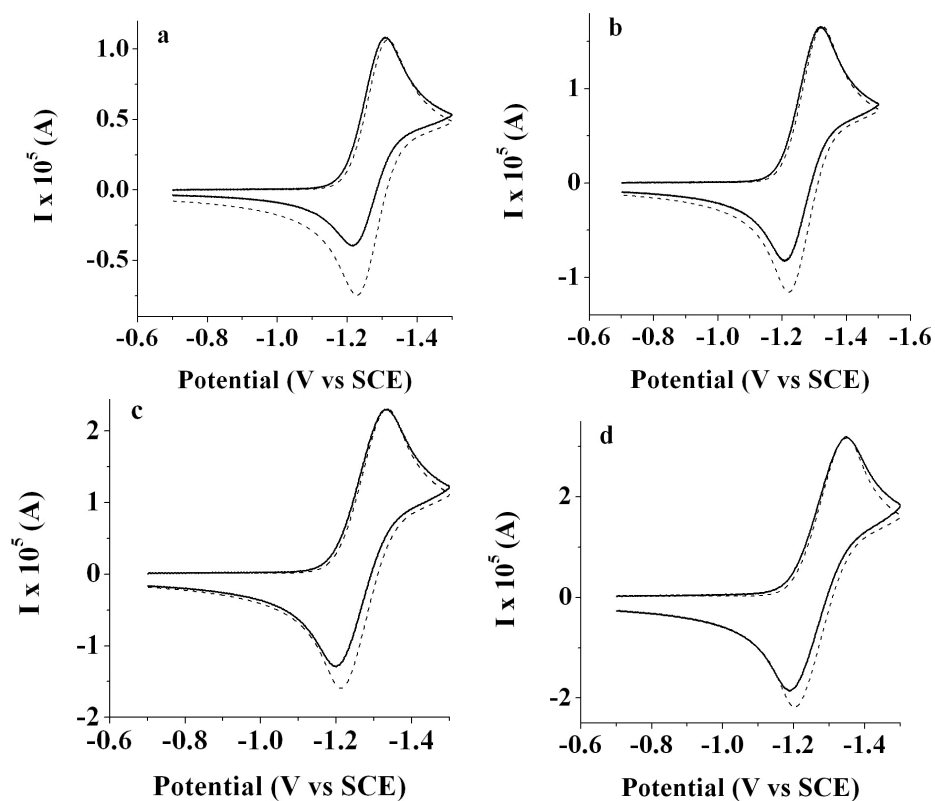


Supporting Information

Chemical and Electrochemical Dimerization of BODIPY Compounds. Electrogenerated Chemiluminescent Detection of Dimer Formation.

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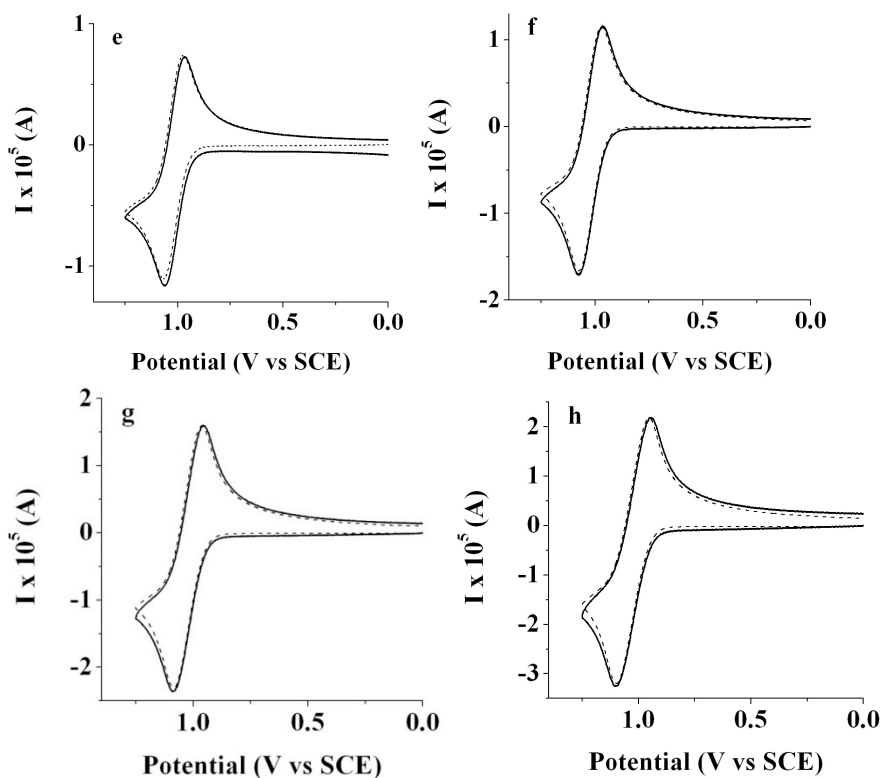
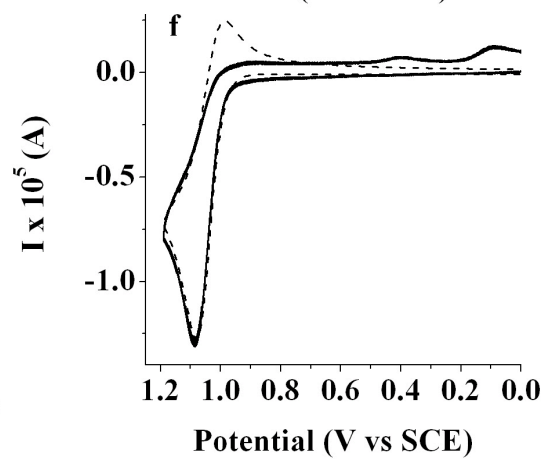
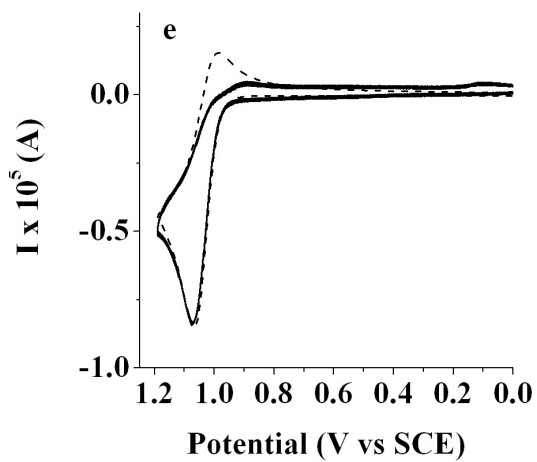
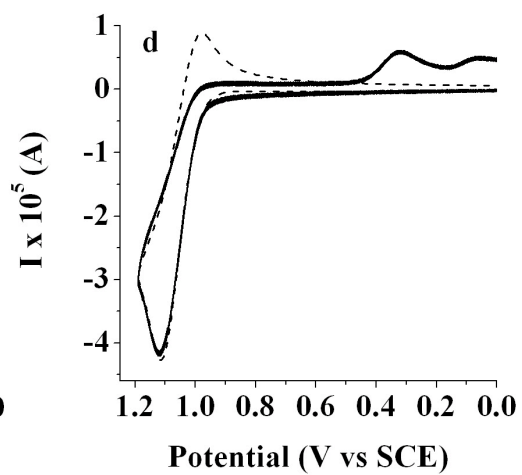
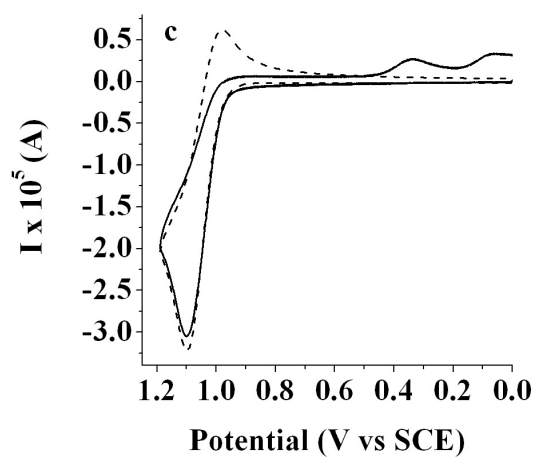
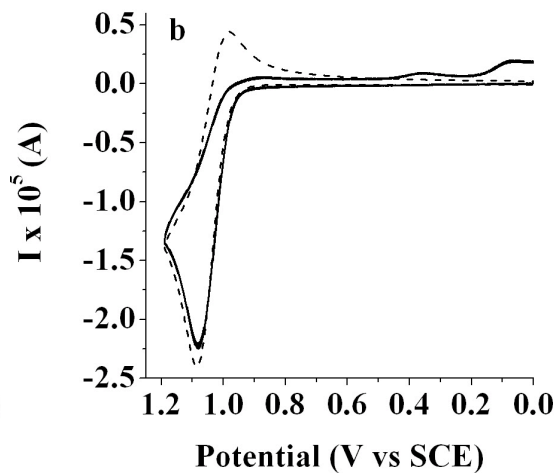
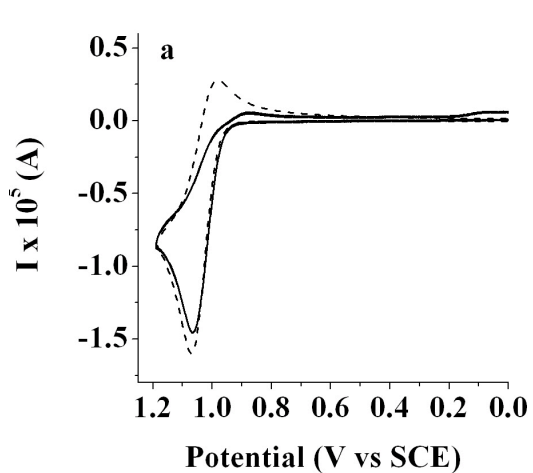


Figure S1. Experimental (solid) and simulated (dashed) line of 1.5 mM **2(x8)** during the scan in the negative direction (a-d) and positive direction (e-h). Scan rate: (a) and (e) 0.1 V/s; (b) and (f) 0.25 V/s; (c) and (g) 0.5 V/s; (d) and (h) 1 V/s. Experimental data: solvent: dichloromethane; supporting electrolyte: 0.1 M TBAPF₆; electrode area: 0.0314 cm². Simulated data: diffusion coefficient of the dye is 6.8×10^{-6} cm²/s; uncompensated resistance 1200 Ω ; capacitance 2.4×10^{-7} F.



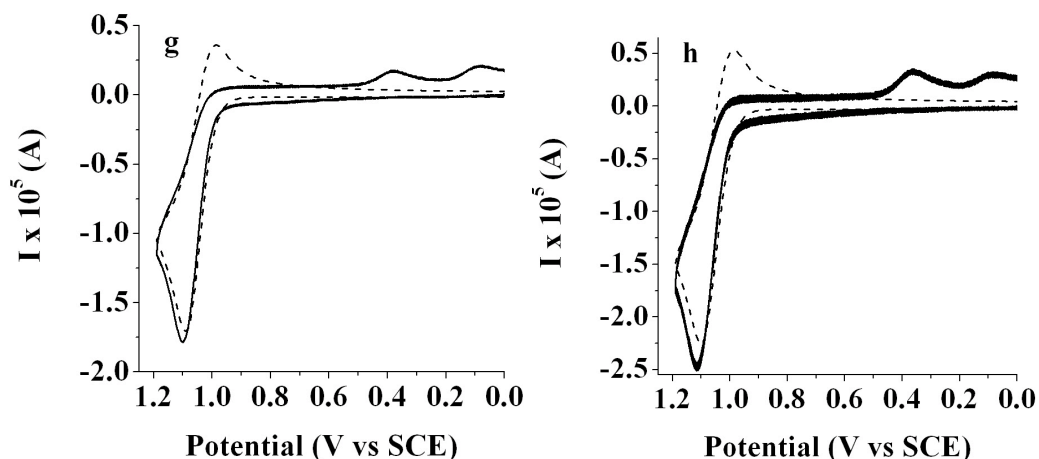
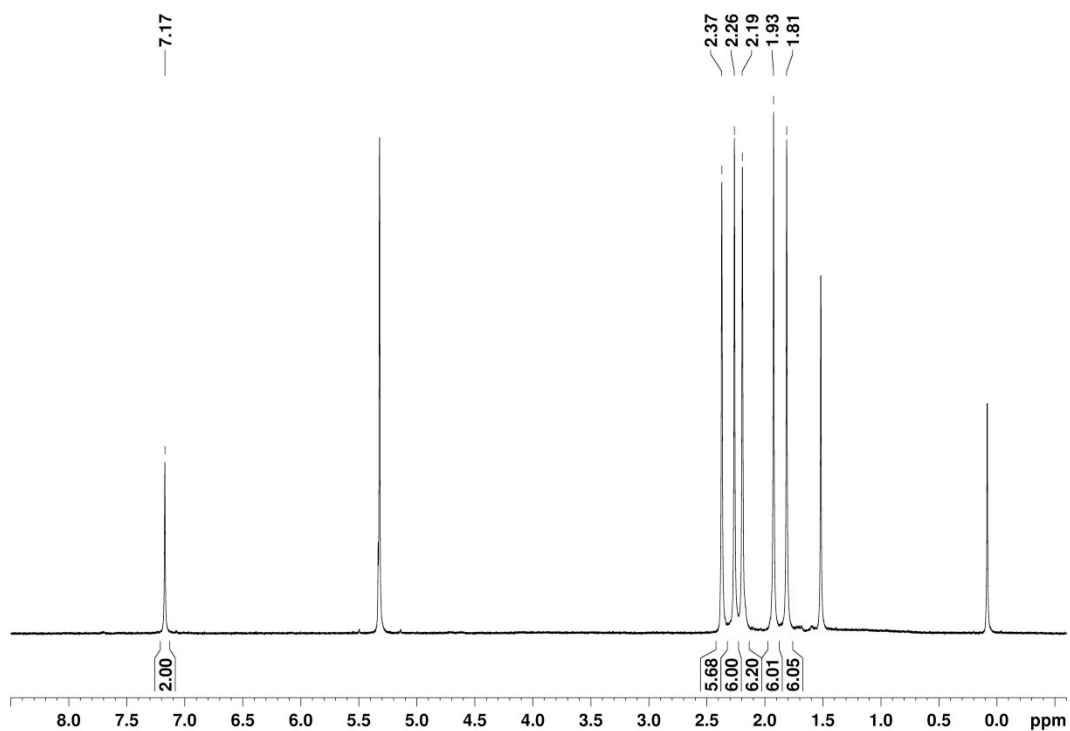


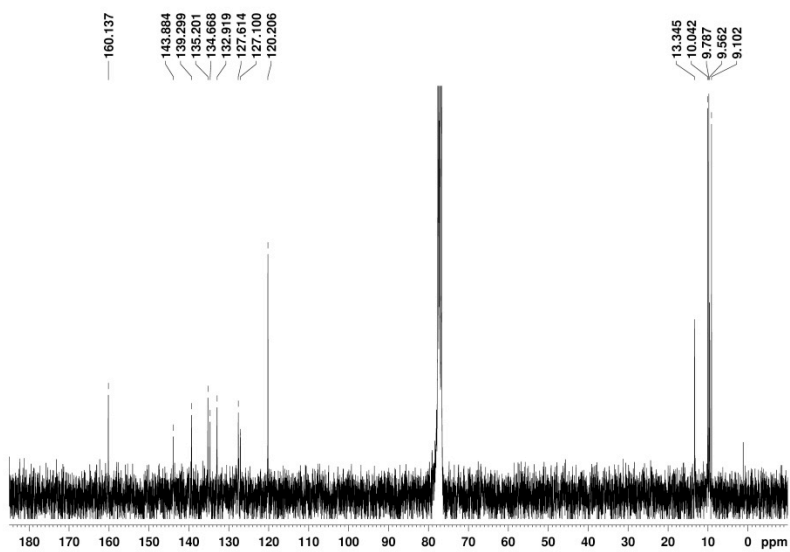
Figure S2. Experimental (solid) and simulated (dashed) line cyclic voltammograms of (a-d) 1.5 mM and (e-h) 0.8 mM **1(x3,8)** during the positive direction scan. Scan rate: (a), (e) 0.1 V/s; (b), (f) 0.25 V/s; (c), (g) 0.5 V/s; (d), (h) 1 V/s. Experimental data: solvent: dichloromethane; supporting electrolyte: 0.1 M TBAPF₆; electrode area: 0.0314 cm². Simulated data: diffusion coefficient of the dye is 6.8 x 10⁻⁶ cm²/s for the monomer and 5.2 x 10⁻⁶ cm²/s for the dimer; deprotonation constant very fast and more than 10⁴ s⁻¹ and the dimerization constant equal 4 x 10⁴ M⁻¹s⁻¹; uncompensated resistance 800 Ω; capacitance 3 x 10⁻⁷ F.

NMR data
Dimer

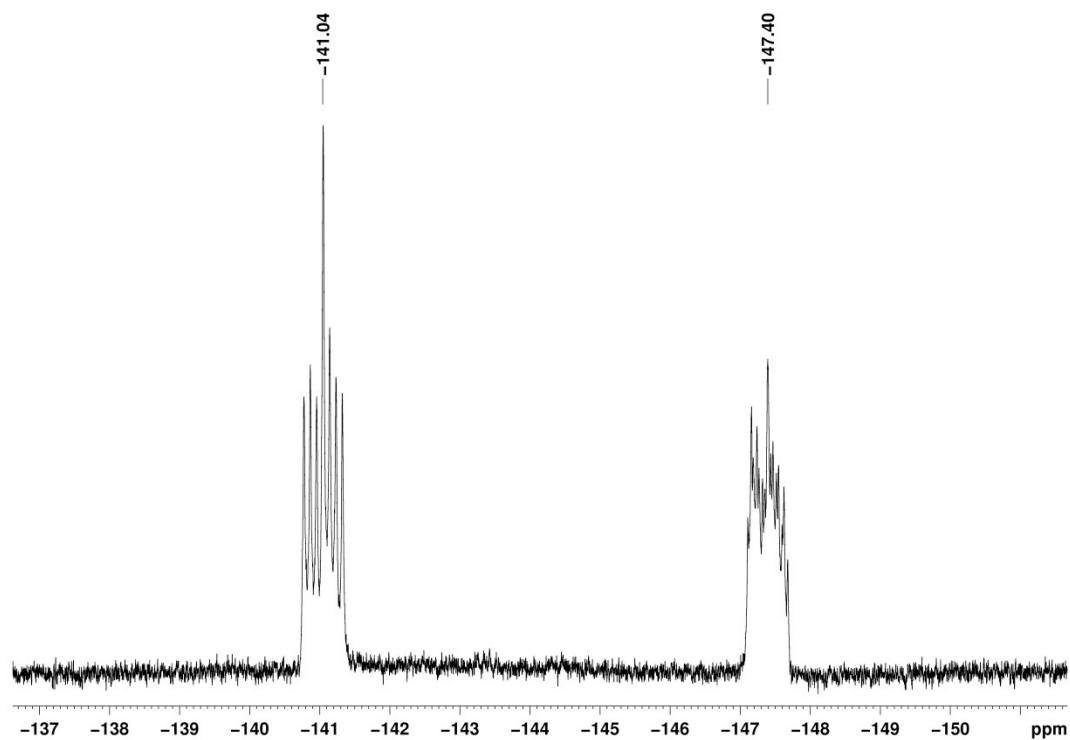
^1H NMR (400 MHz, CD_2Cl_2)



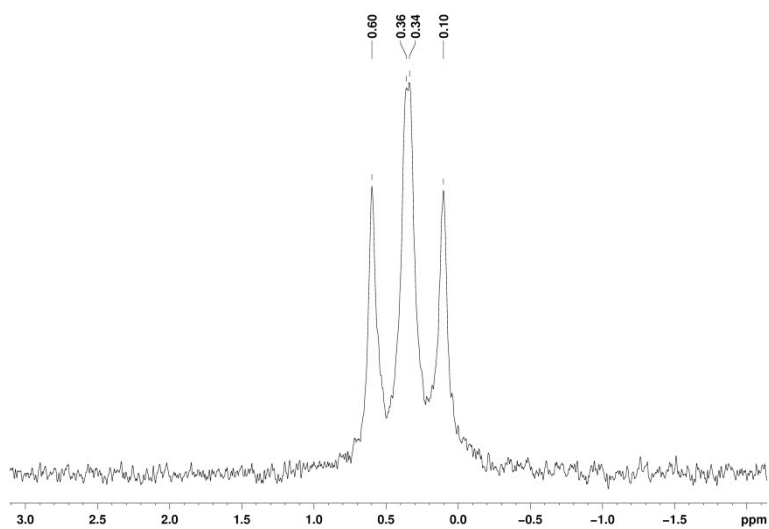
^{13}C NMR (75 MHz, CD_2Cl_2)



¹⁹F NMR (376 MHz, CD₂Cl₂)



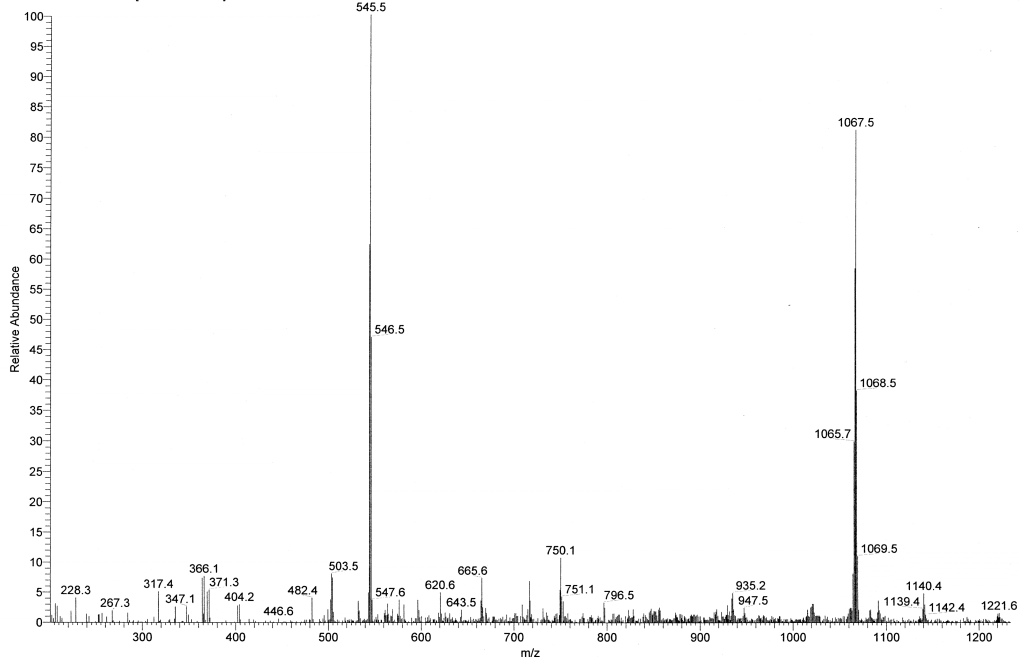
¹¹B NMR (128 MHz, CD₂Cl₂)



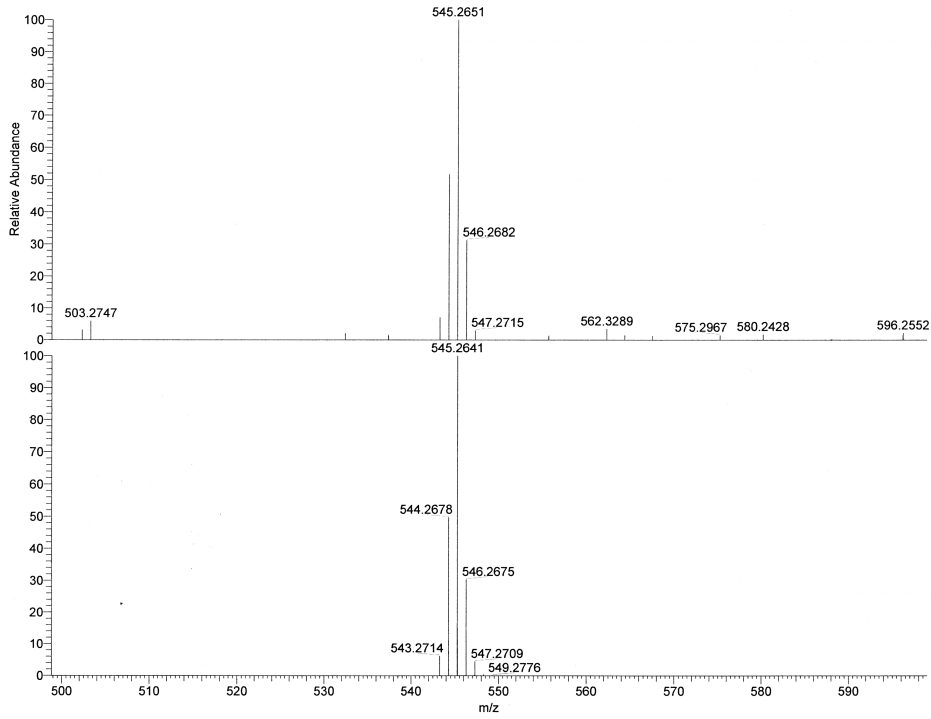
MS data Dimer

MS (ESI+)

Ahrens_JA96 #112-139 RT: 0.87-1.07 AV: 14 SB: 41 0.01-0.63 NL: 8.25E5
F: ITMS + c ESI Full ms [130.00-2000.00]



HRMS (ESI+)



NL:
3.99E5
Ahrens_JA96#186 RT:
1.42 AV: 1 SB: 41
0.01-0.63 F: FTMS + c
ESI Full ms
[194.00-1940.00]

NL:
4.66E5
C₂₈H₃₂B₂F₄N₄Na₁
C₂₈H₃₂B₂F₄N₄Na₁
pa Chrg 1