

**Supplemental data:**

**Binding features of sixty standard chemical compounds**

<b>Number</b>	<b>Chemical compounds</b>	<b>IC<sub>50</sub> (μmol L<sup>-1</sup>)</b>	<b>Ki (μmol L<sup>-1</sup>)</b>	<b>Purity</b>
1	Ethyl benzene* (C8)	—	—	99%
2	Methyl phenylacetate* (C9)	40.00	36.50	≥98%
3	Ethyl phenylacetate (C10)	—	—	≥99%
4	2-Decanone (C10)	69.20	63.15	≥98%
5	1,3-dimethylbenzene (C8)	—	—	98%
6	Hexane (C6)	—	—	≥95%
7	Heptane (C7)	—	—	≥99%
8	4-Ethyl benzaldehyd (C9)	6.07	5.54	≥99%
9	3, 4-Dimethylbenzaldehyde (C9)	8.65	7.89	98%
10	Tridecane (C13)	—	—	≥99.5%
11	α-Ocimene (C10)	—	—	>99. 0%
12	1-Pentanol (C5)	124.00	113.15	≥99%,
13	Cis-11-Hexadecenal※ (C16)	—	—	95%
14	Farnesol Dodecatrienol (C15)	—	—	96%
15	3-methyl-1-butanol (C5)	—	—	≥99%
16	2-Undecanone (C11)	—	—	≥98%
17	Carvenol (C10)	65.60	59.87	≥95%
18	Isoborneol (C10)	67.24	61.35	≥95%
19	Citronellol (C10)	—	—	98%
20	Cis-3-Nonen-1-OL (C9)	—	—	95%
21	Citral (C10)	—	—	≥96%
22	2-Octanol (C8)	—	—	≥99%
23	Anethole (C10)	—	—	99%
24	β-ionone (C13)	—	—	90%
25	α-terpinene (C10)	—	—	≥95.0%
26	Decanal* C10)	—	—	≥98%
27	3-Methyl-1-Butanol (C5)	—	—	≥99%
28	2-Hexanone* (C6)	—	—	98%
29	2-Ethyl-hexanol (C8)	—	—	≥99%
30	Nerolidol (C15)	—	—	≥96%
31	2-Nonanone (C9)	—	—	≥97%
32	2-Undecanol (C11)	65.40	59.67	≥98%
33	Carvacrol (C10)	71.17	64.94	≥98%
34	2-Heptanone (C7)	—	—	≥98%
35	Myrcene* (C10)	—	—	≥98%
36	2-Octanone (C8)	—	—	98%
37	Geraniol (C10)	—	—	98%
38	3-carene (C10)	—	—	90%

39	Tetradecane (C14)	—	—	99.5%
40	2-Hexanol (C6)	—	—	≥98%
41	Z-hex-3-en-1-ol (C6)	—	—	≥98%
42	(R)-(±)-Limonene (C10)	—	—	97%
43	α-pinen* (C10)	—	—	99%
44	β-pinen* (C10)	—	—	99%
45	Acetophenone (C8)	—	—	≥98%
46	Indole* (C8)	—	—	≥99%
47	Farnesen (C15)	—	—	≥99%
48	Cis-3-Hexenyl benzoate (C13)	—	—	≥97%
49	Ethane (C2)	—	—	≥99%
50	Benzaldehyde* (C7)	—	—	≥99%
51	Ethyl heptanoate (C9)	—	—	≥98%
52	Pentanal (C5)	—	—	97%
53	Octanal* (C8)	—	—	99%
54	Nonanal (9)	—	—	≥95%
55	Z-3-hexenyl acetate (C8)	—	—	≥98%
56	Nonyl acetate (C11)	—	—	≥99%
57	β-Caryophyllene* (C15)	—	—	≥97%
58	Humulene (C15)	63.30	57.75	≥98%
59	Trans-2-Hexenyl butyrate (C10)	—	—	≥99%
60	1-Hexyl butyrate (C10)	—	—	≥95%

\* Standard chemical compounds present in cotton volatiles;