Supporting Information:
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Influence of hydrophobic face amino acids on the hydrogelation of β-hairpin peptide amphiphiles

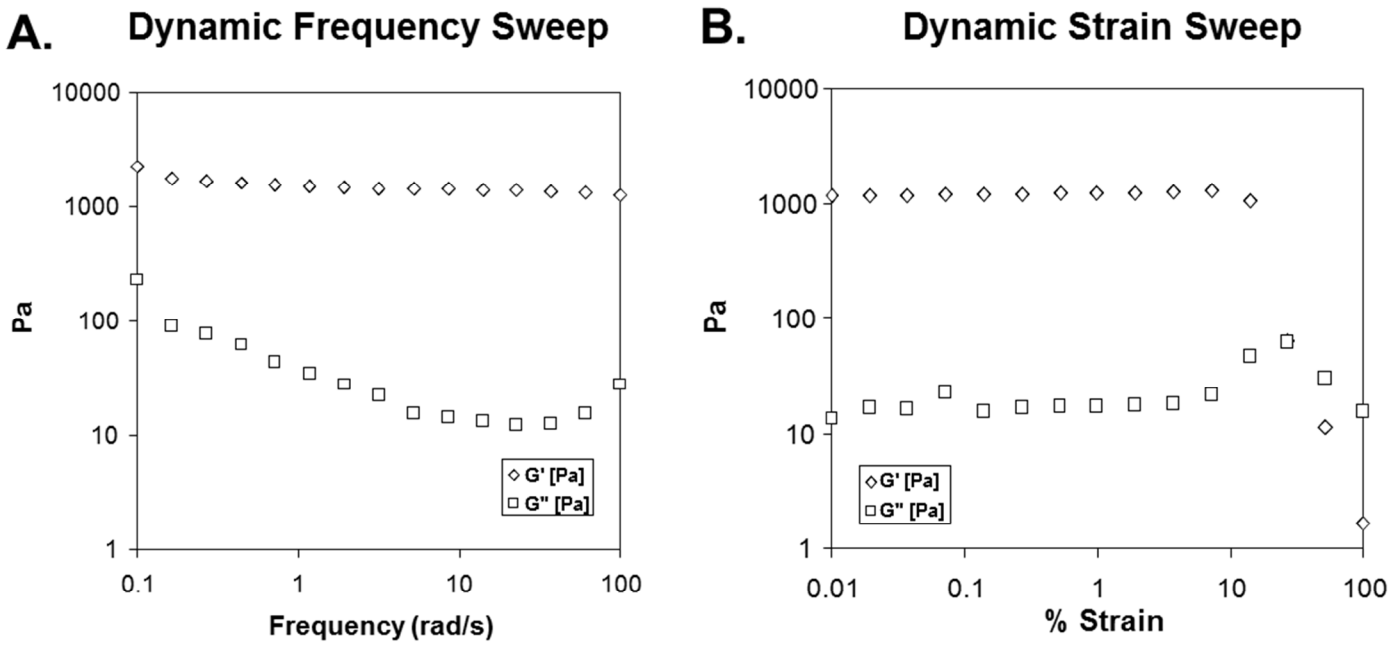


Figure S1: (**A**) Dynamic frequency and (**B**) strain sweep of 1wt% M(Abu) gels at 80°C in125 mM borate, 10 mM NaCl, pH 9 buffer.

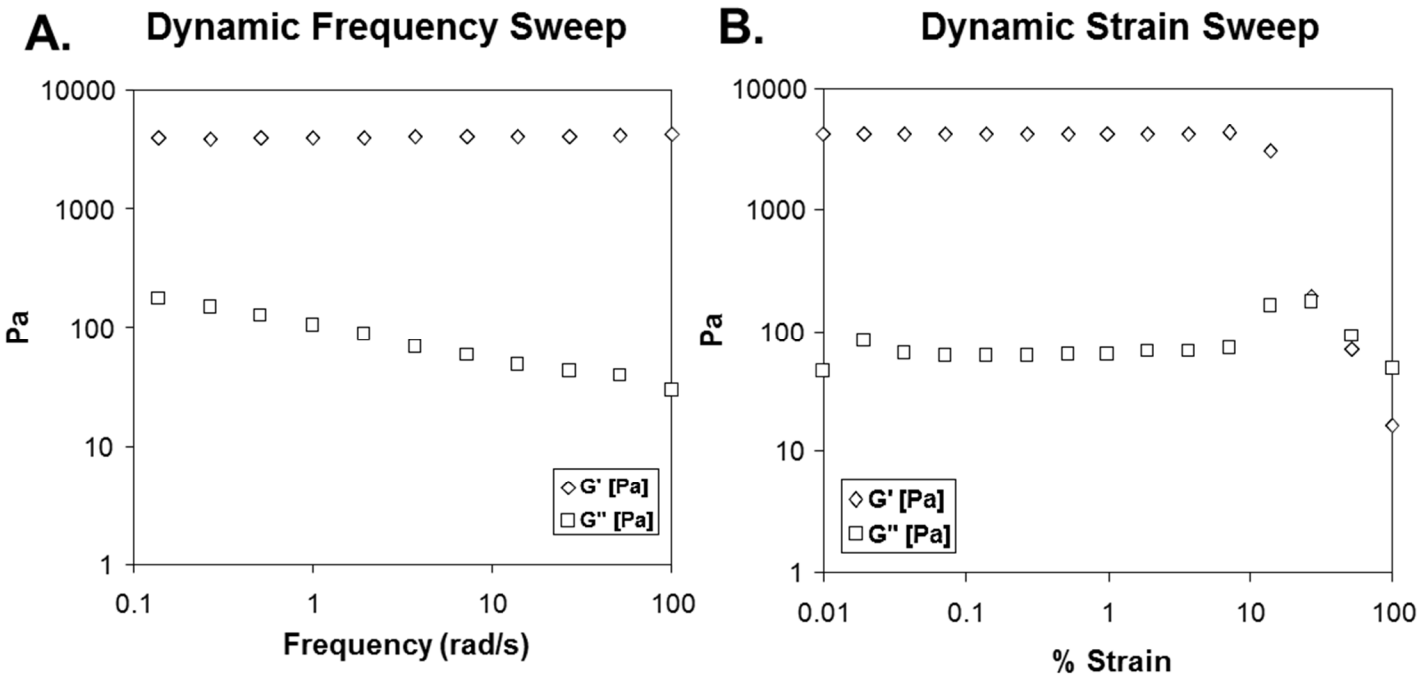


Figure S2: (**A**) Dynamic frequency and (**B**) strain sweep of 1wt% MAX1 gels at 50°C in125 mM borate, 10 mM NaCl, pH 9 buffer.

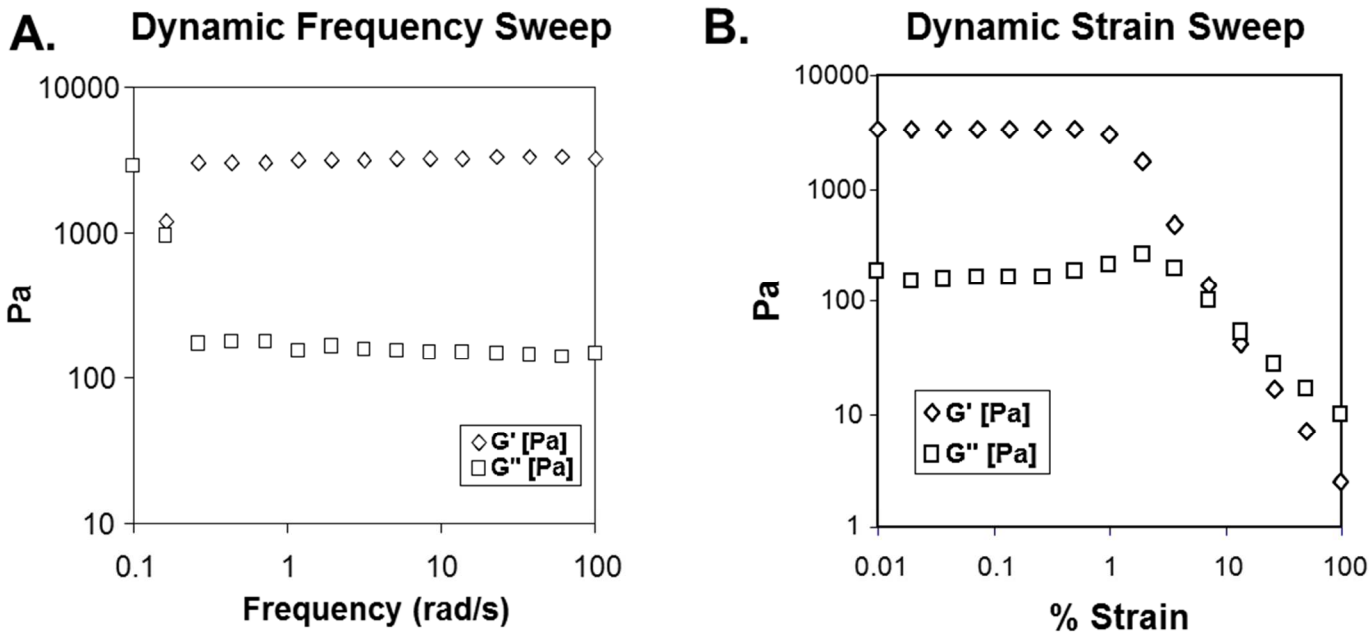


Figure S3: (**A**) Dynamic frequency and (**B**) strain sweep of 1wt% M(Nva) gels at 50°C in125 mM borate, 10 mM NaCl, pH 9 buffer.

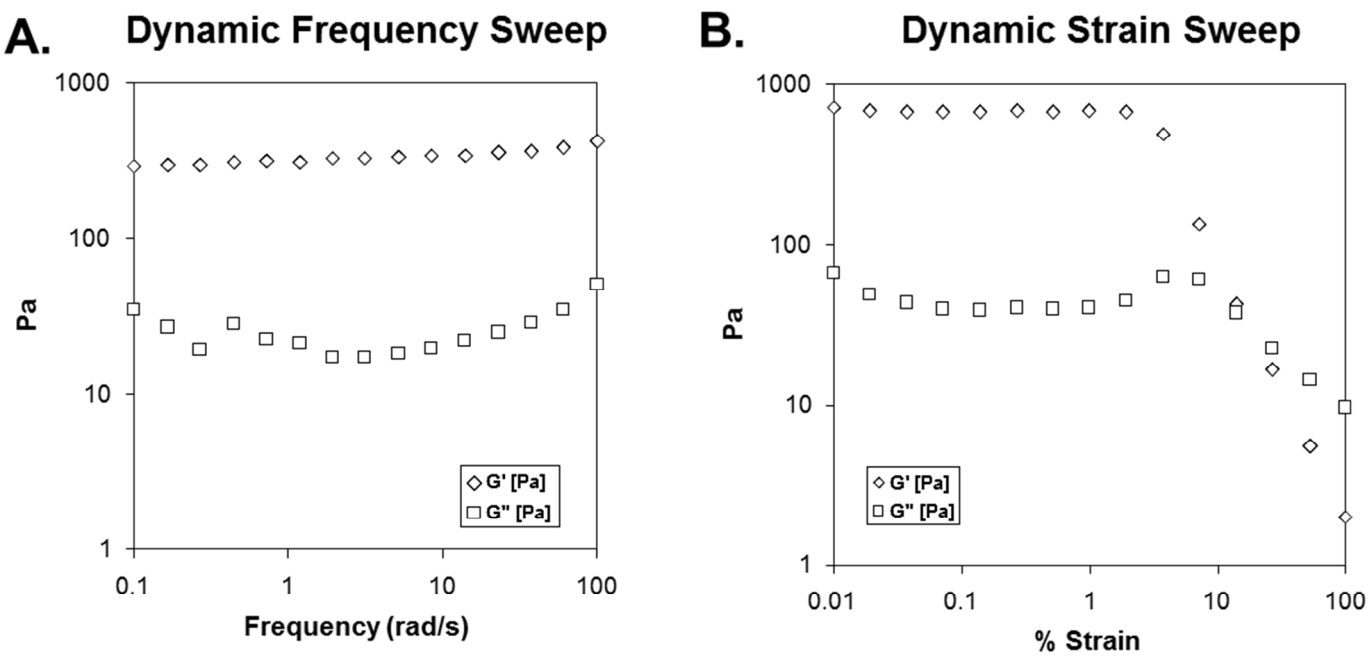


Figure S4: (**A**) Dynamic frequency and (**B**) strain sweep of 1wt% M(Nle) gels at 50°C in125 mM borate, 10 mM NaCl, pH 9 buffer

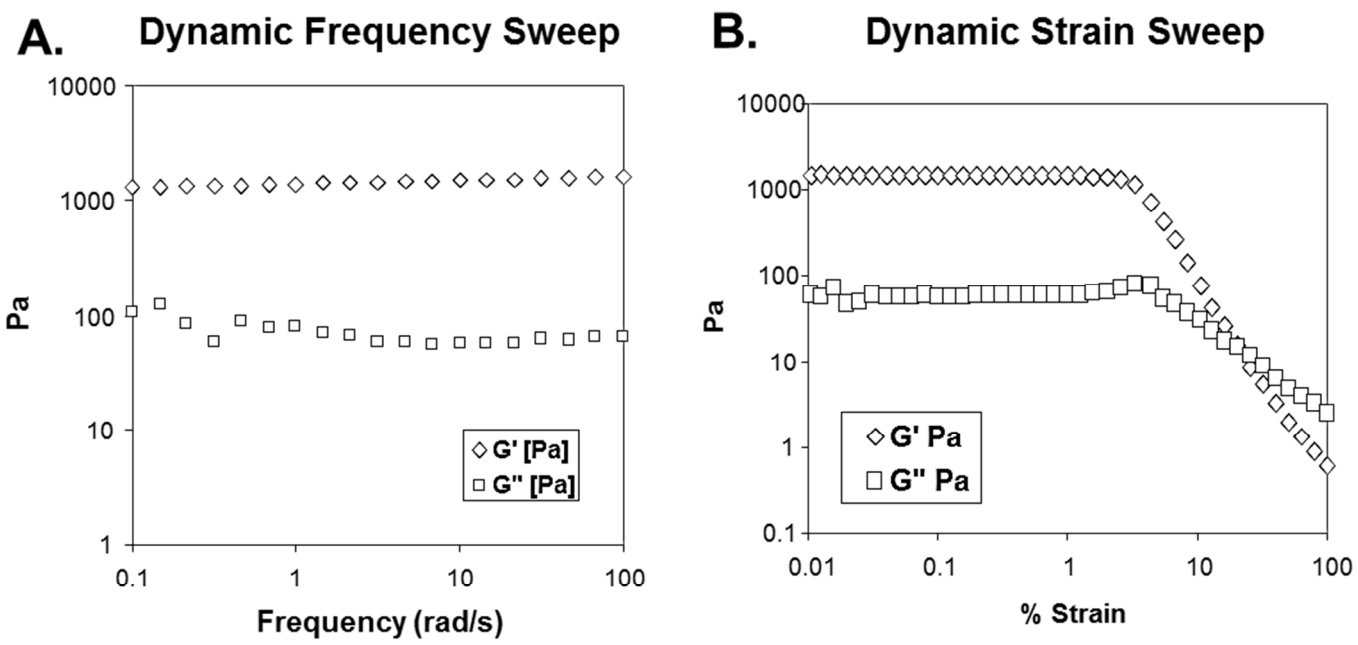


Figure S5: (**A**) Dynamic frequency and (**B**) strain sweep of 1wt% M(Phe) gels at 50°C in125 mM borate, 10 mM NaCl, pH 9 buffer

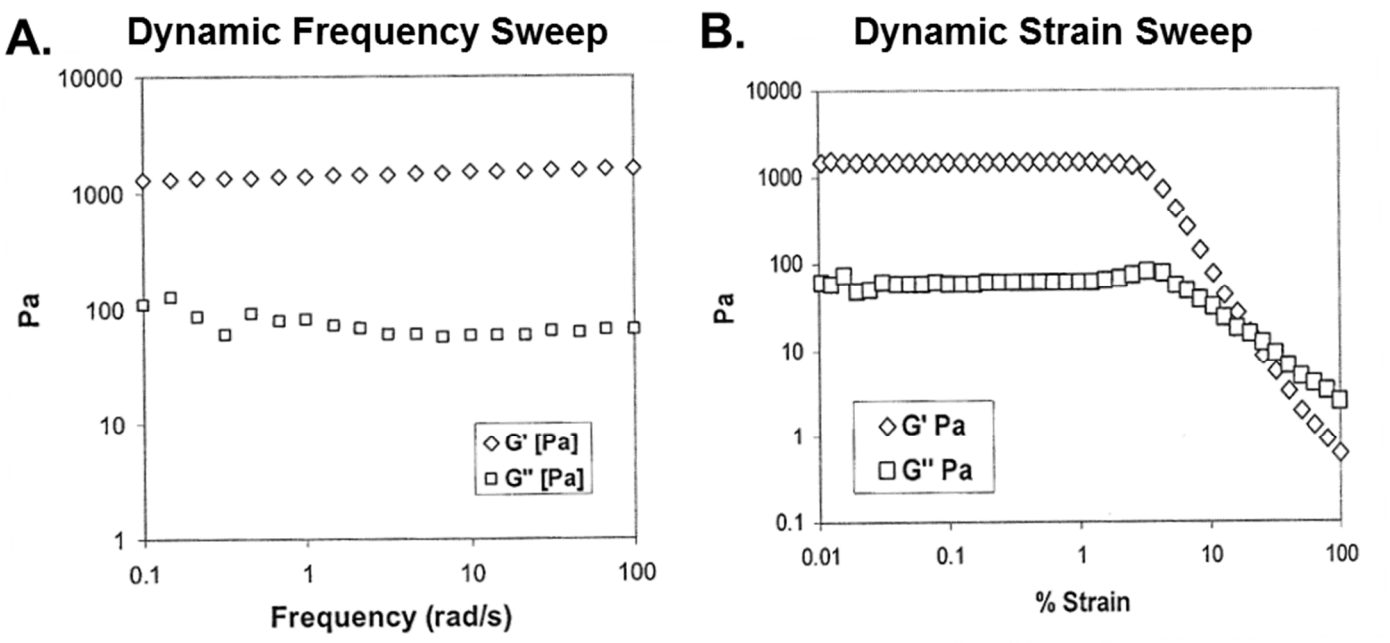


Figure S6: (**A**) Dynamic frequency and (**B**) strain sweep of 1wt% M(Ile) gels at 50°C in125 mM borate, 10 mM NaCl, pH 9 buffer

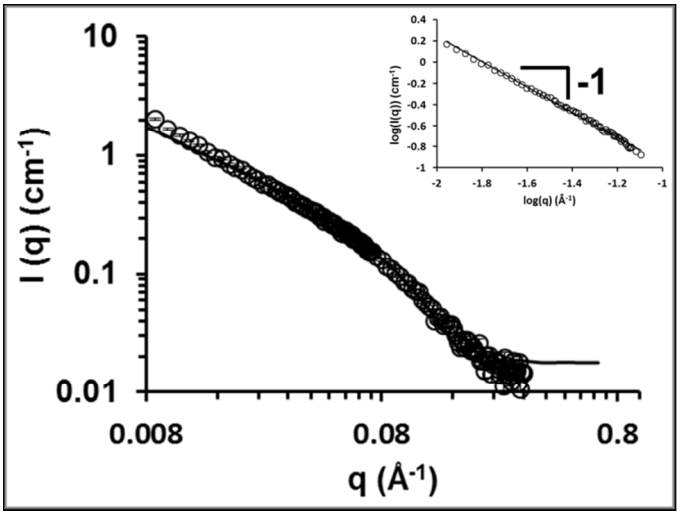


Figure S7: SANS analysis of M(Nva), with data fit using a cylindrical form factor. Inset shows a slope of approximately -1 for log I(q) versus log q.

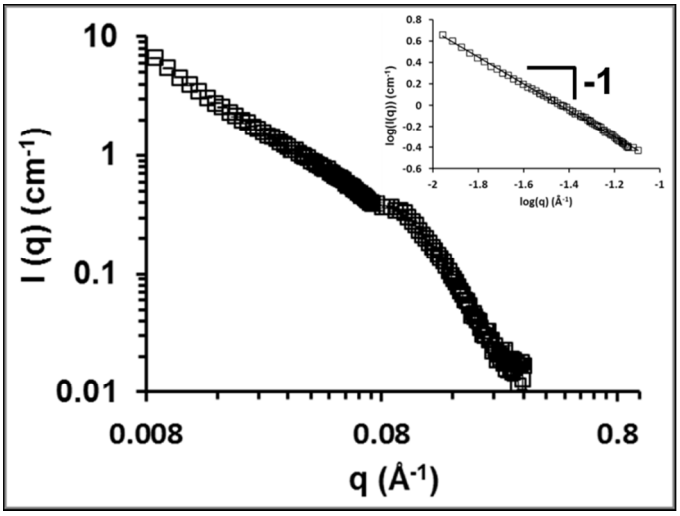


Figure S8: SANS analysis of M(Nle). Inset shows a slope of approximately -1 for log I(q) versus log q.

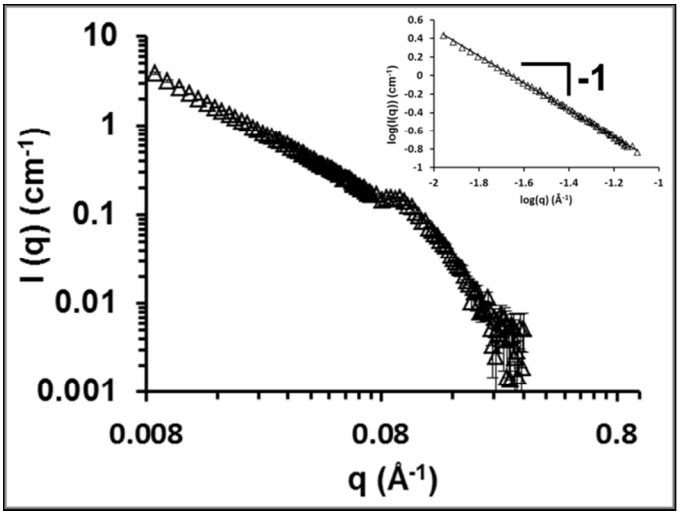


Figure S9: SANS analysis of M(Phe). Inset shows a slope of approximately -1 for log I(q) versus log q.

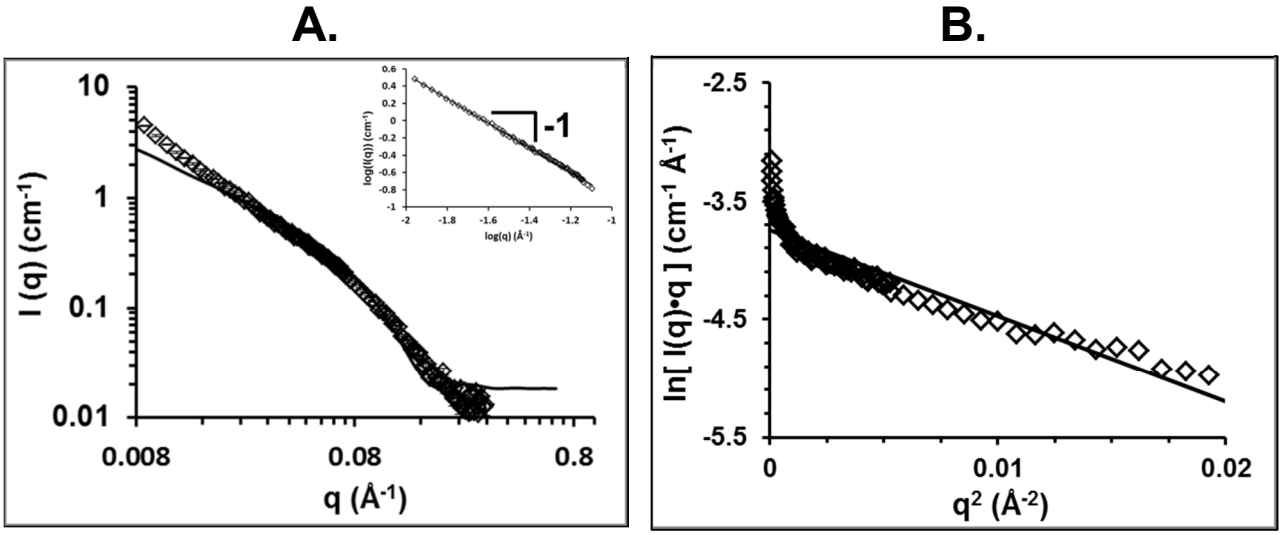
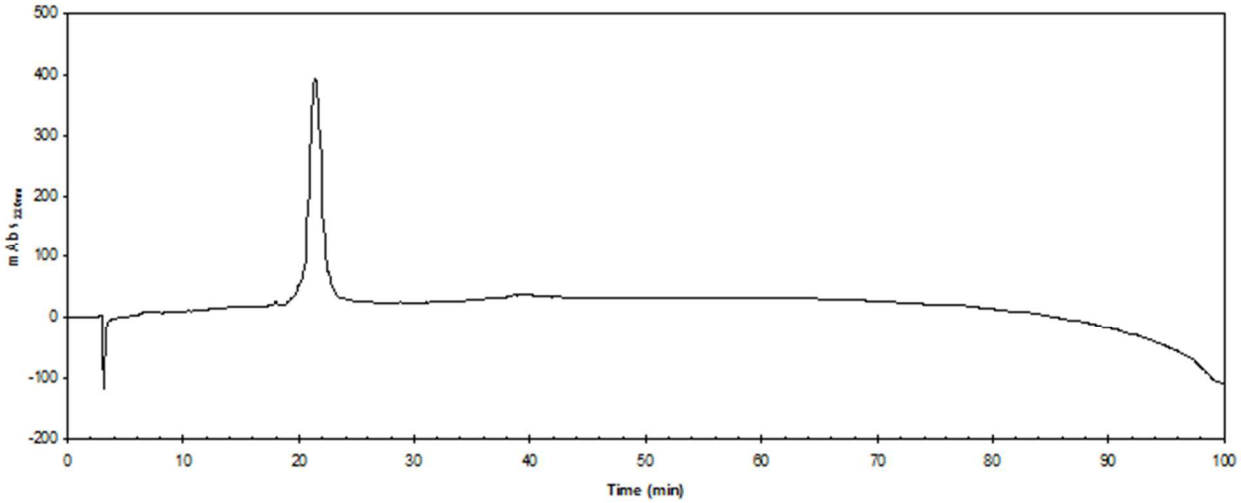


Figure S10: (**A**) SANS analysis of M(Ile), with data fit using a cylindrical form factor. Inset shows a slope of approximately -1 for log I(q) versus log q. (**B**) SANS data for M(Ile) plotted as ln[I(q)•q] vs q^2. A linear fit was applied to the data in the low q regime to calculate fibril cross-sectional diameter using a modified Guinier analysis.



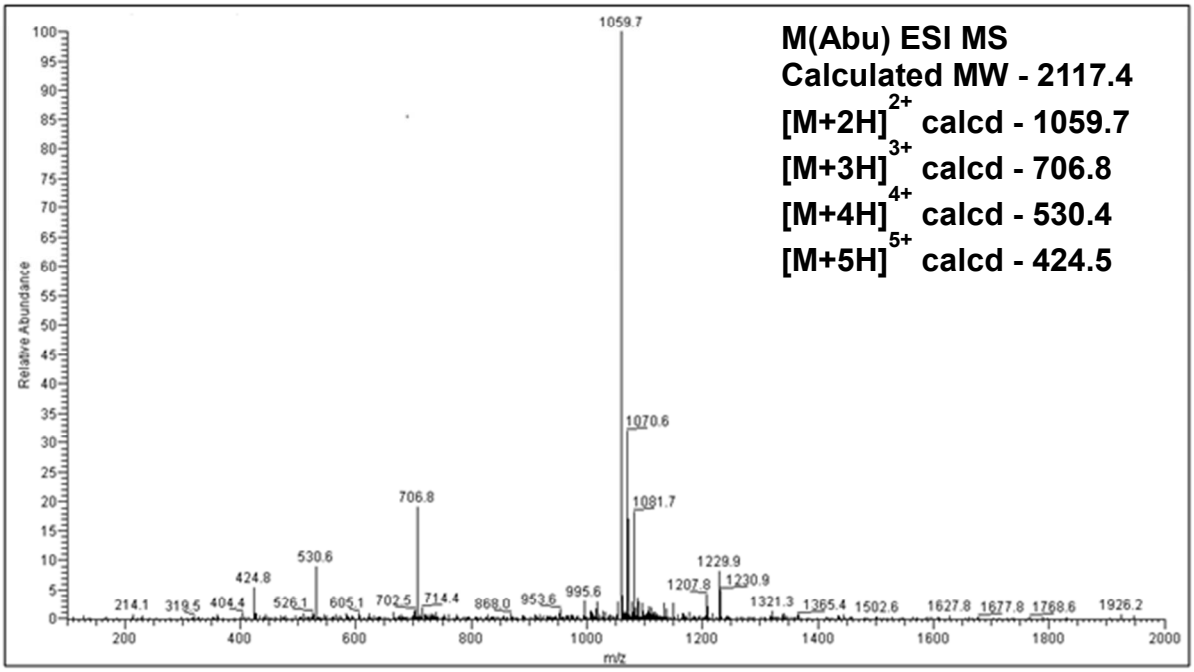


Figure S11: M(Abu) – Analytical HPLC (Vydac C18) 0-100% B; 100 min; 20°C.

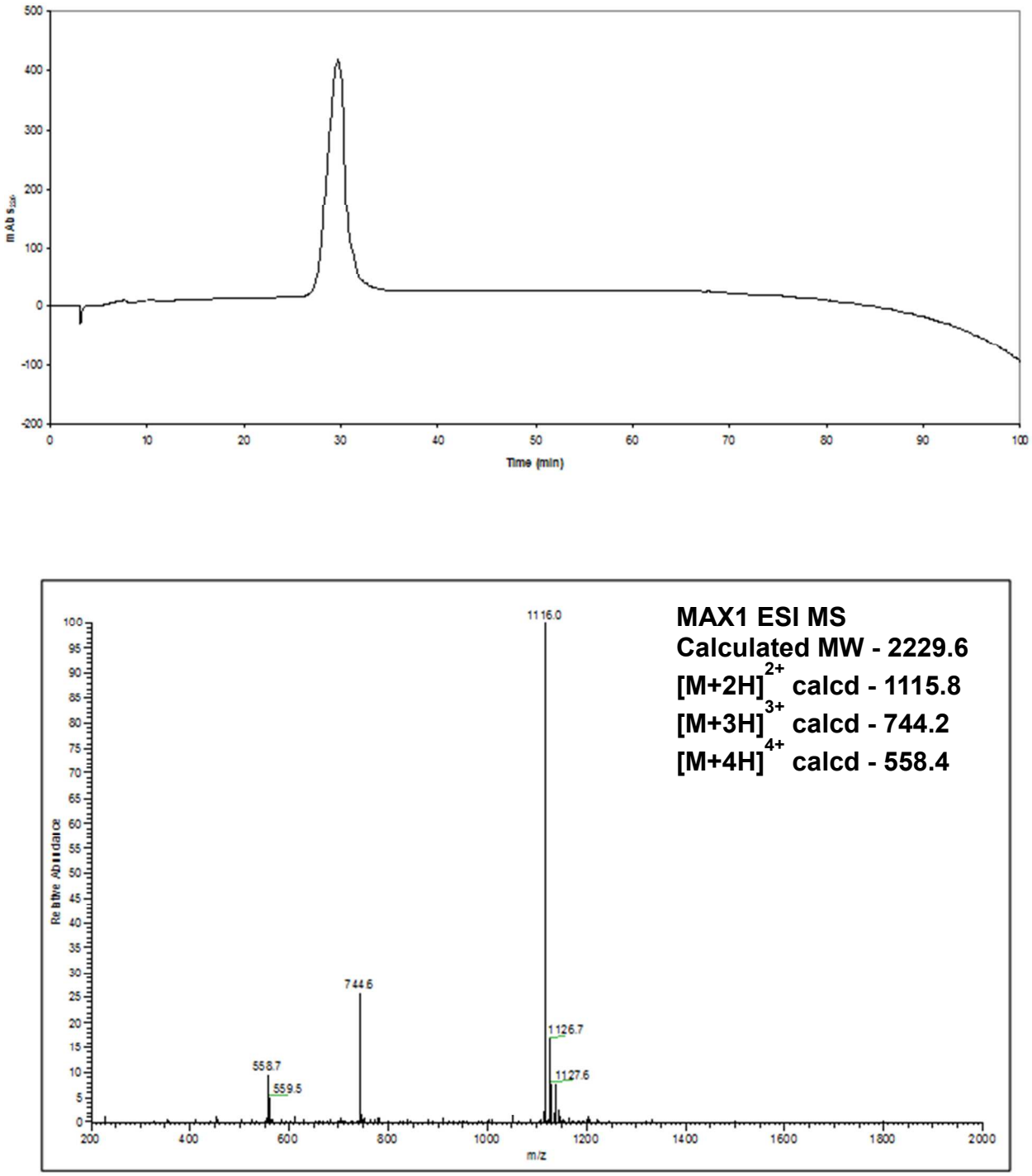


Figure S12: MAX1 – Analytical HPLC (Vydac C18) 0-100% B; 100 min; 20°C.

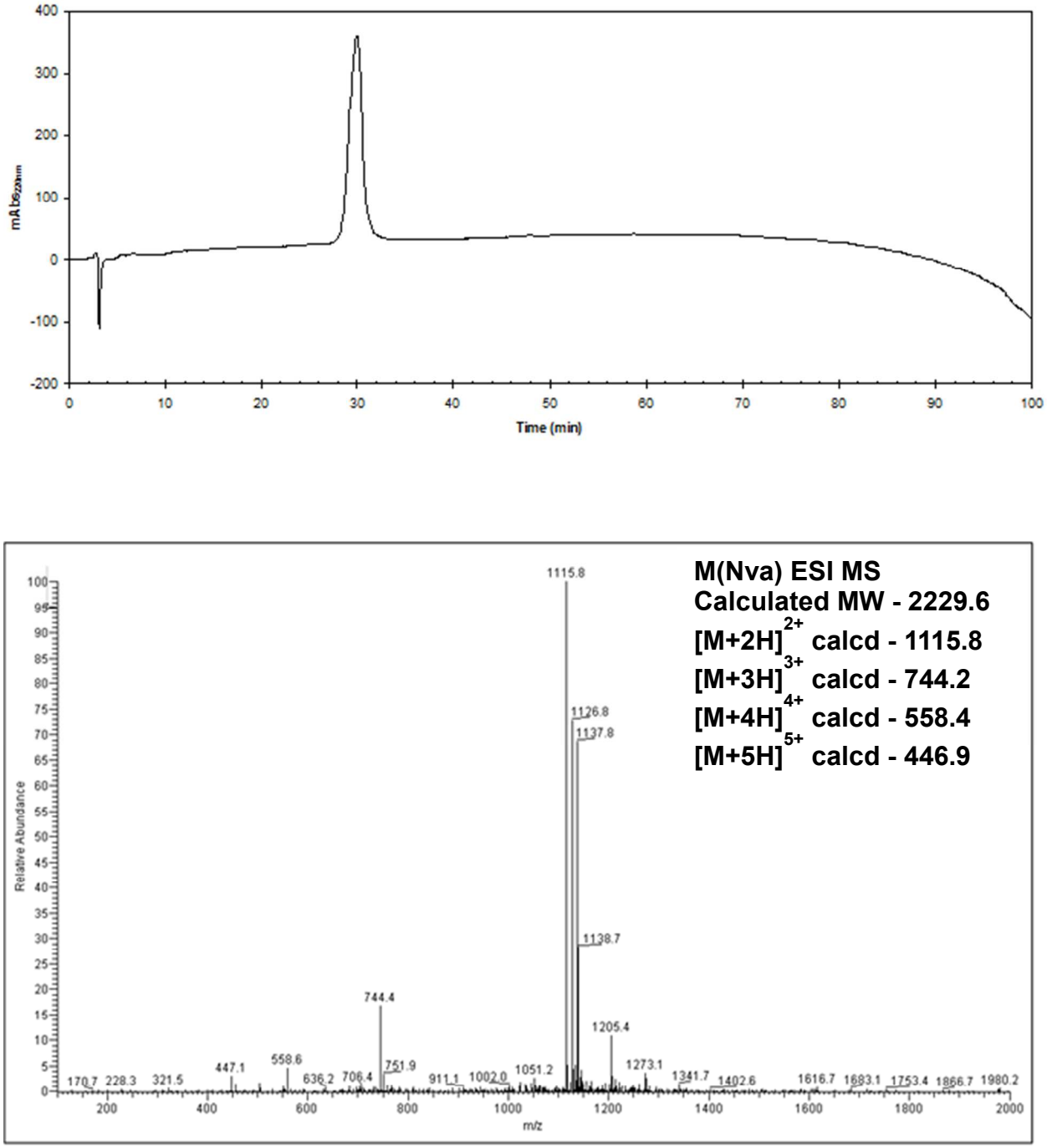
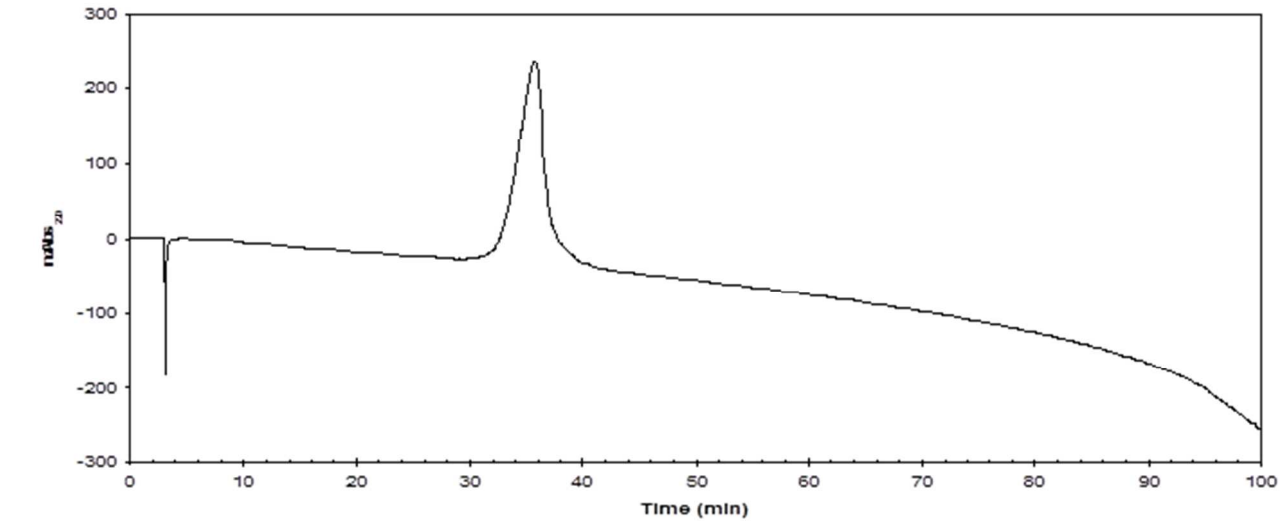


Figure S13: M(Nva) – Analytical HPLC (Vydac C18) 0-100% B; 100 min; 20°C.



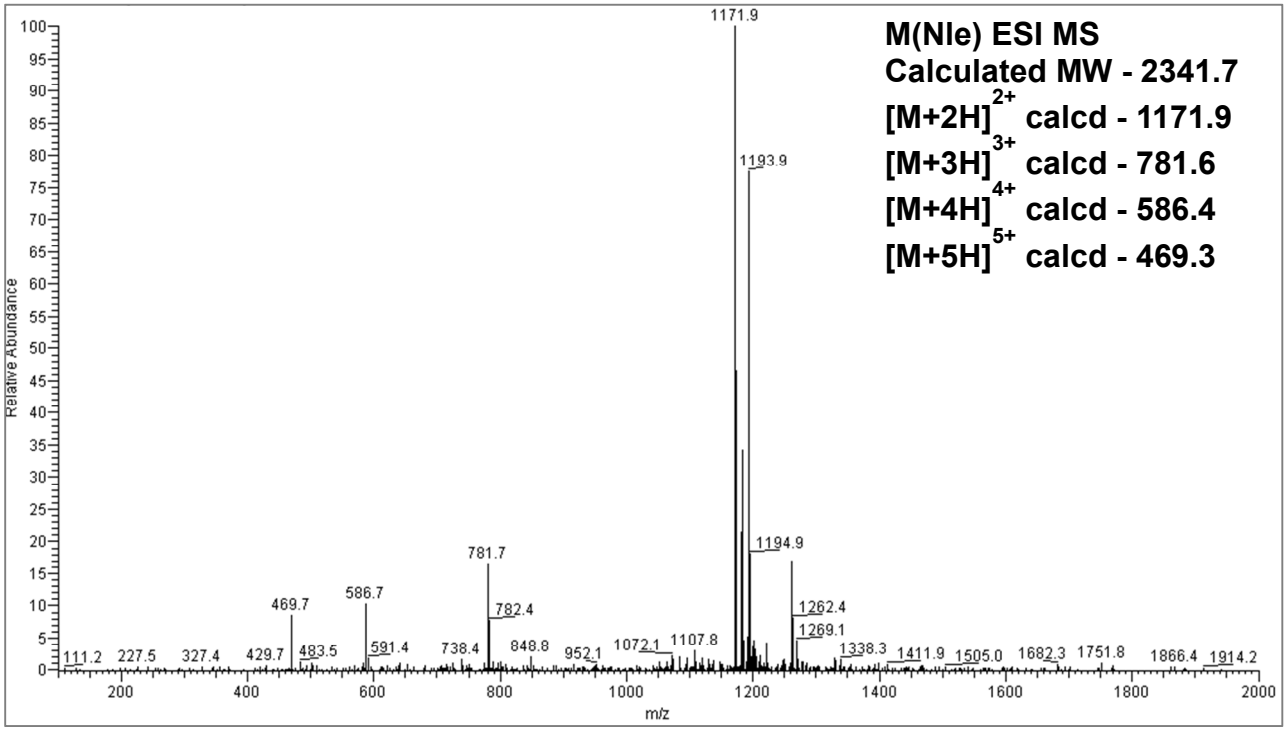


Figure S14: M(Nle) – Analytical HPLC (Vydac C18) 0-100% B; 100 min; 20°C.

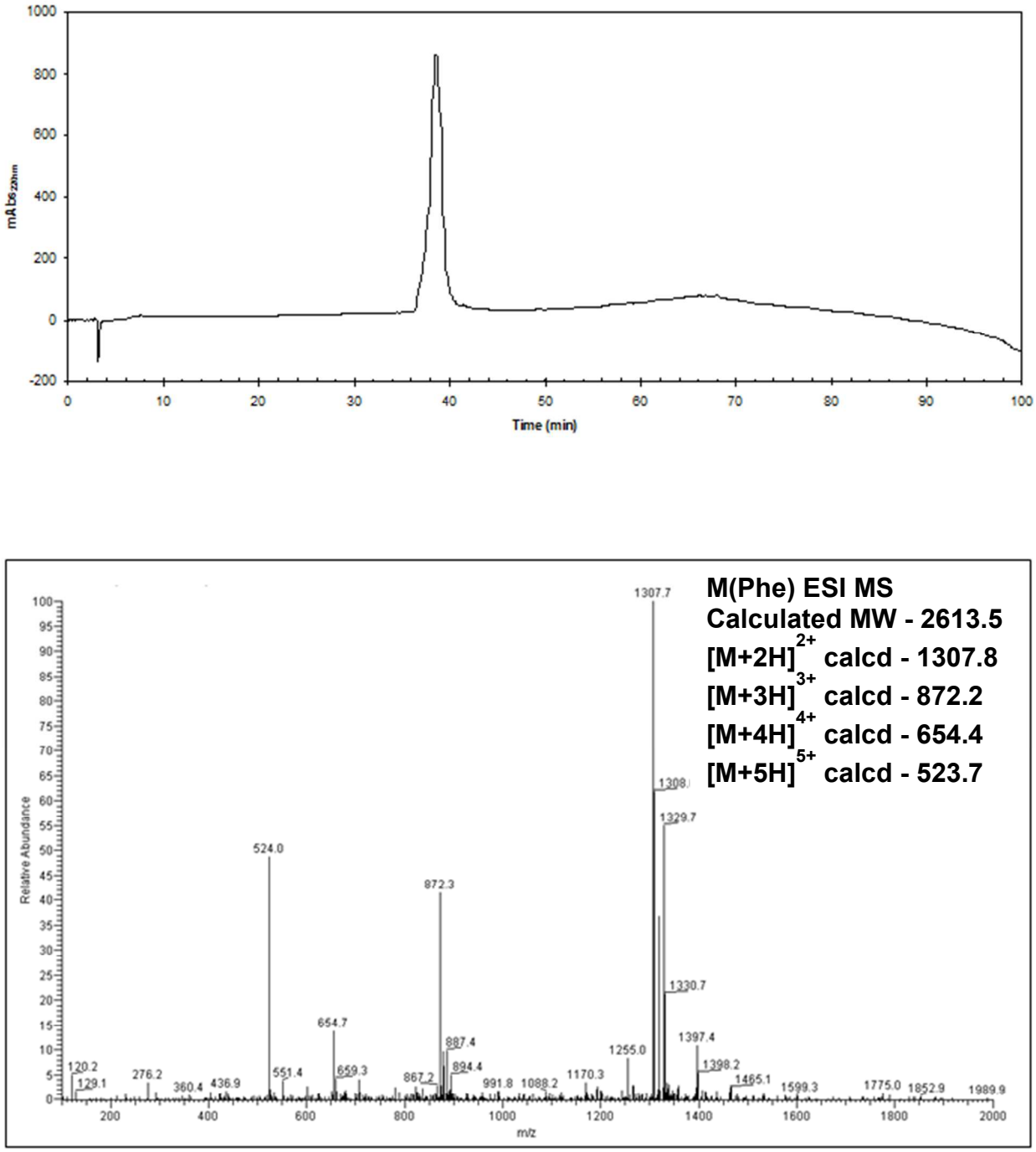


Figure S15: M(Phe) – Analytical HPLC (Vydac C18) 0-100% B; 100 min; 20°C.

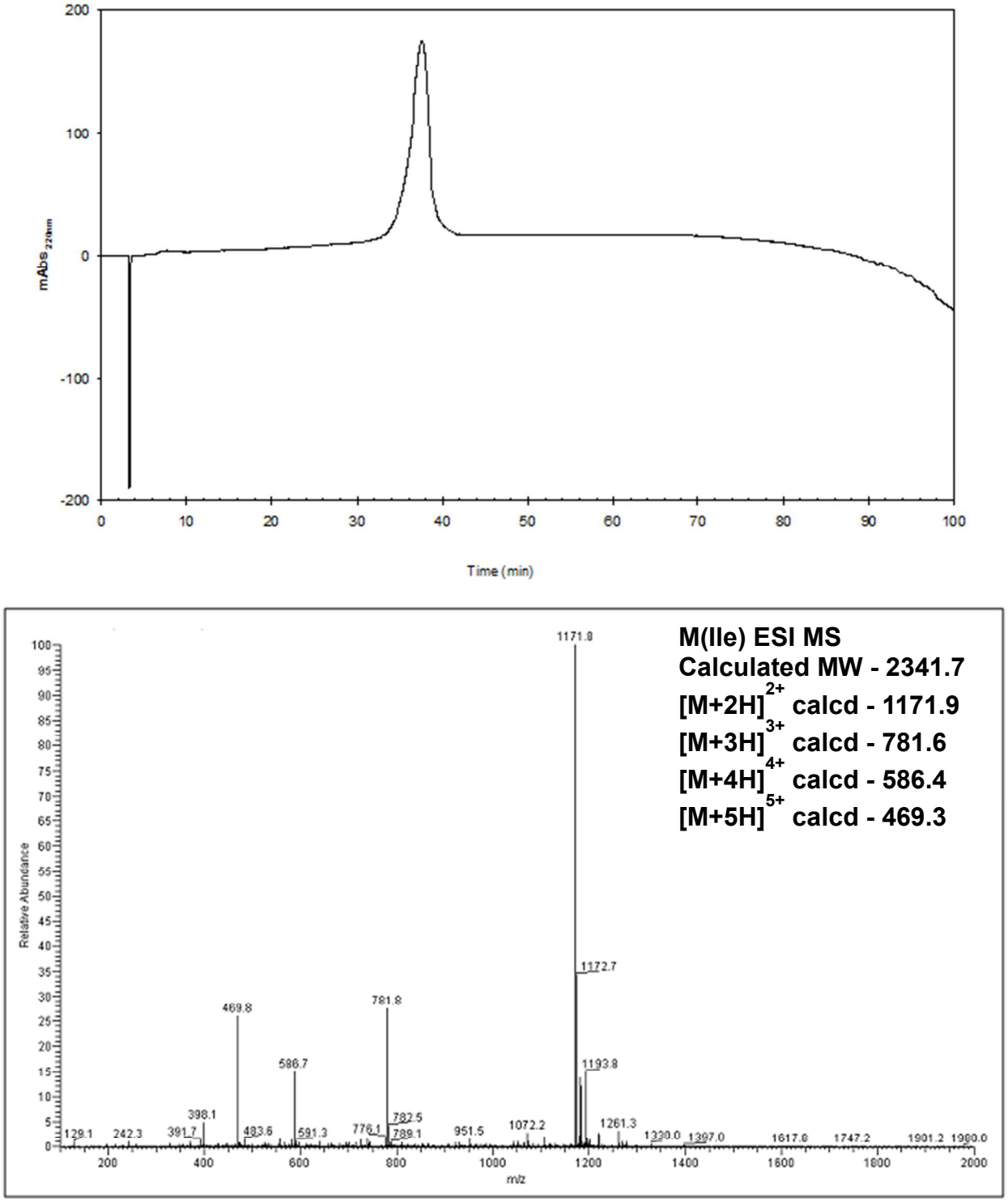


Figure S16: M(Ile) – Analytical HPLC (Vydac C18) 0-100% B; 100 min; 20°C.