

Physicochemical analysis of Agnihotra aerosols and their implications on human health and environment

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Supplementary Data

Supplementary Table S1 — List of herbs used for preparation of hawan samagri as oblation during Agnihotra

S. NO.	Indian Name	Common English Name	Botanical Name
1	Agar	Oodh	<i>Aquilaria agallocha</i>
2	Agnimantha	Clerodendron	<i>Clerodendron phlomidis</i>
3	Ajavayana	Aniseed, Caraway, Celery fruits	<i>Apium graveolens</i>
4	Akarakara	Spanish Pellitory	<i>Anacyclus pyrethrum</i>
5	Alua (Gwarapatha)	Barbados Aloe	<i>Aloe barbadensis</i>
6	Amaltasa	Indian Laburnum, Pudding	<i>Cassia fistula</i>
7	Anardana	Dodder	<i>Apium graveolens</i>
8	Anjira	Figs	<i>Ficus carica</i>
9	Aparajita	Asian pigeon wings	<i>Clitoria ternatea</i>
10	Apamarga/ Chirchira	Winged leaved clitoria	<i>Achyranthes aspera</i>
11	Arjuna	Arjun tree	<i>Terminalia arjuna</i>
12	Aswagandha	Indian ginseng, poison gooseberry, or winter cherry	<i>Withania somnifera</i>
13	Asoka	Cherry, Mast tree	<i>Saraca indica/ Pllyalthia</i>
14	Atisa	Indian Mallow	<i>Aconitum heterophyllum</i>
15	Anvala	Emblic Myrobalan	<i>Emblica officinalis Greatn</i>
16	Babula	Indian Gum tree	<i>Acacia nilotica</i>
17	Bael (Bilva)	Bengal Qunice, Rutaceae	<i>Aegle marmelos correa</i>
18	Baheda	Beleri Myrobalans, Beddanaut	<i>Terminali belrica</i>
19	Bakuchi	Malaya tea	<i>Psoralea corylifolia</i>
20	Bhanga (Nijama)	Trailing Eclipta	<i>Eclipta alba</i>
21	Bharangaraja	Bhuianvala	<i>Phyllanthus niruri</i>
22	Brahmi	Water hyssop	<i>Bacopa monnieri</i>
23	Champaka	Champak	<i>Magnolia champaca</i>
24	Red chandan	Sandalwood	<i>Pterocarpus santalinus</i>
25	White chandana	Indian sandlewood	<i>Santalum album Linn</i>
26	Chavya	Chui Jhal	<i>Piper chaba</i>
27	Chiraunji	Charoli seeds	<i>Buchanania lanzan/ Latifolia</i>
28	Chirayata	Chireta	<i>Swertia chirata</i>
29	Chitraka	Wild leadwort	<i>Plumbago zeylanica</i>
30	Sital	Cubebs, Tailored pepper	<i>Piper cubeba</i>
31	Chhuhara	Date- palm	<i>Phoenix sylvestris</i>
32	Dalachini	Cinnamon	<i>Cinnamomum verum</i>
33	Daru haldi	Indian Berberry	<i>Berberis aristata</i>
34	Devadara	Himalayan cedar	<i>Cedrus deodara</i>
35	Durva	Creeping cynodon	<i>Cynodon dactylon</i>
36	Giloya	heart-leaved moonseed	<i>Tinospora cordifolia</i>
37	Small Goksaru	Small caltrops	<i>Tribulus terrestris Linn</i>

... Contd.

Supplementary Table S1 — List of herbs used for preparation of hawan samagri as oblation during Agnihotra (Contd.)

S. NO.	Indian Name	Common English Name	Botanical Name
38	Big Goksaru	Large caltrops	<i>Pedaliium murex</i> L.
39	Gugala	Indian bdellium	<i>Commiphora wightii</i>
40	Gulara	Lusterfig	<i>Ficus glomerata</i>
41	Harsingara	Night jasmine	<i>Nyctanthes arbor-tristic</i>
42	Ilayachi	Cardamum fruit	<i>Elettaria cardamomum</i>
43	Indrajau	Black Kuchi	<i>Wrightitia tinctoria</i>
44	Jalakumbhi	Watercress	<i>Nasturtium officianale</i>
45	Jalanima	Bacopa	<i>Bacopa monieri</i>
46	Jawasa	Arabian or Persian Manna	<i>Alhagi camelorum</i>
47	Jayaphala	Nutmeg	<i>Myristica fragrans</i>
48	Jivanti	Dodi	<i>Leptadenia reticulata</i>
49	Kachura	Zedoary	<i>Curcuma zedoaria</i>
50	Kamal gatta		<i>Balce kubati</i>
51	Kanchanara	Mountain Ebony	<i>Bauhinia variegata</i>
52	Kauncha	Cow hedge plant, Lyon bean	<i>Mucuna pruiens</i>
53	Kalamedha	The creat	<i>Andrographis paniculata</i>
54	Kasani	Chicory, Endive	<i>Chicorium intybus</i>
55	Kayaphala	Boxmyrtal, Bay bery	<i>Myrica naagi</i>
56	Khasa	Cuscus grass	<i>Veriveria zizaniodes</i>
57	Khasakhas (Posta seeds)	Poppy seeds	<i>Acacia catechu</i>
58	Laudhra	Symplocos bark	<i>Symplocos resemosa</i>
59	Lawang	Clove	<i>Syzygium aromaticum</i>
60	Lajawanti	Touch me not	<i>Mimosa pudica</i>
61	Makhana	Gurgon nut puffed kernel	<i>Euryale ferox</i>
62	Malkhangani	Staff tree	<i>Celastrus panuvulatus</i>
63	Medhasingi	Miracle fruit	<i>Gynema sylvestre</i>
64	Mulaiithi	Liquoric root	<i>Glycyrrhiza glabra</i>
65	Munnaka	Big resin	<i>Vitis vinifera</i> Linn
66	Musta	Nut grass, umbrella's edge	<i>Cyperus rotundus</i>
67	Safedamusali	White musale	<i>Chlorophytum borivilianum</i>
68	Nagakesara	Cobra's saffron	<i>Mesua ferrea</i> Linn
69	Nagarmotha	Nutgrass	<i>Cyperus rotundus</i>
70	Nilakamal	Sacred blue lotus	<i>Nelumbium speciosum</i>
71	Nima	Margosa tree	<i>Melia azedarach</i>
72	Nirgundi	Indian privet	<i>Vitex negungo</i>
73	Patha	Velvetleaf	<i>Cyclea peltata/ Cissampelos pareira</i>
74	Pilo jogido	Cancer root	<i>Cistanche tubulosa</i>
75	Pippali	Long pepper	<i>Piper longum</i> Linn
76	Pudina	Spearmint	<i>Mintha spicata</i>
77	Rasauta	Extract of Indian berberies	<i>Extractum berbris</i>
78	Rai	Brown Mustard	<i>Brassica juncea</i>
79	Rasna	Rasna	<i>Pluchea lanceolata</i>
80	Sahadevi	Fleabane	<i>Vernonia cinereal</i>
81	Sahijana	Drumstick	<i>Moringa pterygosperma</i>
82	Saptaparna	Devils's tree	<i>Alstonia scholaris</i>
83	Saunfa	Sweet aniseed, Fennel	<i>Anethum foeniculum</i>
84	Sariva	Indian sarsaparilla	<i>Hemidesmus indicus</i>
85	Sontha	Dry Ginger	<i>Zinggiber officinale</i>
86	Sugandhabala	Indian Valerian	<i>Tager valeriana Wallichii</i>
87	Sugandhakokila	Safrole rich aromatic plant	<i>Cinnamomum glaucesssens</i>
88	Satava	Asparagus	<i>Asparagus racemous</i>
89	Tagar	Moonbeam/ Indian Rosebery	<i>Ervatamia coronaria</i>
90	Talamakhana	Long leaved Barleria	<i>Asteracantha longifolia</i>
91	Talisa- patra	Himalayan yew	<i>Taxus baccata</i>
92	Tejapatra	Tamala	<i>Cinnamomum tamala</i>
93	Tejaphala	Tomar seed	<i>Nees zanthoxylum</i>
94	Til	Sesamum seeds	<i>Acnathopodium</i>
95	Kapura- Tulasi	Common Sweet basil	<i>Gentiana kurro</i>

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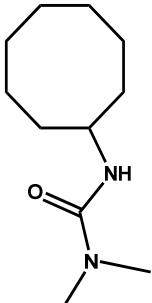
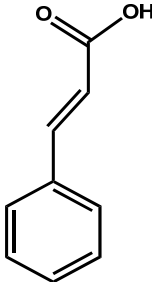
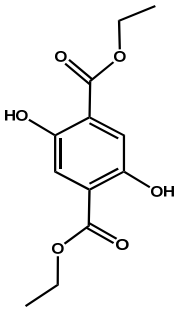
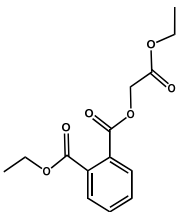
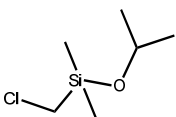
Supplementary Table S1 — List of herbs used for preparation of hawan samagri as oblation during Agnihotra (Contd.)

S. NO.	Indian Name	Common English Name	Botanical Name
96	Vana Tulasi	Black Basil	<i>Blepharis edulis</i>
97	Varuna	Varuna	<i>Ocimumcanum sines</i>
98	Vidarikanda	Saral	<i>Embellia ribes Burn</i>
99	Vijahya	Indian Hemp	<i>Argyreia speciosa/ Nervosa</i>
100	Yavaksara	Acarbonate of Potash	<i>Gossypium herbaceum</i>

Supplementary Table S2 GC-MS analysis of methanol extract of volatile organic compounds (VOC) condensed using vacuum condenser assembly

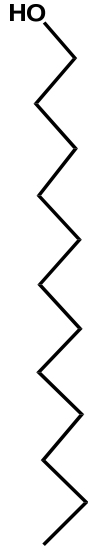
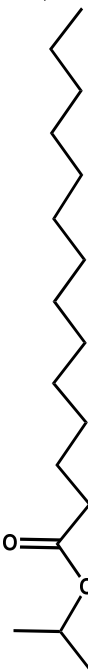
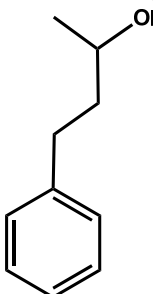
S. No	Start RT	END RT	Area	Area %	height	height %	A/H	Name
1	11.42	11.507	411820	1.85	211420	3.5	1.95	3-cyclooctyl-1,1-dimethylharnstoff
2	11.82	11.897	119960	0.2	50061	0.35	2.4	2-propensacure, 3-phenyl-, trimethylsilylester (zimtsacure.)
3	12.29	12.37	97559	0.44	50567	0.84	1.93	1,2-benzenedicarboxylic acid, diethyl ester
4	12.35	12.39	107936	0.18	78424	0.54	1.38	1,2-Benzenedicarboxylic acid, 2-ethoxy-2-oxoethyl ethyl ester
5	13.313	13.37	141697	0.23	94870	0.66	1.49	1-(4-isopropylphenyl)-2-methylpropyl acetate
6	14.447	14.523	132358	0.22	65809	0.46	2.01	Chloromethyl dimethylisopropoxysilane
7	14.66	14.697	11450	0.05	10965	0.18	1.04	1-Dodecanol
8	14.94	15.073	545233	2.45	124189	2.06	4.39	isopropyl tetradecanoate
9	15.143	15.18	26575	0.04	27204	0.19	0.98	4-Phenyl-2-butanol, TMS derivative
10	15.26	15.327	202726	0.33	83779	0.58	2.42	Myristic acid, TMS derivative
11	15.36	15.41	86566	0.14	60793	0.42	1.42	4,6,6,7,8,8-hexamethyl-1,3,4,6,7,8-hexahydrocyclopenta[g]isochromene
12	15.39	15.467	29349	0.13	15747	0.26	1.86	Phthalic acid, nonyl tridec-2-yn-1-yl ester
13	15.683	15.833	117176	0.53	26836	0.44	4.37	2-([5-(2-furyl)-1,3,4-oxadiazol-2-yl]sulfanyl)-1-mesitylethanone
14	16.183	16.25	217936	0.36	123507	0.86	1.76	8-Phenyl octanoic acid, TMS derivative
15	16.43	16.477	18574	0.03	16684	0.12	1.11	diethyl isopropylidene malonate
16	16.48	16.547	170042	0.28	82216	0.57	2.07	n-Hexadecanoic acid
17	16.727	16.833	363263	2.32	117911	2.63	3.08	3,5-di-tert-Butyl-4-hydroxyphenylpropionic acid
18	17.027	17.107	89527	0.15	46452	0.32	1.93	9-Hexadecenoic acid, (Z)-, TMS derivative
19	17.14	17.19	16513	0.1	10665	0.24	1.55	Acetoxyacetic acid, 4-pentadecyl ester
20	17.407	17.483	24802	0.11	11699	0.19	2.12	9-octadecenoic acid (z)-
21	17.467	17.503	10969	0.07	8806	0.2	1.25	tetradecanoic acid
22	17.697	17.743	26160	0.12	13839	0.23	1.89	19,19-dimethoxy-3-oxoandrost-1-en-17-yl acetate
23	17.76	17.837	51311	0.23	19679	0.33	2.61	bicyclo[3.3.1]non-2-ene
24	17.737	17.797	49571	0.19	0	0	0	hexanal, 2-ethyl-
25	17.75	17.9	188658	1.2	39022	0.87	4.83	2H-Indene, 3,3a,4,5,6,7-hexahydro-
26	17.897	17.96	388105	0.64	232951	1.62	1.67	Heptadecanoic acid, TMS derivative
27	18.053	18.237	9339098	42.03	1902512	31.52	4.91	(R)-(-)-14-Methyl-8-hexadecyn-1-ol
28	18.113	18.277	6312231	40.27	1371207	30.64	4.6	(z,z)-6,9-cis-3,4-epoxy-nonadecadiene
29	18.25	18.35	4245726	19.11	1213120	20.09	3.5	9,12,15-Octadecatrienoic acid, (Z,Z,Z)-
30	18.36	18.467	1519725	6.84	679557	11.26	2.24	Octadecanoic acid
31	18.6	18.71	156965	1	32283	0.72	4.86	9,12-octadecadien-1-ol
32	18.73	18.887	157956	0.71	38610	0.64	4.09	i-Propyl 6,9,12-hexadecatrienoate
33	18.77	18.823	78516	0.5	41639	0.93	1.89	Trilinolein
34	18.82	18.883	1394078	5.44	804609	8.83	1.73	oleic acid, trimethylsilyl ester
35	18.967	19.033	141469	0.9	59522	1.33	2.38	ethyl (9z,12z)-9,12-octadecadienoate
36	19.543	19.587	212456	0.35	157246	1.09	1.35	Glycidyl palmitate
37	20.717	20.753	90961	0.15	77183	0.54	1.18	Eicosanoic acid, TMS
38	21.117	21.157	146177	0.24	102179	0.71	1.43	1,8,11,14-Heptadecatetraene, (Z,Z,Z)-
39	21.45	21.503	53237	0.24	30656	0.51	1.74	Bis(2-ethylhexyl) phthalate
40	25.323	25.403	166790	0.75	68145	1.13	2.45	Stigmasta-5,22-dien-3-ol, acetate, (3.beta.)-
41	25.843	25.943	175711	0.79	62469	1.03	2.81	Stigmasta-3,5-diene

Supplementary Table S3 — GC-MS based analysis of VOCs released during agnihotra and their respective chemical properties

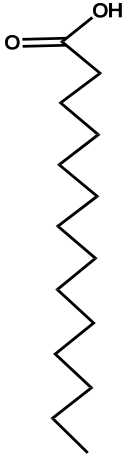
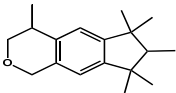
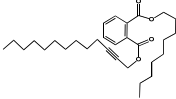
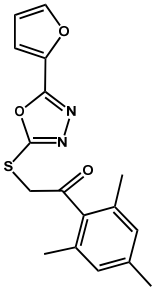
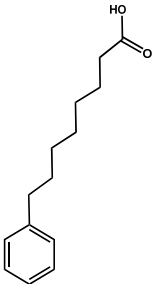
S. NO.	Chemical structure	Molecular formula & M. Wt.	IUPAC Name	Common name	Color	Odor	Category
1		$C_{11}H_{22}N_2O$ & M.wt. = 198.31 g/mol	3-cyclooctyl-1,1-dimethylurea	cycluron	Colorless crystal	Odorless	Herbicide
2		$C_9H_8O_2$ & M. wt. = 148.161 g/mol	(E)-3-phenylprop-2-enoic acid	Cinnamic acid	Colorless solid	Odorless	Flavoring agent
3		$C_{12}H_{14}O_6$ & M. Wt. = 254.238 g/mol	diethyl 2,5-dihydroxybenzene-1,4-dicarboxylate	2,5-N/A ethyl phthalyl ethyl benzene-1,2-dicarboxylate			Indirect food additives
4		$C_{14}H_{16}O_6$ & M. wt. = 280.276 g/mol	2-O-(2-ethoxy-2-oxoethyl) ethyl benzene-1,2-dicarboxylate				
5		$C_6H_{15}ClOSi$ & M. wt. = 166.72 g/mol	chloromethyl dimethylpropan-2-yloxysilane	(Chloromethyl)dimethylpropan-2-yloxysilane			

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Supplementary Table S3 — GC-MS based analysis of VOCs released during agnihotra and their respective chemical properties (Contd.)

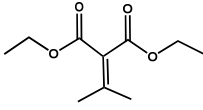
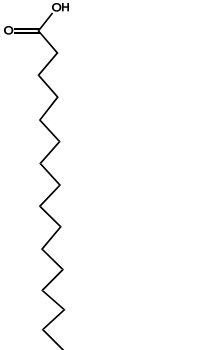
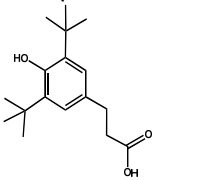
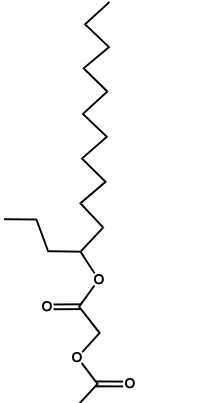
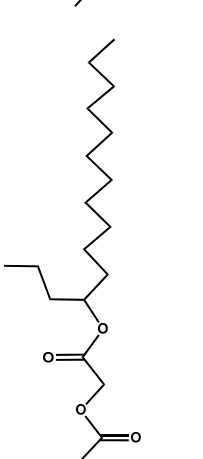
S. NO.	Chemical Structure	Molecular Formula & M. Wt.	IUPAC Name	Common name	Color	Odor	Category
6		$C_{12}H_{26}O$ & M. Wt. = 186.339 g/mol	dodecan-1-ol	Lauryl alcohol	Colorless thick liquid	Sweet Odor	Flavoring agent and attractant in agrochemical industry
7		$C_{17}H_{34}O_2$ & M. Wt. = 270.457 g/mol	propan-2-yl tetradecanoate	Isopropyl myristate	Colorless Liquid	Odorless	Flavouring agent and vehicle for other therapeutic compounds
8		$C_{10}H_{14}O$ & M. Wt. = 150.221 g/mol	4-phenylbutan-2- ol	Phenylbutyl alcohol			Flavoring agent in food additives

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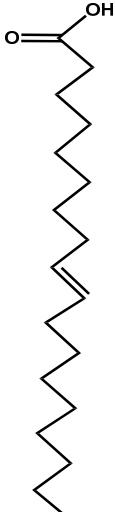
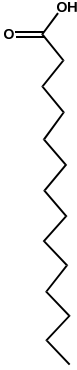
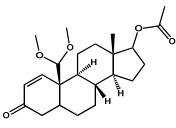
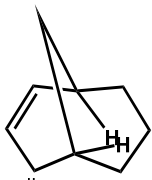
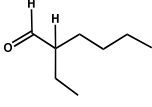
S. NO.	Chemical Structure	Molecular Formula & M. Wt.	IUPAC Name	Common name	Color	Odor	Category
9		$C_{14}H_{28}O_2$ & M. Wt. = 228.376 g/mol	tetradecanoic acid		Oily	white Odor should be faint with some rancidity	Flavoring agent and anticancer activity
10		$C_{18}H_{26}O$ & M. Wt. = 258.405 g/mol	4,6,6,7,8,8-hexamethyl-1,3,4,7-tetrahydrocyclopenta[1,3]isochromene	Galaxolide	Almost colorless viscous liquid	Musk odor	Human care agents, laundry agent, cleaning agents etc.
11		$C_{30}H_{46}O_4$ & M. Wt. = 470.68 g/mol	1-nonyl 2-tridec-2-yn-1-yl benzene-1,2-dicarboxylate				
12		$C_{17}H_{16}N_2O_3S$ & M. Wt. = 328.382 g/mol	2-[[5-(2-furyl)-1,3,4-oxadiazol-1-yl]sulfanyl]-1-mesitylethane				
13		$C_{14}H_{20}O_2$ & M. Wt. = 220.312 g/mol	8-phenyloctanoic acid		Colorless to light	Mild odor yellow liquid	

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Supplementary Table S3 — GC-MS based analysis of VOCs released during agnihotra and their respective chemical properties (Contd.)

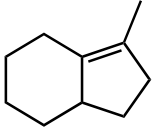
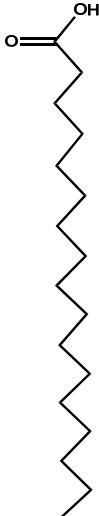
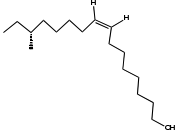

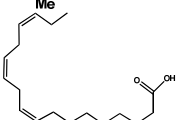
S. NO.	Chemical Structure	Molecular Formula & M. Wt.	IUPAC Name	Common name	Color	Odor	Category
14		$C_{10}H_{16}O_4$ & M. Wt. = 200.234 g/mol	diethyl 2-propan-2-ylidene-2-propanoate	Diethyl isopropylideneacetate			
15		$C_{16}H_{32}O_2$ & M. Wt. =256.43 g/mol	hexadecanoic acid	Palmitic acid	Colorless white crystalline solid	Odorless	Flavouring agent
16		$C_{17}H_{26}O_3$ & M. Wt. =278.392 g/mol	3-(3,5-ditert-butyl-4-hydroxyphenyl)propanoic acid	3,5-DI-Tert-butyl-4-hydroxynamic acid	White to yellow crystalline powder	toOdorless	Anti-Arrhythmia Agents and antioxidant
17		$C_{16}H_{30}O_2$ & M. wt.=254.414 g/mol	hexadecanoic acid	Palmitelaidic acid			
18		$C_{19}H_{36}O_4$ & M. Wt. =328.493 g/mol	pentadecan-4-yl 2-acetoxyacetate				

... Contd.

Supplementary Table S3 — GC-MS based analysis of VOCs released during agnihotra and their respective chemical properties (Contd.)							
S. NO.	Chemical Structure	Molecular Formula & M. Wt.	IUPAC Name	Common name	Color	Odor	Category
19		C ₁₈ H ₃₄ O ₂ & M. Wt. = 254.414 g/mol	9-octadecenoic acid	Palmitelaidic acid	colorless liquid	oily Peculiar like odor	lard-Pharmaceutical lotion
20		C ₁₄ H ₂₈ O ₂ & M. Wt. = 228.376 g/mol	tetradecanoic acid	Myristic acid	Oily crystalline solid	whiteThe should faint with no rancidity	odorFlavoring agents in besoaps and cosmetics
21		C ₂₃ H ₃₄ O ₅ & M. Wt. = 390.52 g/mol	[(8S,9S,10S,13S,14S)-10-(dimethoxymethyl)-13-methyl-3-oxo-4,5,6,7,8,9,11,12,14,15,16,17-dodecahydrocyclopenta[a]phenanthren-17-yl] acetate				
22		C ₉ H ₁₄ & M. Wt. = 122.211 g/mol	bicyclo[3.3.1]non-3-ene				bicyclo[3,3,1]non-2-ene as a novel skeleton for HIF-1 inhibitors
23		C ₈ H ₁₆ O & M. Wt. = 128.215 g/mol	2-ethylhexanal		Colourless liquid	Characteristic odor	Flavoring Agents

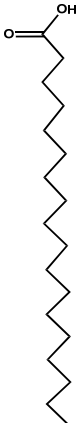

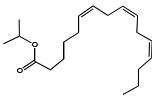
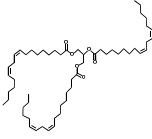
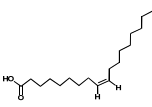
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Supplementary Table S3 — GC-MS based analysis of VOCs released during agnihotra and their respective chemical properties (Contd.)

S. NO.	Chemical Structure	Molecular Formula & M. Wt.	IUPAC Name	Common name	Color	Odor	Category
24		$C_{10}H_{16}$ & M. wt. = 136.238 g/mol	3-methyl- 2,4,5,6,7,7a- hexahydro-1H- indene	3-methyl-indene			
25		$C_{17}H_{34}O_2$ & M. Wt. = 270.457 g/mol	heptadecanoic acid	Margaric acid	Yellowish solid		surfactants, lubricant, finishing agent
26		$C_{17}H_{34}O_2$ & M. Wt.= 254.458 g/mol	(Z,14R)-14- methylhexadec-8- en-1-ol				
27			Z,Z-6,9-cis- 3S,4R- Epoxy nonadecadi- ene				
28		$C_{18}H_{30}O_2$ & M. Wt. =278.436 g/mol	octadeca-9,12,15- trienoic acid	Linolenic acid	Colorless	toCharacteristic straw-colored s odor	liquid

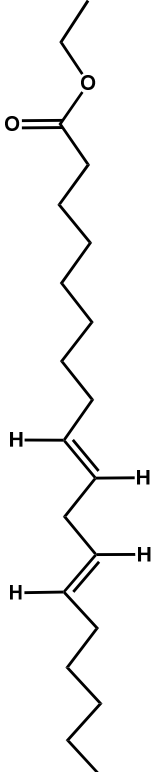
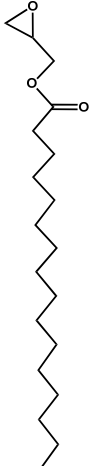
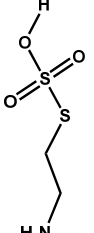
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Supplementary Table S3 — GC-MS based analysis of VOCs released during agnihotra and their respective chemical properties (Contd.)

S. NO.	Chemical Structure	Molecular Formula & M. Wt.	IUPAC Name	Common name	Color	Odor	Category
29		$C_{18}H_{36}O_2$ & M. wt. = 284.484 g/mol	octadecanoic acid	Stearic acid	white solid	mild odor	flavoring agent, has shown antiviral and anti-inflammatory activity in mice
30		$C_{18}H_{34}O$ & M. Wt. = 266.469 g/mol	(9E,12E)- octadeca-9,12- dien-1-ol		Colorless thick liquid	Odorless	Therapeutic activities
31		$C_{19}H_{32}O_2$ & M. Wt. = 292.456 g/mol	propan-2-yl (6Z,9Z,12Z)- hexadeca-6,9,12- trienoate	I-Propyl 6,9,12- hexadecatrienoate			
32		$C_{57}H_{98}O_6$ & M. Wt. = 879.405 g/mol	2,3- bis[[[(9Z,12Z)- octadeca-9,12- dienoyl]oxy]prop yl (9Z,12Z)- octadeca-9,12 dienoate	Trilinolein			
33		$C_{18}H_{34}O_2$ & M. Wt. = 282.468 g/mol	(Z)-octadec-9- enoic acid	Oleic acid	Pale yellow liquid	Mild odor	Pharmaceutical solvents


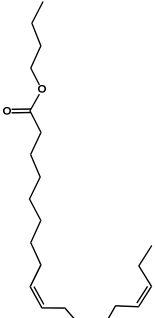
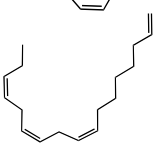
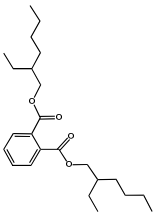
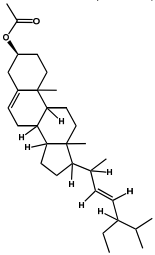
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Supplementary Table S3 — GC-MS based analysis of VOCs released during agnihotra and their respective chemical properties (Contd.)

S. NO.	Chemical Structure	Molecular Formula & M. Wt.	IUPAC Name	Common name	Color	Odor	Category
34		$C_{20}H_{36}O_2$ & M. Wt. = 308.56 g/mol	ethyl (9E,12E)- octadeca-9,12- dienoate	ethyl (9E,12E)-Linoleaidic acid ethyl ester			Flavoring Agents
35		$C_{19}H_{36}O_3$ & M. Wt. = 312.494 g/mol	oxiran-2- ylmethyl hexadecanoate	Glycidyl Palmitate			
36		$C_2H_7NO_3S_2$ & M. Wt. = 157.202 g/mol	1-amino-2- sulfosulfanyletha ne	2- Aminoethanethiol sulfuric acid			

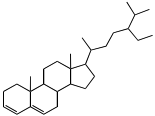
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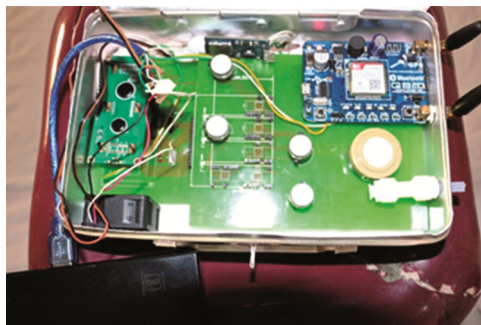
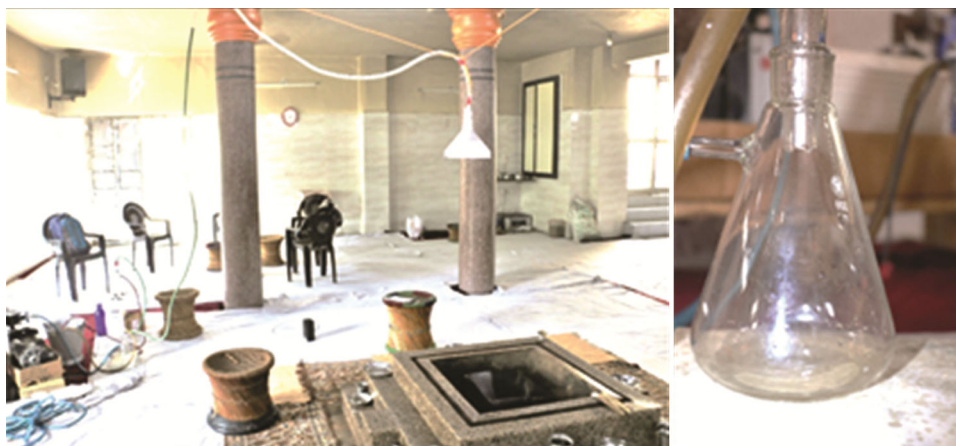
Supplementary Table S3 — GC-MS based analysis of VOCs released during agnihotra and their respective chemical properties (Contd.)

S. NO.	Chemical Structure	Molecular Formula & M. Wt.	IUPAC Name	Common name	Color	Odor	Category
37		$C_{20}H_{40}O_2$ & M. wt.= 312.538 g/mol	icosanoic acid	Arachidic Acid			
38		& M. wt.= 334.544 g/mol	butyl (9Z,12Z,15Z)- octadeca-9,12,15- trienoate	Butyl –linolenate			
39		$C_{17}H_{28}$ & M. Wt.= 232.411 g/mol	(8Z,11Z,14Z)- heptadeca- 1,8,11,14- tetraene	Aplotaxene			
40		$C_{24}H_{38}O_4$ & M. Wt. = 390.564 g/mol	bis(2-ethylhexyl) benzene-1,2- dicarboxylate	Bis(2-ethylhexyl) phthalate	Colorless pale yellow	toodorless liquid	
41		$C_{31}H_{50}O_2$ & M. Wt. = 454.739 g/mol	[(3S)-17-[(E)-5- ethyl-6- methylhept-3-en- 2-yl]-10,13- dimethyl- 2,3,4,7,8,9,11,12, 14,15,16,17- dodecahydro-1H- cyclopenta[a]phe nanthren-3-yl] acetate	Stigmasta-5,22- dien-3-ol, acetate			

... Contd.

Supplementary Table S3 — GC-MS based analysis of VOCs released during agnihotra and their respective chemical properties (Contd.)

S. NO.	Chemical Structure	Molecular Formula & M. Wt.	IUPAC Name	Common name	Color	Odor	Category
42		C ₂₉ H ₄₈ & M. Wt.= 396.703 g/mol	17-(5-ethyl-6-methylheptan-2-yl)-10,13-dimethyl-2,7,8,9,11,12,14,15,16,17-decahydro-1H-cyclopenta[a]phenanthrene	Stigmasta-3,5-diene			

Supplementary Fig. S1 — Gas sensing instrument for real-time sensing of CO, NO₂, SO₂, O₃ and H₂S gases

Supplementary Fig. S2 — Instrumentation set up for collection of volatile organic compounds (VOC's) consisting of inverted funnel, pipe connected to funnel and condensation assembly, condensation assembly consisting of condenser, chilled water flow, conical flask having 100 mL of methanol hexane extract