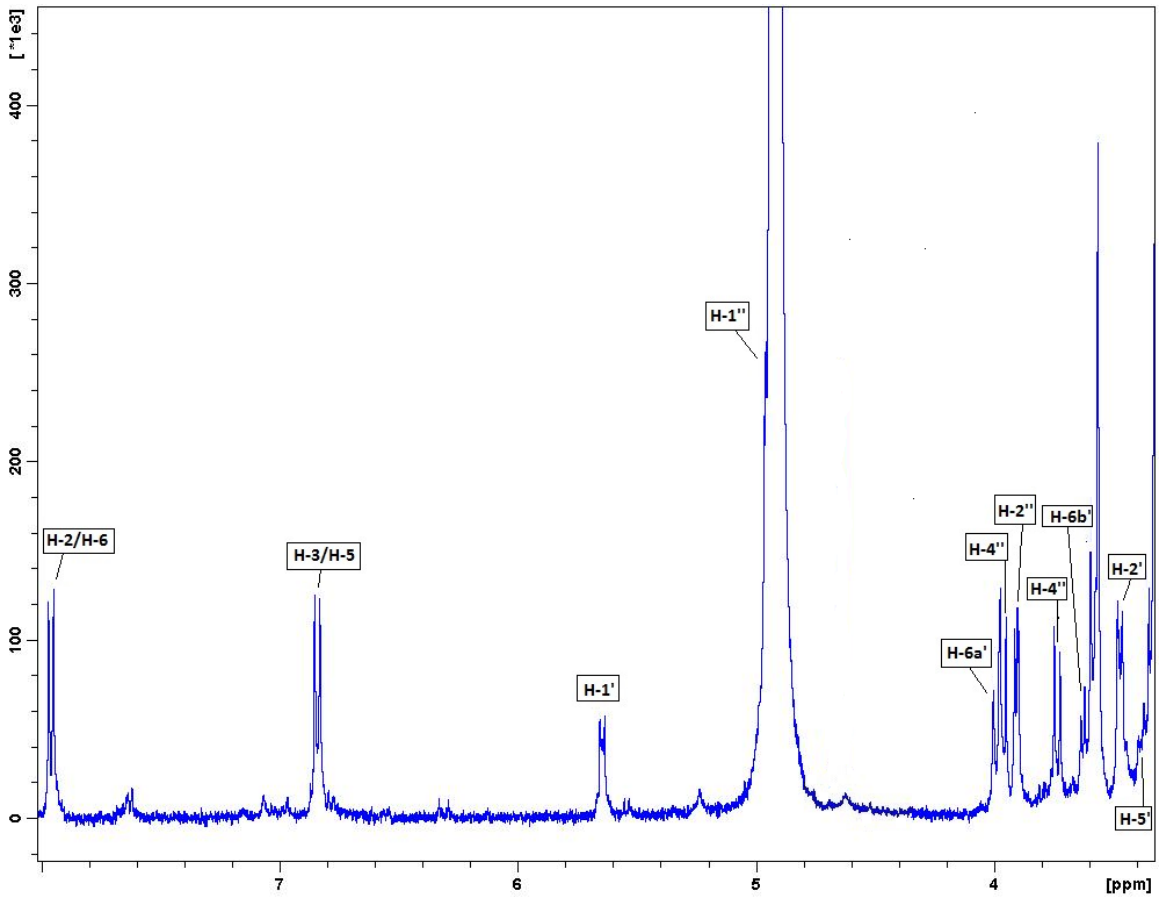
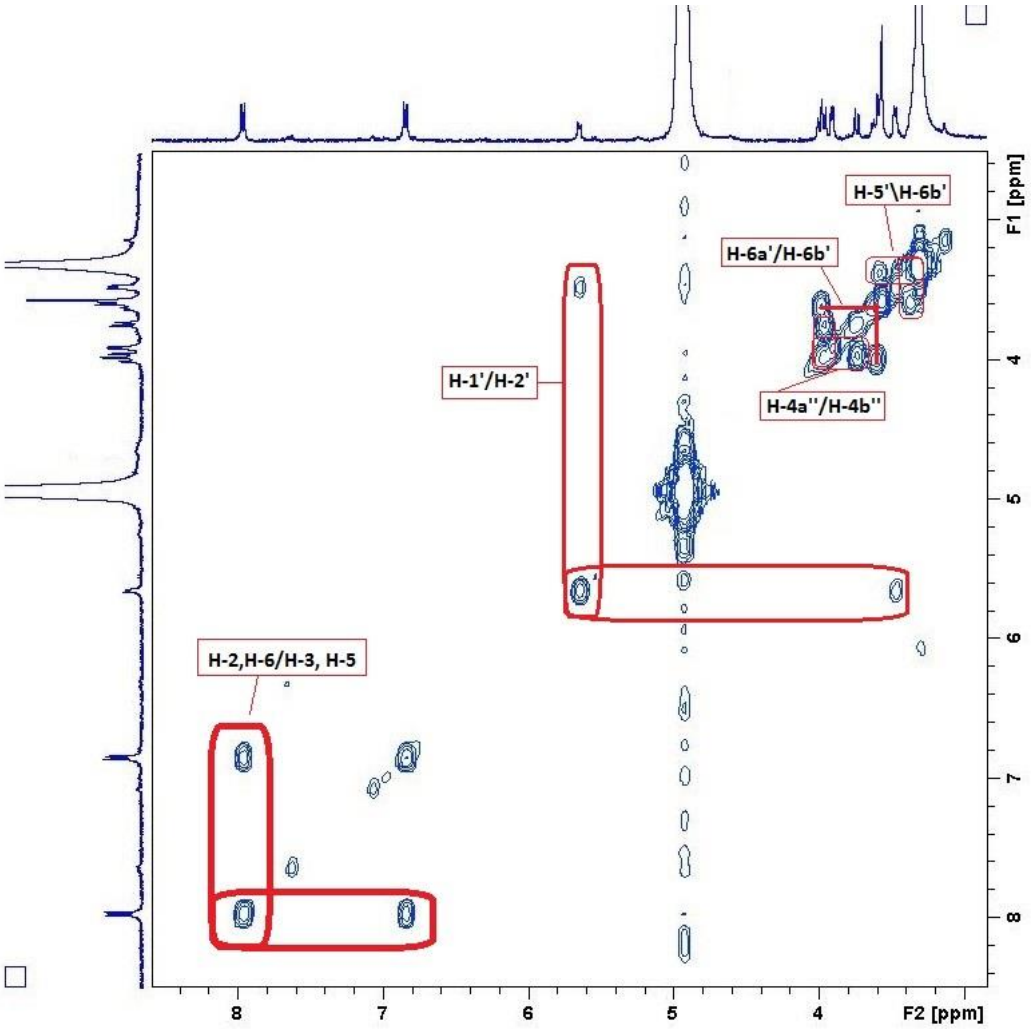
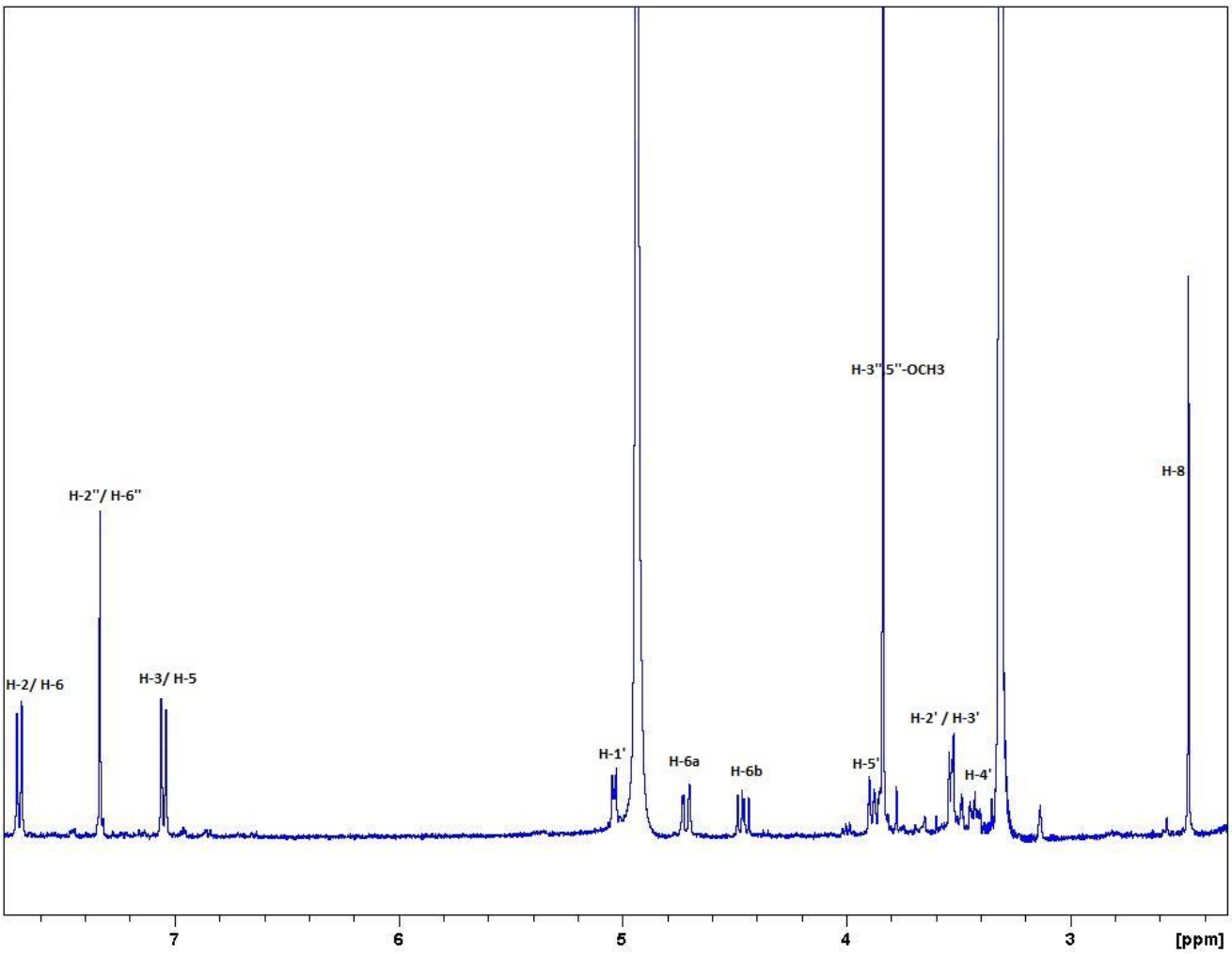


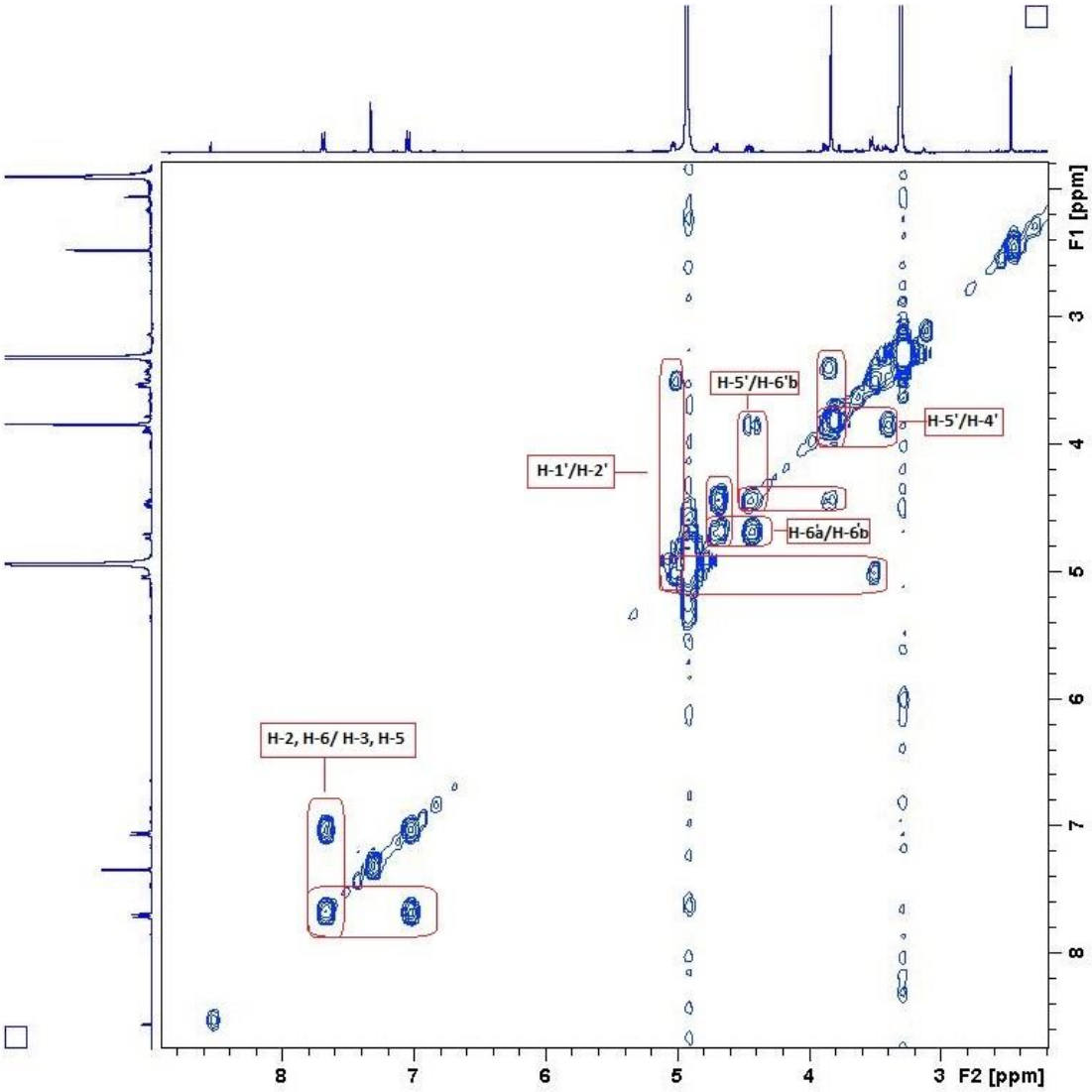
^{1}H –NMR spectrum of **8** (CD_3OD, 400 Hz)



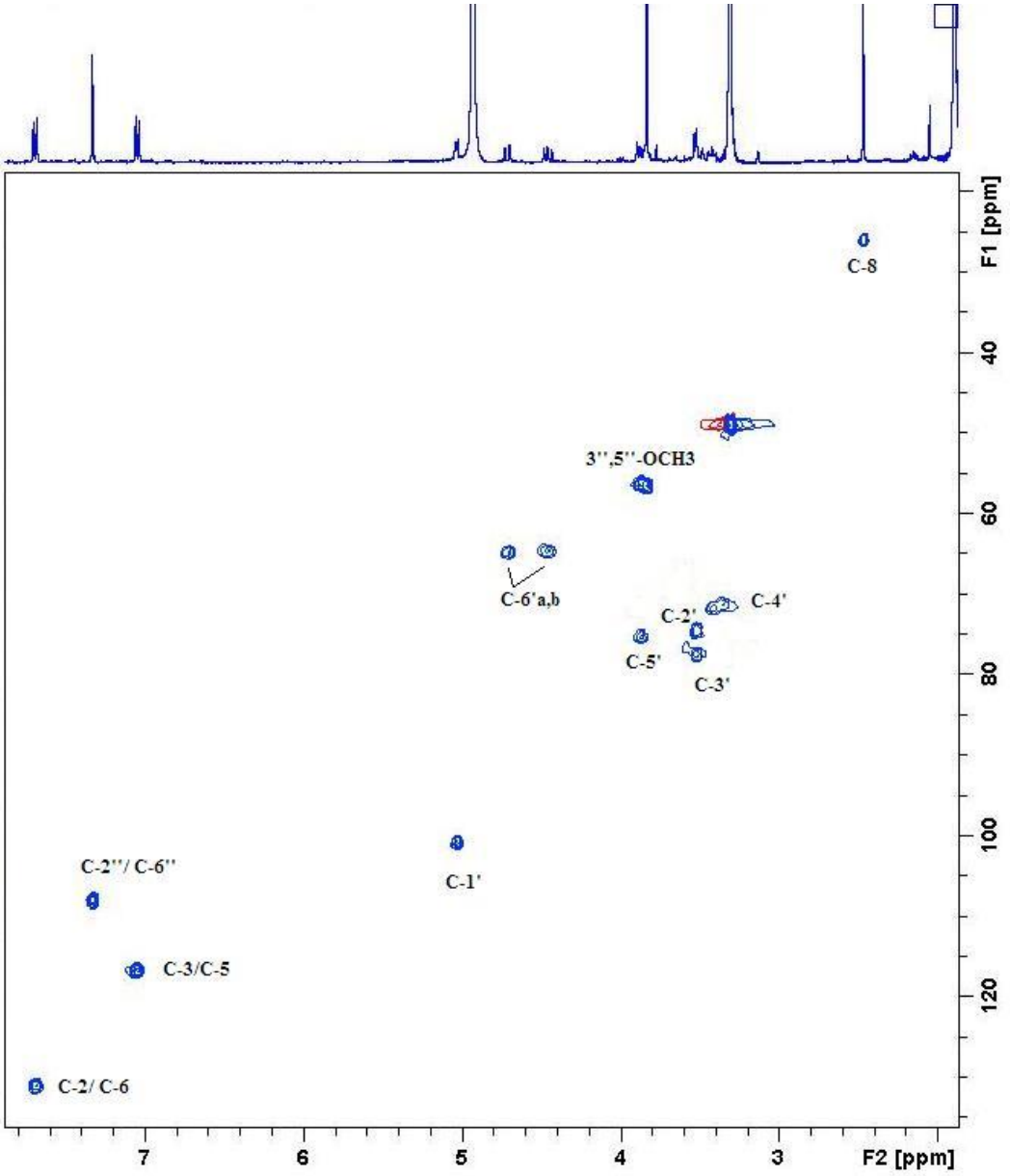
COSY spectrum of **8** (CD_3OD, 400 Hz)



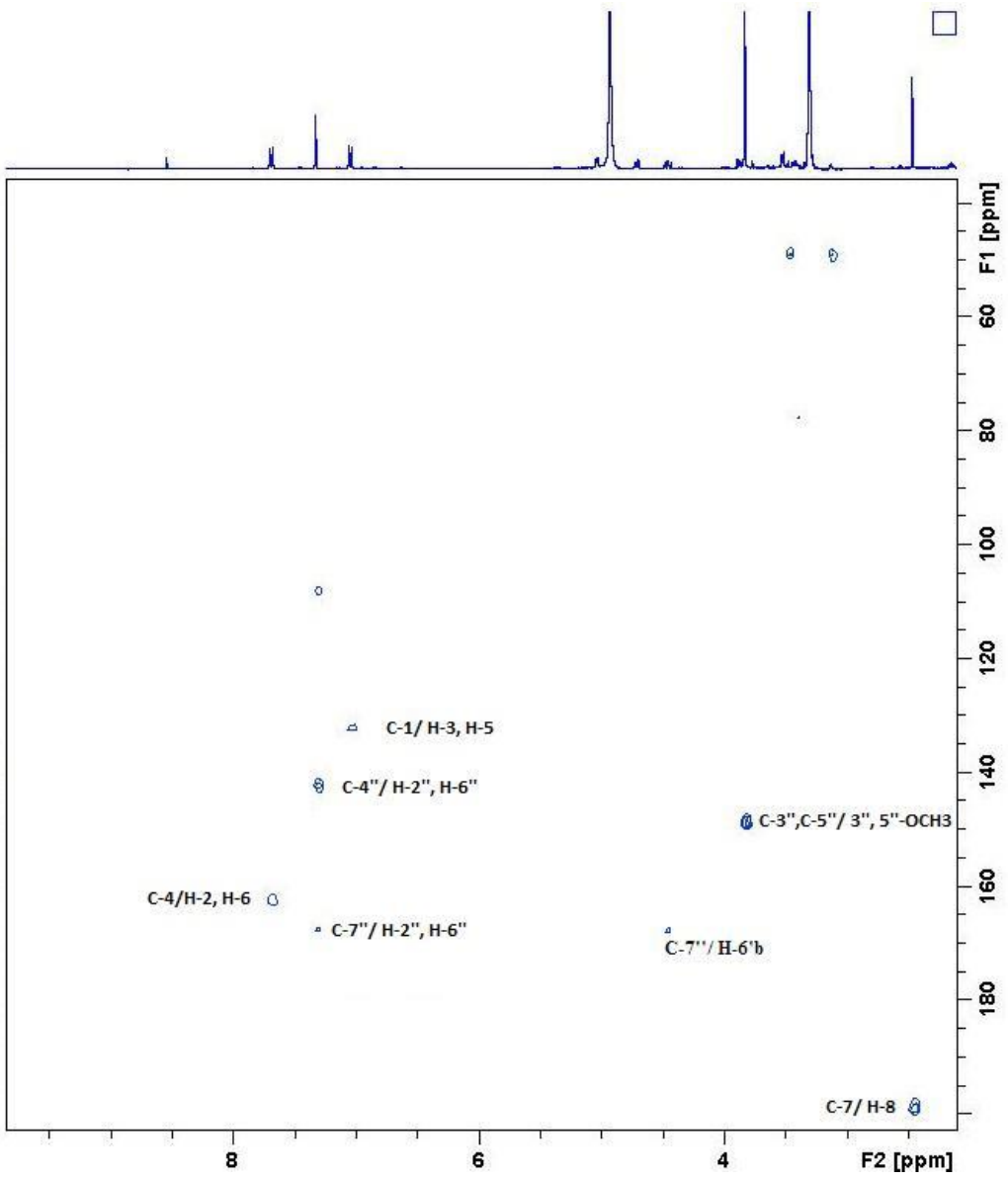
^{1}H –NMR spectrum of **11** (CD_3OD, 400 Hz)



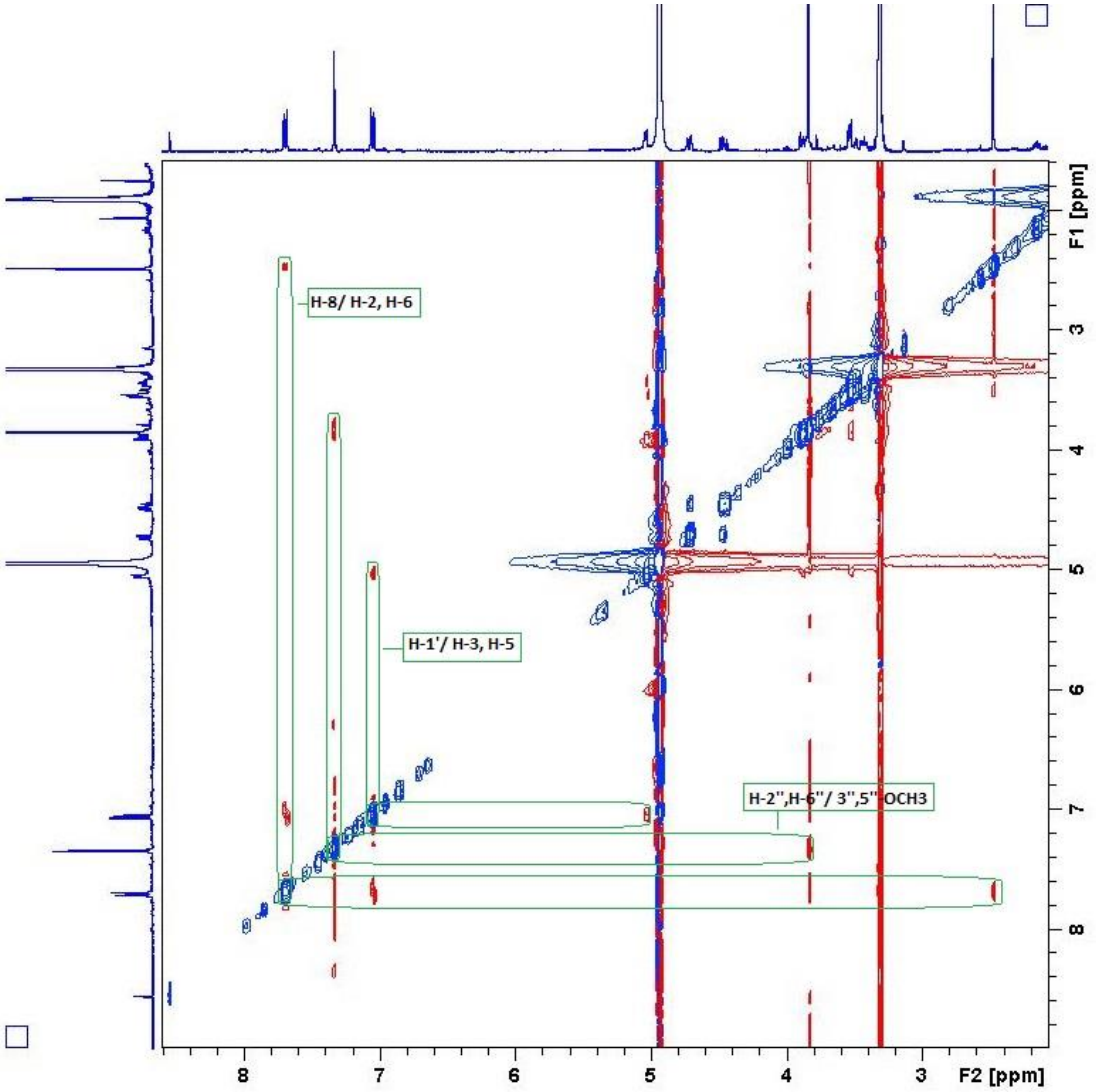
COSY spectrum of **11** (CD_3OD, 400 Hz)



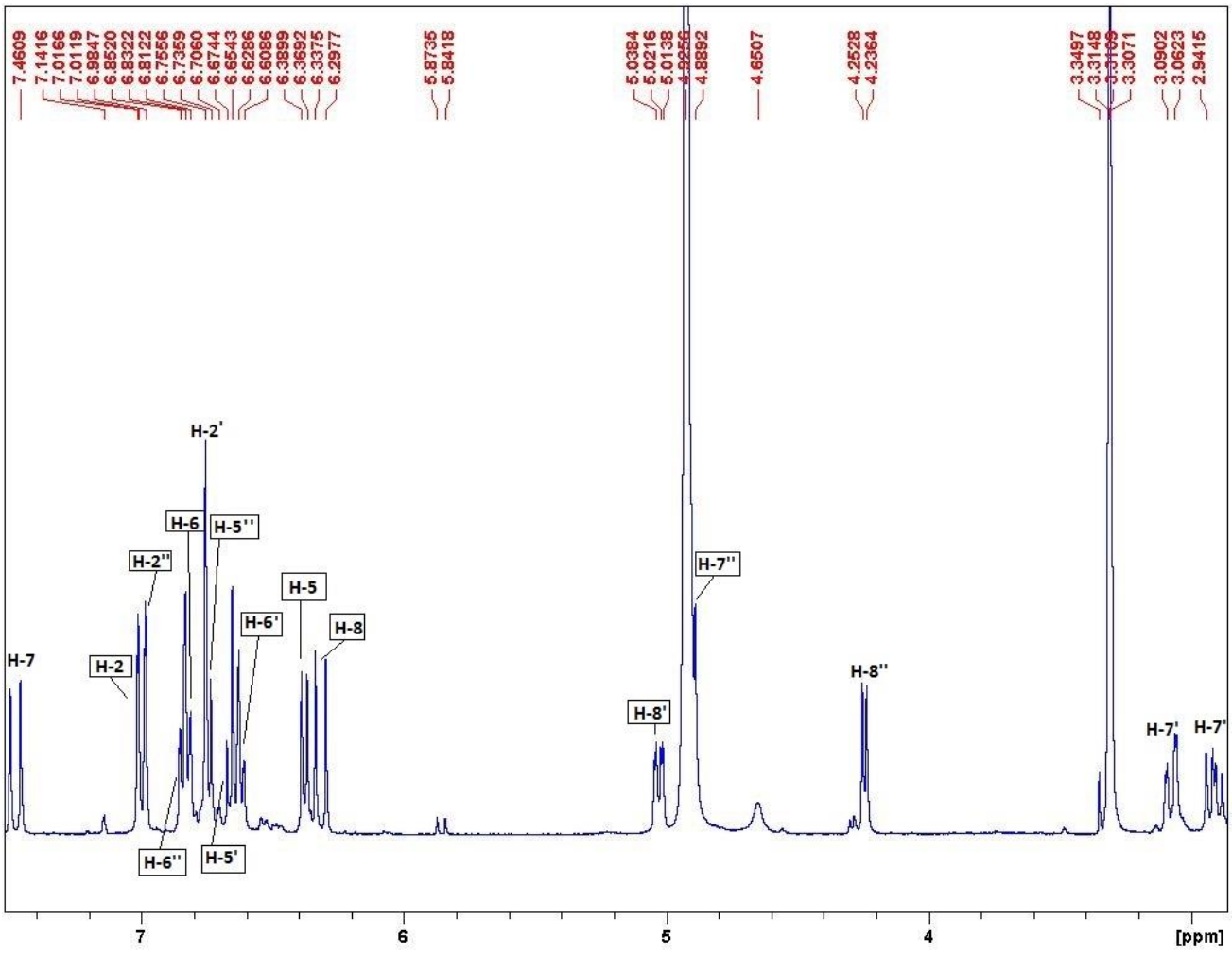
HSQC spectrum of **11** (CD_3OD, 400 Hz)



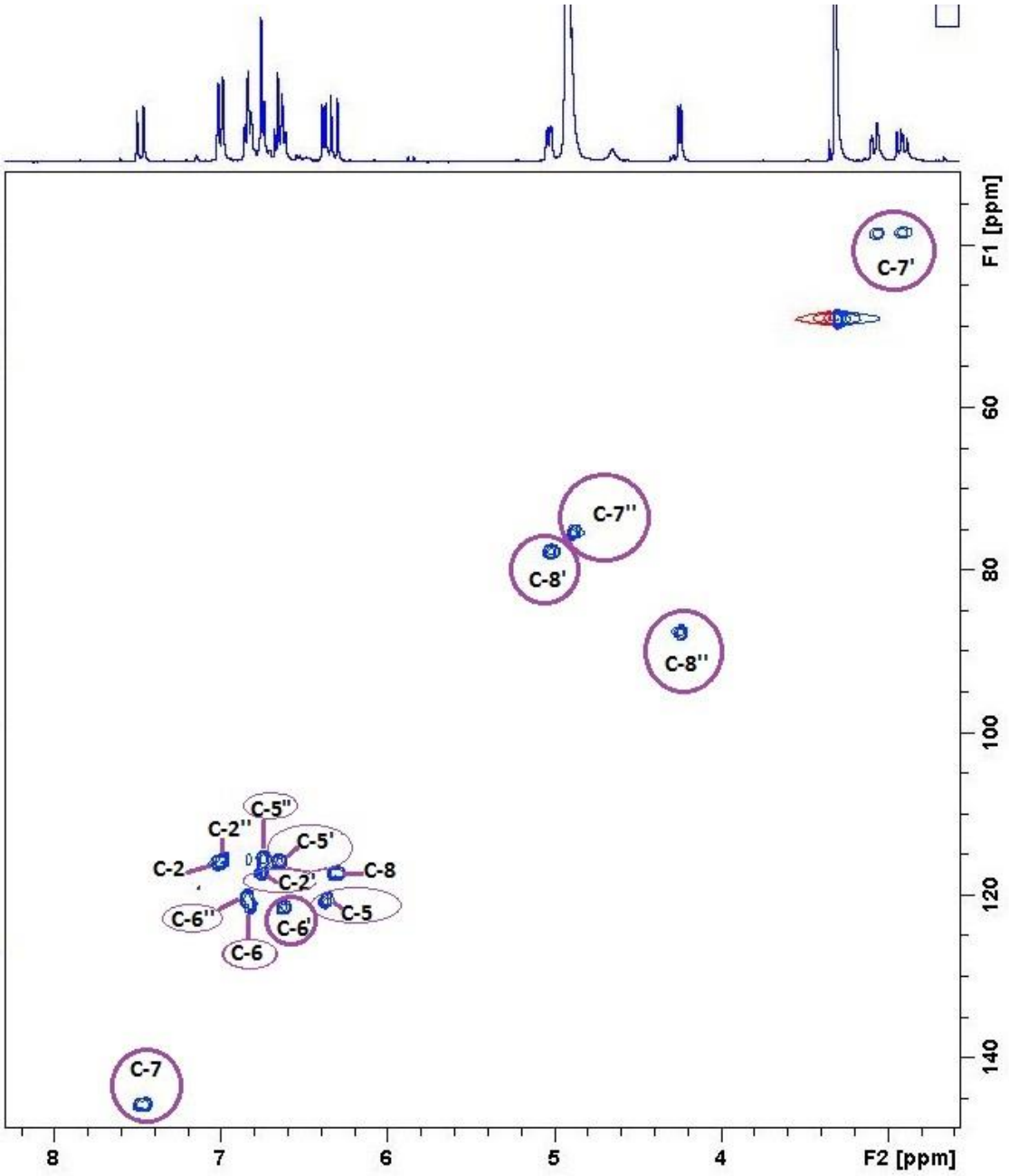
HMBC spectrum of **11** (CD_3OD, 400 Hz)



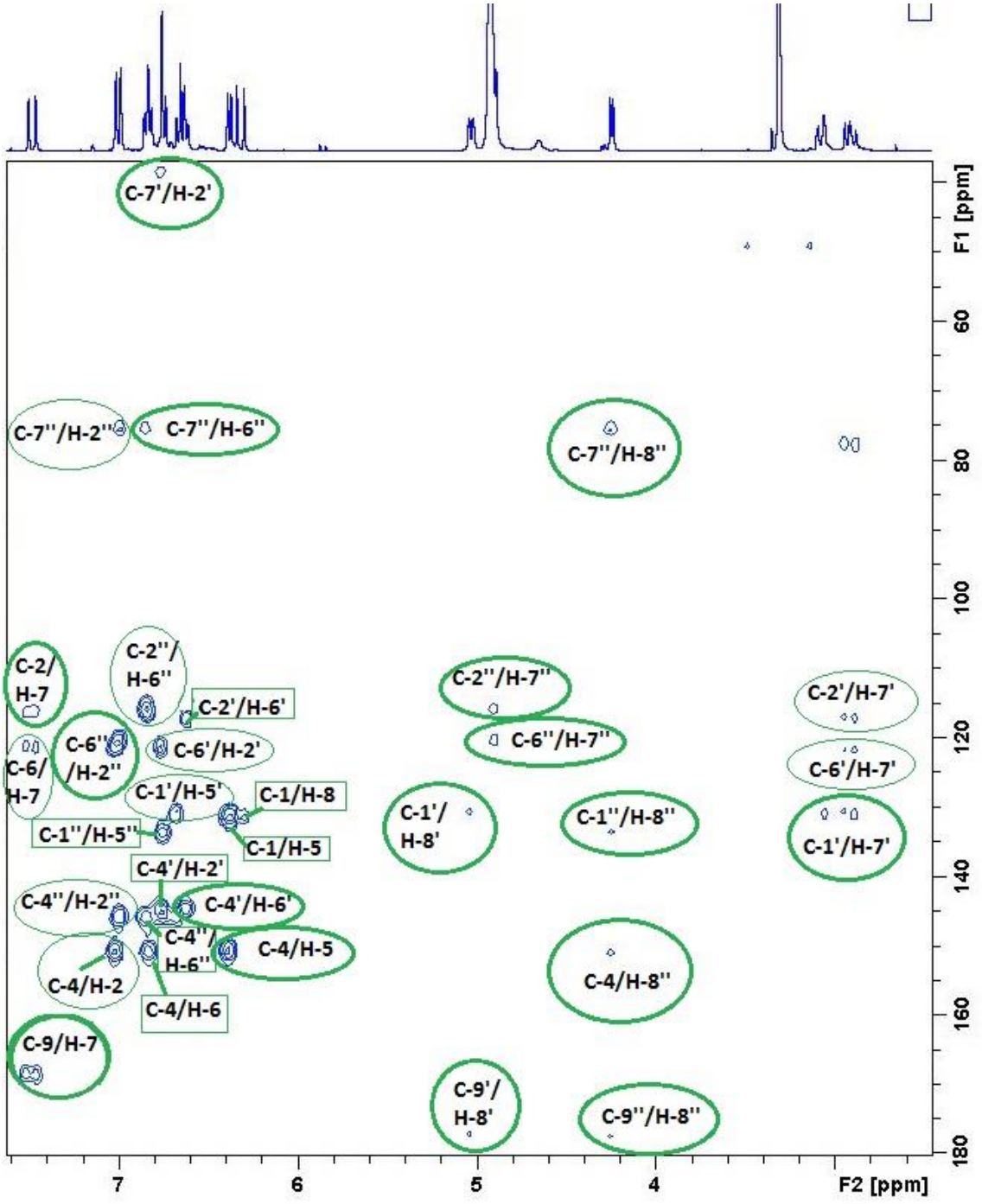
ROESY spectrum of **11** (CD_3OD, 400 Hz)



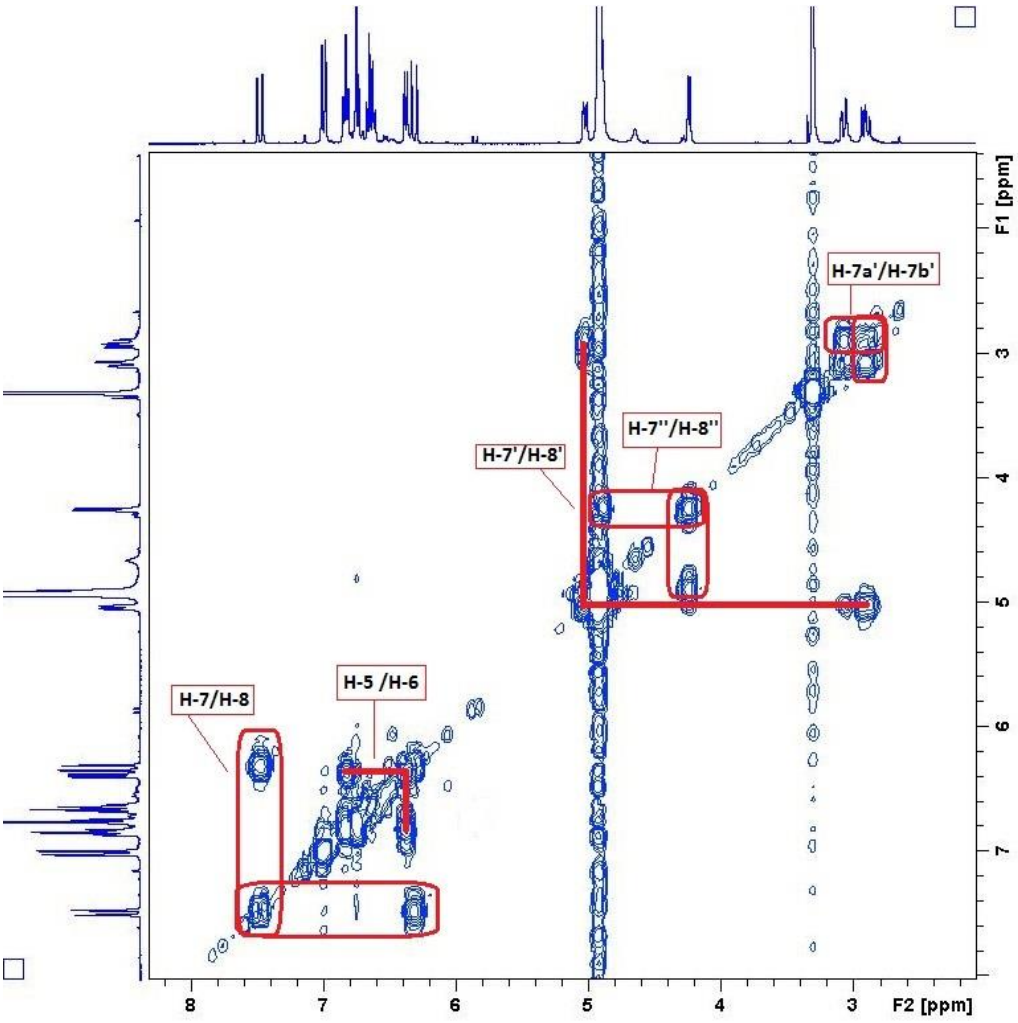
^{1}H –NMR spectrum of **13** (CD_3OD, 400 Hz)



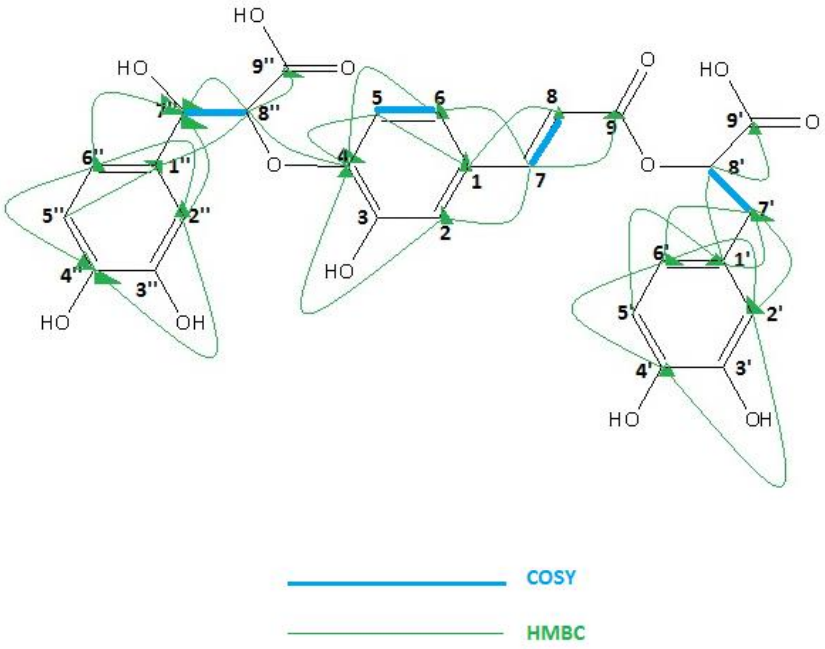
HSQC spectrum of **13** (CD_3OD, 400 Hz)



HMBC spectrum of **13** (CD_3OD, 400 Hz)



COSY spectrum of **13** (CD_3OD, 400 Hz)



COSY & HMBC signals of compound **13**

Table S1. Non volatile secondary metabolites of *Salvia* L.

S1.1. Phenols and hydroxycinnamic acids		
S. candidissima Vahl	2,4-dimethoxy-benzoic acid	[1]
S. cavaleriei H.Lév.	salvianolic acids A, C, H, I isosalvianolic acid C rosmarinic acid lithospermic acid	[2, 3]
S. digitaloides Diels	hydroxy-tyrosol	[4]
S. flava Forrest ex Diels	salviaflaside	[5]
S. flava Forrest ex Diels	rosmarinic acid, salvianolic acid J	[6]
S. miltiorrhiza Bunge	isoferulicacid 3,4-dihydroxyphenyllacticacid = danshensu 3,4-dihydroxy-phenyl-lactamide rosmarinic acid	[7-10]
S. miltiorrhiza Bunge	salvianolic acids A-G	[7, 11-14]
S. officinalis L.	sagerinic acid, 6-feruloyl-*α*-glucose 6-caffeoyl-1-fructosyl-*α*-glucoside 1-*p*-hydroxybenzoyl-6-apiosylglucoside 2-(3-mehtoxy-4-glucosyloxyphenyl)-3-hydroxymethyl-5-(3-hydroxypropyl)-7-methoxy-2,3-dihydrobenzofuran syringic acid, astringin *trans*-resveratrol, *cis*-resveratrol	[15-18]
S. officinalis L.	salvianolic acids K, L, Y	[15, 19, 20]
S. officinalis L.	caffeic acid, ferulic acid, 4-hydroxybenzoic acid, vanillic acid, rosmarinic acid	[15, 21, 22]
S. officinalis L.	4-methoxybenzoic acid (*p*-anisic acid)	[23]
S. prionitis Hance	prionitisides A, B, rosmarinic acid	[24]
S. przewalskii Maxim.	przewalskinic acid A dimethyl lithospermate B	[25] [26]
S. sclareoides Brot.	caffeic acid, ferulic acid, vanillic acid, gentisic acid, chlorogenic acid	[27]
S. sonchifolia C.Y.Wu	protocatechuic acid, caffeic acid 3,4-dihydroxyphenyllacticacid = danshensu rosmarinic acid, lithospermic acid	[28]
S. yunnanensis C.H.Wright	yunnaneic acids A-E	[29, 30]
S1.2. Coumarins and acetophenones		
S. aegyptiaca L.	7-methoxycoumarin (herniarin)	[31]
S. cedronella Boiss.	3-methoxy-4-hydroxy-7-methyl-coumarin	[32]
S. euphratica Montbret & Aucher ex Benth.	6,7-dihydroxycoumarin (esculetin)	[33]
S. officinalis L.	sagecoumarin	[34]

S. officinalis L.	4-hydroxyacetophenone-4-glucoside (picein) 4-hydroxyacetophenone-4-(6-apiosyl)glucoside 4-hydroxyacetophenone-4-(2-(5-syringoyl)apiosyl) glucoside	[16, 21, 35]
S.plebeia R.Br.	scopoletin	[36]
S1.3. Lignans		
S. chinensis Benth.	syringaresinol	[36]
S. officinalis L.	1-hydroxypinoresinol-1-*O*-glucoside isolariciresinol-3α-glucoside	[37]
S. plebeia R.Br.	feruloylisolariciresinol 12-methylmyristate isolariciresinol di (12-methylmyristate)	[38, 39]
S. santolinifolia Boiss.	salvicins A, B santolinol, didemethylpinoresinol	[40,41]
S. scapiformis Hance	(+)-medioresinol, (+)-pinoresinol (+)-8α-hydroxypinoresinol (+)-8α-hydroxypinoresinol-8-*O*-β-D-glucoside (+)-8α-hydroxypinoresinol-8-*O*-β-D-[6″-*O*-(4‴-hydroxybenzoyl)]-β-D-glucoside	[42]
S1.4. Flavonoids [43]		
S1.4.1.Flavones		
S. blepharophylla Brandegee ex Epling	6-hydroxyluteolin-7-methyl ether (pedalitin) 6-hydroxyluteolin-7-4'-dimethyl ether (nuchensin)	[44]
S. candidissima Vahl.	chrysoeriol luteolin-4'-methyl ether (diosmetin)	[45]
S. cardiophylla Benth.	6-hydroxyluteolin-6,3',4'-trimethylether (eupatilin) 6-hydroxyluteolin-6,7,3',4'-tetramethylether	[46]
S. hypoleuca Benth.	apigenin-7, 4'-dimethyl ether luteolin 6-hydroxyapigenin-6,4'-dimethyl ether (pectolinarigenin) 6-hydroxyapigenin-7,4'-dimethyl ether 6-hydroxyapigenin-6,7,4'-trimethyl ether (salvigenin) 6-hydroxyluteolin-6,7-dimethyl ether (cirsiliol)	[47]
S. lavandulaefolia Vahl	apigenin, genkwanin, 5,7,3',4'-tetrahydroxyflavone (luteolin) luteolin-7-methylether luteolin-3'-methyl ether (chrysoeriol) 6-hydroxyluteolin-6,7,3'-trimethyl ether (cirsilineol) 6-hydroxyluteolin-6,7,4'-trimethyl ether (eupatorin)	[48]
S. nicolsoniana Ramamoorthy	genkwanin, acacetin, apigenin-7, 4'-dimethyl ether luteolin-3',4'-dimethyl ether	[49]
S. officinalis L.	apigenin, genkwanin, apigenin-7, 4'-dimethyl ether luteolin, luteolin-7-methyl ether 6-hydroxyapigenin (scutellarein) 6-hydroxyapigenin-6-methyl ether (hispidulin) 6-hydroxyapigenin-6,7-dimethyl ether (cirsimaritin)	[22, 50]

S. officinalis L.	6-hydroxyapigenin-5,6,7,4'-tetramethyl ether	[51]
S. officinalis L.	6-hydroxyluteolin-6-methyl ether (nepetin, eupafolin)	[50]
S. officinalis L.	8-hydroxyapigenin (isoscutellarein)	[22]
S. palaestina Benth.	apigenin, genkwanin, apigenin-7, 4'-dimethyl ether luteolin, chrysoeriol, luteolin-7,4'-dimethyl ether 6,7,3',4'-tetramethoxyflavone	[52]
S. plebeian R.Br.	hispidulin, nepetin,eupafolin, eupatorin 8-hydroxyapigenin-7-methyl ether (salvitin)	[53-55]
S. tomentosa Mill.	5-hydroxy-6,7,3',4'-tetramethoxyflavone, cirsilineol, jaceosidin, 6-methoxy-luteolin	[92]
S. triloba L.f.	salvigenin, 6-hydroxyluteolin-6,3'-dimethyl ether (jaceosidin)	[56, 57]
S. virgata Jacq.	luteolin-7,3',4'-trimethyl ether	[58]
S. willeana (Holmboe) Hedge	6-hydroxyapigenin-6,7,4'-trimethyl ether (salvigenin)	[59]
S. yosgadensis Freyn & Bornm.	5,7,4'-trihydroxyflavone(apigenin) apigenin-7-methyl ether (genkwanin) apigenin-4'-methyl ether (acacetin) apigenin-7, 4'-dimethyl ether	[1]
S1.4.2. Dihydroflavones		
S. miltiorrhiza Bunge	5,3'-dihydroxy-7,4'-dimethoxyflavanone	[60]
S. nicolsoniana Ramamoorthy	5,7-dihydroxy-4'-methoxyflavanone (isosakuranetin)	[49]
*S. officinalis*L.	5,7,3'-trihydroxy-4'-methoxyflavanone (hesperitin)	[22]
S. texana (Scheele) Torr.	5-hydroxy-7-methoxyflavanone	[61]
S1.4.3. Flavonols		
S. columbariae Benth.	6-hydroxy-kaempferol-5,6-dimethyl ether 6-hydroxygalangin-5,6-dimethyl ether	[47]
S. compressa Vent.	quercetin-3-methyl ether	[47]
S. cyanescens Boiss. & Balansa	kumatakenin 6-hydroxykaempferol-3,6-dimethyl ether	[62]
S. dorrii (Kellogg) Abrams	5,7,4'-trihydroxyflavonol (kaempferol) 5,7,3',4'-tetrahydroxyflavonol (quercetin)	[47]
S. farinacea Benth.	quercetin-3'-methyl ether (isorhamnetin)	[67]
S. glutinosa L.	kaempferol-3-methyl ether (isokaempferide) kaempferol-3,7-dimethyl ether (kumatakenin) quercetin-3,7,4'-trimethyl ether (ayanin) quercetin-3,7,3',4'-tetramethyl ether (retusin)	[63]
S. longipedicellata Hedge	6-hydroxykaempferol-3,6,4'-trimethyl ether (santin) quercetin-3,3'-dimethyl ether	[33]
S1.4.4. Glycosides		
S. aegypteacae L.	apigenin-7-glucoside (cosmosiin), luteolin-7-glucoside (cinaroside)	[64]

	luteolin-7-cellobioside, luteolin-6,8-di-C-glucoside	
S. blepharophylla Brandegee ex Epling	apigenin-8-C-glucoside (vitexin) apigenin-8-C-arabinoside (schaftoside) quercetin-3-glucoside (isoquercetin) quercetin-3-glucuronide (miquelianin) quercetin-7-methyl ether-3-glucoside (rhamnetin-3-glucoside), quercetin-3-robinoside	[44]
S. cavalerei H.Lév.	kaempferol-3-glucoside (astragalin)	[65]
S. coccinea Buc'hoz ex Etl.	cyanidin-3-(6-caffeoylglucoside)-5-(4,6-dimalonylglucoside) cyanidin-3-(6-caffeoylglucoside)-5-(6-malonyl-glucoside) cyanidin-3-(6-caffeoylglucoside)-5-glucoside cyanidin-3-(6-p-coumaroyl-glucoside)-5-(4,6-dimalonylglucoside) cyanidin-3-(6-p-coumaroyl-glucoside)-5-(6-malonyl-glucoside) cyanidin-3-(6-p-coumaroyl-glucoside)-5-glucoside	[66]
S. farinacea Benth.	kaempferol-3-(2^G-rhamnosylrutinoside) kaempferol-3-robinoside quercetin-3'-methyl ether-3-galactosidequercetin-3'-methylether-3-(2^G-rhamnosylrutinoside)	[67]
S. farinacea Benth.	malvidin-3-(6-p-coumaroyl-glucoside)-5-(6-malonyl-glucoside) (salviamalvin)	[68]
S. horminum L.	apigenin-7-glucoside, apigenin-7-rutinoside	[69]
S. lavandulifolia Vahl	luteolin-7-glucoside, luteolin-4'-glucuronide, luteolin-7-rutinoside	[70]
S. lavandulifolia ssp. *oxyodon* = *S. officinalis* ssp. *oxyodon* (Webb & Heldr.) Reales, D. Rivera & Obón	luteolin-5-rutinoside	[71]
S. officinalis L.	apigenin-7-glucoside, luteolin-7-glucoside, luteolin-7-glucuronide, luteolin-3'-glucuronide 6-hydroxy-luteolin-7-glucoside 6-hydroxy-luteolin-7-glucuronide apigenin-6,8-δι-C-glucoside (vicenin-2) salvigenin	[35, 72, 81]
S. palaestina Benth.	apigenin-7-glucoside, luteolin-7-glucoside, luteolin-7-glucuronide luteolin-3'-methyl ether-7-glucoside (chrysoeriol-7-glucoside), luteolin-3'methyl ether-7-glucuronide	[52]
S. patens Cav.	apigenin-7,4'-diglucoside	[73]
Salvia spp.	apigenin-7-xyloside	[74]
S. splendens Sellow ex Schult.	pelargonidin-3-(6-caffeoylglucoside)-5-(4,6-dimalonylglucoside) (salvianin) pelargonidin-3-(6-caffeoylglucoside)-5-(6-malonyl-glucoside) pelargonidin-3-(6-caffeoylglucoside)-5-glucoside	[68, 75]

	pelargonidin-3-(6-p-coumaroyl-glucoside)-5-(4,6-dimalonylglucoside) (monardaein) pelargonidin-3-(6-p-coumaroyl-glucoside)-5-(6-malonyl-glucoside) pelargonidin-3-(6-p-coumaroyl-glucoside)-5-glucoside	
S. splendens Sellow ex Schult.	delphinidin-3-(6-caffeoylglucoside)-5-(4,6-dimalonylglucoside) (salviadelphin) delphinidin-3-(6-caffeoylglucoside)-5-(6-malonyl-glucoside) delphinidin-3-(6-caffeoylglucoside)-5-glucoside delphinidin-3-(6-p-coumaroyl-glucoside)-5-(4,6-dimalonylglucoside) delphinidin-3-(6-p-coumaroyl-glucoside)-5-glucoside (awobanin)	[68, 76]
S. triloba L.f.	apigenin-7-glucoside, apigenin-7-glucuronide, luteolin-7-glucoside, luteolin-3'methylether-7-glucuronide, luteolin-3'-glucoside-7-glucuronide luteolin-7-cellobioside, 6-hydroxy-apigenin-6-methylether-7-glucoside 6-hydroxy-apigenin-6-methylether-7-glucuronide 6-hydroxy-luteolin-6-methyl ether-7-glucoside (nepitrin) 6-hydroxy-luteolin-6-methyl ether-7-glucuronide	[57]
S. uliginosa Benth.	apigenin-7,4'-diglucoside, apigenin-7-cellobioside apigenin-7- cellobioside-4'-glucoside	[77]
S. uliginosa Benth.	delphinidin-3-(6-p-coumaroyl-glucoside)-5-(6-malonyl-glucoside) delphinidin-3-(6-p-coumaroyl-glucoside)-5-(4-acetyl-6-malonyl-glucoside)	[78]
S. verbenaca L.	luteolin-7-glucoside 6-hydroxy-luteolin-6,7-dimethyl ether-5-glucoside	[64, 79]
S. verticillata L.	luteolin-7-glucoside, 6-hydroxy-luteolin-5-glucoside, 6-hydroxy-apigenin-6,7,4'-trimethylether-5-glucoside (salvigenin-5-glucoside)	[80]
S1.5. Anthaquinones		
S. digitaloides Diels	chysophanol, physcion, emodin	[4]
S. officinalis L.	physcion	[81]
*S. przewalskii*Maxim.	Przewalskinone B, ziganein	[82]
S1.6. Terpenes		
S1.6.1. Iridoids, SLs		
S. digitaloides Diels	salvialosides A-E	[4]
S. plebeian R.Br.	1α-acetoxy-8α-hydroxy-2-oxoeudesman-3,7(11)-dien-8,12-olide 1α-acetoxy-8α,9β-dihydroxy-2-oxo-eudesman-3,7(11)-dien-8,12-olide	[83]

S1.6.2. Diterpenes and sesterterpenes		
S. albocaerulea Lindl.	15-hydroxy-7-oxo-abieta, 8,11,13-triene, sugiol	[84]
S. ballotaeflorae Benth.	conacytone	[85]
S. digitaloides Diels	salviatalin A, salvitrijudin A	[86]
S. divinorum Epling & Játiva	Salvinorins A-F, divinatorins A-C	[87, 88]
S. dorrii (Kellogg) Abrams	salvidorol	[89]
S. forskahlei L.	forskalinone	[90]
S. heldrichiana Boiss.	isopimaric acid, 7β-hydroxysandaracopimaric acid 7-oxo-13-epi-pimara-8,15-dien-18-oic acid wiedelactone, wiedemannic acid, heldrichinic acid	[91]
S. herbacea Benth.	tehuanins A-I, acetyltehuanin C, 1(10)-dehydrosalviarin, 1α,10α-epoxysalviarin, 16-bromotehuanin F	[92]
S. hypargeia Fisch. & C.A.Mey.	hypargenins A-F	[93]
S. miltiorrhiza Bunge	tanshinones I, II cryptotanshinone, danshexinkun A 1,2-dihydrotanshinquinone	[94]
S. nemorosa L.	nemorone	[84]
S. officinalis L.	sagequinone methide A, carnosol, manool, 6,7-dimethoxy-7-epi-rosmanol, 7-methoxy-rosmanol	[95]
S. officinalis L.	rosmadial, epi-rosmanol	[96]
S. officinalis L.	columbaridione, 12-*O*-methylcarnosic acid, galdosol, atuntzensin A, miltirone, safficinolide sageone, dimethyl sageone rel-(5*S*, 6*S*, 7*S*, 10*R*, 12*S*, 13*R*)-7-hydroxyapiana-8,14-diene-11,16-dion-(22,6)-olide rel-(5*S*, 6*S*, 7*R*,10*R*, 12*S*, 13*R*)-7-hydroxyapiana-8,14-diene-11,16-dion-(22,6)-olide rel-(5*S*, 6*S*, 7*S*, 10*R*, 12*R*, 13*S*)-7-hydroxyapiana-8,14-diene-11,16-dion-(22,6)-olide carnosol, rosmadial, rosmanol, epirosmanol, isorosmanol, columbaridione, atuntzensin A, miltirone, carnosic acid, 12-*O*-methyl carnosic acid	[95] [81]
S. palaestina Benth.	2-oxocandesalvone A 12-*O*-methyl-2-oxocandesalcone A 12-*O*-methyl-candesalvone A methyl 12-*O*-methyl-saluipalestinoate salvipalestinoic acid, candelabrone	[97]
S. plebeia R.Br.	carnosic acid, methyl carnosate, rosmanol	[98]
S. przewalskii Maxim.	salprzelactone, dehydrodanshenol A, deacetylsalvianonol, isograndifoliol	[99]
S. regla Cav.	sessein, deacetylsessein 19-hydroxy-7α-acetoxyroyleanone	[100]

	19-acetoxy-7α-acetoxyroyleanone	
S. sahendica Boiss. & Buhse	1,4-dihydro-6-methyl-2-(1-methylethyl)-5-(4-methylpent-4-enyl)naphthalene-1,4-dione sahandinone, sahandone, prionitin, horminone	[101]
S. sahendica Boiss. & Buhse	nor-ambreinolide-18,6α-olide 8α-acetoxy-13,14,15,16-tetranorlabdan-12-oic acid-18,6α-olide	[102]
S. sahendica Boiss. & Buhse	salvileucolide methylester 8α-hydroxy-13-hydroperoxylabd-14,17-dien-19,16;23,6α-diolide salvileucolide-6,23-lactone 17,18,19,20-tetra-nor-13-epi-manoyloxide-14-en-16-oic acid-23,6α-olide	[102, 103]
S. sclarea L.	sclareol, 2,3-dehydrosalvipisone, 7-oxoferruginol-18-al	[104]
S. sharifii Rech.f. & Esfand.	ent-13-epi-manoyloxide	[105]
S.willeana (Holmboe) Hedge	carnosic acid, isorosmanol	[59]
S1.6.3. Triterpenes		
S. aegyptiaca L.	lupeol, β-amyrin, 3α-hydroxy-24-alkylcarboxylate-12-oleanan-28-oicacid	[106]
S. albocaerulea Lindl.	ursolic acid, 2α-hydroxyursolic acid, maslinic acid	[84]
S. bicolor Lam.	β-amyrin, lupeol	[107]
S. chinensis Benth.	α-boswellic acid	[36]
S. digitaloides Diels	oleanolic acid, glutinol, colchiside A, stachlic acid C	[4]
S. forskahlei L.	α-amyrin	[90]
S. nicolsoniana Ramamoorthy	ursolic acid, oleanolic acid, betulinic acid, 3α-24-dihydroxy-olean-12-en-28-oic acid, 3α-24-dihydroxy-olean-12-en-28,30-dioic acid	[108]
S. officinalis L.	ursolic acid, oleanolic acid	[72]
S. palaestina Benth.	ursolic acid, oleanolic acid, lupeol, lup-20(29)-ene-2α,3β-diol, lup-20(29)-ene-3β,23-diol, 2α-methoxylup-20(29)-en-3β-ol	[96]
S. pratensis L.	β-amyrin, lupeol, loranthol, germanicol	[109]
S. scapiformis Hance	ursolic acid, 4-epi-niga-ichigoside F1 niga-ichigoside F1	[42]
S. virgata Jacq.	ursolicacid, oleanolicacid, maslinic acid 2α-hydroxy-ursolic acid 2α,3α-dihydroxyolean-12-en-28-oic acid 2α,3α,23-trihydroxy-olean-12-en-28-oic acid	[59]
S. willeana (Holmboe) Hedge	ursolic acid, oleanolic acid, crataegolicacid 2α,3α-dihydroxyolean-12-en-28-oic acid urs-12-ene-3β,11α-diol, urs-12-ene-3α,11α-diol olean-12-ene-3β,11α-diol oleanolic acid, lupeol	[59] [110]

S1.7. Abietane diterpene alkaloids		
S. yunnanensis C.H.Wright	salviamines A-F, isoalviamines C-E	[36]
S1.8. Apocarotenoids		
S. nemorosa L.	salvionosides A- C, blumeol C glucoside, (6*S*,9*R*)-reseoside, (6*S*,9*S*)-reseoside	[111]
S. officinalis L.	(6*R*,9*S*)-3-Oxo-α-ionol β-D-glucopyranoside (6*R*,9*R*)-3-Oxo-α-ionol β-D-glucopyranoside	[16]
S. virgata Jacq.	blumenol A	[59]

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