

Oligonucleotides

Application note Ref : AN 046-03A

Determination of Simple and Double strand oligonucleotides using Capillary Electrophoresis and Laser Induced Fluorescence Detection

Limit of Detection*:
125 ng/mL (mean estimation)

*Estimated for a S/N of 3

Instruments:

Capillary Electrophoresis: Agilent CE
Detector: Picometrics ZETALIF detector
Laser: laser 488 nm, 17 mW
(at the optical bench)

Sample:

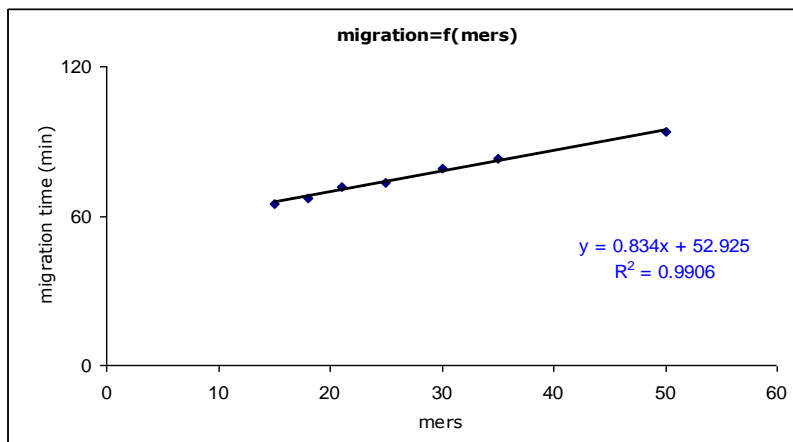
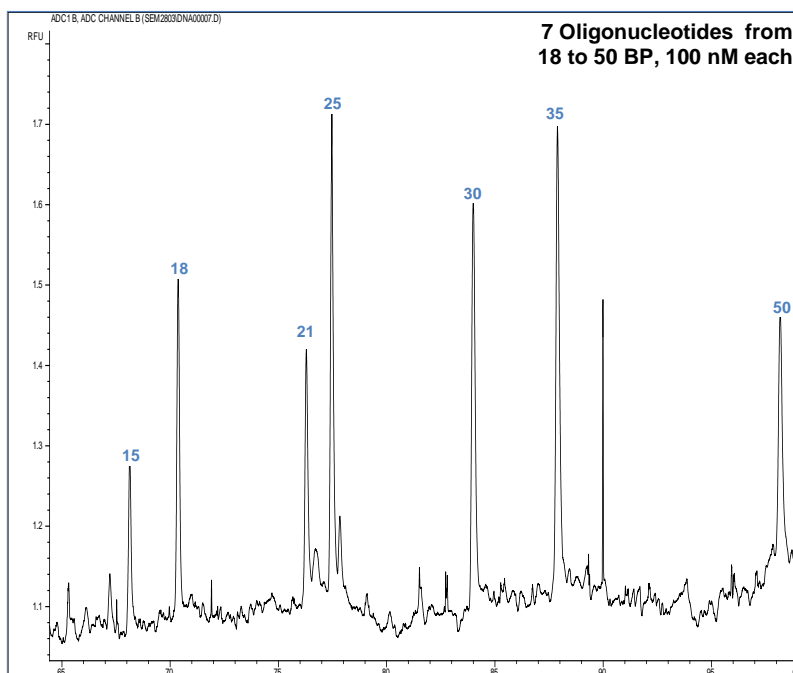
Mix of double strands (18/21/25 Base Pairs) and single strand (15/30/35/50) oligonucleotides, diluted in XTE Buffer Molecular Probes (10 mM Tris-HCl 1 mM EDTA, pH 7.5)

Reagents:

Derivatization agent: Oligreen from Molecular Probes

Methods:

Capillary: 100 µm ID eCAP DNA capillary, Beckman, 65 cm length (53 cm effective length), Temp: 30°C, coated with gel
Buffer: Kit ssDNA-100R Beckman ref. 477480 (mix of borate and urea)
Voltage: -19 kV (I limited to -10 µA)
Injection: -10 kV, 5 seconds



Source: Picometrics Applications Laboratory 07/2003