

Supporting Information. Distributions of D_xA_y species for chito-oligomers from DP 3 to DP 7 as a function of the average DA, and MALDI-TOF mass spectrum assignments of the series of chito-oligomers.

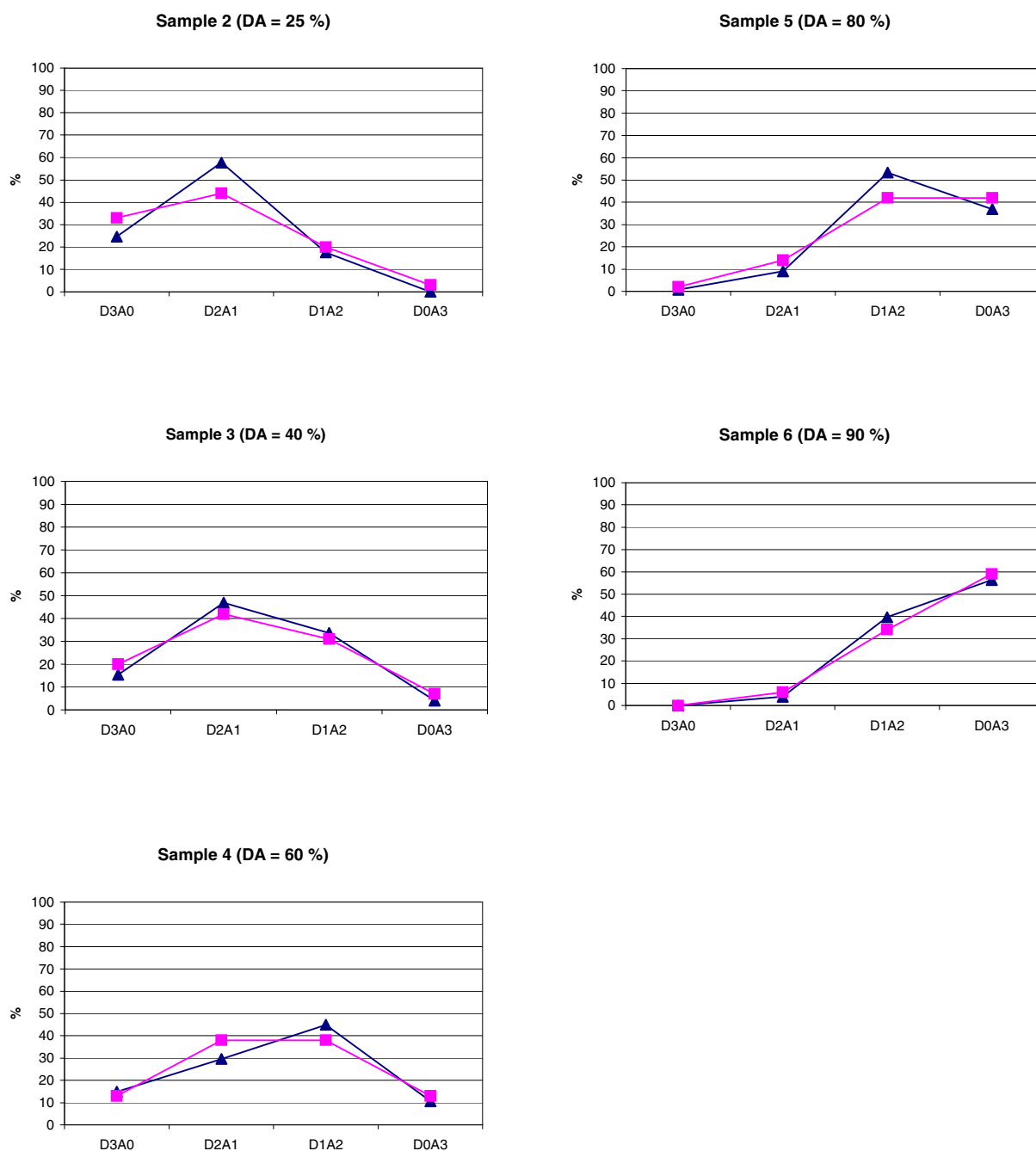


Figure 1. Distributions of D_xA_y species for chito-oligomers of DP 3 as a function of the average DA (-▲- experimental distribution from MALDI-TOF MS analysis, -■- modelling distribution, D, for GlcN and A, for GlcNAc).

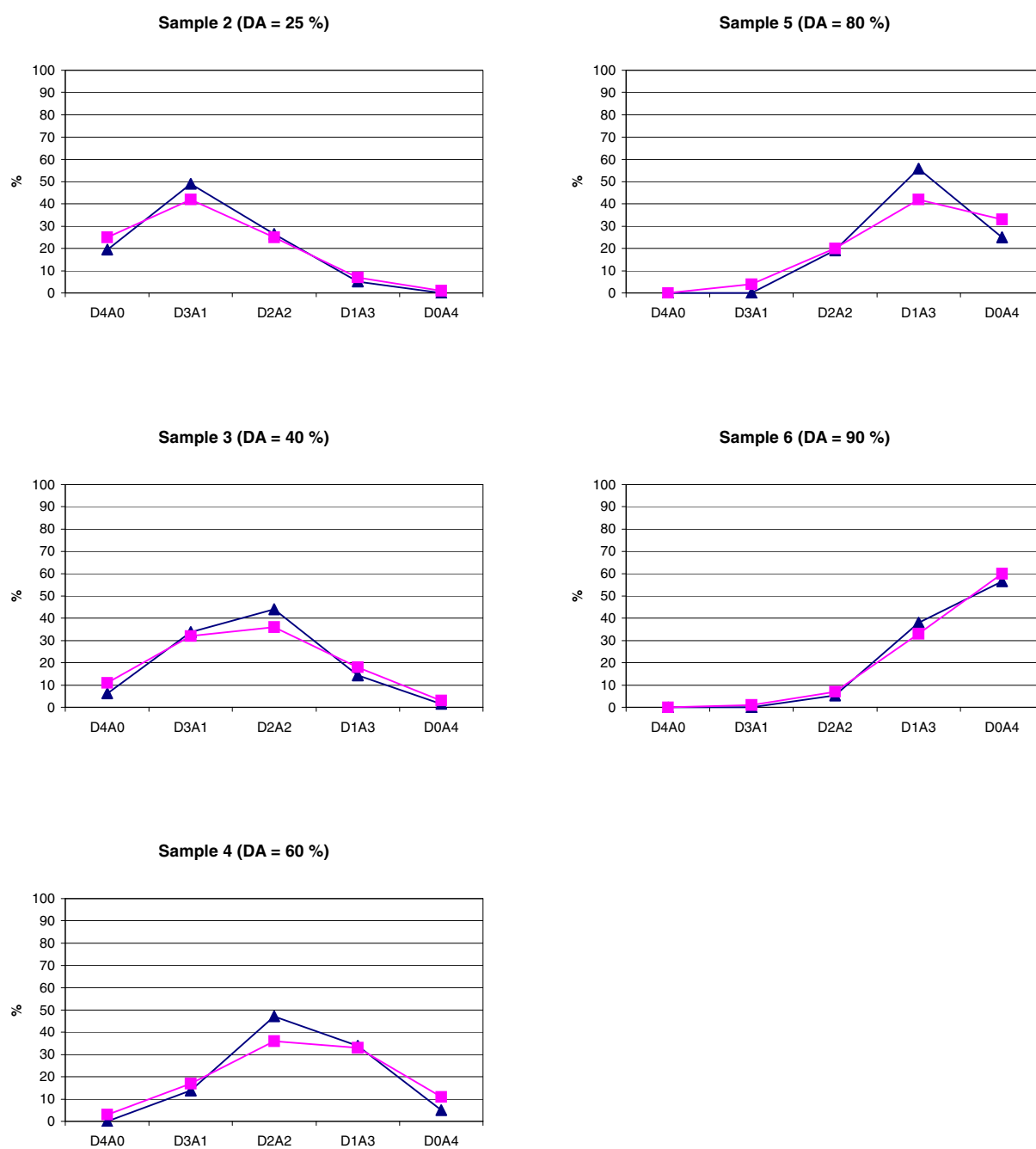


Figure 2. Distributions of D_xA_y species for chito-oligomers of DP 4 as a function of the average DA (-▲- experimental distribution from MALDI-TOF MS analysis, -■- modelling distribution, D, for GlcN and A, for GlcNAc).

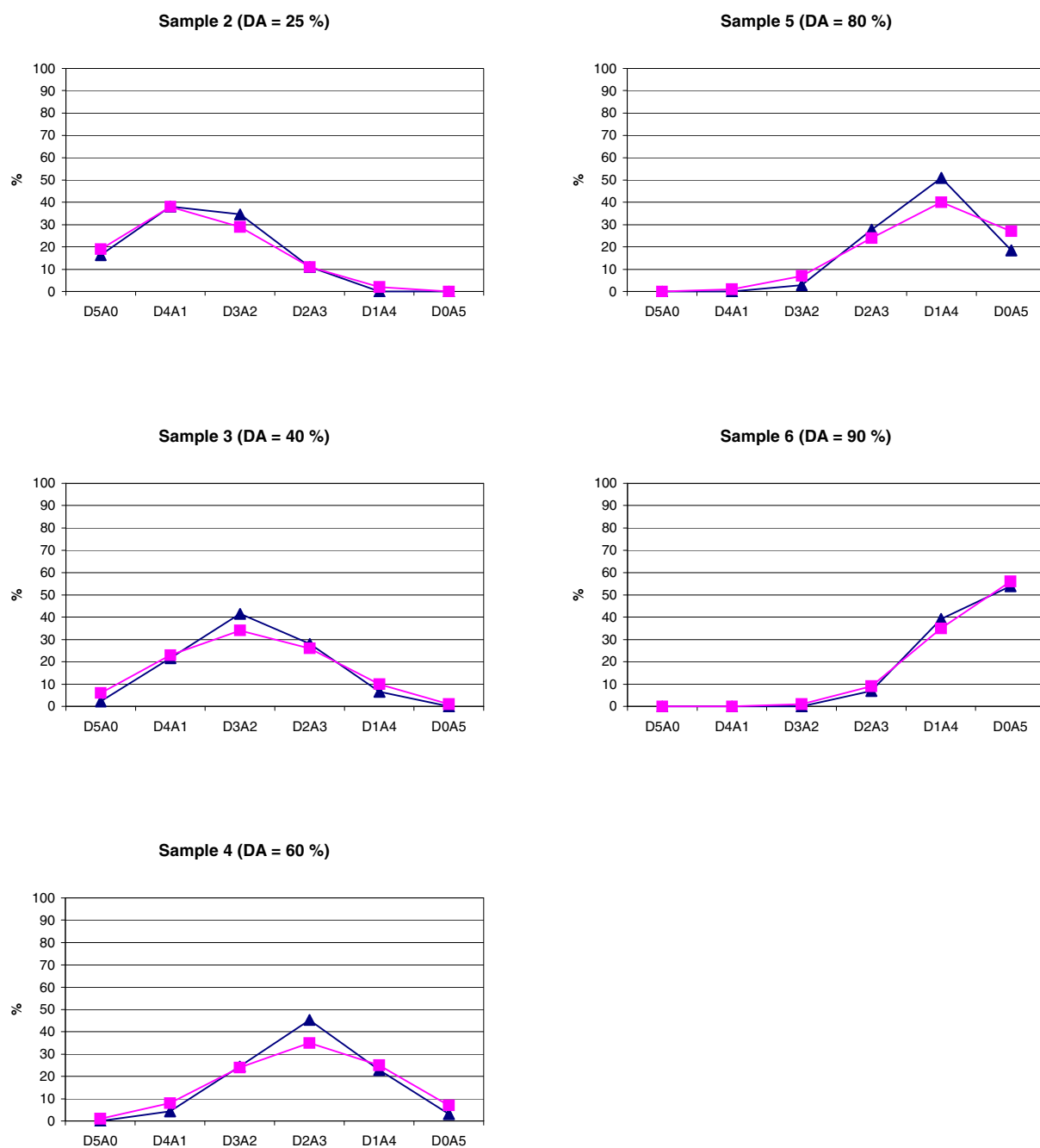


Figure 3. Distributions of D_xA_y species for chito-oligomers of DP 5 as a function of the average DA (-▲- experimental distribution from MALDI-TOF MS analysis, -■- modelling distribution, D, for GlcN and A, for GlcNAc).

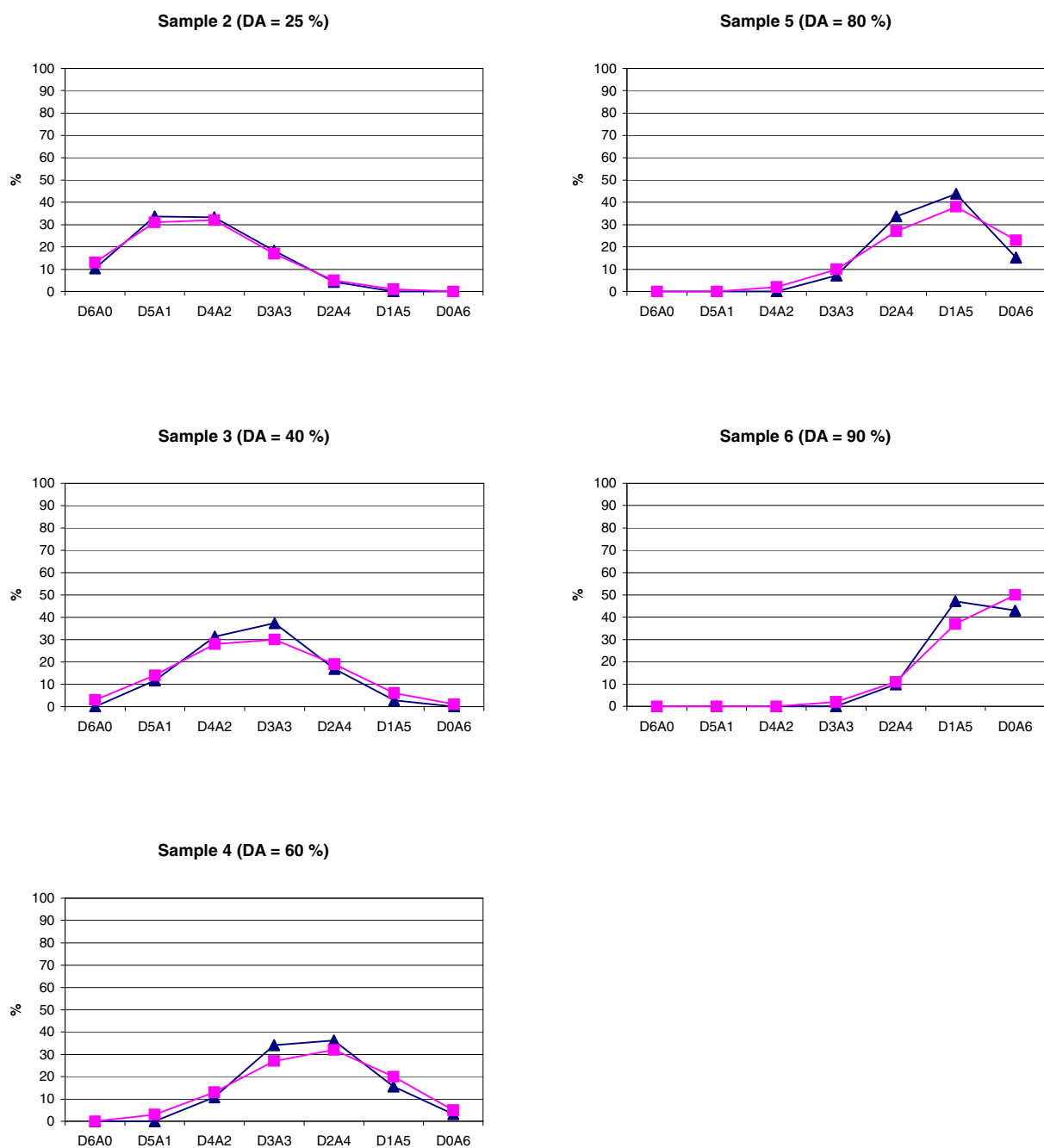


Figure 4. Distributions of D_xA_y species for chito-oligomers of DP 6 as a function of the average DA (-▲- experimental distribution from MALDI-TOF MS analysis, -■- modelling distribution, D, for GlcN and A, for GlcNAc).

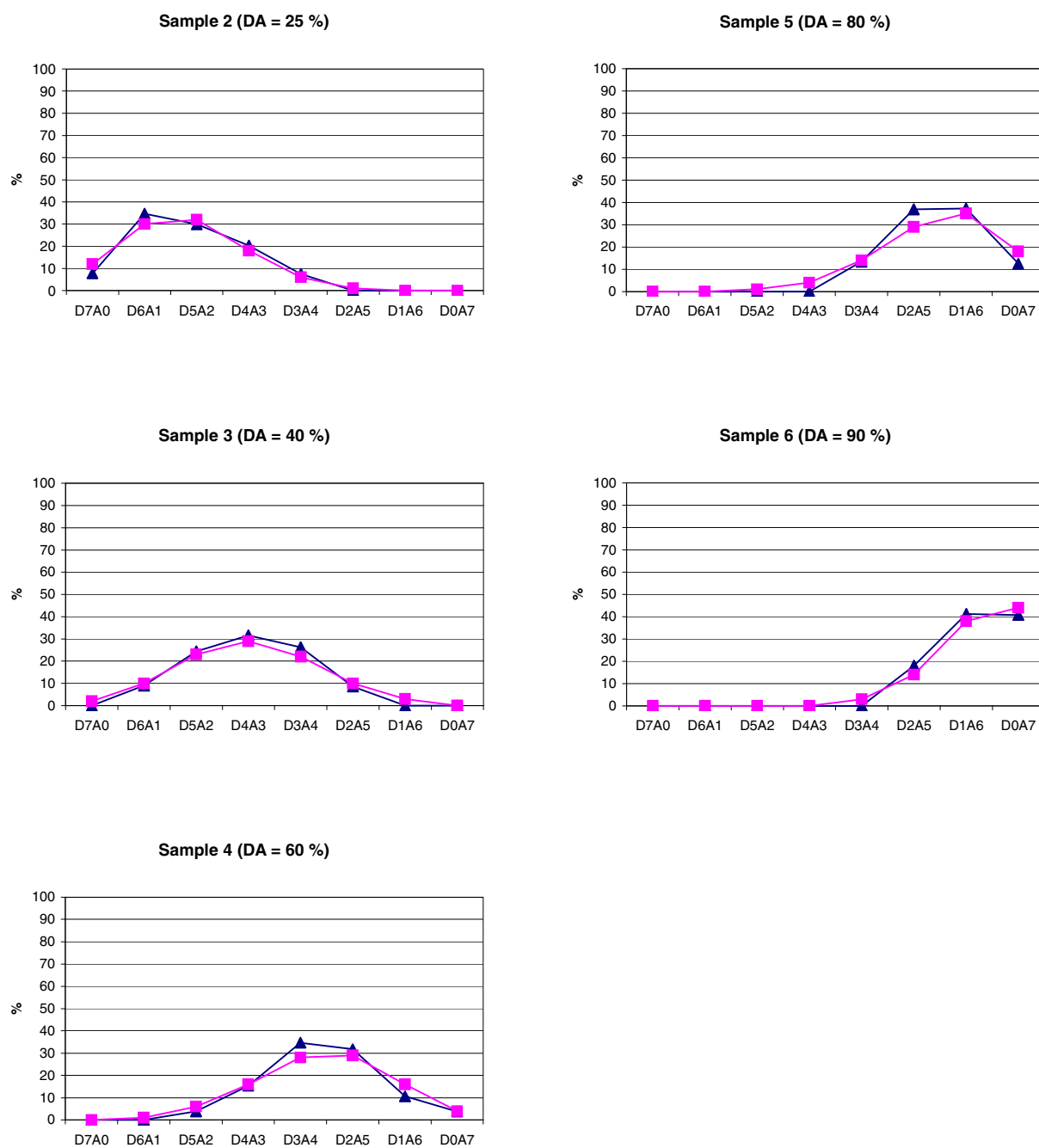


Figure 5. Distributions of D_xA_y species for chito-oligomers of DP 7 as a function of the average DA (-▲- experimental distribution from MALDI-TOF MS analysis, -■- modelling distribution, D, for GlcN and A, for GlcNAc).

Table 1. Detailed MALDI-TOF mass spectrometry analyses of the series of chito-oligomers.

DP	Species ^a	DA _{th} (%) ^b	Peak assignment	theoretical mono-isotopic mass (m/z)	MALDI-TOF MS peak intensity ^c					
					Sample	2	3	4	5	6
3	D ₃ A ₀	0	[D ₃ A ₀ + H ₂ O + Na] ⁺	524.2		1474	1562	1071	104	0
	D ₂ A ₁	33	[D ₂ A ₁ + H ₂ O + Na] ⁺	566.2		3453	4762	2131	1275	655
	D ₁ A ₂	67	[D ₁ A ₂ + H ₂ O + Na] ⁺	608.2		1049	3406	3236	7552	6535
	D ₀ A ₃	100	[D ₀ A ₃ + H ₂ O + Na] ⁺	650.2		0	415	765	5232	9280
4	D ₄ A ₀	0	[D ₄ A ₀ + H ₂ O + Na] ⁺	685.3		1714	970	0	0	0
	D ₃ A ₁	25	[D ₃ A ₁ + H ₂ O + Na] ⁺	727.3		4317	5191	1504	0	0
	D ₂ A ₂	50	[D ₂ A ₂ + H ₂ O + Na] ⁺	769.3		2332	6753	5123	3075	991
	D ₁ A ₃	75	[D ₁ A ₃ + H ₂ O + Na] ⁺	811.3		452	2206	3693	8937	7035
	D ₀ A ₄	100	[D ₀ A ₄ + H ₂ O + Na] ⁺	853.3		0	242	550	3996	10463
5	D ₅ A ₀	0	[D ₅ A ₀ + H ₂ O + Na] ⁺	846.3		1496	425	0	0	0
	D ₄ A ₁	20	[D ₄ A ₁ + H ₂ O + Na] ⁺	888.3		3491	4149	620	0	0
	D ₃ A ₂	40	[D ₃ A ₂ + H ₂ O + Na] ⁺	930.4		3172	7947	3497	392	0
	D ₂ A ₃	60	[D ₂ A ₃ + H ₂ O + Na] ⁺	972.4		1004	5357	6486	3841	1262
	D ₁ A ₄	80	[D ₁ A ₄ + H ₂ O + Na] ⁺	1014.4		0	1245	3273	7028	7124
	D ₀ A ₅	100	[D ₀ A ₅ + H ₂ O + Na] ⁺	1056.4		0	0	454	2551	9781
6	D ₆ A ₀	0	[D ₆ A ₀ + H ₂ O + Na] ⁺	1007.4		729	0	0	0	0
	D ₅ A ₁	17	[D ₅ A ₁ + H ₂ O + Na] ⁺	1049.4		2371	1757	0	0	0
	D ₄ A ₂	33	[D ₄ A ₂ + H ₂ O + Na] ⁺	1091.4		2343	4716	1416	0	0
	D ₃ A ₃	50	[D ₃ A ₃ + H ₂ O + Na] ⁺	1133.4		1293	5621	4470	751	0
	D ₂ A ₄	67	[D ₂ A ₄ + H ₂ O + Na] ⁺	1175.4		305	2547	4736	3513	1209
	D ₁ A ₅	83	[D ₁ A ₅ + H ₂ O + Na] ⁺	1217.5		0	420	2040	4569	5768
	D ₀ A ₆	100	[D ₀ A ₆ + H ₂ O + Na] ⁺	1259.5		0	0	417	1589	5256
7	D ₇ A ₀	0	[D ₇ A ₀ + H ₂ O + Na] ⁺	1168.5		276	0	0	0	0
	D ₆ A ₁	14	[D ₆ A ₁ + H ₂ O + Na] ⁺	1210.5		1234	710	0	0	0
	D ₅ A ₂	29	[D ₅ A ₂ + H ₂ O + Na] ⁺	1252.5		1065	1912	267	0	0
	D ₄ A ₃	43	[D ₄ A ₃ + H ₂ O + Na] ⁺	1294.5		722	2470	1057	0	0
	D ₃ A ₄	57	[D ₃ A ₄ + H ₂ O + Na] ⁺	1336.5		266	2059	2385	667	0
	D ₂ A ₅	71	[D ₂ A ₅ + H ₂ O + Na] ⁺	1378.5		0	672	2184	1828	973
	D ₁ A ₆	86	[D ₁ A ₆ + H ₂ O + Na] ⁺	1420.5		0	0	727	1848	2225
	D ₀ A ₇	100	[D ₀ A ₇ + H ₂ O + Na] ⁺	1462.6		0	0	260	619	2202

^a D for GlcN, A for GlcNAc, ^b for each D_xA_y oligomer, $DA_{th}(\%) = \frac{y}{x+y} \times 100$; ^c intensity value in arbitrary unit.