A. Fluorescence intensity vs. wavelength (nm) for different pH values:
- pH 6.78:
- pH 6.89:
- pH 6.76:

B. Fluorescence intensity for acid and base:
- Acid:
- Base:

C. Residuals plot for fluorescence intensity:
- Residuals range from -0.05 to 0.05.

D. Fraction (α) of acid vs. fraction (1-α) of base:
- Fraction α is plotted on the y-axis.
- Fraction (1-α) is plotted on the x-axis.

E. Scaling factor vs. pH:
- Scaling factor range from 0.95 to 1.05.

F. Offset factor vs. pH:
- Offset factor range from 0.00 to 0.05.

pK' = 7.624