(a)

F-M-R \overline{b}_2 y₁₂ 175.1189 60 **Y**₅ \mathbf{y}_7 1015.5711 50 845.4659 **y**₈ 732.3822 Relative Abundance 40 799.46682 z=2 y_{2}^{++} a_2 660.8022 249.1231 30 b_2 **Y**₆ y_{3} y_{4} 1320.5982 958.5496 277.1180 **y**9 604.3236 **Y**₁₀ 1223.5463 20 у₁₁ 363.1810 491.2396 10 0 200 300 400 500 600 700 800 900 1000 1100 1200 1300 m/z

(b)

 Y_{12} M-R F b_2 **Y**₁₂ y_2^{++} 175.1190 660.8034 100 a_2 249.1231 \mathbf{y}_4 \boldsymbol{y}_{10} Relative Abundance 9 1063.5154 411.1255 **Y**₂ У₆ 893.4102 1320.5985 b_2 **Y**₇ **y**9 277.1180 780.3263 539.1839 y₃ 1223.5461 **y**₈ 652.2679 **Y**₅ 1006.4943 y_1 1449.7485 20 0 300 900 1100 200 400 500 600 700 800 1000 1200 1300 1400 m/z

(c)



(d)

