

# Oligonucleotides

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

## Instruments:

Capillary Electrophoresis: Agilent CE  
Detector: Picometrics ZETALIF 2000 detector  
Laser: Argon Ion 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:

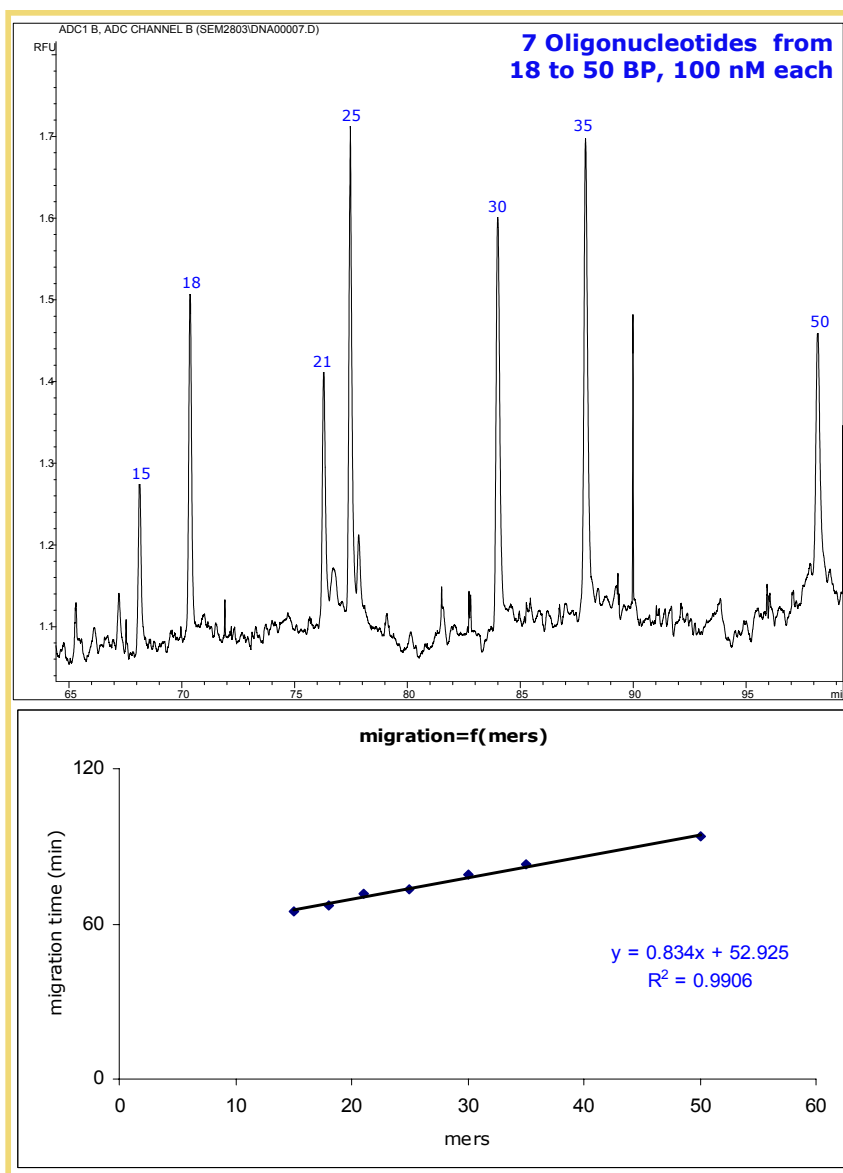
Derivatization agent: Oligreen from Molecular Probes

## Methods:

Capillary: 100  $\mu$ m 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  $\mu$ A)  
Injection: -10 kV, 5 seconds

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

\* Estimated for a S/N of 3



Source: Picometrics application lab. 07/2003