Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

SUPPORTING INFORMATION

Multifunctional Biosensors Based on Peptide-Polyelectrolyte Conjugates

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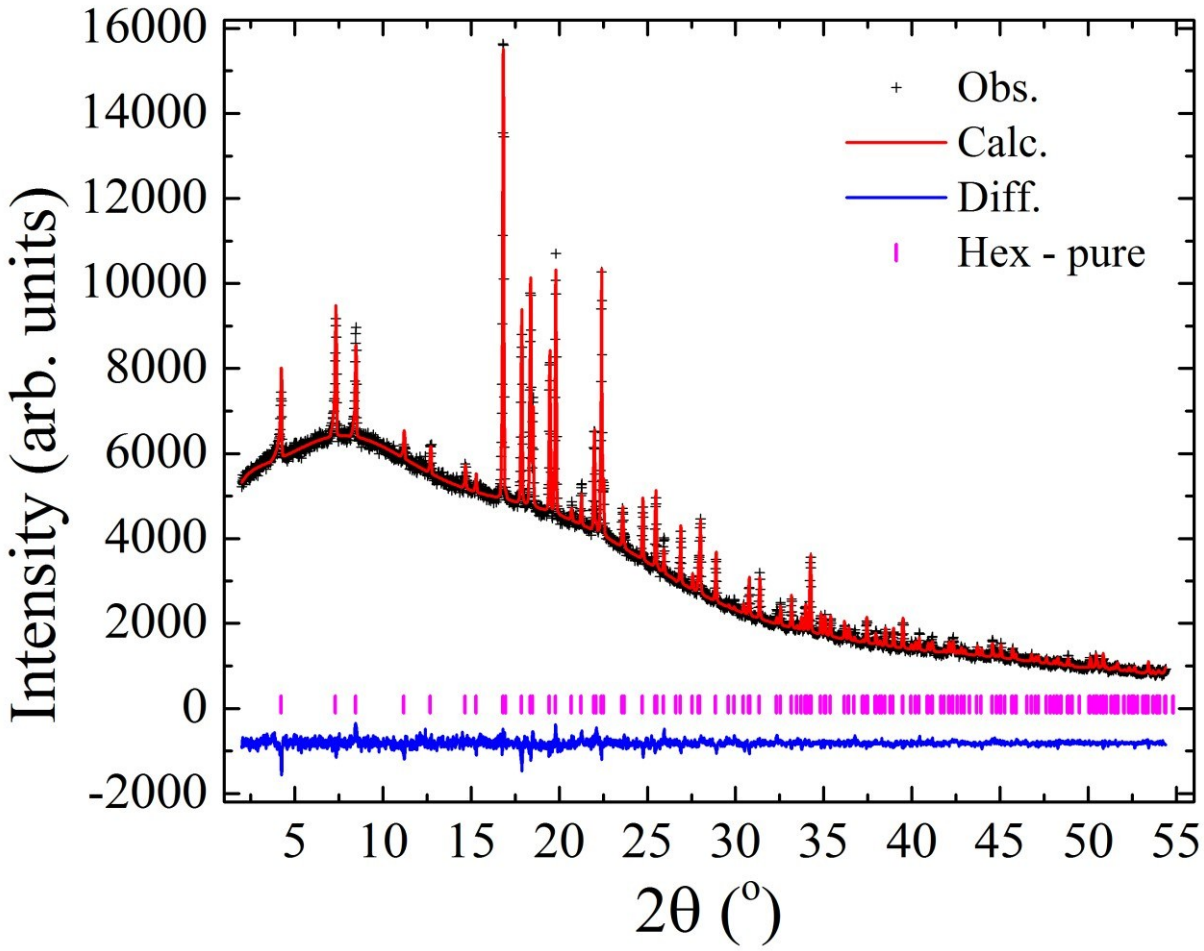

Figure S1. Plot from the final Rietveld refinement of the pure Hex sample. Black crosses represent observed data, the red line indicates the calculated pattern and the blue line at the bottom represents the difference between the observed and calculated patterns. Magenta vertical bars indicate Bragg reflections of the L,L diphenylalanine phase.

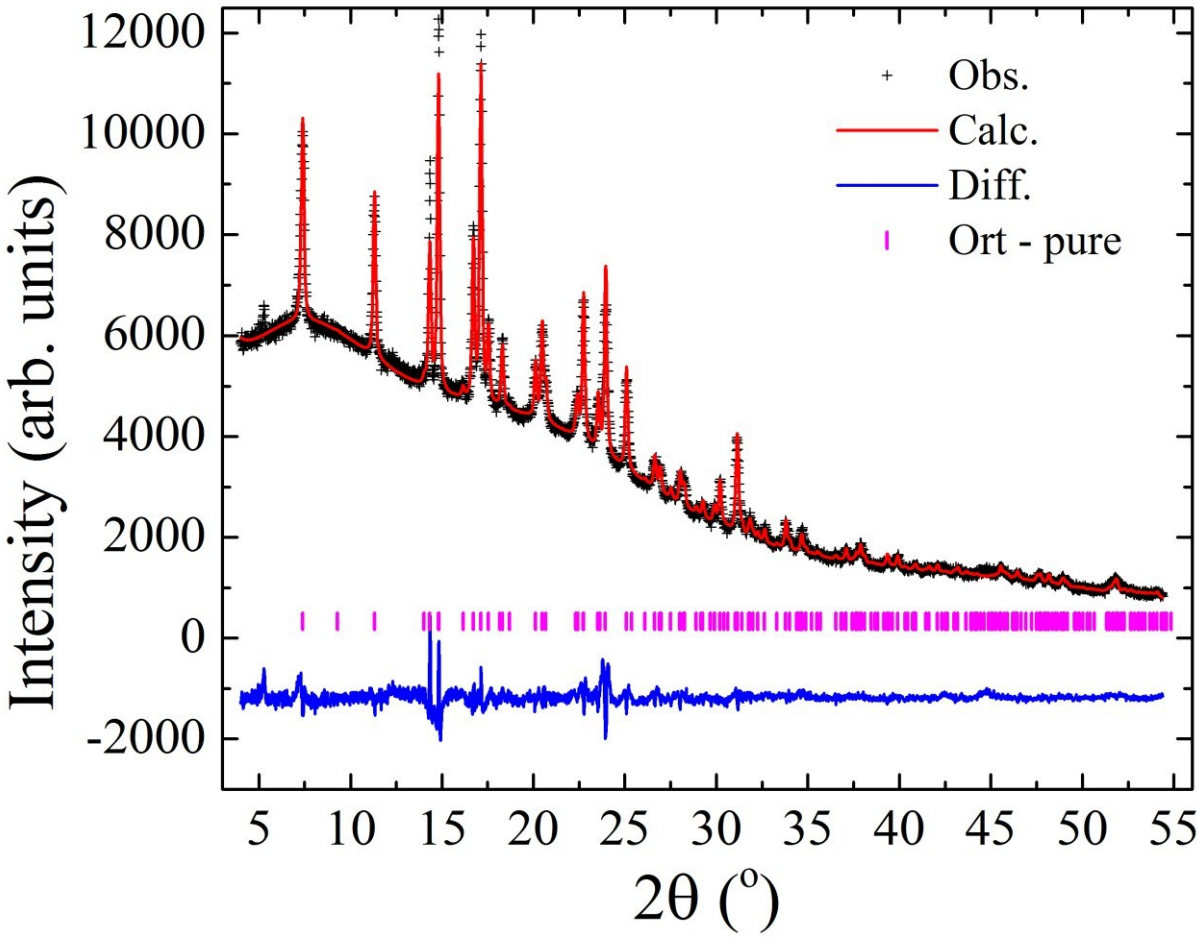

Figure S2. Plot from the final Rietveld refinement of the pure Ort sample. Black crosses represent observed data, the red line indicates the calculated pattern and the blue line at the bottom represents the difference between the observed and calculated patterns. Magenta vertical bars indicate Bragg reflections of the L,L diphenylalanine phase.

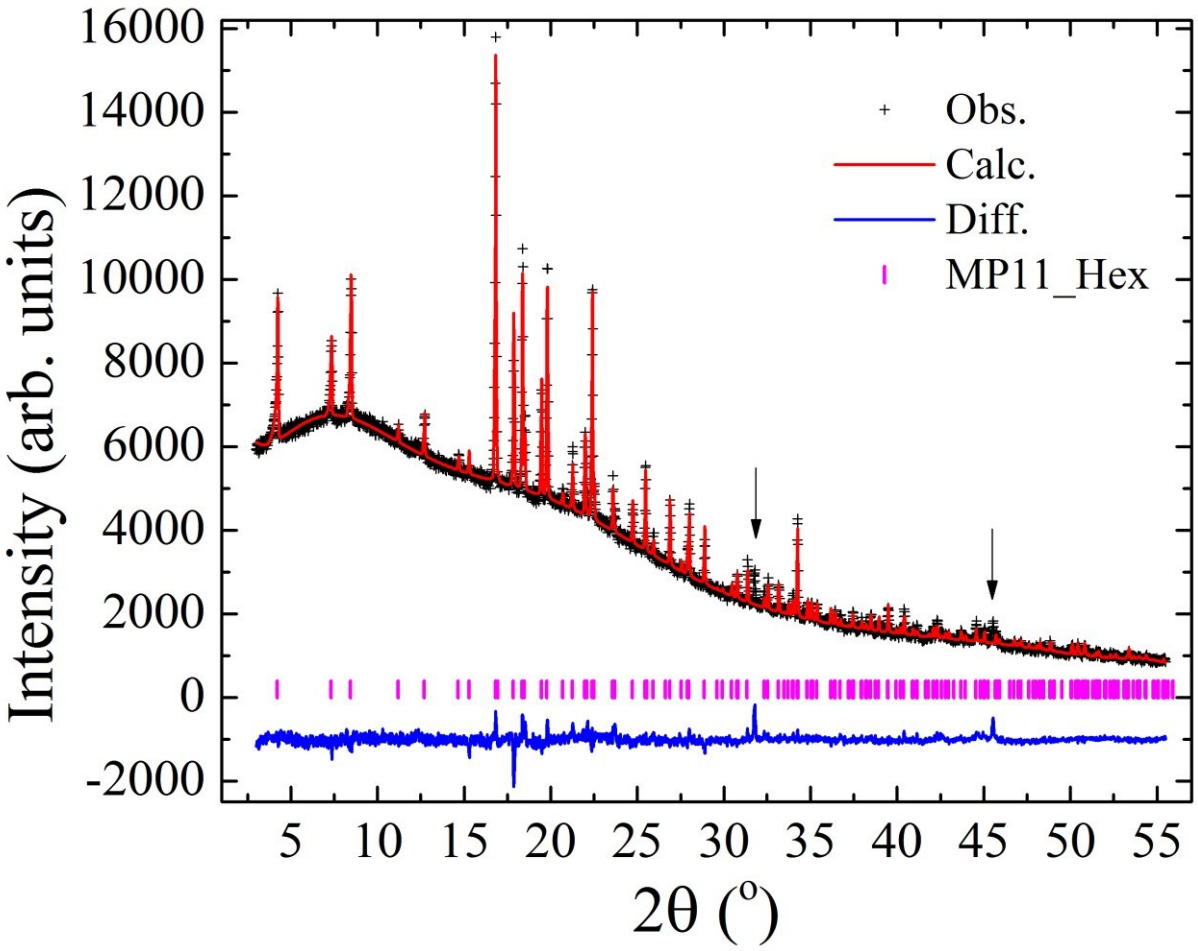

Figure S3. Plot from the final Rietveld refinement of the Hex+MP11 sample. Black crosses represent observed data, the red line indicates the calculated pattern and the blue line at the bottom represents the difference between the observed and calculated patterns. Magenta vertical bars indicate Bragg reflections of the L,L diphenylalanine phase. The black arrows indicate the presence of the main characteristic peaks of MP11.

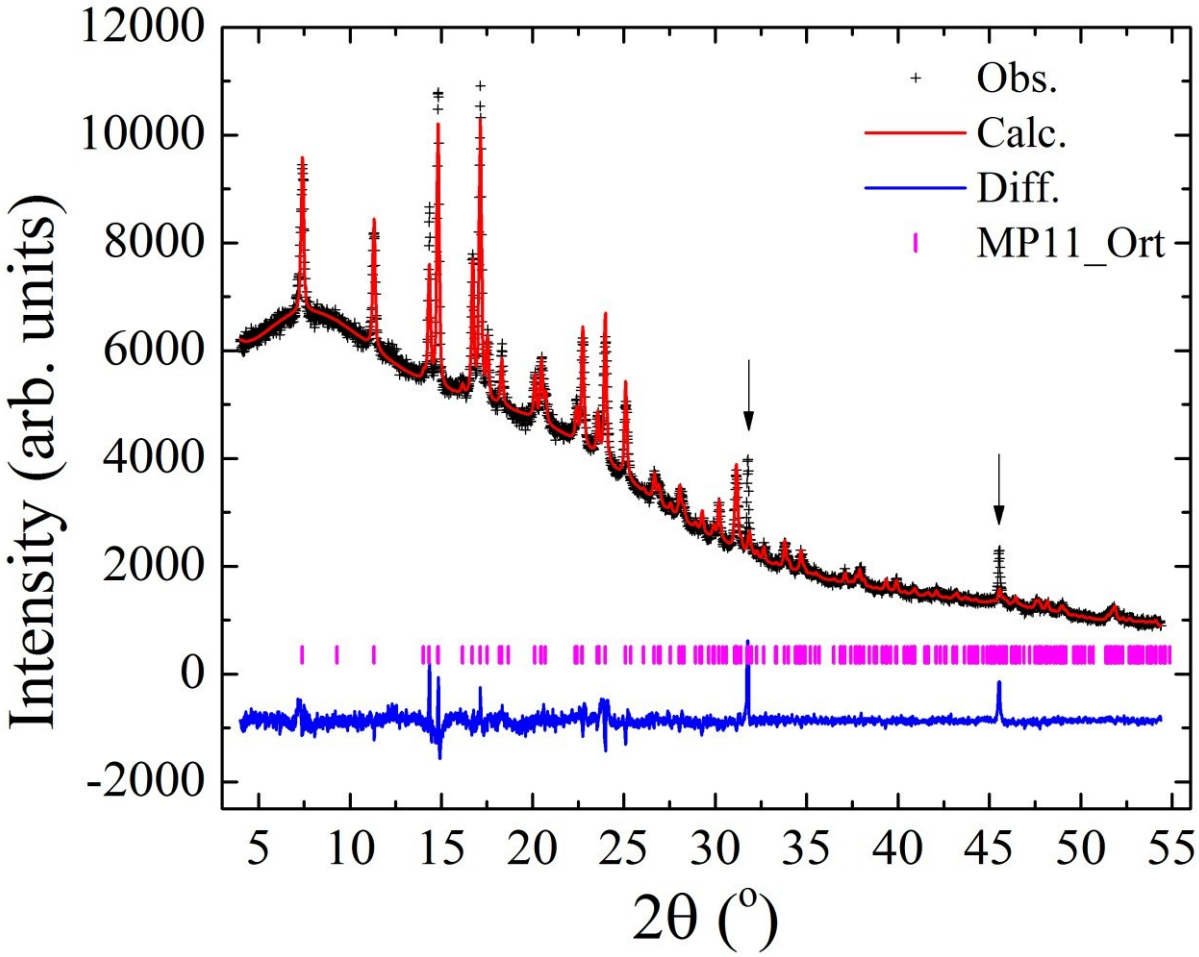

Figure S4. Plot from the final Rietveld refinement of the Ort+MP11 sample. Black crosses represent observed data, the red line indicates the calculated pattern and the blue line at the bottom represents the difference between the observed and calculated patterns. Magenta vertical bars indicate Bragg reflections of the L,L diphenylalanine phase. The black arrows indicate the presence of the main characteristic peaks of MP11.

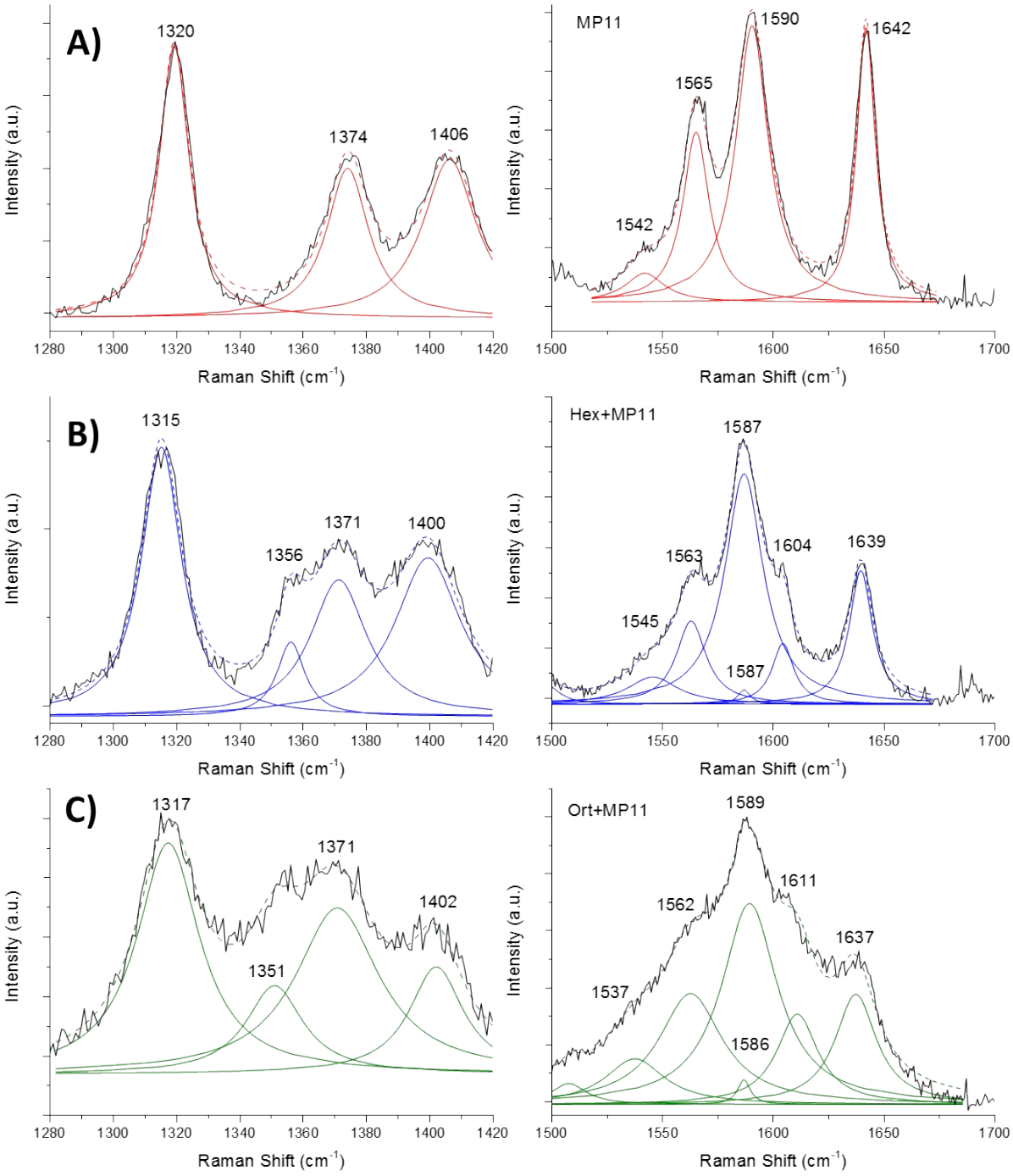

Figure S5. Deconvoluted Raman spectra of the three studied materials containing MP11. A) Pristine MP11, B) (Hex+PAH+MP11) and C) (Ort+PAH+MP11). The spectra were deconvoluted by Gaussian functions, using the Origin 9.1® functionality.

Table S1. Obtained values for the center and the FWHM of the Gaussian functions used to deconvolute the Raman data.

MP11		
Position	**FWHW**	**Vibrational mode**
1542	21,39	MP11 Amide II
1565	14,54	MP11 Ring
1590	17,69	MP11 Ring
1642	10,14	MP11 Amide I

Hex+MP11		
Position	**FWHW**	**Vibrational mode**
1545	27,58	MP11 Amide II
1563	16,33	MP11 Ring
1587	20,95	MP11 Ring
1587	6,86	FF Amide
1604	11,85	FF Amide
1639	11,85	MP11 Amide I

Ort+MP11		
Position	**FWHW**	**Vibrational mode**
1537	32,41	MP11 Amide II
1562	34,70	MP11 Ring
1589	30,69	MP11 Ring
1586	7,06	FF Amide
1611	22,56	FF Amide
1637	22,67	MP11 Amide I