

**Table S3.** Results of GC–MS analysis of volatiles extracted by mechanical shock crushing of olivines from experiment 4-38-21 in the olivine–serpentine–anthracene–FeNi system at 1400 °C and 4.5 GPa.

Formula	Name	<sup>1</sup> CAS/(NIST)	<sup>2</sup> MW	4-38-21	
				<sup>3</sup> RT, min	<sup>4</sup> A, %
Aliphatic hydrocarbons					
Paraffins					
CH4	Methane	74-82-8	16	1.68	65.702
C2H6	Ethane	74-84-0	30	2.38	9.700
C3H8	n-Propane	74-98-6	44	4.15	4.184
C4H10	Isobutane	75-28-5	58	5.66	0.456
C4H10	n-Butane	106-97-8	58	6.03	1.213
C5H12	2-Methylbutane	78-78-4	72	8.00	0.268
C5H12	n-Pentane	109-66-0	72	8.41	0.266
C6H14	2-Methylpentane	107-83-5	86	11.09	0.048
C6H14	3-Methylpentane	96-14-0	86	11.39	0.040
C6H14	n-Hexane	110-54-3	86	11.76	0.046
C7H16	2-Methylhexane	591-76-4	100	14.96	0.009
C7H16	3-Methylhexane	589-34-4	100	15.14	0.012
C7H16	n-Heptane	142-82-5	100	15.76	0.024
C8H18	3-Ethylhexane	619-99-8	114	19.14	0.026
C8H18	n-Octane	111-65-9	114	19.82	0.049
C9H20	n-Nonane	111-84-2	128	23.68	0.047
C10H22	n-Decane	124-18-5	142	27.26	0.029
C11H24	n-Undecane	1120-21-4	156	30.56	0.140
C12H26	n-Dodecane	112-40-3	170	33.64	0.026
C13H28	n-Tridecane	629-50-5	184	37.61	0.060
C14H30	n-Tetradecane	629-59-4	198	42.97	0.024
C15H32	5-Methyltetradecane	25117-32-2	212	46.71	0.072
C15H32	n-Pentadecane	629-62-9	212	51.69	0.038
C16H34	n-Hexadecane	544-76-3	226	65.48	0.043
C17H36	n-Heptadecane	629-78-7	240	88.20	0.061
Olefins					
C3H6	Propene	115-07-1	42	4.00	0.007
C5H10	1-Pentene	109-67-1	70	8.10	0.033
C5H8	Isoprene	78-79-5	68	8.35	0.027
C5H8	(E)-1,3-Pentadiene	2004-70-8	68	8.51	0.007
C5H8	(Z)-1,3-Pentadiene	1574-41-0	68	8.81	0.006
C6H10	(3E)-1,3-Hexadiene	592-48-3	82	11.91	0.003
C6H10	(2E,4E)-2,4-Hexadiene	592-46-1	82	12.23	0.003
C6H10	(Z)-3-Methyl-1,3-pentadiene	2787-45-3	82	12.38	0.003
C6H10	(E)-3-Methyl-1,3-pentadiene	2787-43-1	82	12.54	0.012
C6H10	(Z),(Z)-2,4-Hexadiene	6108-61-8	82	12.84	0.006
C7H14	1-Heptene	592-76-7	98	15.41	0.013
C8H16	1-Octene	111-66-0	112	19.50	0.013
C9H18	1-Nonene	124-11-8	126	23.40	0.025
C10H20	1-Decene	872-05-9	140	27.01	0.008
C11H22	1-Undecene	821-95-4	154	30.38	0.020
C12H24	1-Dodecene	112-41-4	168	33.46	0.018
C13H26	1-Tridecene	2437-56-1	182	37.37	0.040
C9H8	1-Phenylpropadiene	x	116	79.14	0.085

Cyclic hydrocarbons					
<i>Cycloalkanes (naphthenes) and cycloalkenes</i>					
C <sub>9</sub> H <sub>16</sub>	1,3,3,4-Tetramethylcyclopentene	x	124	22.09	0.004
C <sub>12</sub> H <sub>24</sub>	Cyclododecane	294-62-2	168	46.12	0.064
<i>Arenes</i>					
C <sub>6</sub> H <sub>6</sub>	Benzene	71-43-2	78	12.33	0.074
C <sub>7</sub> H <sub>8</sub>	Toluene	108-88-3	92	16.72	0.066
C <sub>8</sub> H <sub>10</sub>	Ethylbenzene	100-41-4	106	20.72	0.020
C <sub>8</sub> H <sub>10</sub>	p-Xylene	106-42-3	106	20.99	0.069
C <sub>8</sub> H <sub>10</sub>	o-Xylene	95-47-6	106	21.09	0.019
C <sub>8</sub> H <sub>10</sub>	m-Xylene	108-38-3	106	21.50	0.037
C <sub>8</sub> H <sub>8</sub>	Styrene	100-42-5	104	21.64	0.016
C <sub>9</sub> H <sub>12</sub>	Propylbenzene	103-65-1	120	24.52	0.015
C <sub>10</sub> H <sub>14</sub>	p-Cymene	99-87-6	134	27.36	0.010
C <sub>9</sub> H <sub>12</sub>	1-Ethyl-4-methylbenzene	622-96-8	120	27.80	0.010
C <sub>10</sub> H <sub>14</sub>	o-Cymene	527-84-4	134	27.96	0.006
C <sub>10</sub> H <sub>14</sub>	Butylbenzene	104-51-8	134	28.31	0.027
C <sub>10</sub> H <sub>14</sub>	m-Cymene	535-77-3	134	28.71	0.007
C <sub>11</sub> H <sub>16</sub>	Pentylbenzene	538-68-1	148	31.66	0.012
C <sub>12</sub> H <sub>18</sub>	Hexylbenzene	1077-16-3	162	34.99	0.027
C <sub>13</sub> H <sub>20</sub>	Heptylbenzene	1078-71-3	176	39.52	0.016
C <sub>14</sub> H <sub>22</sub>	Octylbenzene	2189-60-8	190	46.48	0.056
C <sub>15</sub> H <sub>24</sub>	Nonylbenzene	1081-77-2	204	57.52	0.030
<i>Polycyclic aromatic hydrocarbons (PAH)</i>					
C <sub>10</sub> H <sub>8</sub>	Naphthalene	91-20-3	128	31.84	0.006
Oxygenated hydrocarbons					
<i>Alcohols</i>					
CH <sub>4</sub> O	Methyl Alcohol	67-56-1	32	4.15	0.050
C <sub>2</sub> H <sub>6</sub> O	Ethanol	64-17-5	46	6.40	0.069
C <sub>3</sub> H <sub>8</sub> O	Isopropyl Alcohol	67-63-0	60	7.96	0.022
C <sub>3</sub> H <sub>8</sub> O	1-Propanol	71-23-8	60	9.05	0.012
C <sub>4</sub> H <sub>10</sub> O	1-Butanol	71-36-3	74	12.78	0.097
C <sub>5</sub> H <sub>6</sub> O <sub>2</sub>	2-Furanmethanol	98-00-0	98	18.45	0.002
C <sub>6</sub> H <sub>6</sub> O	Phenol	108-95-2	94	24.57	0.061
C <sub>7</sub> H <sub>8</sub> O	2-Methylphenol	95-48-7	108	25.85	0.006
C <sub>7</sub> H <sub>8</sub> O	3-Methylphenol	108-39-4	108	27.23	0.003
C <sub>7</sub> H <sub>8</sub> O	4-Methylphenol	106-44-5	108	28.11	0.008
C <sub>8</sub> H <sub>18</sub> O	2-Ethylhexanol	104-76-7	130	28.03	0.131
C <sub>9</sub> H <sub>18</sub> O	1-Isopropylcyclohexanol	3552-01-0	142	29.63	0.002
C <sub>9</sub> H <sub>20</sub> O	2-Methyl-1-octanol	818-81-5	144	31.34	0.086
C <sub>11</sub> H <sub>16</sub> O	2,3,4,5,6-Pentamethylphenol	2819-86-5	164	56.49	0.010
<i>Ethers and esters</i>					
C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	Methyl methacrylate	80-62-6	100	14.26	0.034
C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	Butyrolactone	96-48-0	86	20.84	0.021
C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	δ-Valerolactone	542-28-9	100	26.51	0.059
C <sub>6</sub> H <sub>10</sub> O <sub>2</sub>	γ-Hexalactone	695-06-7	114	26.90	0.006
C <sub>6</sub> H <sub>10</sub> O <sub>2</sub>	γ-Hexalactone	695-06-7	114	27.31	0.011
C <sub>10</sub> H <sub>18</sub> O	2-Cyclohexen-1-yl isobutyl ether	32730-40-8	154	29.08	0.013
C <sub>9</sub> H <sub>18</sub> O <sub>2</sub>	Hexanoic acid propyl ester	626-77-7	158	30.33	0.003
C <sub>7</sub> H <sub>12</sub> O <sub>2</sub>	γ-Heptalactone	105-21-5	128	30.89	0.007
C <sub>7</sub> H <sub>12</sub> O <sub>2</sub>	δ-Heptalactone	3301-90-4	128	31.31	0.007
C <sub>10</sub> H <sub>20</sub> O	2-Pentyltetrahydropyran	x	156	32.36	0.013

C <sub>8</sub> H <sub>14</sub> O <sub>2</sub>	γ-Octalactone	104-50-7	142	34.27	0.011
C <sub>8</sub> H <sub>14</sub> O <sub>2</sub>	δ-Octalactone	698-76-0	142	35.26	0.003
C <sub>9</sub> H <sub>16</sub> O <sub>2</sub>	γ-Nonalactone	104-61-0	156	38.59	0.015
C <sub>11</sub> H <sub>22</sub> O <sub>2</sub>	Hexyl tetrahydropyranyl ether	1927-63-5	186	39.50	0.026
C <sub>9</sub> H <sub>16</sub> O <sub>2</sub>	δ-Nonalactone	3301-94-8	156	40.00	0.004
C <sub>10</sub> H <sub>18</sub> O <sub>2</sub>	γ-Decalactone	706-14-9	170	45.13	0.015
C <sub>10</sub> H <sub>18</sub> O <sub>2</sub>	δ-Decalactone	705-86-2	170	47.21	0.004
C <sub>11</sub> H <sub>20</sub> O <sub>2</sub>	γ-Undecalactone	104-67-6	184	55.39	0.007
C <sub>12</sub> H <sub>22</sub> O <sub>2</sub>	γ-Dodecalactone	2305-05-7	198	71.53	0.017
C <sub>12</sub> H <sub>22</sub> O <sub>2</sub>	δ-Dodecalactone	713-95-1	198	76.62	0.015
<b>Aldehydes</b>					
C <sub>2</sub> H <sub>4</sub> O	Acetaldehyde	75-07-0	44	5.23	0.300
C <sub>3</sub> H <sub>4</sub> O	2-Propenal	107-02-8	56	7.18	0.022
C <sub>3</sub> H <sub>6</sub> O	n-Propanal	123-38-6	58	7.41	0.047
C <sub>4</sub> H <sub>6</sub> O	2-Methyl-2-propenal	78-85-3	70	9.56	0.045
C <sub>4</sub> H <sub>8</sub> O	2-Methylpropanal	78-84-2	72	9.61	0.006
C <sub>4</sub> H <sub>8</sub> O	n-Butanal	123-72-8	72	10.40	0.014
C <sub>4</sub> H <sub>6</sub> O	2-Butenal	4170-30-3	70	11.99	0.015
C <sub>5</sub> H <sub>8</sub> O	2-Methyl-2-butenal	1115-11-3	84	13.24	0.027
C <sub>5</sub> H <sub>8</sub> O	3-Methyl-2-butenal	107-86-8	84	13.34	0.004
C <sub>5</sub> H <sub>10</sub> O	3-Methylbutanal	590-86-3	86	13.51	0.008
C <sub>5</sub> H <sub>10</sub> O	n-Pentanal	110-62-3	86	14.48	0.010
C <sub>5</sub> H <sub>8</sub> O	(E)-2-Pentenal	1576-87-0	84	16.74	0.014
C <sub>5</sub> H <sub>4</sub> O <sub>2</sub>	2-Furaldehyde	98-01-1	96	17.27	0.003
C <sub>5</sub> H <sub>4</sub> O <sub>2</sub>	3-Furaldehyde	498-60-2	96	18.16	0.023
C <sub>6</sub> H <sub>12</sub> O	n-Hexanal	66-25-1	100	18.77	0.048
C <sub>7</sub> H <sub>14</sub> O	n-Heptanal	111-71-7	114	22.88	0.027
C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	5-Methyl-2-furancarboxaldehyde	620-02-0	110	23.17	0.004
C <sub>7</sub> H <sub>6</sub> O	Benzaldehyde	100-52-7	106	23.83	0.088
C <sub>8</sub> H <sub>16</sub> O	2-Ethylhexanal	123-05-7	128	25.33	0.092
C <sub>8</sub> H <sub>16</sub> O	n-Octanal	124-13-0	128	26.66	0.044
C <sub>9</sub> H <sub>18</sub> O	n-Nonanal	124-19-6	142	30.15	0.059
C <sub>10</sub> H <sub>20</sub> O	n-Decanal	112-31-2	156	33.36	0.064
C <sub>11</sub> H <sub>22</sub> O	n-Undecanal	112-44-7	170	37.11	0.104
C <sub>12</sub> H <sub>24</sub> O	n-Dodecanal	112-54-9	184	42.63	0.061
C <sub>13</sub> H <sub>26</sub> O	n-Tridecanal	10486-19-8	198	51.14	0.088
C <sub>14</sub> H <sub>28</sub> O	n-Tetradecanal	124-25-4	212	65.02	0.056
C <sub>15</sub> H <sub>30</sub> O	n-Pentadecanal	2765-11-9	226	86.81	0.049
<b>Ketones</b>					
C <sub>3</sub> H <sub>6</sub> O	2-Propanone	67-64-1	58	7.53	0.538
C <sub>4</sub> H <sub>6</sub> O	2-Butenone	78-94-4	70	10.20	0.016
C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	2,3-Butanedione	431-03-8	86	10.50	0.003
C <sub>4</sub> H <sub>8</sub> O	2-Butanone	78-93-3	72	10.58	0.015
C <sub>5</sub> H <sub>10</sub> O	2-Pentanone	107-87-9	86	14.29	0.007
C <sub>5</sub> H <sub>8</sub> O	Cyclopentanone	120-92-3	84	17.01	0.005
C <sub>6</sub> H <sub>12</sub> O	2-Hexanone	591-78-6	100	18.54	0.015
C <sub>7</sub> H <sub>14</sub> O	3-Heptanone	106-35-4	114	22.29	0.016
C <sub>6</sub> H <sub>8</sub> O	2-Cyclohexen-1-one	930-68-7	96	22.53	0.005
C <sub>7</sub> H <sub>14</sub> O	2-Heptanone	110-43-0	114	22.60	0.016
C <sub>8</sub> H <sub>14</sub> O	2-Methyl-1-hepten-6-one	10408-15-8	126	25.58	0.023
C <sub>8</sub> H <sub>14</sub> O	6-Methyl-5-hepten-2-one	110-93-0	126	25.85	0.022
C <sub>8</sub> H <sub>16</sub> O	2-Octanone	111-13-7	128	26.37	0.033

C <sub>9</sub> H <sub>18</sub> O	2-Nonanone	821-55-6	142	29.86	0.013
C <sub>10</sub> H <sub>20</sub> O	2-Decanone	693-54-9	156	33.04	0.013
C <sub>8</sub> H <sub>4</sub> O <sub>3</sub>	1,3-Isobenzofurandione	85-44-9	148	35.66	0.098
C <sub>11</sub> H <sub>22</sub> O	2-Undecanone	53452-70-3	170	36.64	0.064
C <sub>13</sub> H <sub>24</sub> O	6,10-Dimethyl-9-undecen-2-one	4433-36-7	196	40.74	0.100
C <sub>12</sub> H <sub>24</sub> O	2-Dodecanone	6175-49-1	184	41.87	0.015
C <sub>13</sub> H <sub>26</sub> O	2-Tridecanone	593-08-8	198	49.98	0.025
C <sub>14</sub> H <sub>28</sub> O	2-Tetradecanone	2345-27-9	212	62.93	0.020
C <sub>15</sub> H <sub>30</sub> O	2-Pentadecanone	2345-28-0	226	83.52	0.108
<b>Carboxylic acids</b>					
C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	Acetic acid	64-19-7	60	11.31	0.321
C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	n-Propanoic acid	79-09-4	74	15.24	0.014
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	n-Butanoic acid	107-92-6	88	18.87	0.163
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	3-Methylbutanoic acid	503-74-2	102	21.94	0.010
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	n-Pentanoic acid	109-52-4	102	22.83	0.065
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	n-Hexanoic acid	142-62-1	116	26.33	0.188
C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	n-Heptanoic acid	111-14-8	130	29.73	0.041
C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	n-Octanoic acid	124-07-2	144	32.79	0.101
C <sub>9</sub> H <sub>18</sub> O <sub>2</sub>	n-Nonanoic acid	112-05-0	158	36.17	0.089
C <sub>10</sub> H <sub>20</sub> O <sub>2</sub>	n-Decanoic acid	334-48-5	172	41.14	0.116
C <sub>11</sub> H <sub>22</sub> O <sub>2</sub>	n-Undecanoic acid	112-37-8	186	49.11	0.011
C <sub>9</sub> H <sub>8</sub> O <sub>3</sub>	4-Acetylbenzoic acid	586-89-0	164	51.38	0.089
C <sub>12</sub> H <sub>24</sub> O <sub>2</sub>	n-Dodecanoic acid	143-07-7	200	61.92	0.136
C <sub>14</sub> H <sub>28</sub> O <sub>2</sub>	n-Tetradecanoic acid	544-63-8	228	114.67	0.034
<b>Heterocyclic compounds</b>					
<b>Dioxanes</b>					
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	1,4-Dioxane	123-91-1	88	13.53	0.003
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	1,3-Dioxane	505-22-6	88	17.52	0.003
<b>Furans</b>					
C <sub>4</sub> H <sub>4</sub> O	Furan	110-00-9	68	7.05	0.006
C <sub>5</sub> H <sub>6</sub> O	2-Methylfuran	534-22-5	82	10.10	0.011
C <sub>5</sub> H <sub>6</sub> O	3-Methylfuran	930-27-8	82	10.38	0.003
C <sub>6</sub> H <sub>8</sub> O	2-Ethylfuran	3208-16-0	96	13.79	0.003
C <sub>6</sub> H <sub>6</sub> O	2-Vinylfuran	1487-18-9	94	14.58	0.003
C <sub>7</sub> H <sub>10</sub> O	2-Propylfuran	4229-91-8	110	17.77	0.003
C <sub>7</sub> H <sub>10</sub> O	2-Ethyl-5-methylfuran	1703-52-2	110	21.75	0.002
C <sub>8</sub> H <sub>12</sub> O	2-Butylfuran	4466-24-4	124	21.95	0.004
C <sub>9</sub> H <sub>14</sub> O	2-Pentylfuran	3777-69-3	138	25.80	0.010
C <sub>10</sub> H <sub>16</sub> O	2-Hexylfuran	3777-70-6	152	29.30	0.003
C <sub>11</sub> H <sub>18</sub> O	2-Heptylfuran	3777-71-7	166	32.56	0.004
C <sub>12</sub> H <sub>20</sub> O	2-Octylfuran	4179-38-8	180	35.97	0.005
C <sub>13</sub> H <sub>22</sub> O	2-Nonylfuran	4179-38-8	194	40.72	0.003
C <sub>14</sub> H <sub>24</sub> O	2-Decylfuran	83469-85-6	208	47.96	0.003
C <sub>15</sub> H <sub>26</sub> O	2-Undecylfuran	x	222	60.17	0.006
<b>Nitrogenated compounds</b>					
N <sub>2</sub>	Nitrogen	7727-37-9	28	1.68	6.339
CHNO	Hydrogen isocyanate	75-13-8	43	6.46	0.099
C <sub>2</sub> H <sub>3</sub> N	Acetonitrile	75-05-8	41	6.83	0.098
C <sub>3</sub> H <sub>5</sub> N	Propanenitrile	107-12-0	55	9.36	0.003
C <sub>4</sub> H <sub>5</sub> N	1H-Pyrrole	109-97-7	67	14.46	0.012
C <sub>5</sub> H <sub>5</sub> N	Pyridine	110-86-1	79	15.41	0.013
C <sub>2</sub> H <sub>5</sub> NO	Acetamide	60-35-5	59	16.21	0.021
C <sub>5</sub> H <sub>9</sub> N	Pentanenitrile	110-59-8	83	17.39	0.003

C <sub>3</sub> H <sub>5</sub> NO <sub>2</sub>	2-Oxo-propanamide	631-66-3	87	17.42	0.002
C <sub>4</sub> H <sub>6</sub> N <sub>2</sub>	1-Methyl-1H-pyrazole	930-36-9	82	18.09	0.005
C <sub>6</sub> H <sub>9</sub> N	2,3-Dimethyl-1H-pyrrole	600-28-2	95	18.26	0.006
C <sub>6</sub> H <sub>7</sub> N	2-Methylpyridine	109-06-8	93	18.69	0.003
C <sub>6</sub> H <sub>7</sub> N	3-Methylpyridine	108-99-6	93	20.39	0.003
C <sub>6</sub> H <sub>7</sub> N	4-Methylpyridine	108-89-4	93	20.55	0.002
C <sub>3</sub> H <sub>4</sub> N <sub>2</sub>	1H-Pyrazole	288-13-1	68	22.87	0.013
C <sub>7</sub> H <sub>5</sub> N	Benzonitrile	100-47-0	103	24.62	0.010
C <sub>5</sub> H <sub>11</sub> NO	Pentanamide	626-97-1	101	27.50	0.003
C <sub>4</sub> H <sub>5</sub> NO <sub>2</sub>	Succinimide	123-56-8	99	28.81	0.015
C <sub>6</sub> H <sub>13</sub> NO	Hexanamide	628-02-4	115	30.99	0.008
C <sub>7</sub> H <sub>15</sub> NO	Enanthamide	628-62-6	129	34.26	0.003
C <sub>8</sub> H <sub>17</sub> NO	Octanamide	629-01-6	143	38.45	0.006
C <sub>9</sub> H <sub>19</sub> NO	Nonanamide	1120-07-6	157	44.78	0.013
C <sub>10</sub> H <sub>21</sub> NO	Decanamide	2319-29-1	171	54.61	0.013
<b>Sulfonated compounds</b>					
H <sub>2</sub> S	Hydrogen sulfide	7783-06-4	34	2.78	0.003
COS	Carbonyl sulfide	463-58-1	60	3.40	0.003
O <sub>2</sub> S	Sulfur dioxide	7446-09-5	64	5.05	0.023
CH <sub>4</sub> S	Methanethiol	74-93-1	48	5.45	0.011
C <sub>2</sub> H <sub>6</sub> S	Dimethyl sulfide	75-18-3	62	7.56	0.003
CS <sub>2</sub>	Carbon disulfide	75-15-0	76	7.66	0.011
C <sub>4</sub> H <sub>4</sub> S	Thiophene	110-02-1	84	12.08	0.003
C <sub>2</sub> H <sub>6</sub> S <sub>2</sub>	Dimethyl disulfide	624-92-0	94	15.11	0.003
C <sub>5</sub> H <sub>6</sub> S	2-Methylthiophene	554-14-3	98	16.24	0.003
C <sub>5</sub> H <sub>6</sub> S	3-Methylthiophene	616-44-4	98	16.56	0.002
C <sub>6</sub> H <sub>8</sub> S	2-Ethylthiophene	872-55-9	112	21.17	0.003
C <sub>6</sub> H <sub>8</sub> S	3-Ethylthiophene	1795-01-3	112	21.52	0.006
C <sub>8</sub> H <sub>12</sub> S	2-Butylthiophene	1455-20-5	140	27.56	0.003
C <sub>8</sub> H <sub>12</sub> S	3-Butylthiophene	34722-01-5	140	28.43	0.003
<b>Inorganic compounds</b>					
<b>Oxides</b>					
CO <sub>2</sub>	Carbon dioxide	124-38-9	44	1.75	0.284
H <sub>2</sub> O	Water	7732-18-5	18	3.31	4.307
<b>Noble gases</b>					
Ar	Argon	7440-37-1	40	1.68	0.341

Note: <sup>1</sup>CAS/(NIST) – unique numerical identifier of chemical compounds included in the register Chemical Abstracts Service (<https://www.cas.org>) или NIST number (a unique number given to each spectrum in the NIST archive); <sup>2</sup>MW – nominal mass; <sup>3</sup>RT – retention time; <sup>4</sup>A – normalized area (the area ratio of the individual gas mixture components to the sum of the areas of all the components in the chromatogram).