Supporting Information for

Fluorescence Probing of Metal-Ion-Mediated Hybridization of Oligonucleotides

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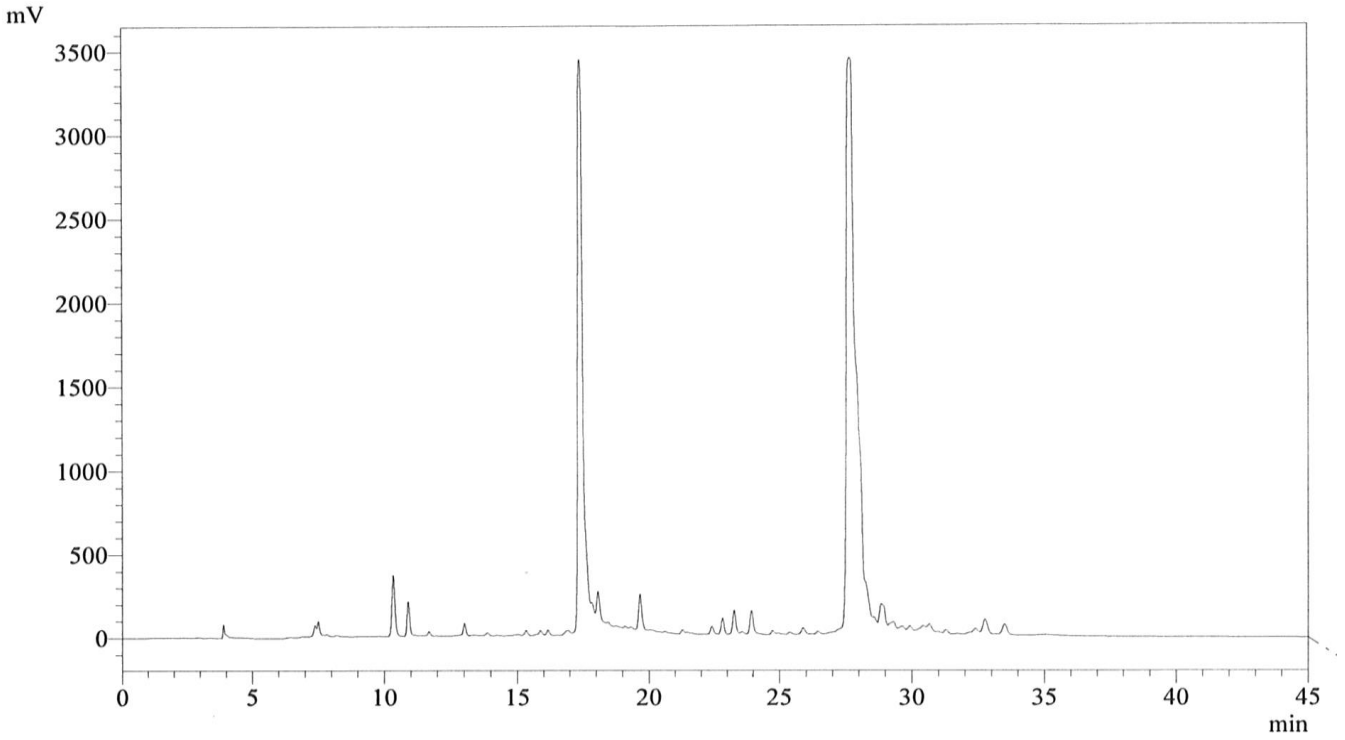

Figure S1. HPLC trace of crude oligonucleotide **ON4a**

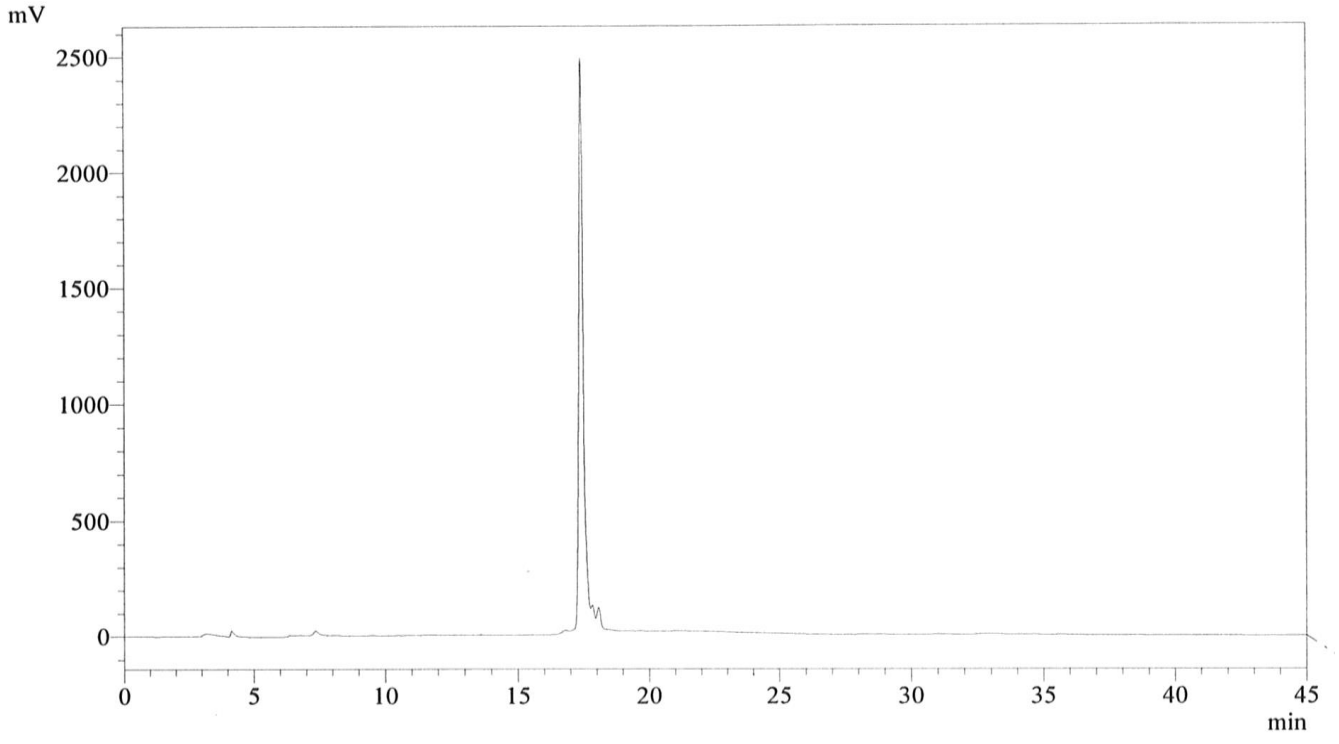

Figure S2. HPLC trace of purified oligonucleotide **ON4a**

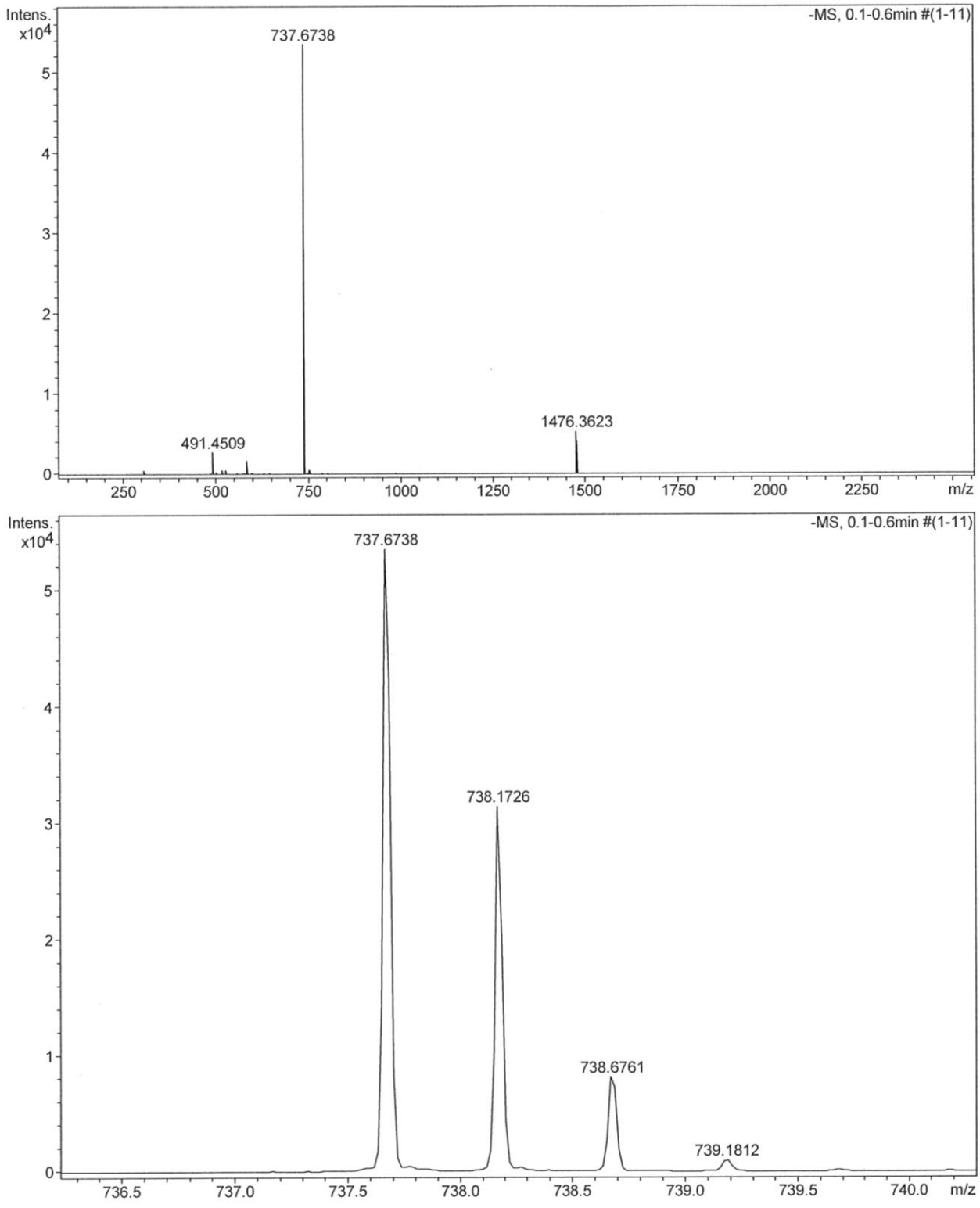

Figure S3. ESI mass spectrum of purified oligonucleotide **ON4a**

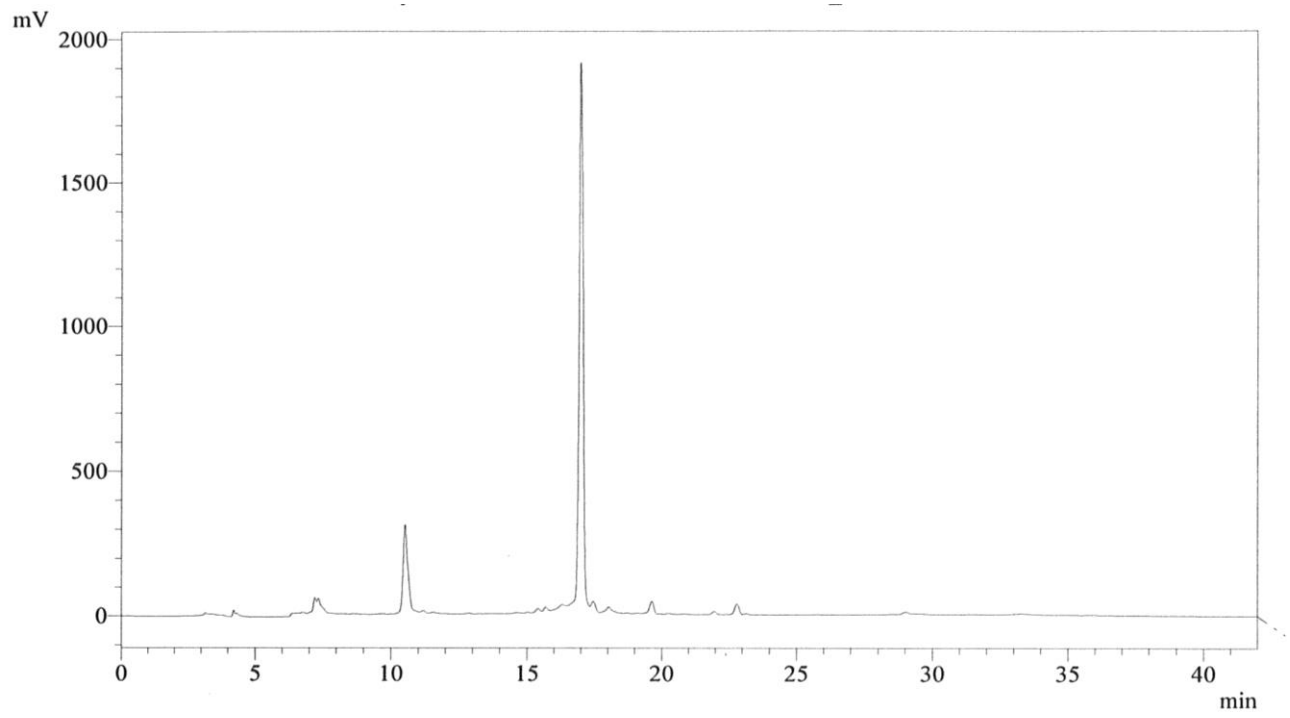

Figure S4. HPLC trace of crude oligonucleotide **ON4b**

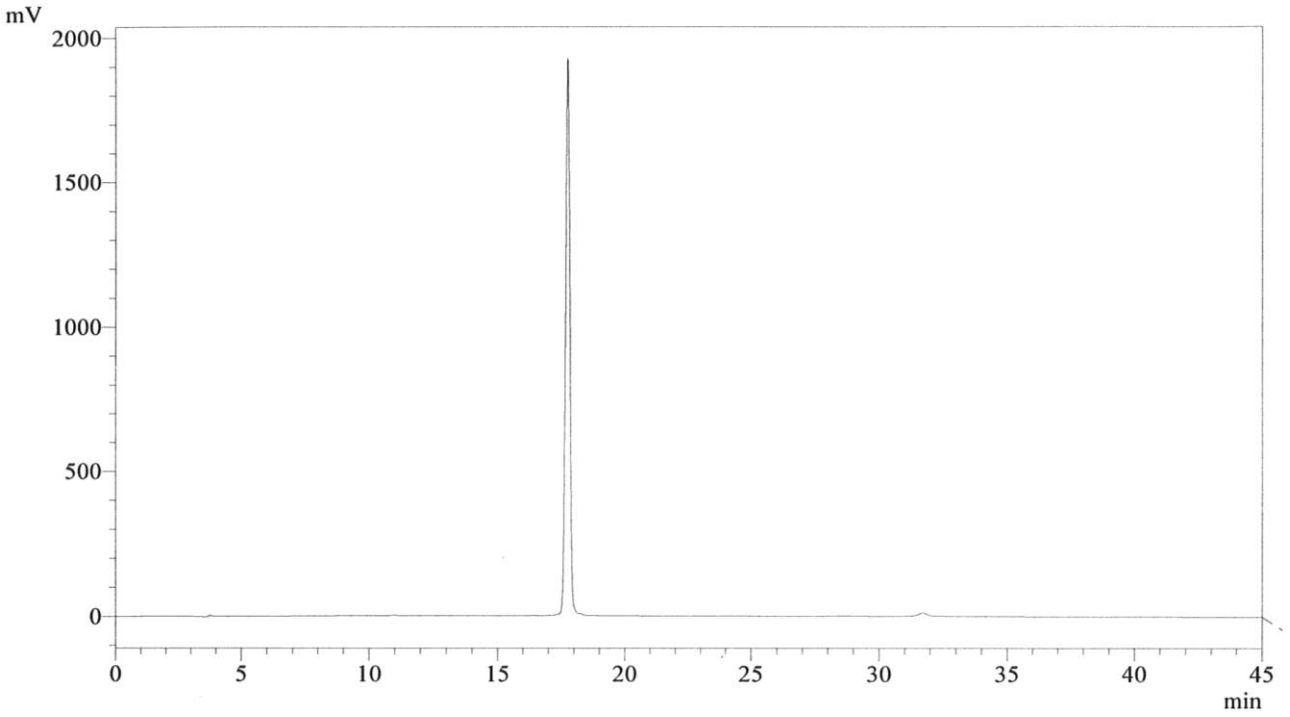

Figure S5. HPLC trace of purified oligonucleotide **ON4b**

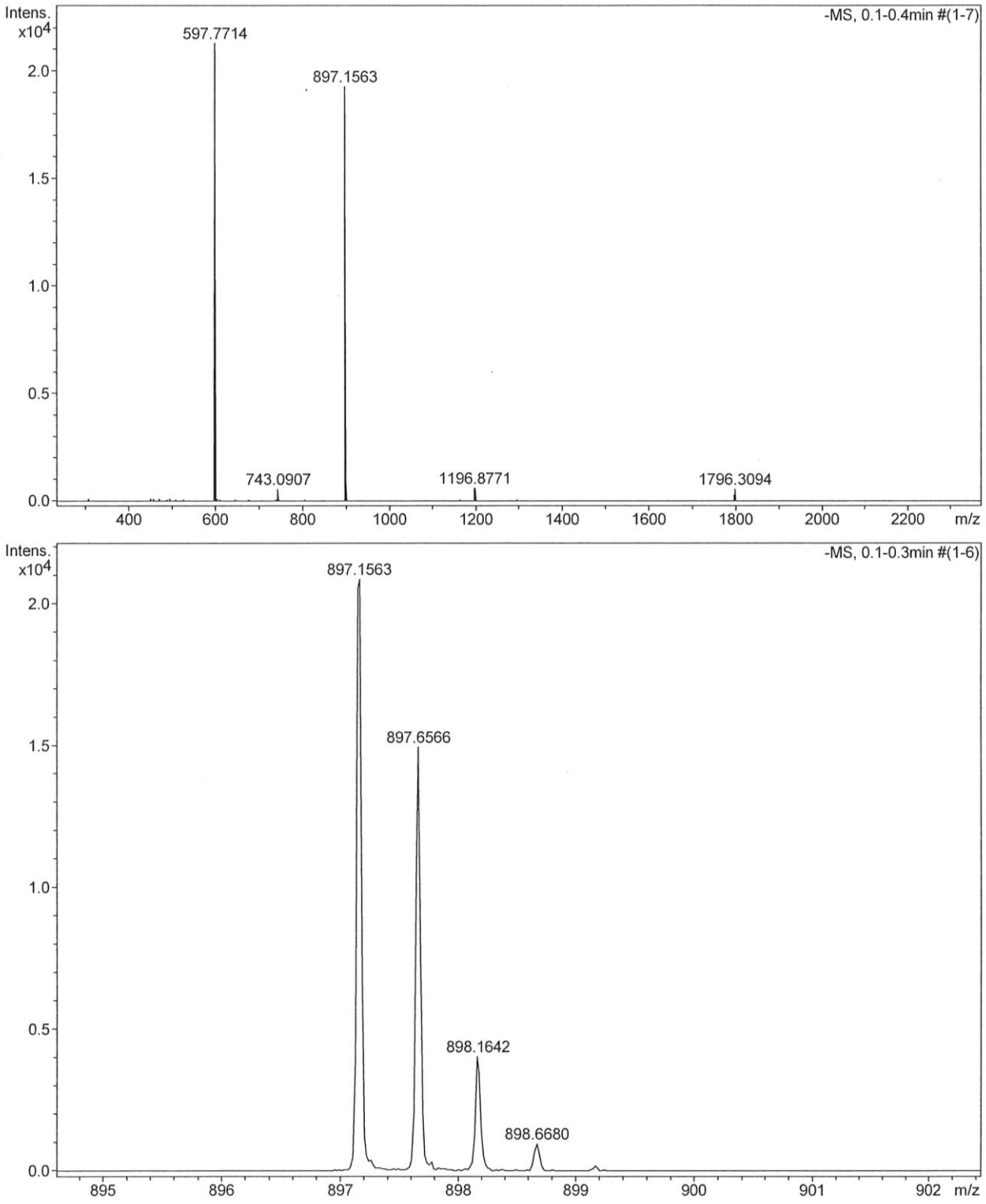

Figure S6. ESI mass spectrum of purified oligonucleotide **ON4b**

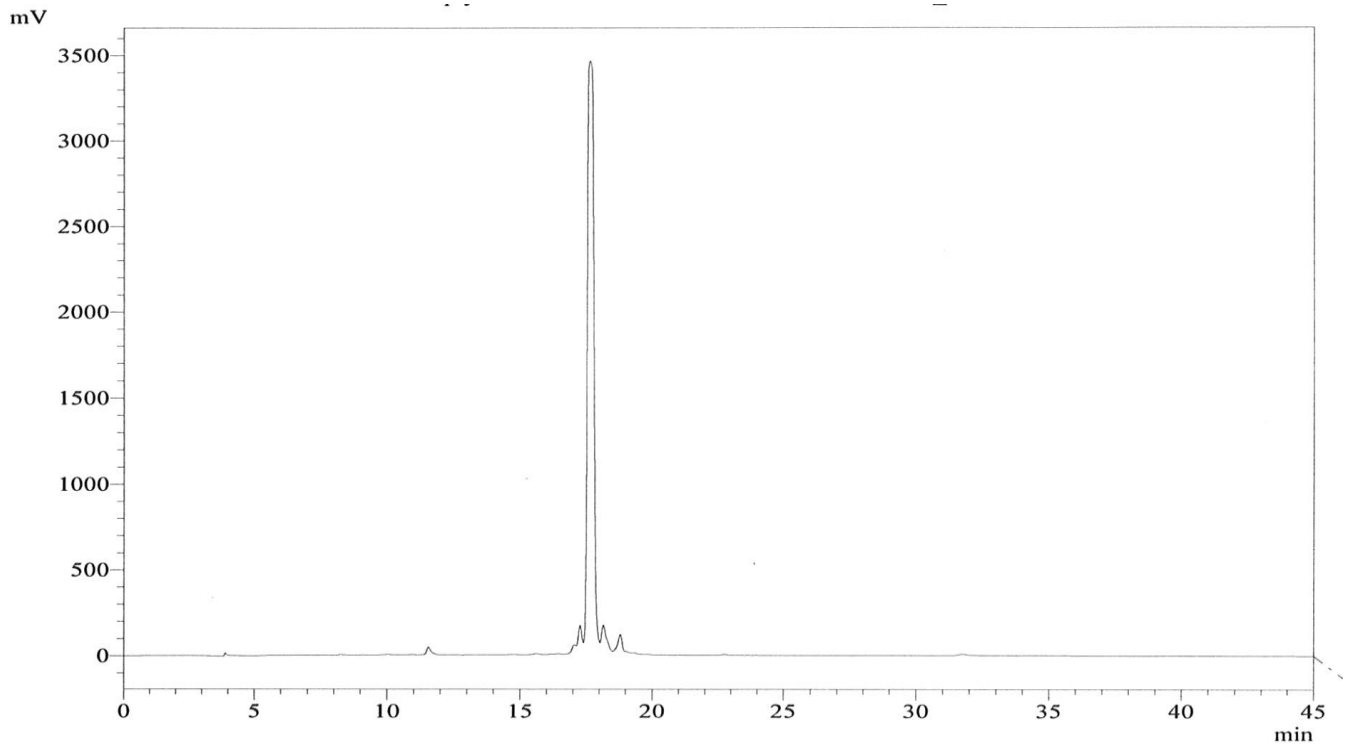

Figure S7. HPLC trace of crude oligonucleotide **ON4c**

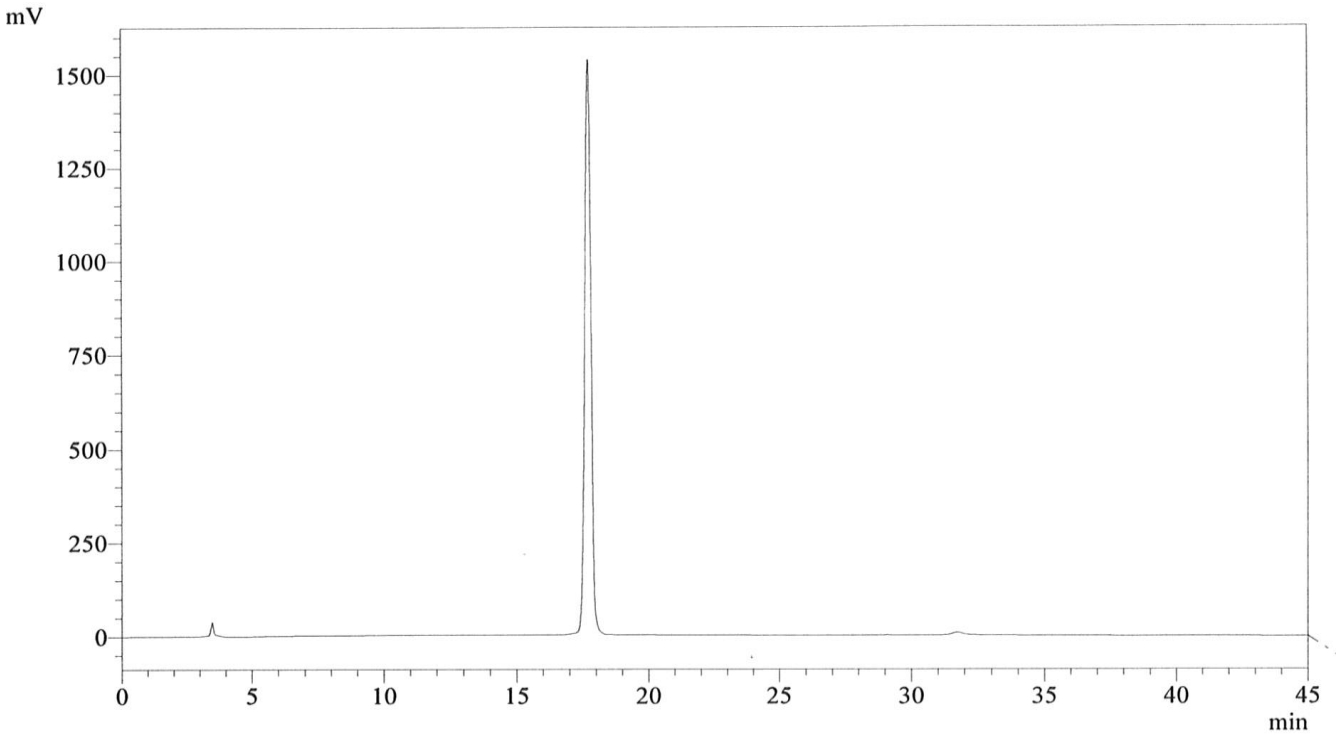

Figure S8. HPLC trace of purified oligonucleotide **ON4c**

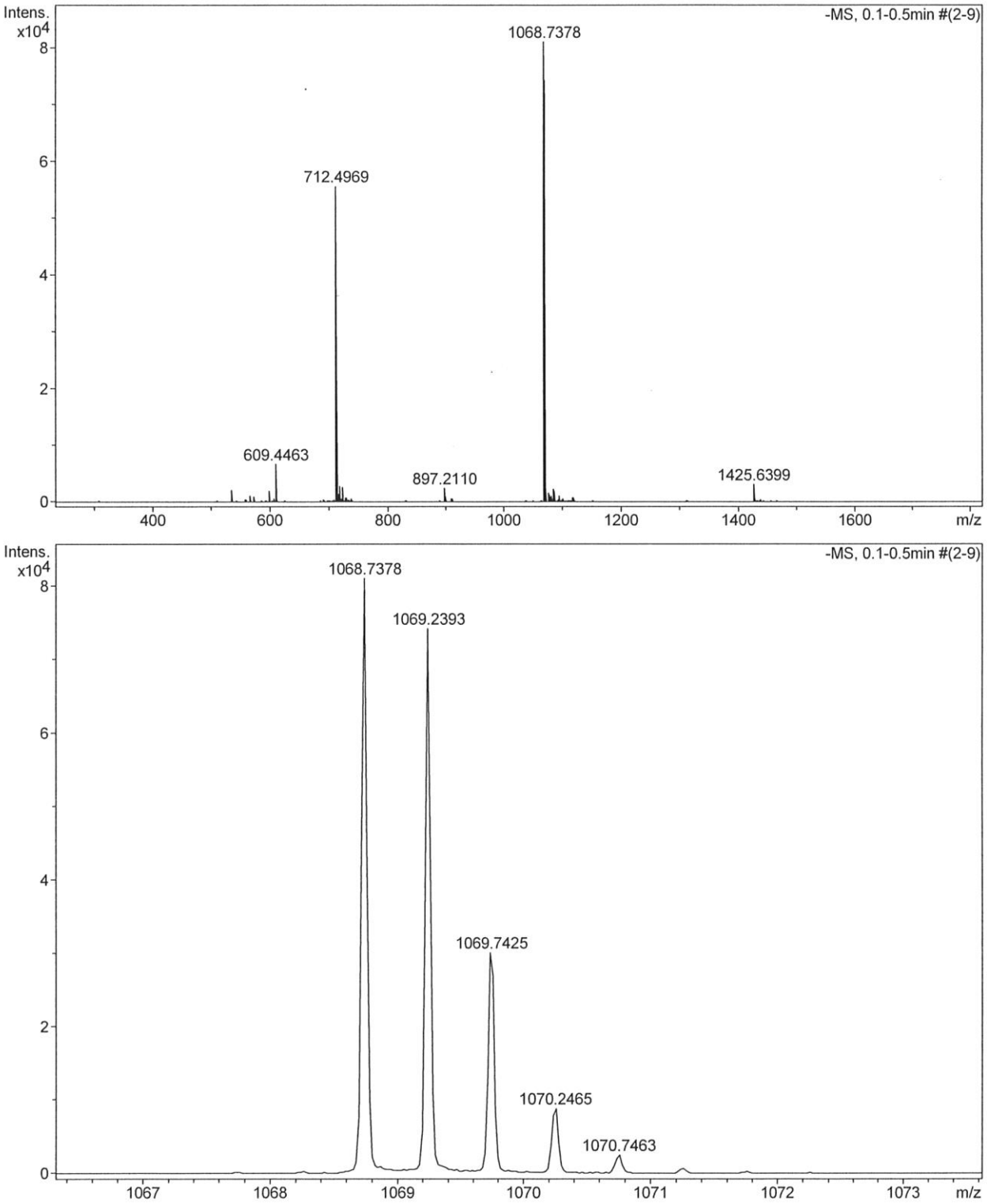

Figure S9. ESI mass spectrum of purified oligonucleotide **ON4c**

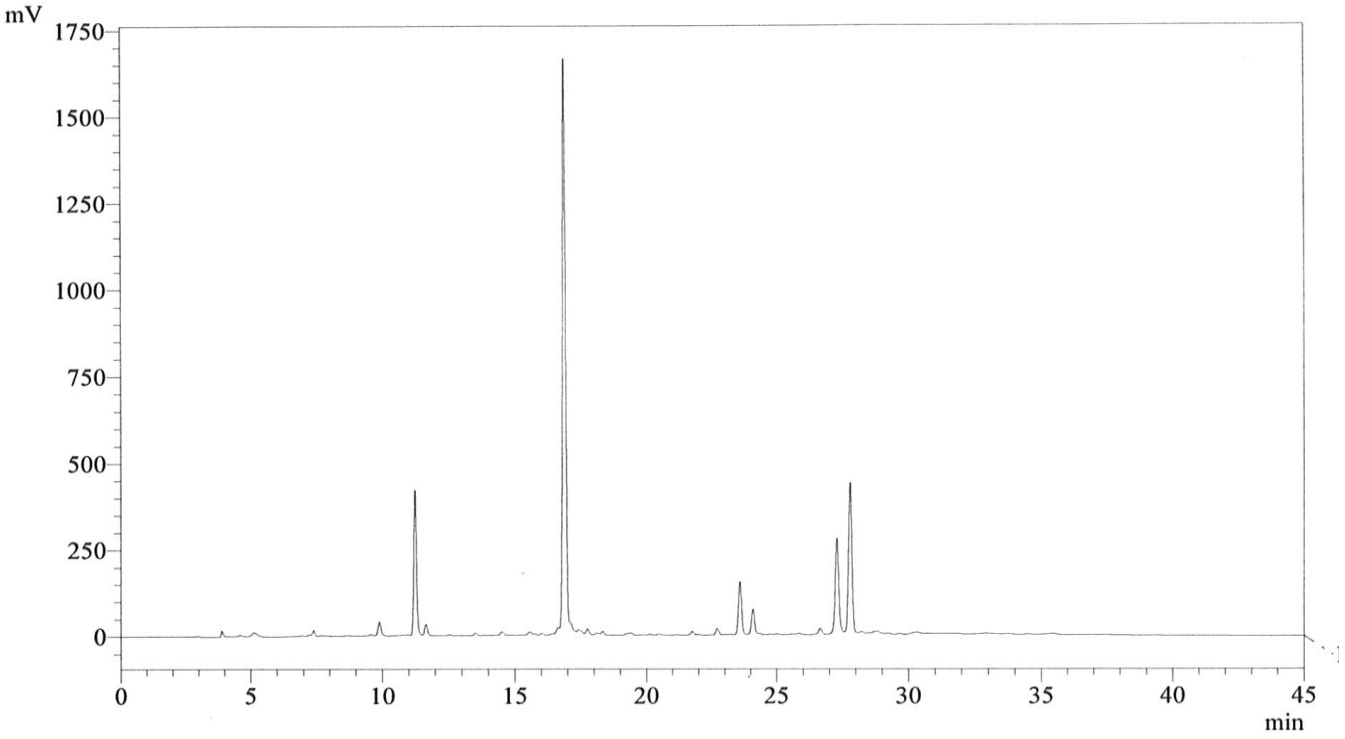

Figure S10. HPLC trace of crude oligonucleotide **ON5b**

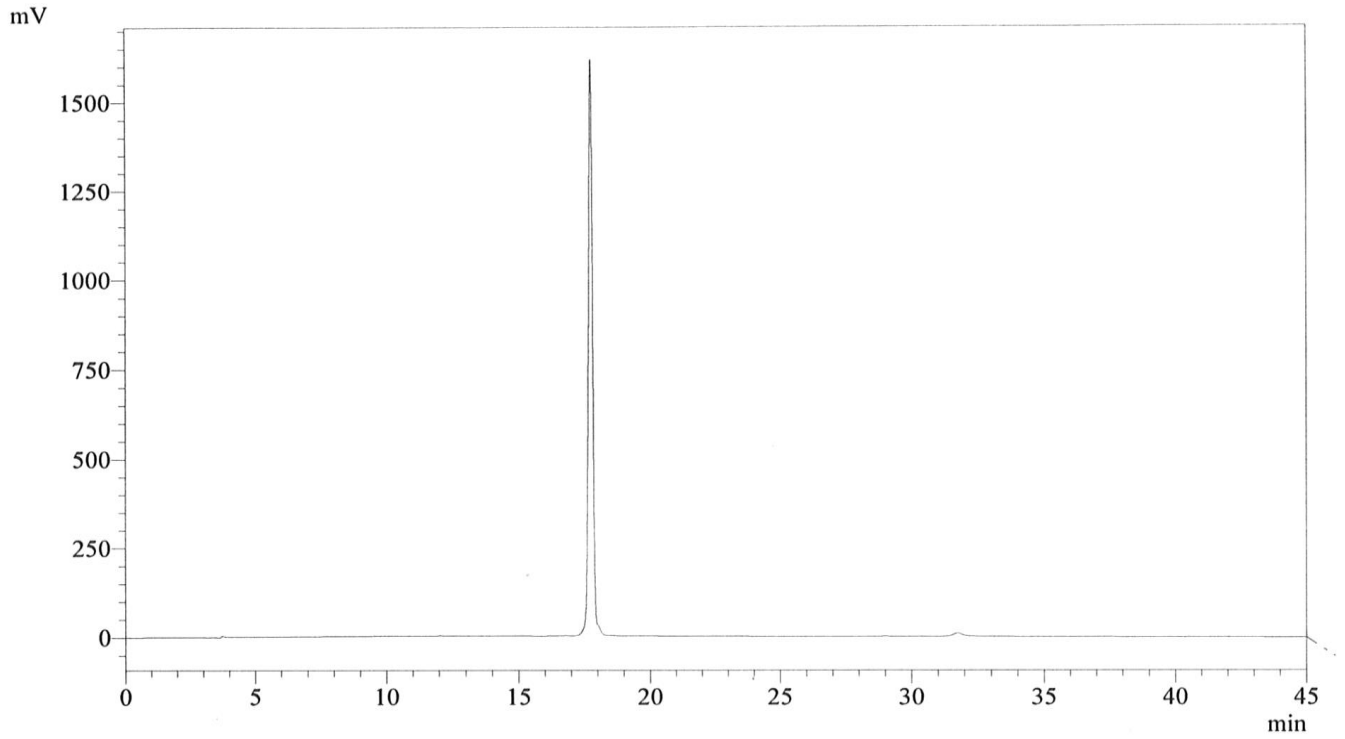

Figure S11. HPLC trace of purified oligonucleotide **ON5b**

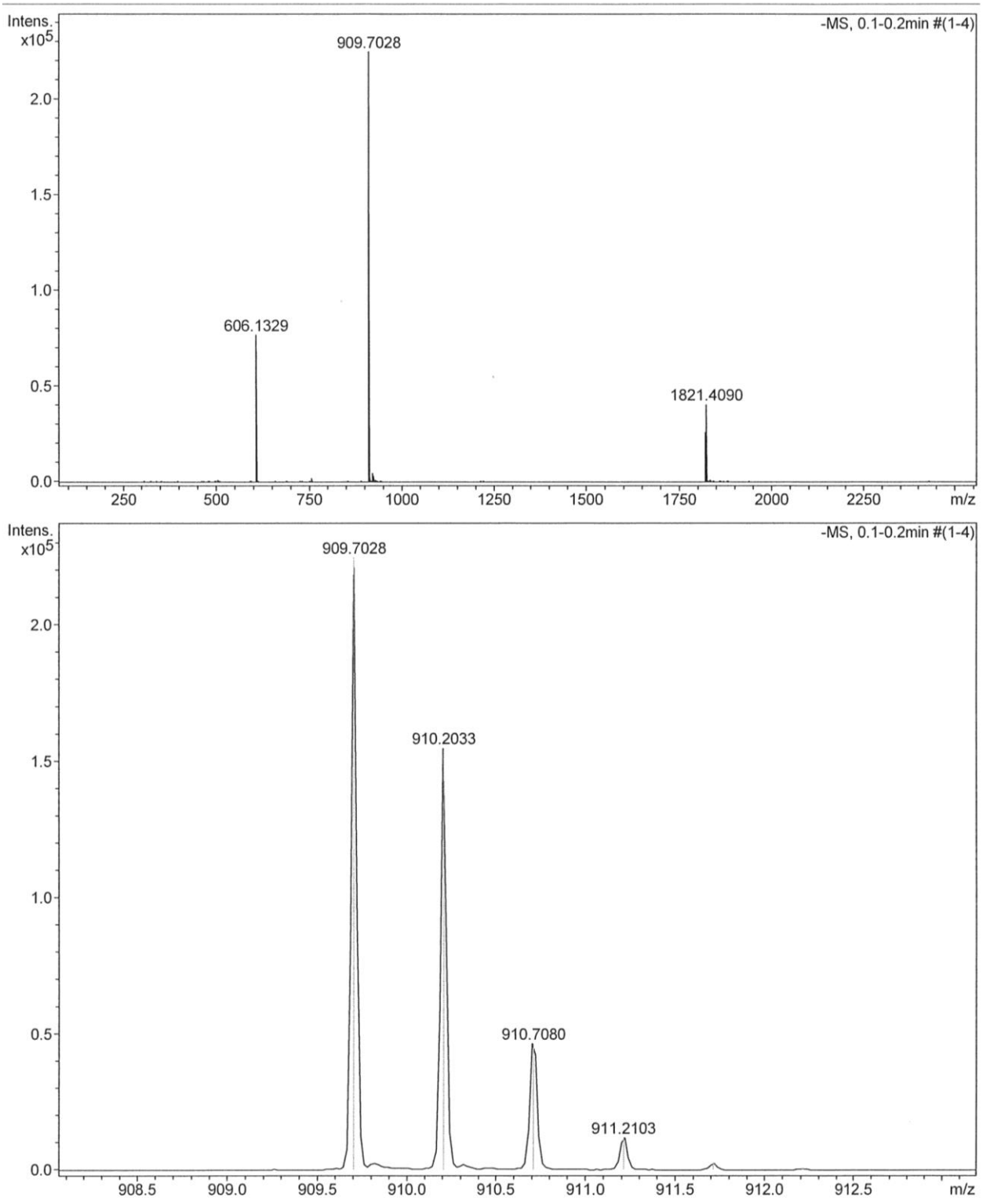

Figure S12. ESI mass spectrum of purified oligonucleotide **ON5b**

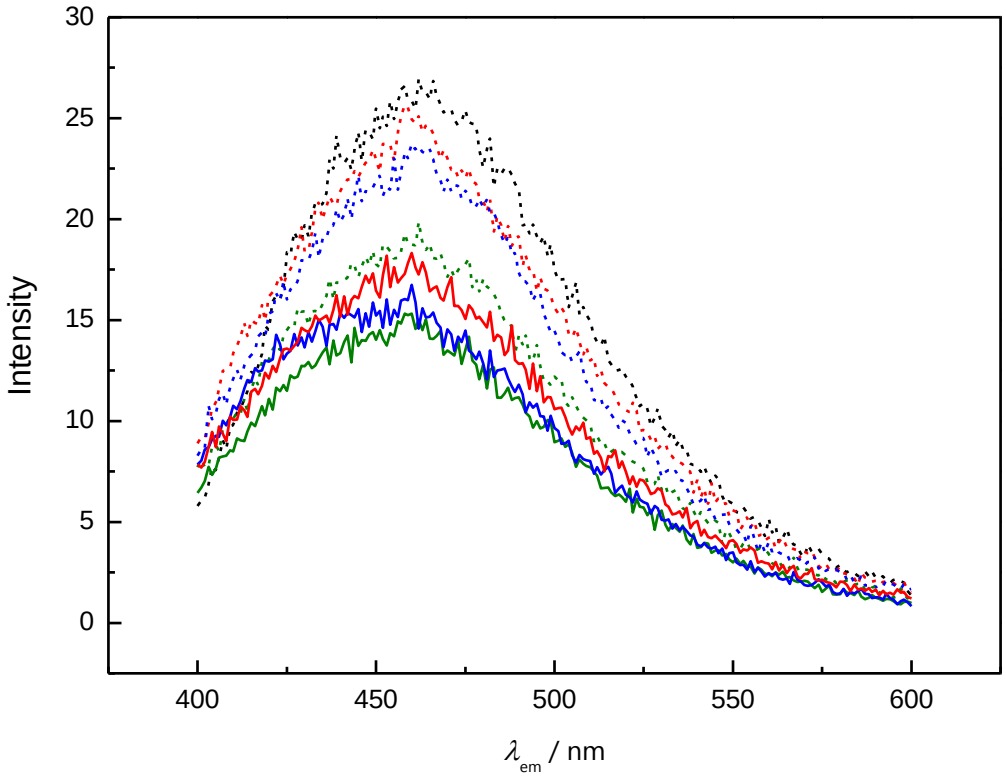

Figure S13. Fluorescence spectra of **ON1a** (black line) and duplexes **ON1a**:**ON4a** (red line), **ON1a**:**ON4b** (blue line) and **ON1a**:**ON4c** (green line) in the absence (dashed line) and presence (solid line) of Cu^{2+}

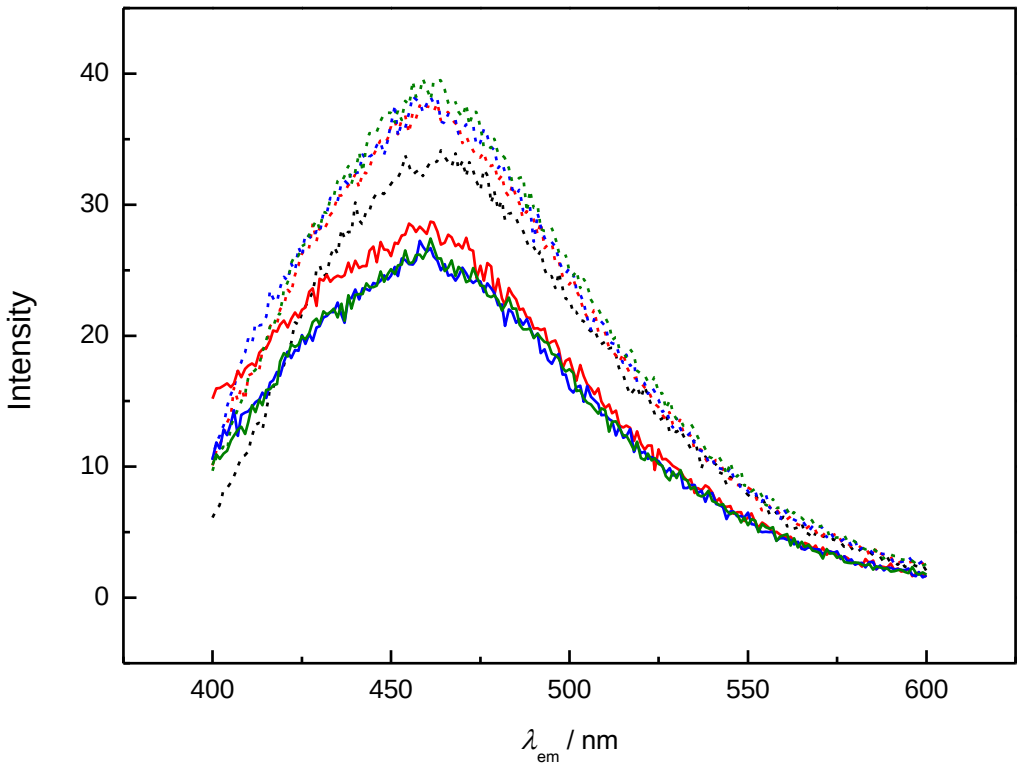

Figure S14. Fluorescence spectra of **ON2a** (black line) and duplexes **ON2a**:**ON4a** (red line), **ON2a**:**ON4b** (blue line) and **ON2a**:**ON4c** (green line) in the absence (dashed line) and presence (solid line) of Cu^{2+}

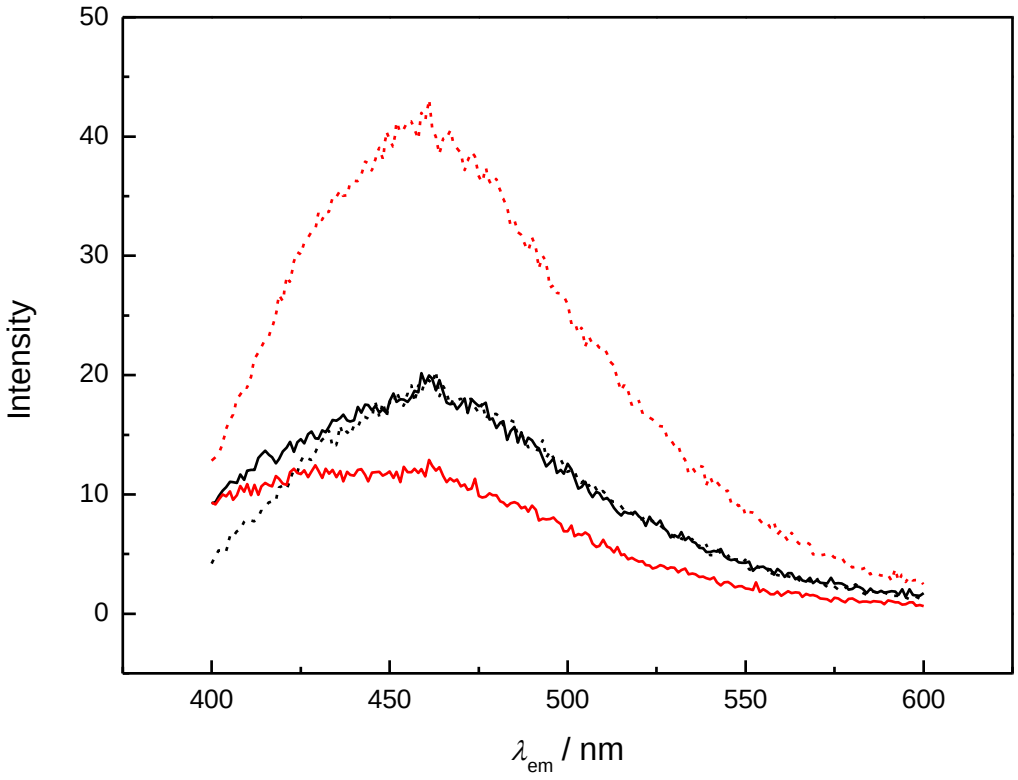

Figure S15. Fluorescence spectra of **ON2** (black line) and duplex **ON2**:**ON7** (red line) in the absence (dashed line) and presence (solid line) of Cu^{2+}

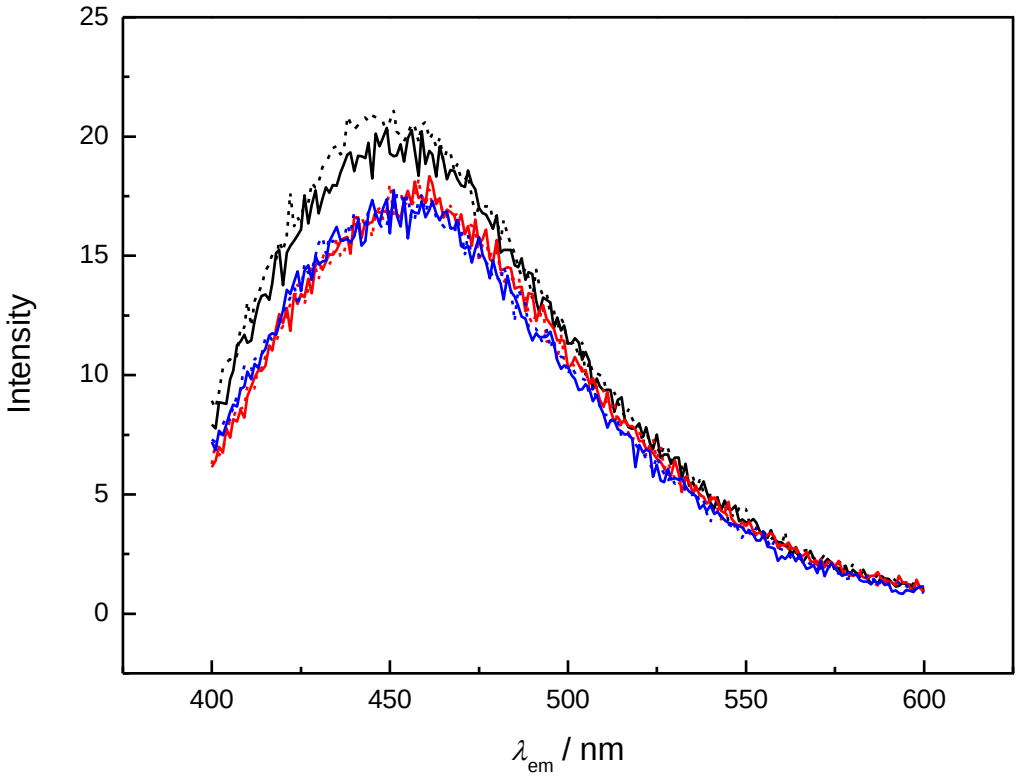

Figure S16. Fluorescence spectra of **ON3a** (black line) and duplexes **ON3a**:**ON5a** (red line) and **ON3a**:**ON5b** (blue line) in the absence (dashed line) and presence (solid line) of Cu^{2+}

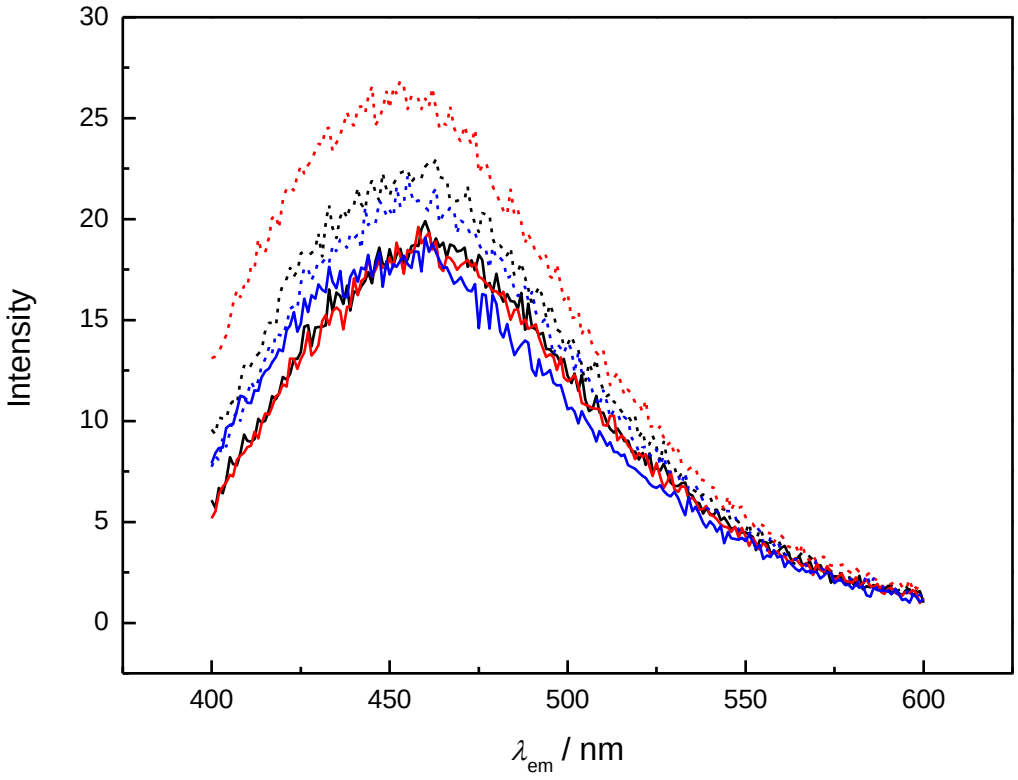

Figure S17. Fluorescence spectra of **ON3b** (black line) and duplexes **ON3b**:**ON5a** (red line) and **ON3b**:**ON5b** (blue line) in the absence (dashed line) and presence (solid line) of Cu^{2+}

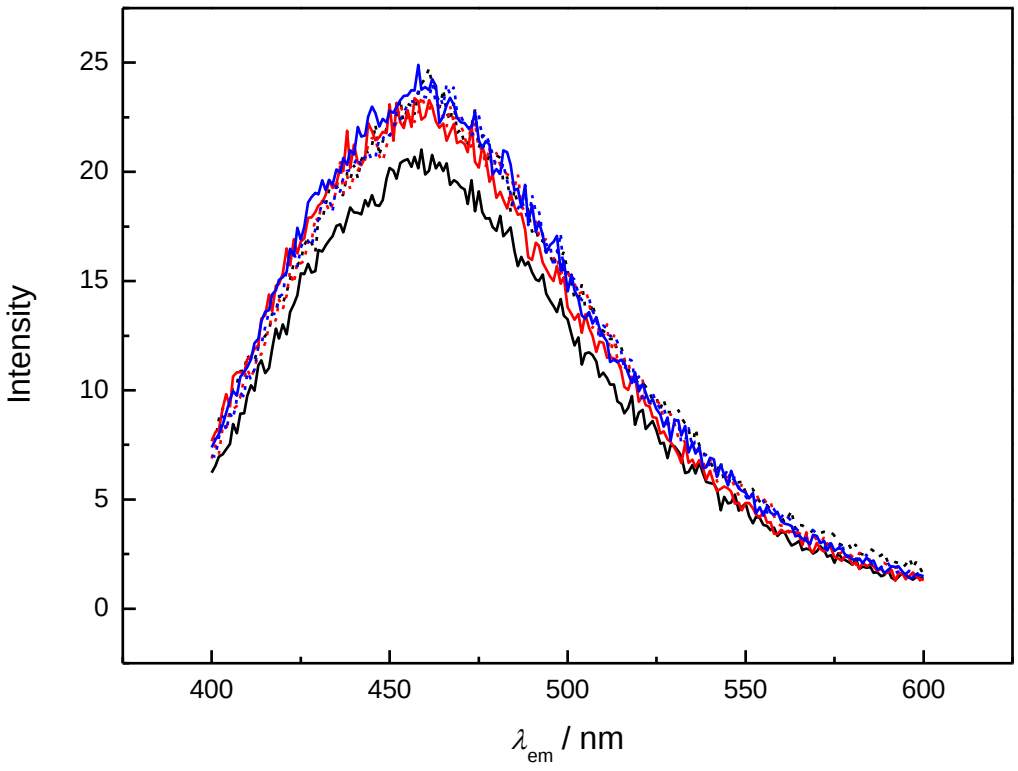

Figure S18. Fluorescence spectra of **ON3c** (black line) and duplexes **ON3c**:**ON5a** (red line) and **ON3c**:**ON5b** (blue line) in the absence (dashed line) and presence (solid line) of Cu^{2+}

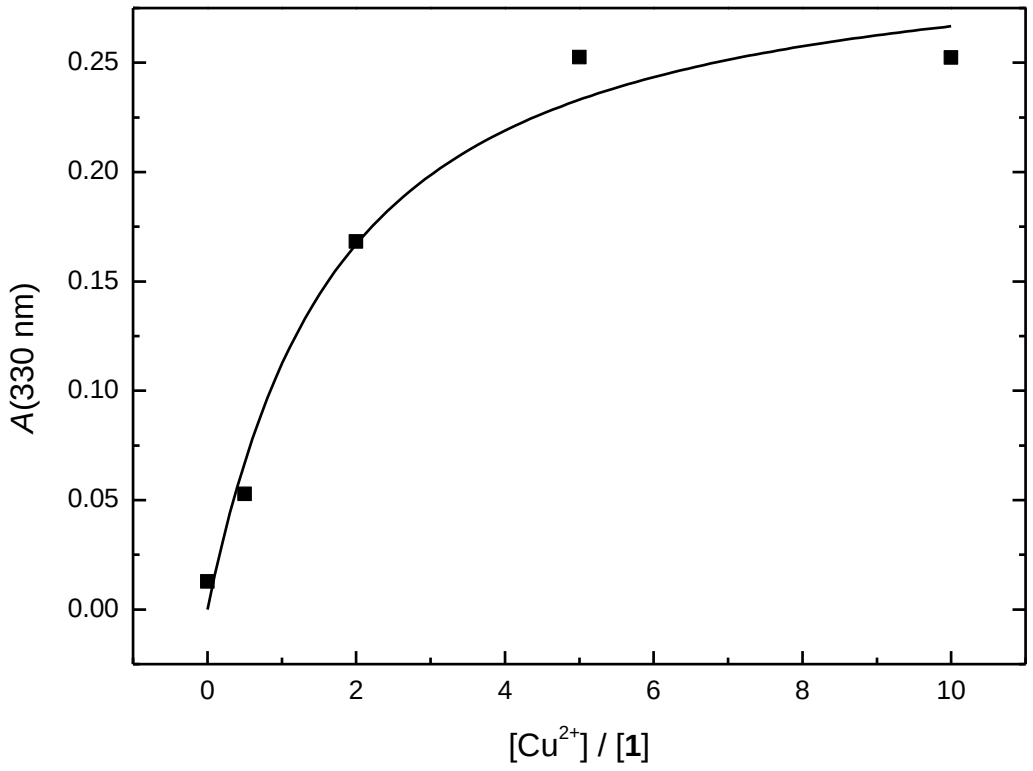

Figure S19. Absorbance of **1** at 330 nm as a function of $[Cu^{2+}]$; T = 25 °C; pH = 7.4 (20 mmol L^{-1} cacodylate buffer); $I(NaClO_4)$ = 0.10 mol L^{-1}.

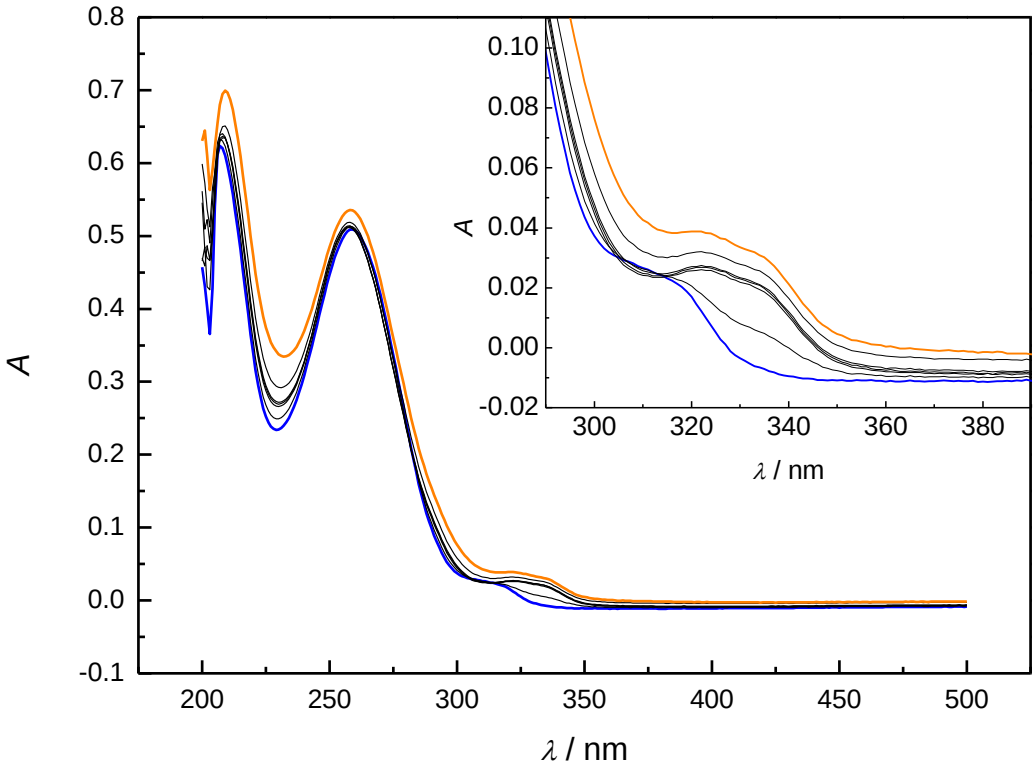

Figure S20. UV spectrum of duplex **ON1c**:**ON4c** in the presence of 0 (blue line), 0.5, 1.0, 1.5, 2.0, 5.0 and 10.0 eq. (orange line) of $CuSO_4$; T = 25 °C; pH = 7.4 (20 mmol L^{-1} cacodylate buffer); $I(NaClO_4)$ = 0.10 mol L^{-1}.