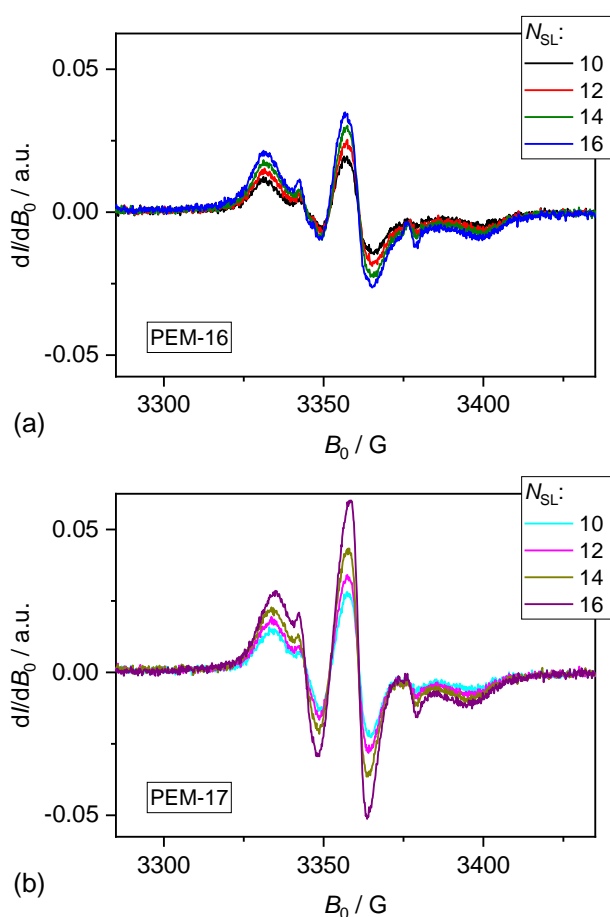Supporting Information for

Odd-Even Effect on Rotational Dynamics of Spin-Labeled Polyacid Chain Segments in Polyelectrolyte Multilayers

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Figure S1. EPR spectra of PAH/P(E-*alt*-MA) multilayers with SL-P(E-*alt*-MA) placed in a selected layer (N_{SL}), prepared and swollen in buffer solution of pH 4, and measured 6 day after preparation at room temperature. The PEMs consist of (a) 16 layers and (b) 17 layers.

(a)

(b)
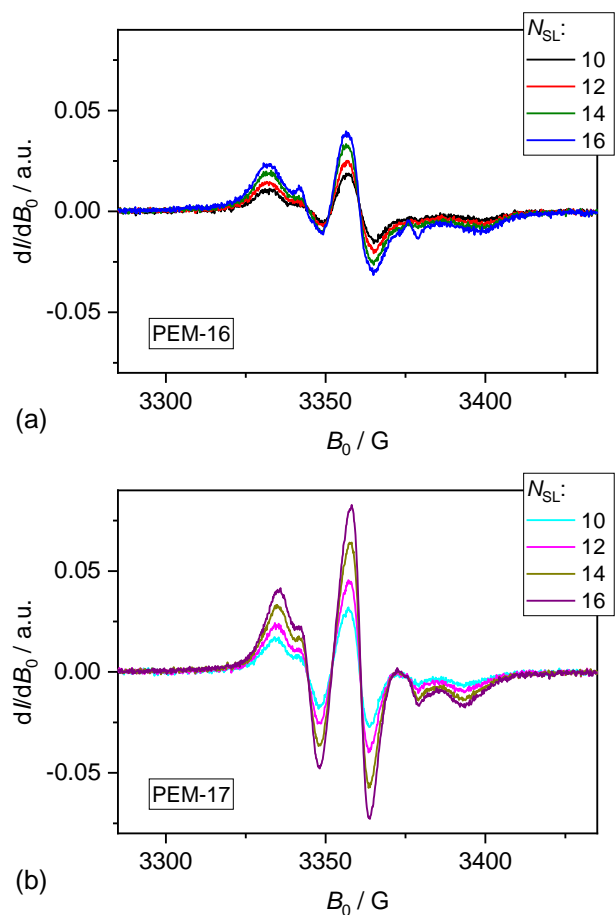
Figure S2. EPR spectra of PAH/P(E-*alt*-MA) multilayers with SL-P(E-*alt*-MA) placed in a selected layer (N_{SL}), prepared and swollen in buffer solution of pH 5, and measured 6 day after preparation at room temperature. The PEMs consist of (a) 16 layers and (b) 17 layers.
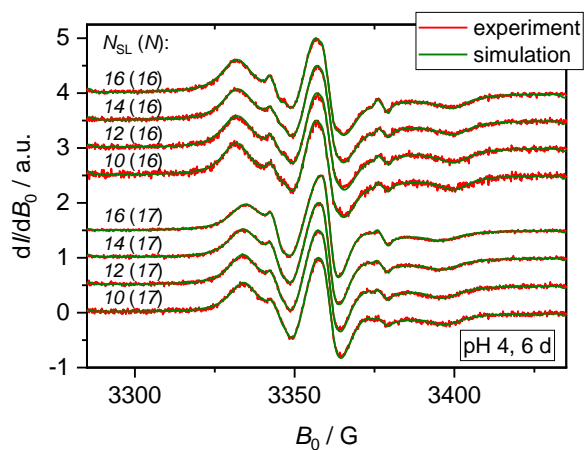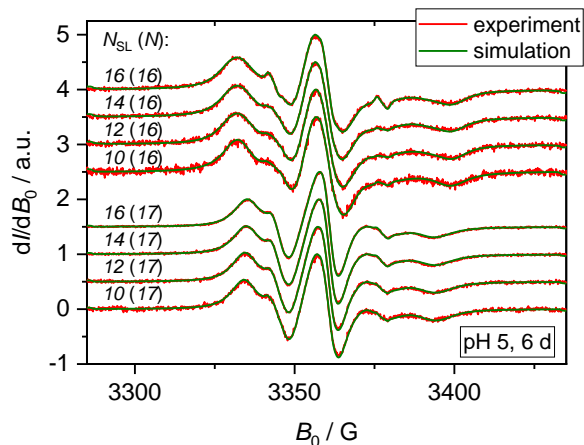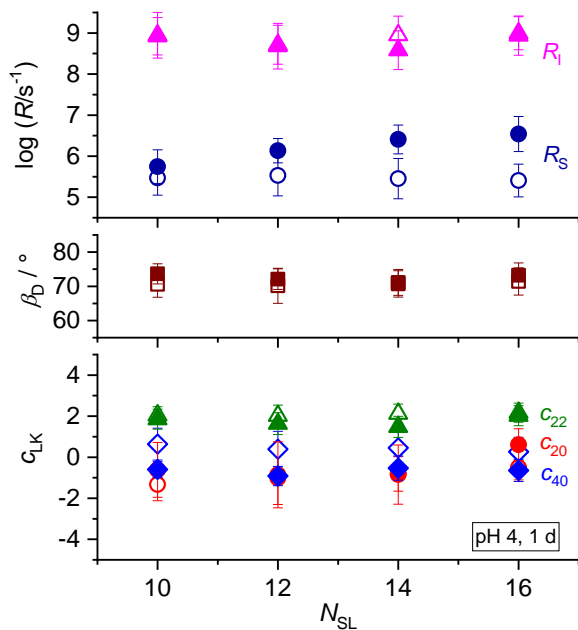

Figure S3. Experimental and simulated EPR spectra of PAH/P(E-*alt*-MA) multilayers with SL-P(E-*alt*-MA) placed in a selected layer (N_{SL}), prepared and swollen in buffer solution of pH 4, and measured 6 days after preparation at room temperature. The number of layers N in the PEMs is indicated in brackets. The spectra are normalized to the value of the maximum height of the middle-field line.
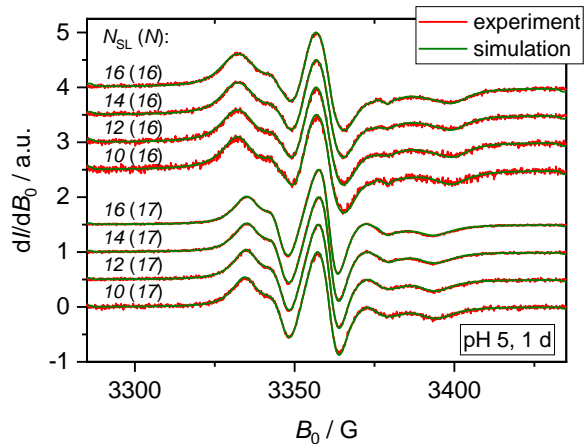
Figure S4. Experimental and simulated EPR spectra of PAH/P(E-*alt*-MA) multilayers with SL-P(E-*alt*-MA) placed in a selected layer (N_{SL}), prepared and swollen in buffer solution of pH 5, and measured 1 day after preparation at room temperature. The number of layers N in the PEMs is indicated in brackets. The spectra are normalized to the value of the maximum height of the middle-field line.
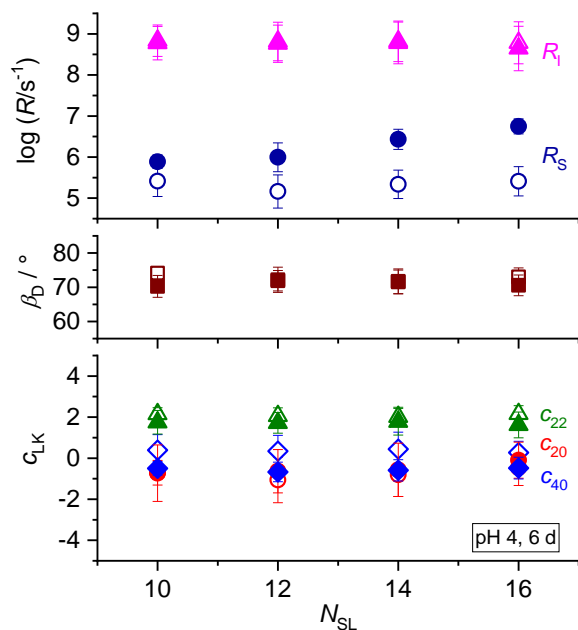

Figure S5. Experimental and simulated EPR spectra of PAH/P(E-*alt*-MA) multilayers with SL-P(E-*alt*-MA) placed in a selected layer (N_{SL}), prepared and swollen in buffer solution of pH 5, and measured 6 days after preparation at room temperature. The number of layers N in the PEMs is indicated in brackets. The spectra are normalized to the value of the maximum height of the middle-field line.
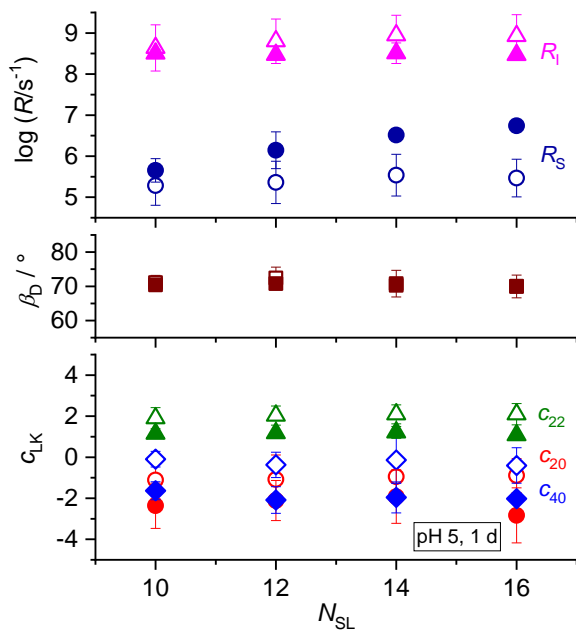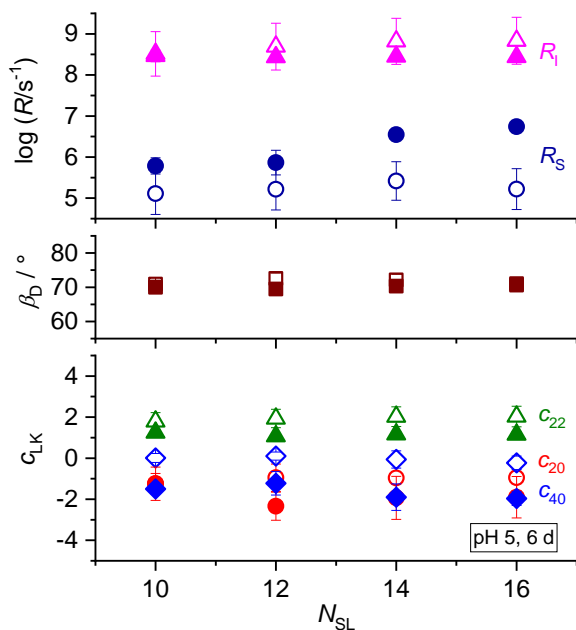
Figure S6. Rotational diffusion coefficients R_S and R_I, diffusion tilt angle β_D, and orienting potential coefficients c_{20}, c_{22} and c_{40} of the main component in PAH/P(E-*alt*-MA) multilayers with SL-P(E-*alt*-MA) placed in a selected layer, prepared and swollen in buffer solution of pH 4, and measured 1 day after preparation at room temperature as a function of the place N_{SL} of the SL-P(E-*alt*-MA).

Figure S7. Rotational diffusion coefficients R_S and R_I, diffusion tilt angle β_D, and orienting potential coefficients c_{20}, c_{22} and c_{40} of the main component in PAH/P(E-*alt*-MA) multilayers with SL-P(E-*alt*-MA) placed in a selected layer, prepared and swollen in buffer solution of pH 4, and measured 6 days after preparation at room temperature as a function of the place N_{SL} of the SL-P(E-*alt*-MA).

Figure S8. Rotational diffusion coefficients R_S and R_I, diffusion tilt angle β_D, and orienting potential coefficients c_{20}, c_{22} and c_{40} of the main component in PAH/P(E-*alt*-MA) multilayers with SL-P(E-*alt*-MA) placed in a selected layer, prepared and swollen in buffer solution of pH 5, and measured 1 day after preparation at room temperature as a function of the place N_{SL} of the SL-P(E-*alt*-MA).

Figure S9. Rotational diffusion coefficients R_S and R_I, diffusion tilt angle β_D, and orienting potential coefficients c_{20}, c_{22} and c_{40} of the main component in PAH/P(E-*alt*-MA) multilayers with SL-P(E-*alt*-MA) placed in a selected layer, prepared and swollen in buffer solution of pH 5, and measured 6 days after preparation at room temperature as a function of the place N_{SL} of the SL-P(E-*alt*-MA).