Supplementary Material (ESI) for New Journal of Chemistry

A thermodynamic study of ferrocene modified hairpin oligonucleotides upon duplex formation: Applications to the electrochemical detection of DNA

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Supplementary Information

Fig. S1 MALDI TOF mass spectrum of hairpin B, achieved on an Applied Biosystems Voyager DE-PRO (Foster city, USA), using 2′,4′,6′-Trihydroxyacetophenone monohydrate (THAP) as matrix (*m/z*= 11339.2 g mol^{-1}: [M+]; *m/z*=5675.0 g mol^{-1}: [M+]/2).

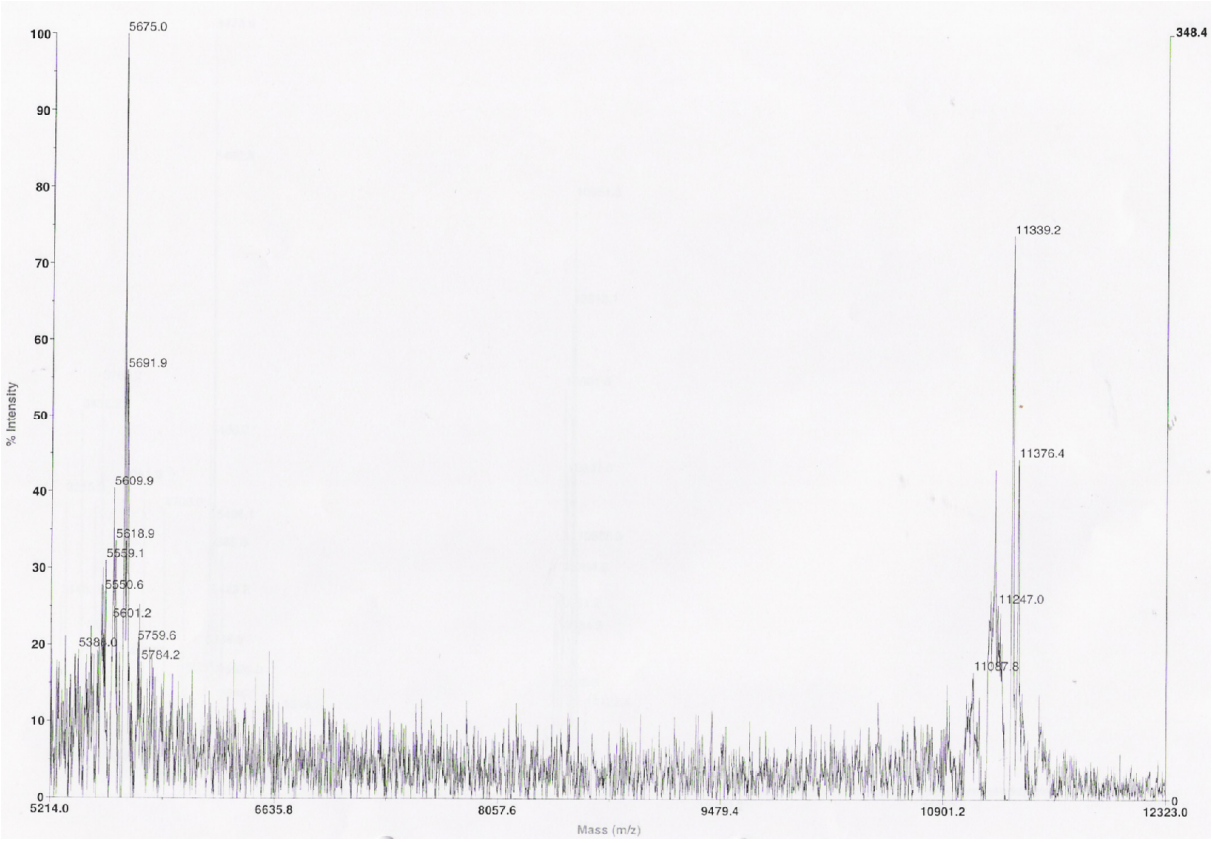

Fig. S2 MALDI TOF mass spectrum of hairpin F, achieved on an Applied Biosystems Voyager DE-PRO (Foster city, USA), using 2′,4′,6′-Trihydroxyacetophenone monohydrate (THAP) as matrix (*m/z*= 11634.9 g mol^{-1}: [M+]; *m/z*=5821.9 g mol^{-1}: [M+]/2).

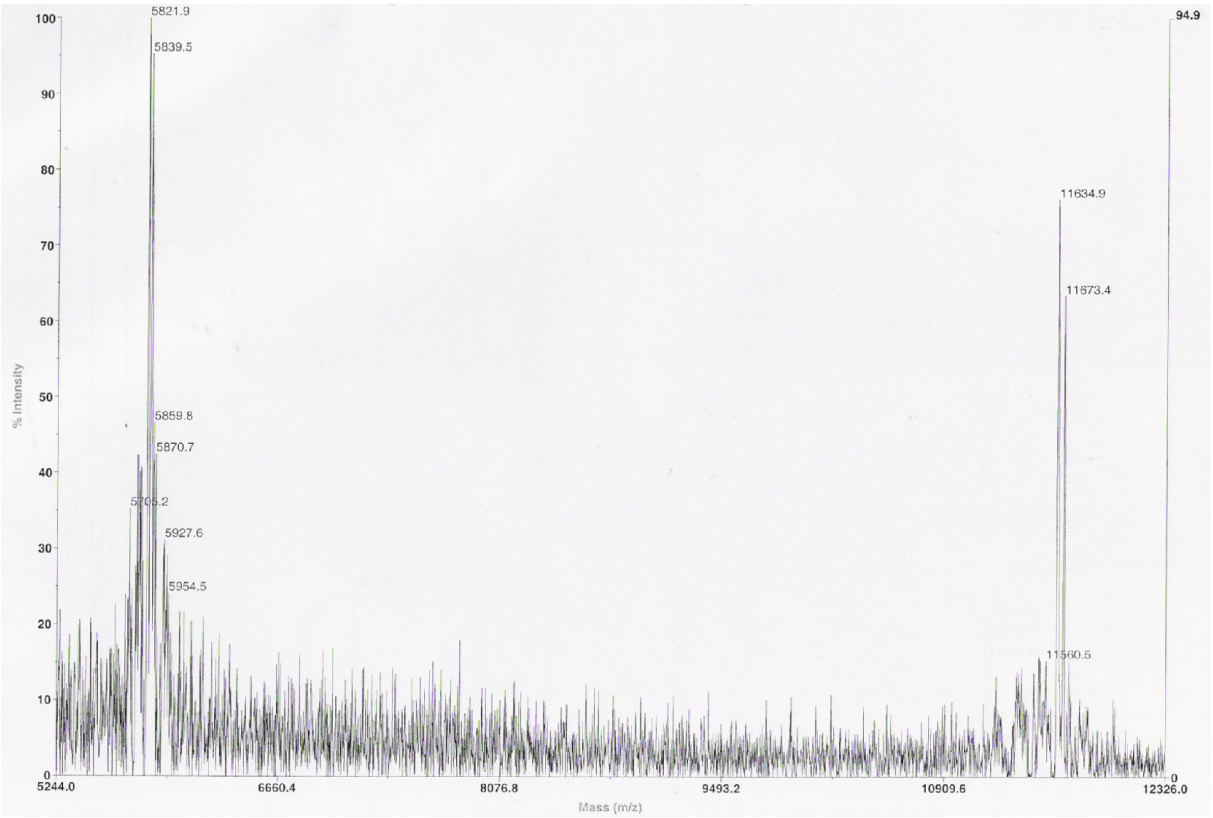

Table S1 MALDI TOF mass analyses (*m/z* in g mol^{-1}) of the Fc-modified hairpins A-F.

Hairpin	A	B	C	D	E	F
m/z calculated	10604.6	11333.0	12061.3	12789.6	10908.8	11637.1
m/z found	10609.6	11339.2	12059.1	12786.1	10913.1	11634.9

Fig. S3 HPLC analyses of hairpins B (solid line) and F (dashed line) after purification. Analyses were performed on a X-terra MS C18 2.5µm column at 60°C with a gradient of acetonitrile (from 5% to 40%) in 0.05 M TEAAc, pH = 7, in 55 min.

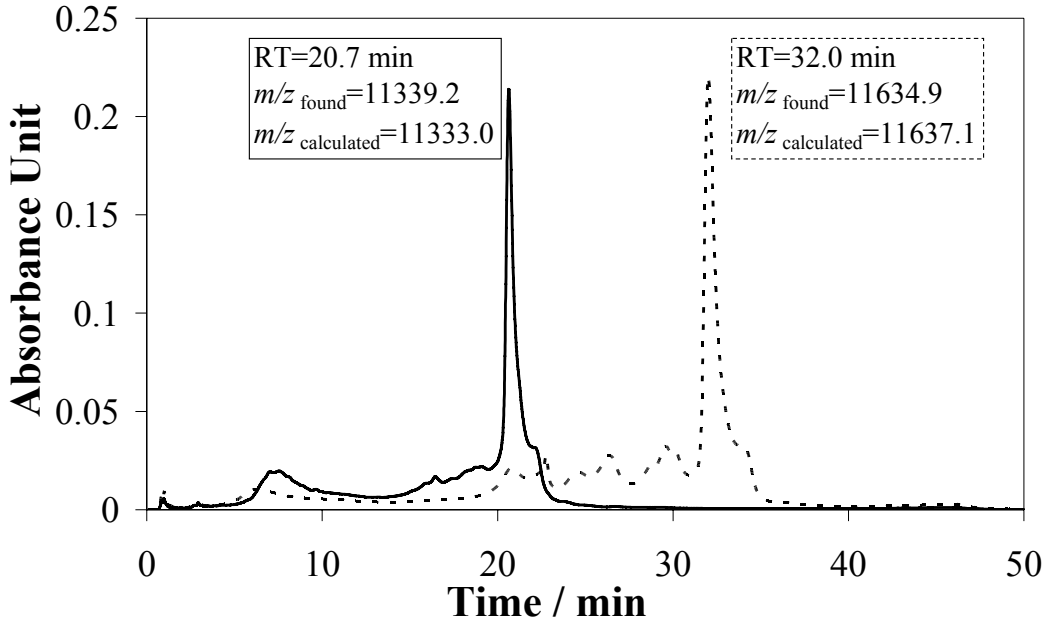

Table S2 Retention times (RT) on the HPLC chromatograms of the Fc-modified hairpins A to F.

Hairpin	A	B	C	D	E	F
RT / min	9.3	20.7	31.6	46.1	16.1	32.0