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Electronic Supplementary Information

Links Between peptide and Mn oxide: Nano-sized manganese oxide embedded in a peptide matrix

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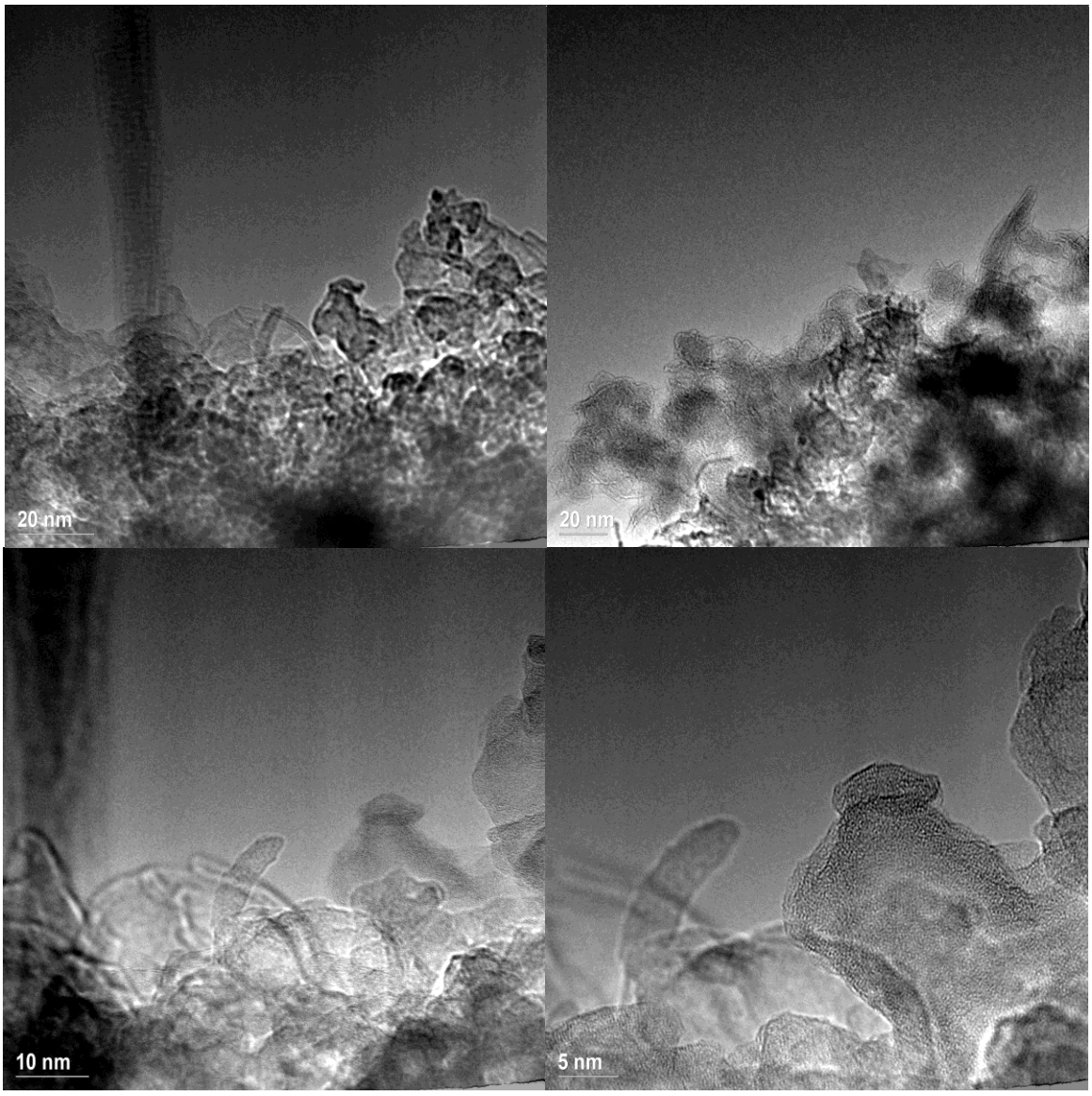


Fig. S1 TEM and HRTEM images of Mn oxide.

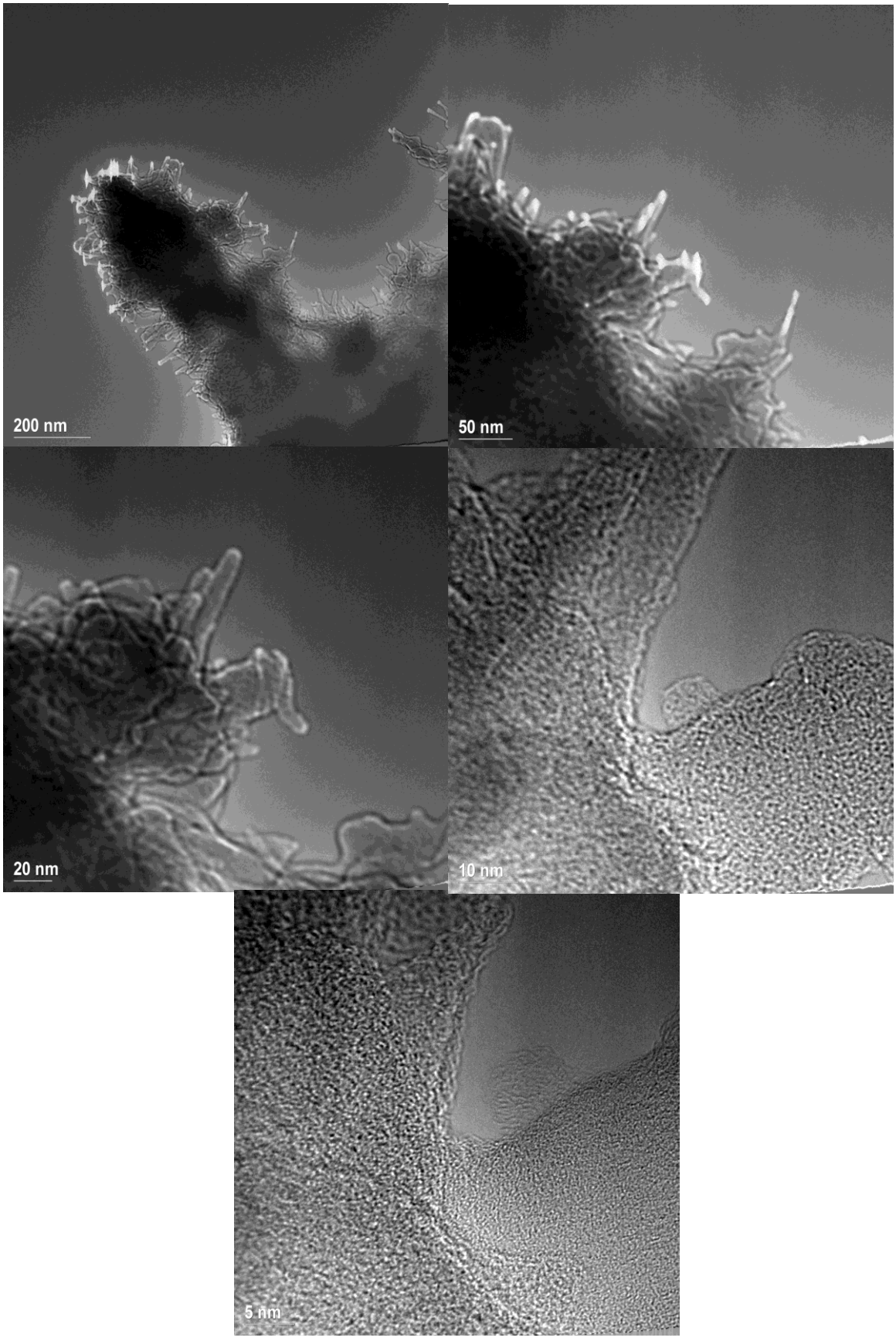


Fig. S2 TEM and HRTEM images of poly-L-tyrosine.

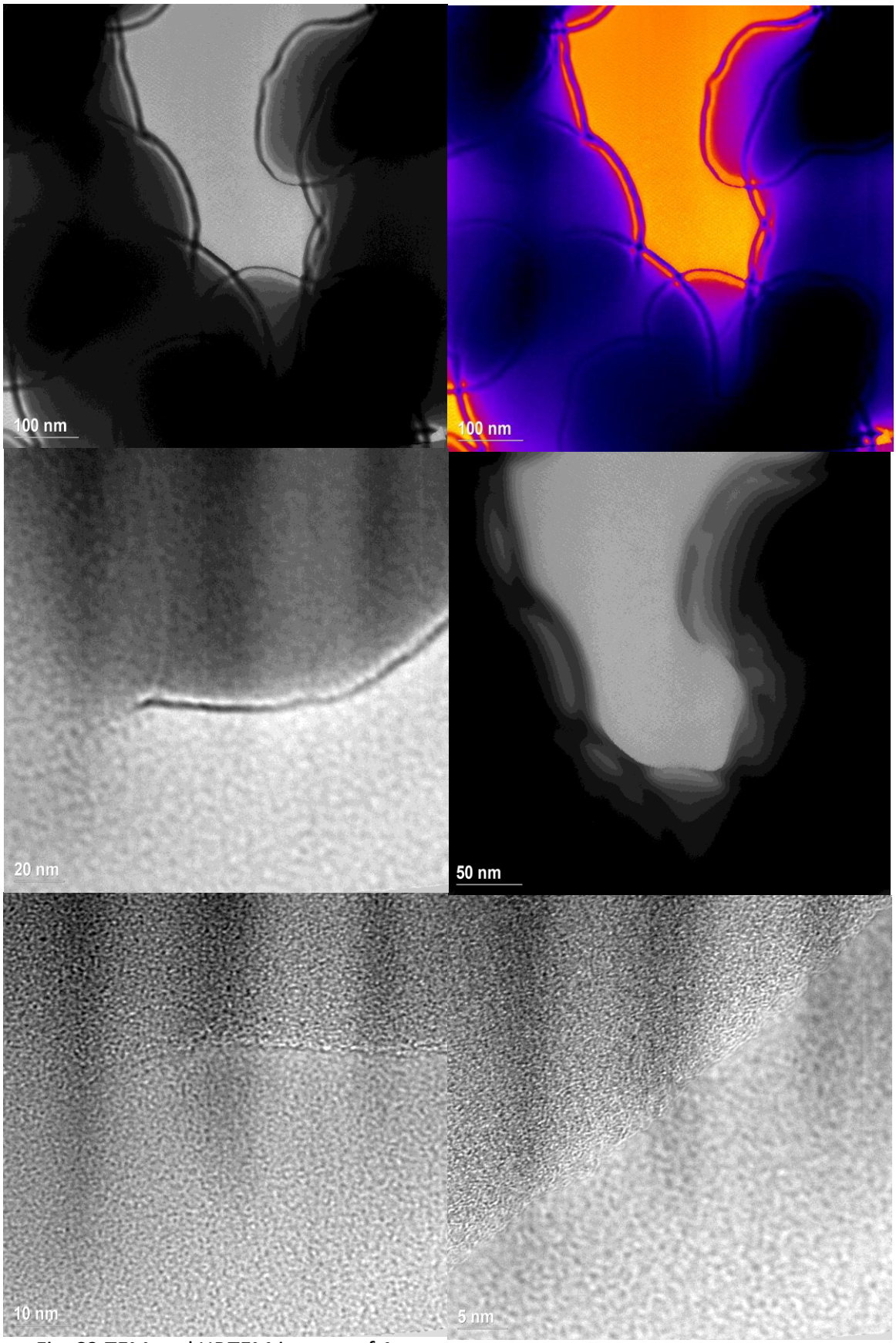


Fig. S3 TEM and HRTEM images of **1**.

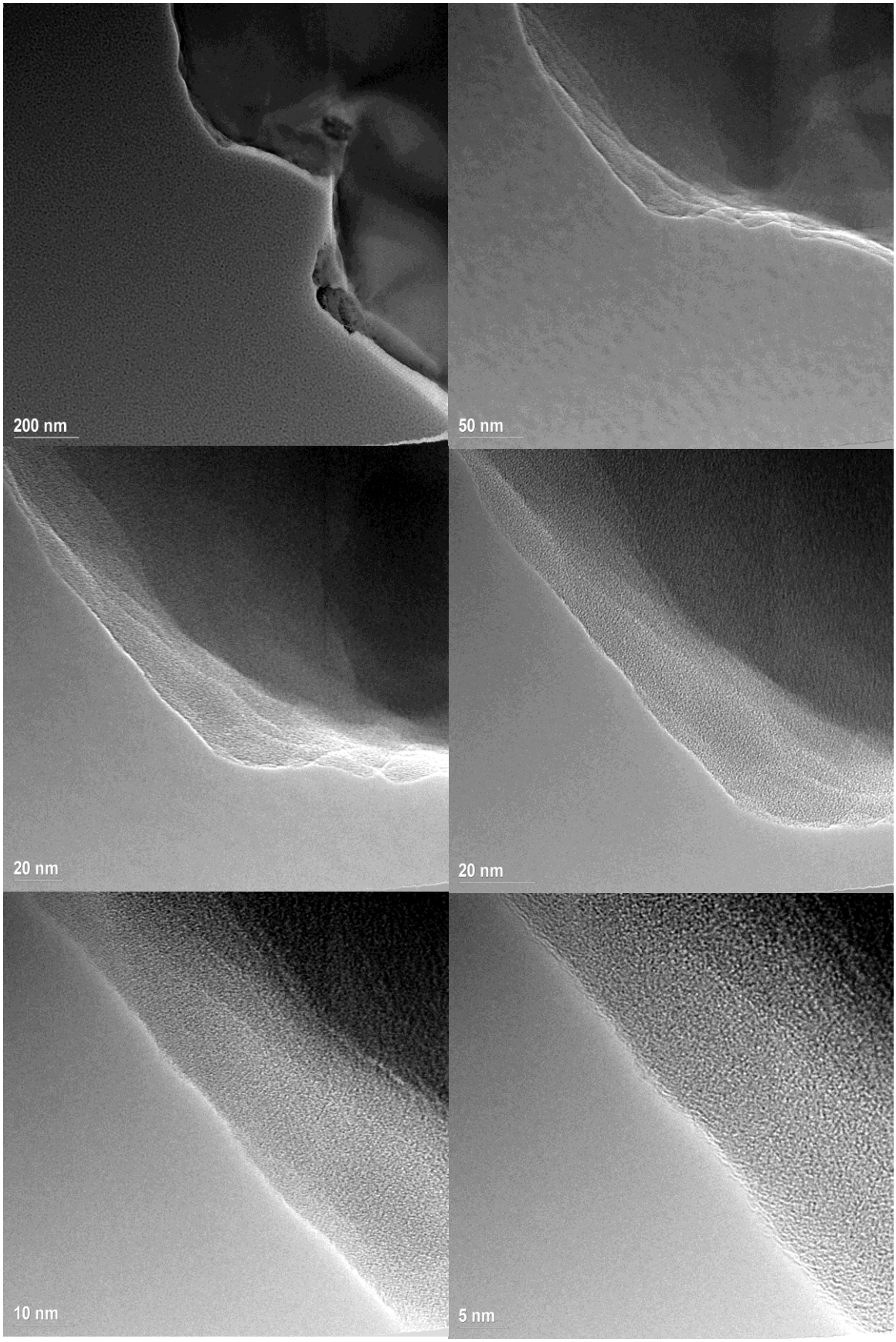


Fig. S4 TEM and HRTEM images of **2**.

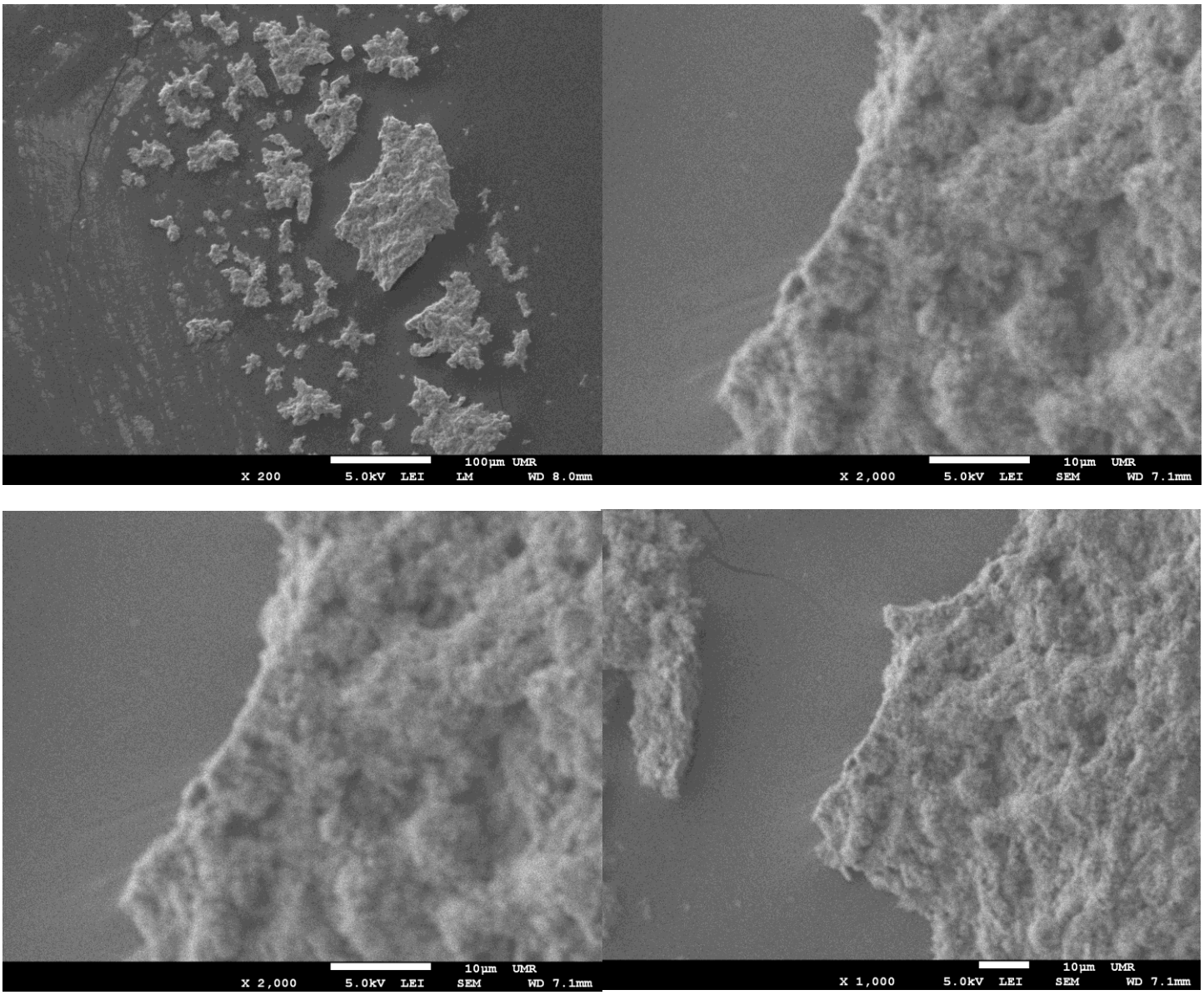


Fig. S5 SEM images of Mn oxide.

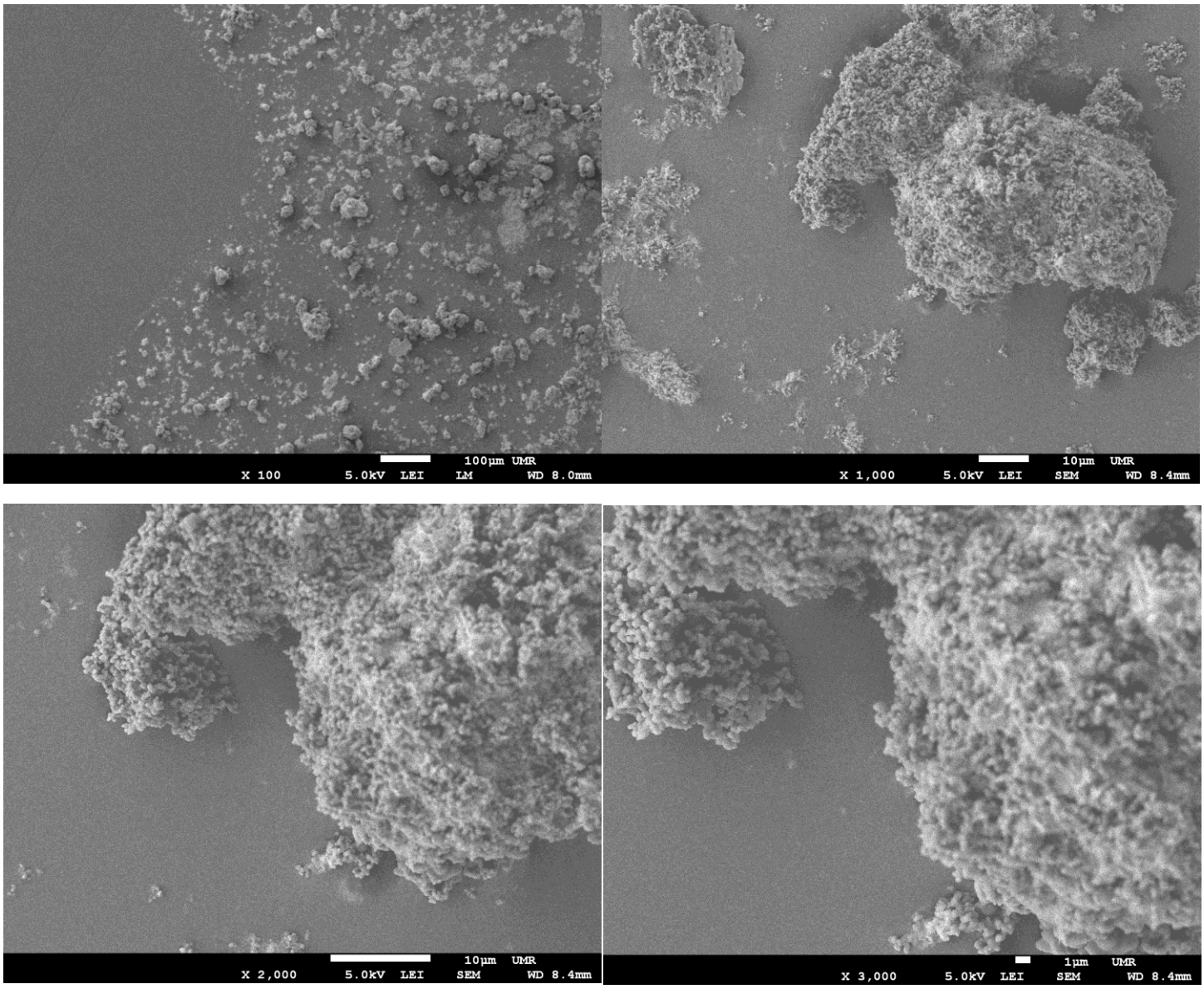


Fig. S6 SEM images of poly-L-tyrosine.

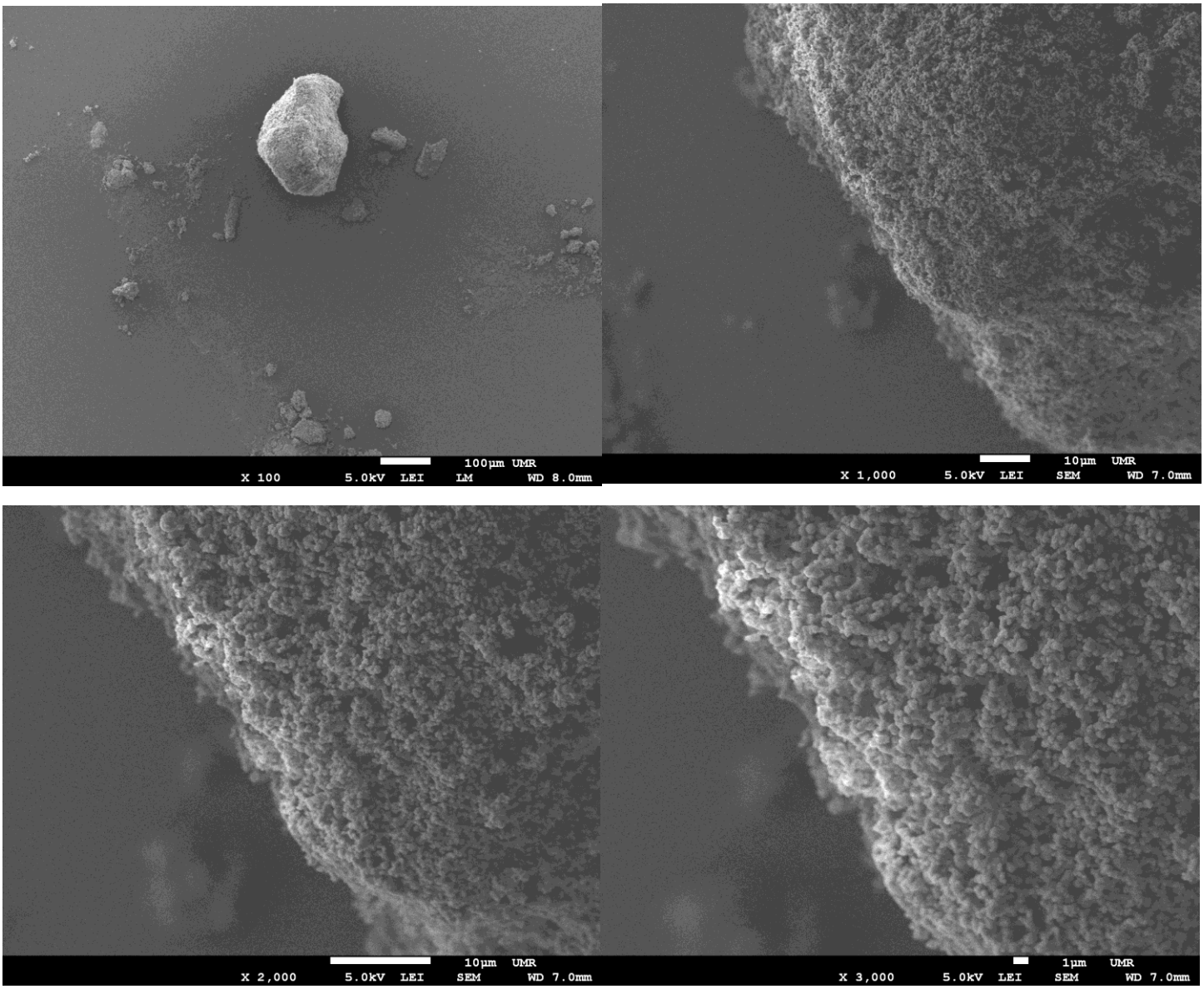


Fig. S7 SEM images of **1**.

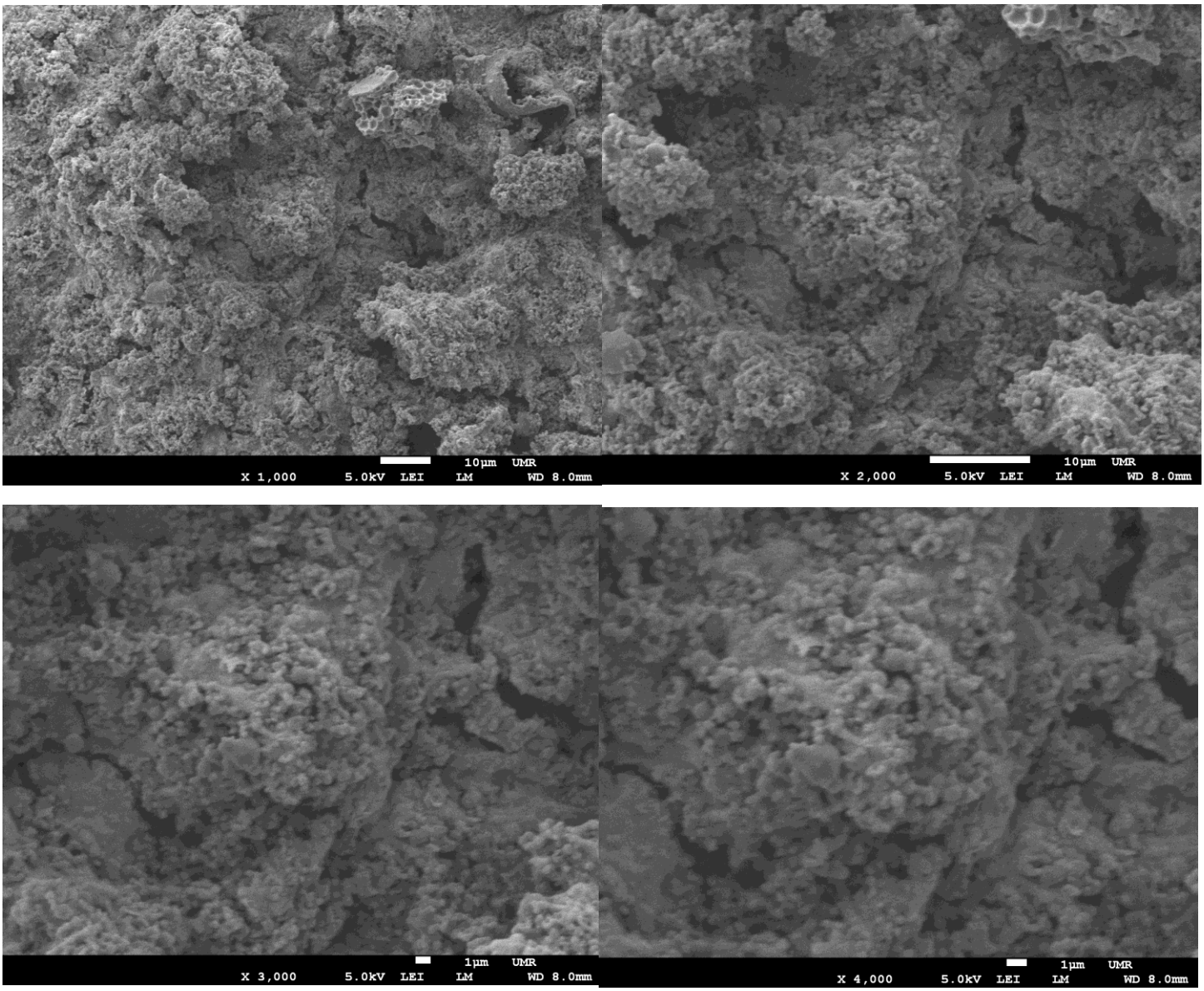


Fig. S8 SEM images of **2**.

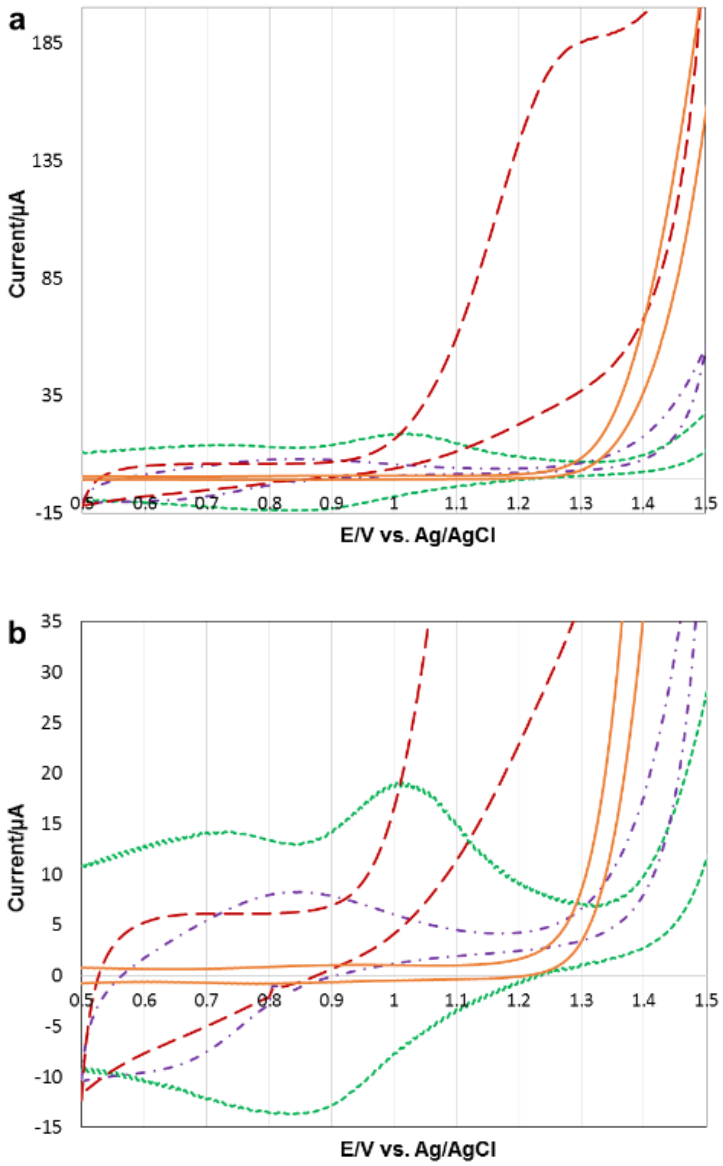


Fig. S9 Cyclic voltammograms of PTyr (orange), Mn oxide (green), **1** (blue) and **2** (red). Cyclic voltammograms are for the solutions in $LiClO_4$ (0.25 M in water, pH= 6.3).

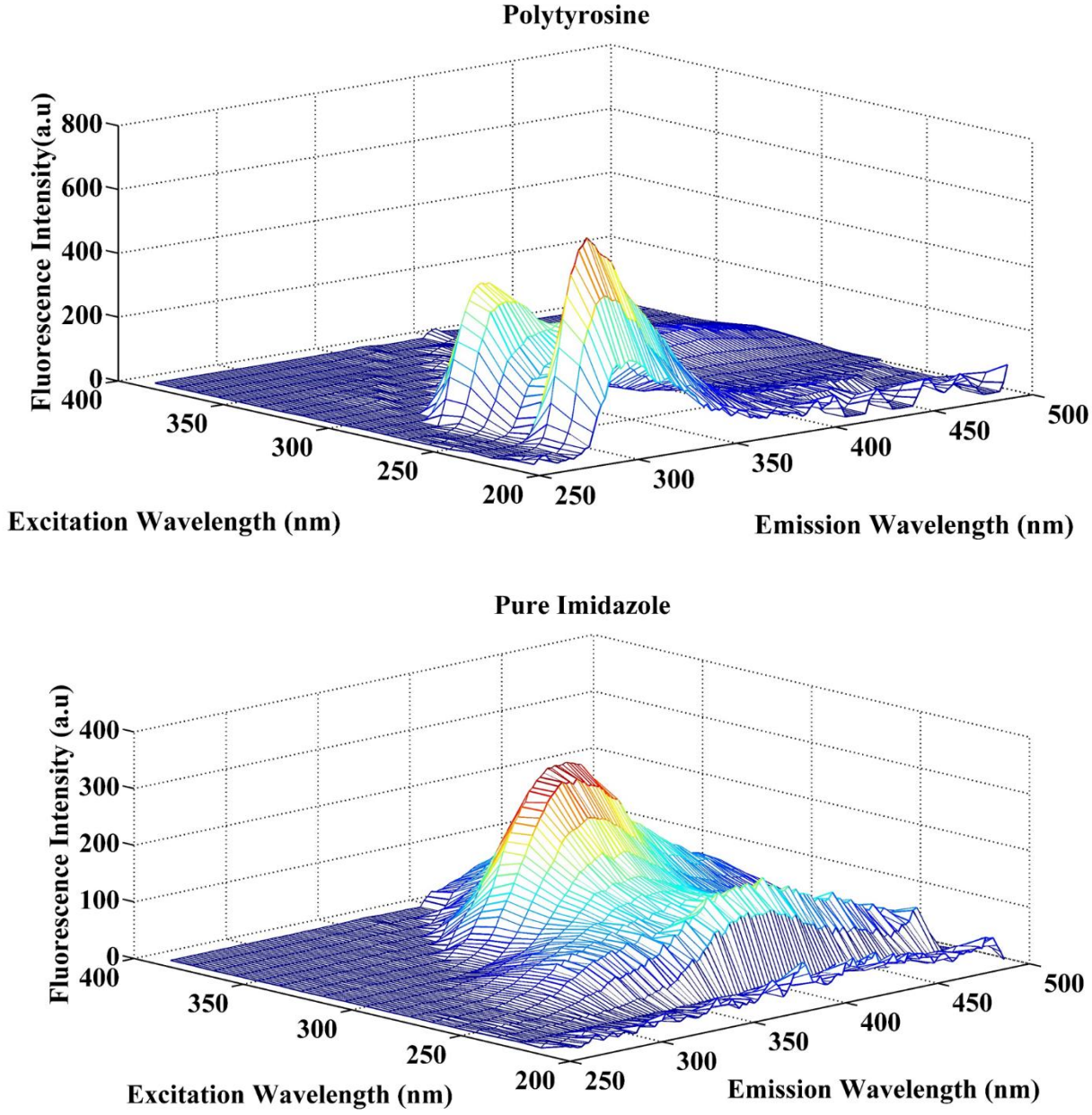
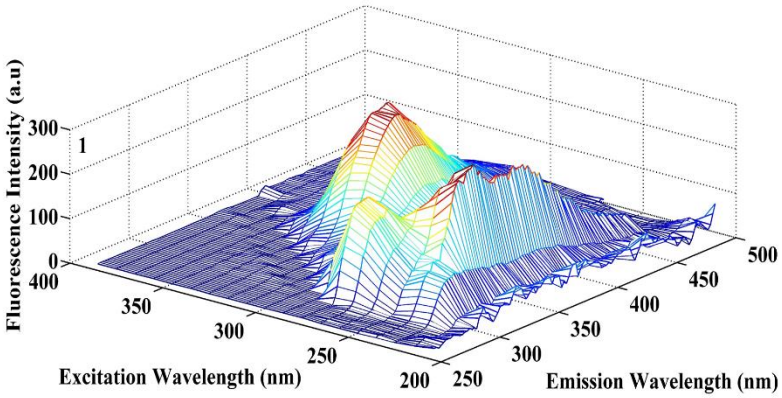


Fig. S10 The excitation-emission spectra of poly-L-tyrosine and pure imidazole.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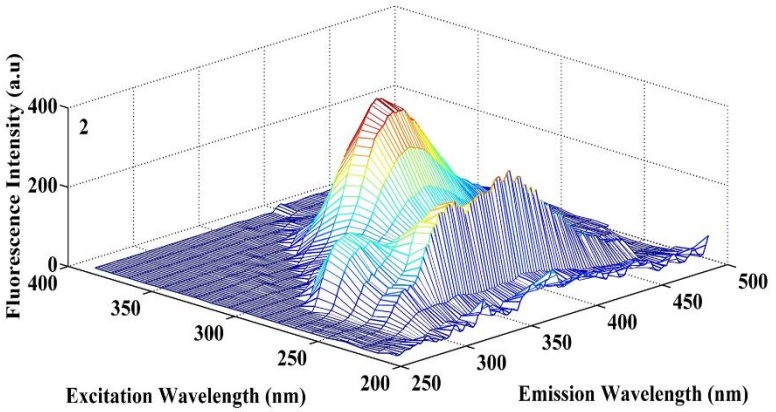
Fluorescence Intensity (a.u)
Excitation Wavelength (nm)
Emission Wavelength (nm)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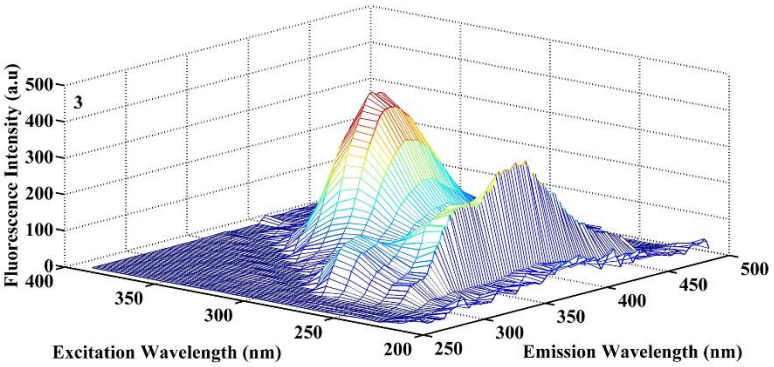
Fluorescence Intensity (a.u)
Excitation Wavelength (nm)
Emission Wavelength (nm)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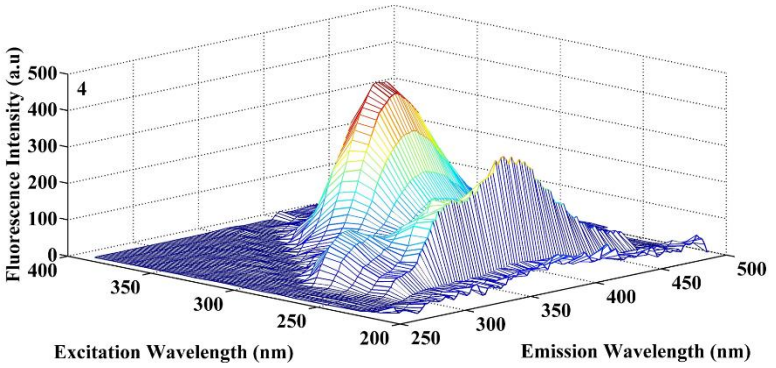
Fluorescence Intensity (a.u)
Excitation Wavelength (nm)
Emission Wavelength (nm)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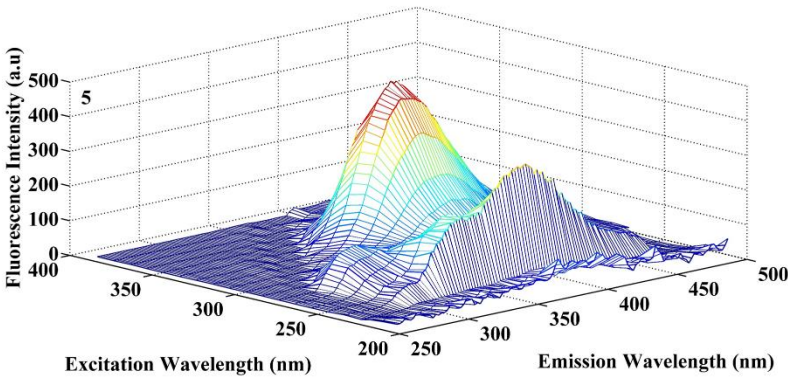
Fluorescence Intensity (a.u)
Excitation Wavelength (nm)
Emission Wavelength (nm)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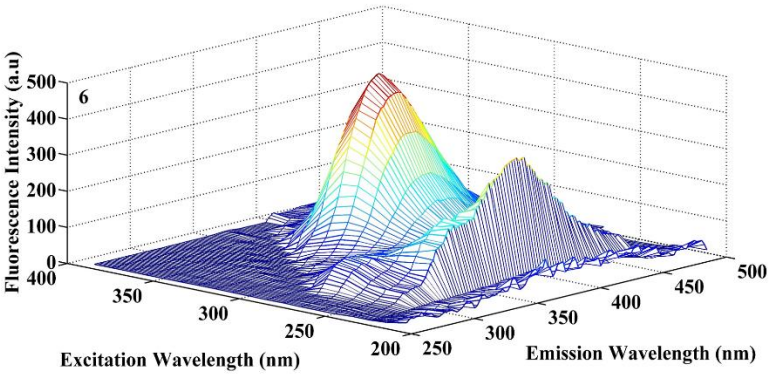
Fluorescence Intensity (a.u)
Excitation Wavelength (nm)
Emission Wavelength (nm)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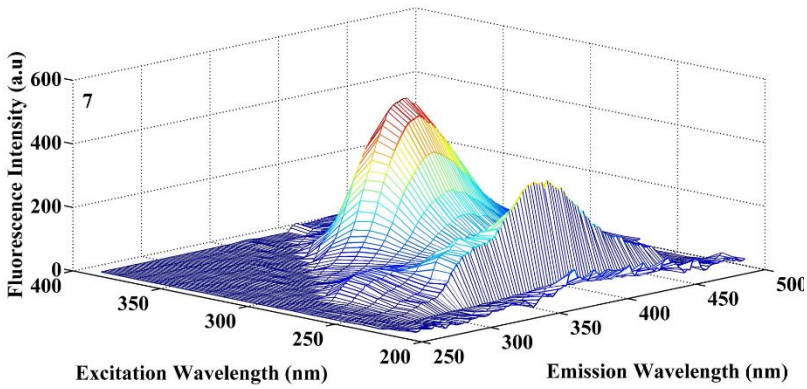
Fluorescence Intensity (a.u)
Excitation Wavelength (nm)
Emission Wavelength (nm)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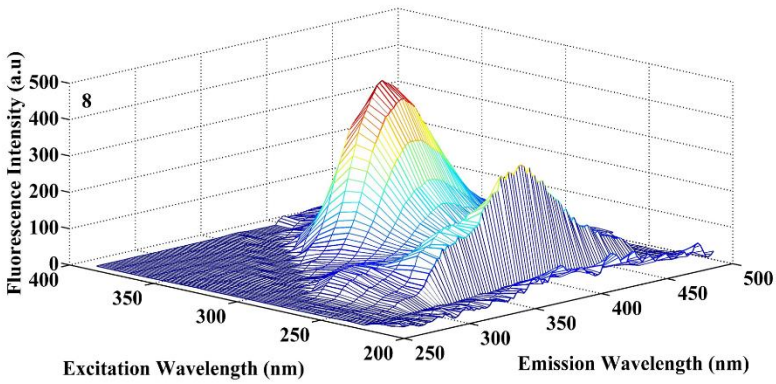
Fluorescence Intensity (a.u)
Excitation Wavelength (nm)
Emission Wavelength (nm)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Fluorescence Intensity (a.u)
Excitation Wavelength (nm)
Emission Wavelength (nm)

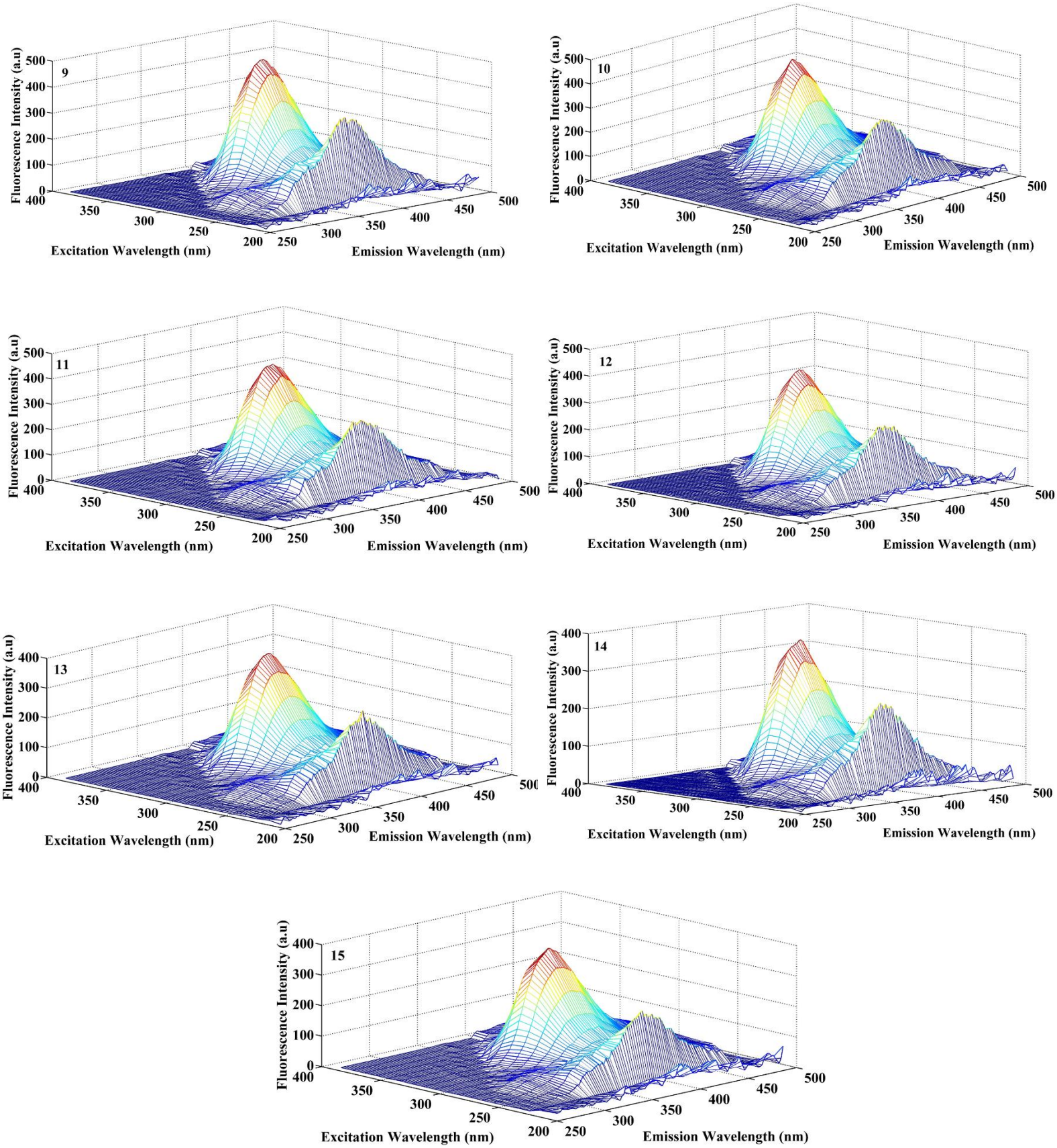

Fig. S11 The excitation-emission profiles of poly-L-tyrosine (initial volume = 25 ml and C = 0.1 mg/ml) titration with imidazole (initial volume = 25 ml, C = 4 mg/ml and volume added for any experiment = 50 µl until 15 step) (continue).

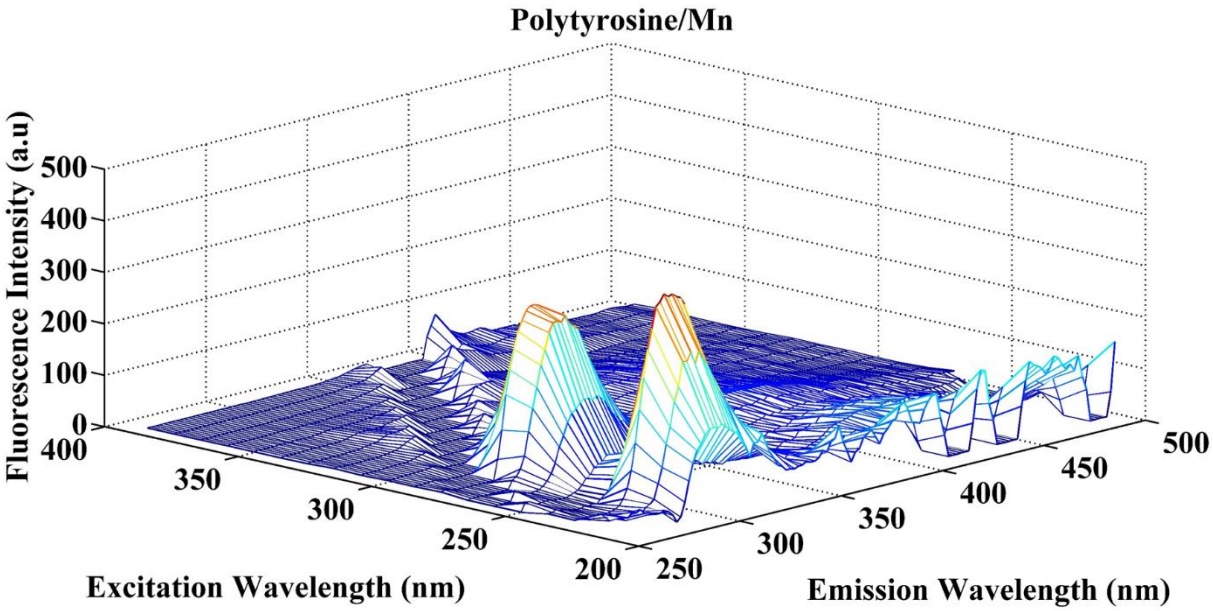

Fig. S12 The excitation-emission profiles of poly-L-tyrosine/Mn and pure imidazole.

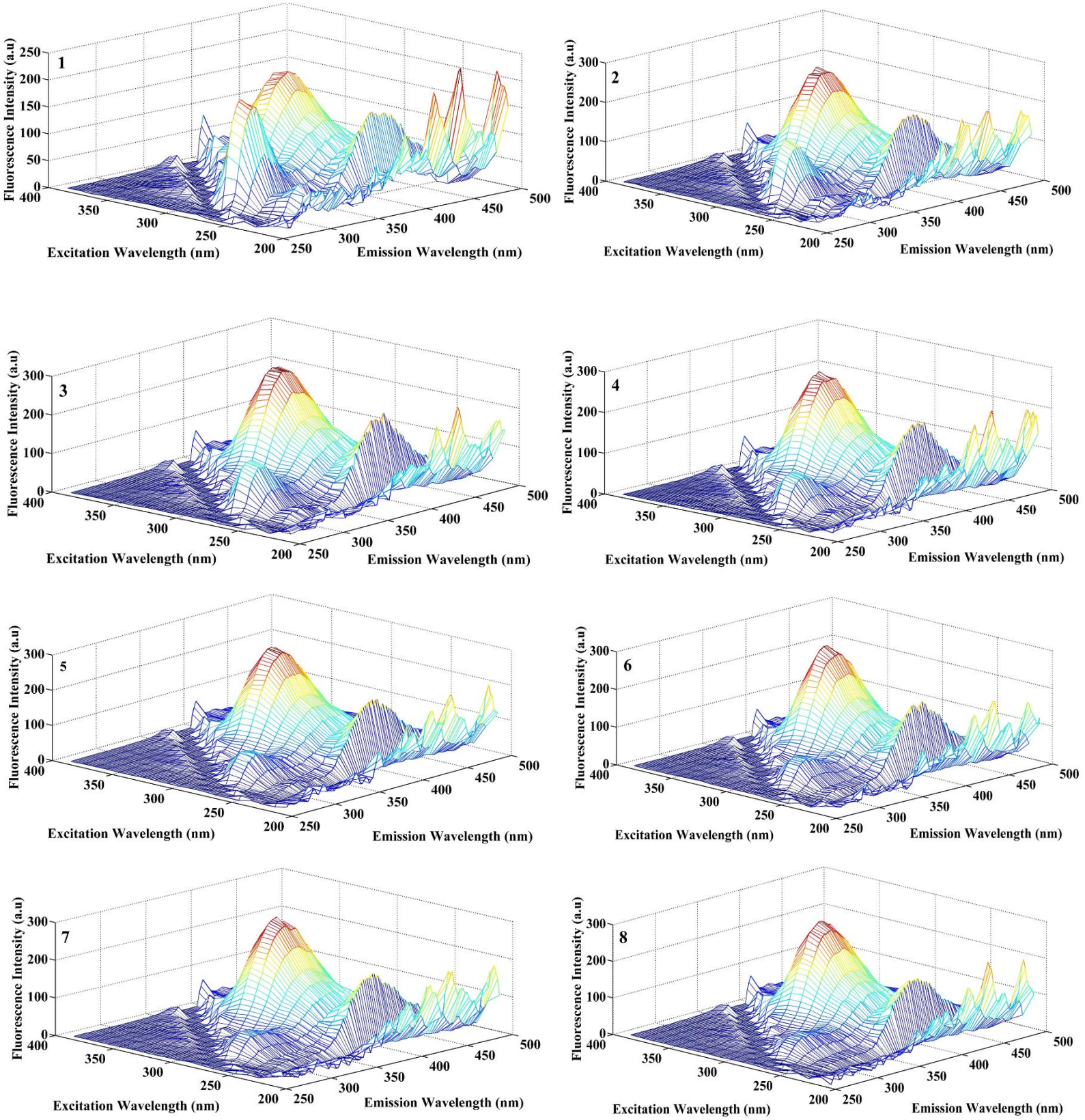

Fig. S13 The excitation-emission profiles of Mn oxide/poly-L-tyrosine (initial volume= 25 ml and C = 0.3 mg/ml) on titration with imidazole (initial volume = 25 ml, C = 4 mg/ml and volume added for any experiment = 50 µl until the 15th step).

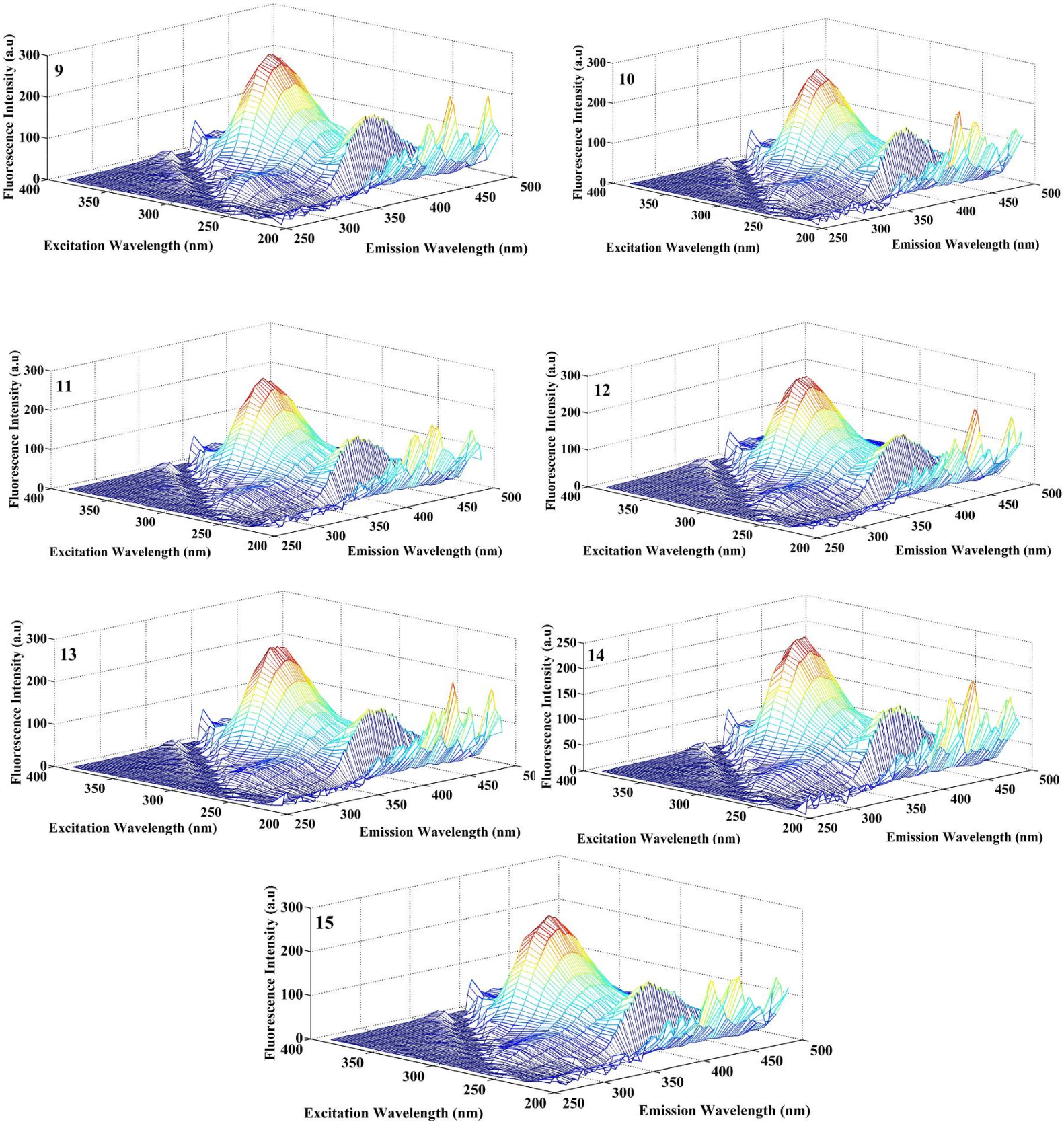

Fig. S13 The excitation-emission profiles of Mn oxide/poly-L-tyrosine (initial volume= 25 ml and C = 0.3 mg/ml) on titration with imidazole (initial volume = 25 ml, C = 4 mg/ml and volume added for any experiment = 50 µl until the 15th step) (continue).

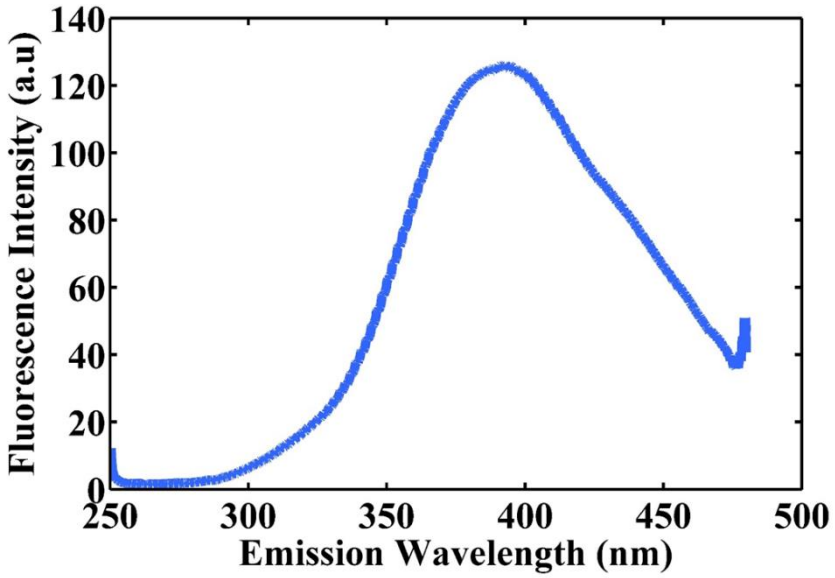

Fig. S14 Emission spectra for pure imidazole.