

Electronic Supplementary Information (ESI)

A facile synthesis of novel cyclodextrin derivatives incorporating one β -(1,4)-glucosidic bond and their unique inclusion ability

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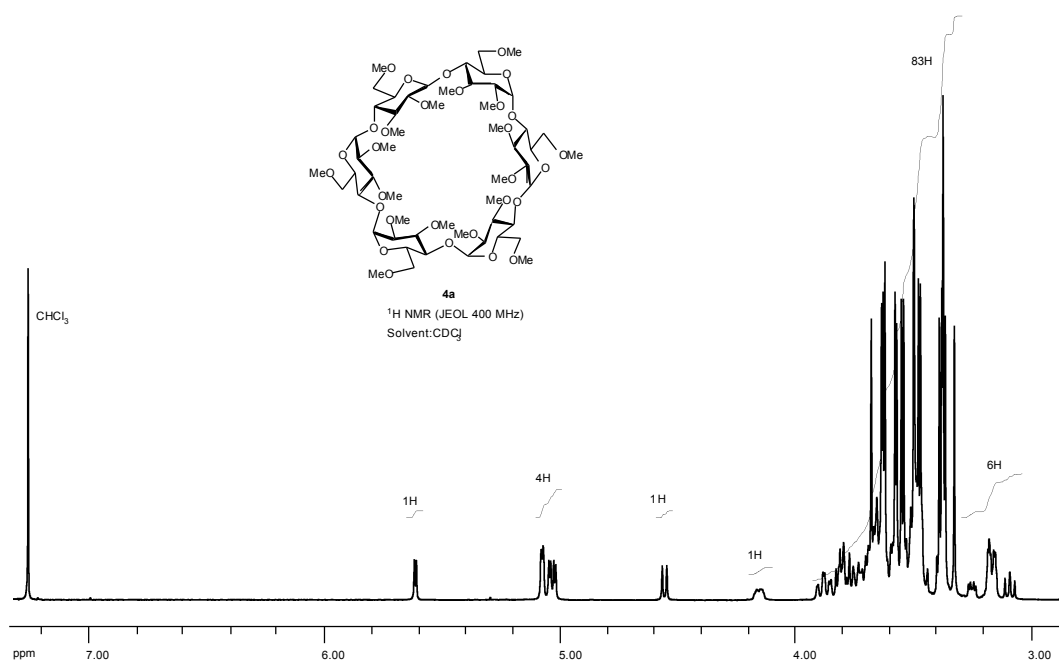


Fig. 1 ¹H NMR spectrum of compound 4a.

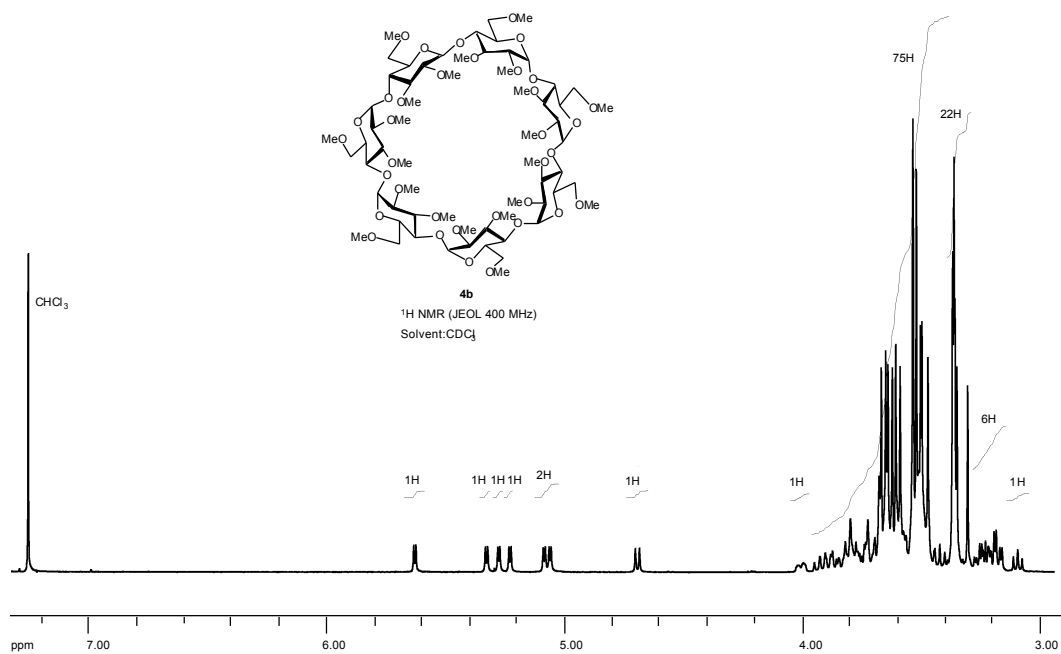
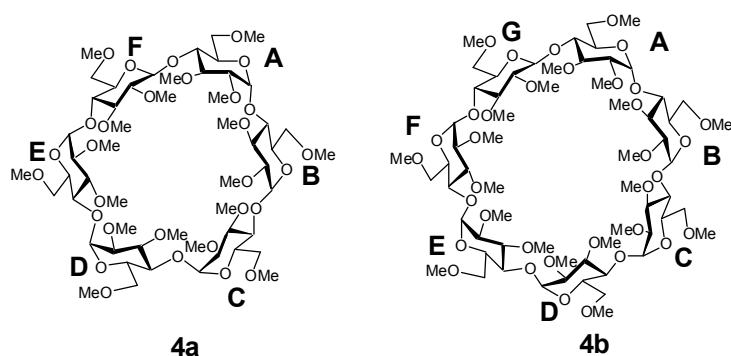


Fig. 2 ¹H NMR spectrum of compound **4b**.

Table 2. NMR chemical shifts of the carbohydrate protons of **4a** and **4b** (400 MHz, CDCl₃, 25 °C).



residue		δ (ppm)						
		H-1	H-2	H-3	H-4	H-5	H-6a	H-6b
4a	A	5.07	3.24	3.79	3.82	4.14	3.64	3.81
	B	5.08	3.16	3.45	3.74	3.64	3.62	3.73
	C	5.02	3.16	3.49	3.53	3.66	3.56	3.78
	D	5.04	3.15	3.48	3.54	3.69	3.59	3.85
	E	5.62	3.15	3.51	3.64	3.68	3.59	3.88
	F	4.56	3.08	3.45	3.78	3.51	3.46	3.69
4b	A	5.28	3.26	3.80	4.00	3.62	3.52	3.79
	B	5.33	3.23	3.52	3.70	3.81	3.85	3.58
	C	5.06	3.20	3.57	3.67	3.78	3.49	3.66
	D	5.23	3.18	3.51	3.61	3.89	3.58	3.75
	E	5.09	3.17	3.46	3.59	3.66	3.65	3.88
	F	5.63	3.22	3.48	3.68	3.72	3.63	3.79
	G	4.69	3.09	3.42	3.93	3.50	3.48	3.69

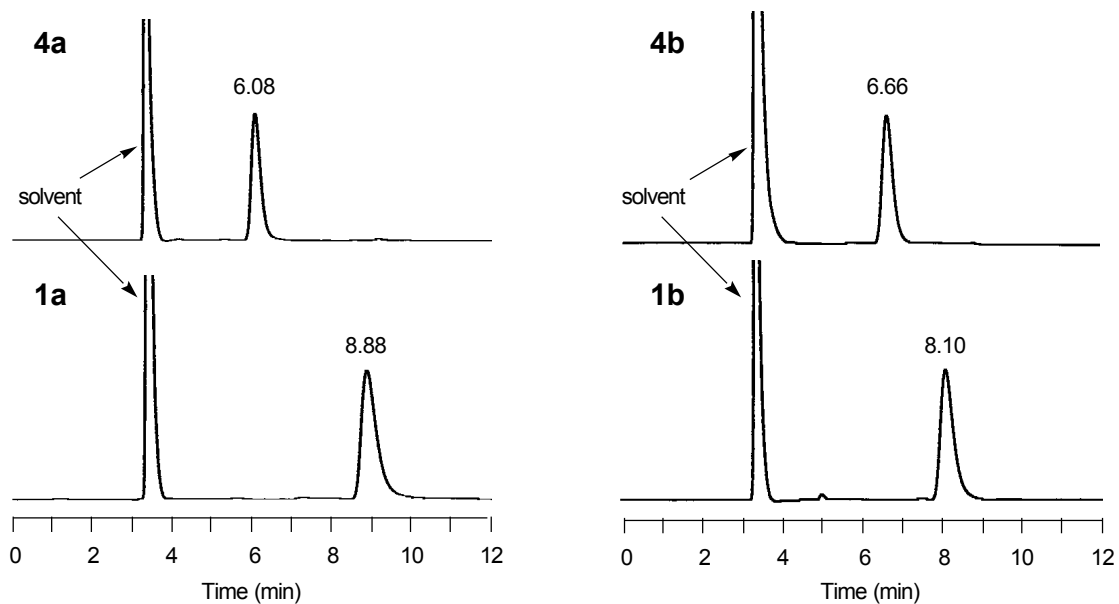


Fig. 3 HPLC chromatograms of **4a**, **4b**, permethylated α -CD (**1a**) and permethylated β -CD (**1b**). Column: Wakopak Navi C30-5 (4.6 mm x 250 mm); mobile phase: CH_3CN ; flow rate: 1.0 mL/min; temperature: 25 °C; detector: RI.