Supporting information available

Table S1 Differential standard free energies ($\Delta\Delta G°$) enthalpies ($\Delta\Delta H°$) and entropies ($T\,\Delta\Delta S°$) for the complexation of modified β-CDs **2**-**7** with homologous cycloalkanols, (+/−)-camphor and (+/−)-borneol in a phosphate buffer solution (pH = 7.20) at 298.15 K.

host	guest	$\Delta\Delta G^o$/kJ mol^{-1}	$\Delta\Delta H°$/kJ mol^{-1}	$T\,\Delta\Delta S°$/kJmol^{-1}
2	cyclopentanol	-2.10	2.37	4.47
	cyclohexanol	-0.42	0.00	0.41
	cycloheptanol	-1.02	1.21	2.22
	cyclooctanol	-1.06	2.16	3.22
	(+)-camphor	-1.25	1.18	2.43
	(−)-camphor	-0.37	9.60	9.98
	(+)-borneol	-1.58	1.57	3.09
	(−)-borneol	-1.22	4.20	5.44
3	cyclopentanol	-3.24	3.75	6.99
	cyclohexanol	-0.80	4.07	4.87
	cycloheptanol	-0.96	4.09	5.03
	cyclooctanol	-1.05	4.96	6.01
	(+)-camphor	-0.99	0.64	1.63
	(−)-camphor	-1.39	5.87	7.28
	(+)-borneol	-1.96	0.62	2.58
	(−)-borneol	-2.07	0.58	2.67
4	cyclopentanol	-3.66	2.86	6.52
	cyclohexanol	-1.79	2.64	4.42
	cycloheptanol	-1.89	1.69	3.58
	cyclooctanol	-2.03	2.59	4.63
	(+)-camphor	-3.49	3.38	6.87
	(−)-camphor	-1.87	8.41	10.29
	(+)-borneol	-4.32	3.95	8.28

	(−)-borneol	-2.25	0.16	2.43
5	cyclopentanol	-2.15	1.90	4.05
	cyclohexanol	-2.09	2.64	4.72
	cycloheptanol	-2.88	2.32	5.19
	cyclooctanol	-3.21	2.56	5.77
	(+)-camphor	-2.56	-0.03	2.53
	(−)-camphor	-2.07	11.47	13.55
	(+)-borneol	-3.80	-3.11	0.70
	(−)-borneol	-3.83	1.07	4.92
6	cyclopentanol	-3.24	1.97	5.21
	cyclohexanol	-1.42	0.26	1.67
	cycloheptanol	-3.02	1.05	4.06
	cyclooctanol	-3.18	2.15	5.33
	(+)-camphor	-4.44	2.88	7.32
	(−)-camphor	-2.25	9.69	11.95
	(+)-borneol	-4.88	1.94	6.81
	(−)-borneol	-3.75	0.63	4.39
7	(+)-camphor	-2.01	0.32	2.33
	(−)-camphor	-2.66	7.93	10.6
	(+)-borneol	-3.71	-3.39	0.32
	(−)-borneol	-3.82	0.73	4.57