

C-locked analogs of the antimicrobial peptide BP214

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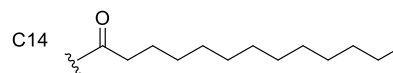
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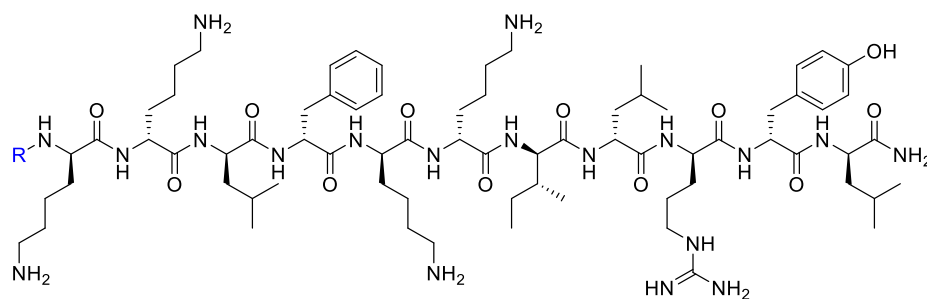
SI: Structure of BP214 analogs

R (in blue) below represents the following fatty acids:

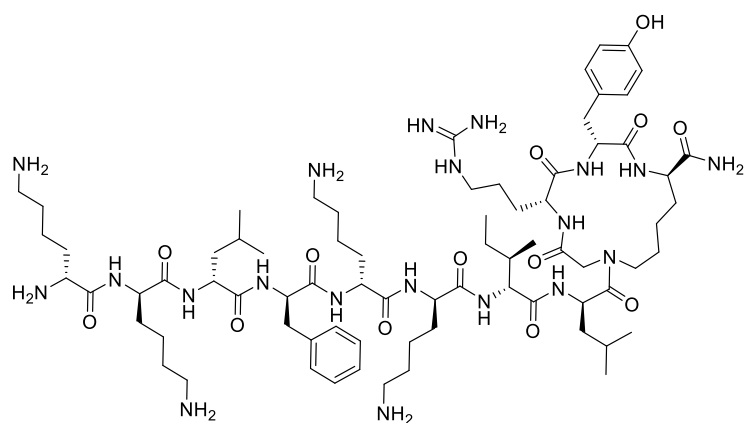


Compounds 1-6:

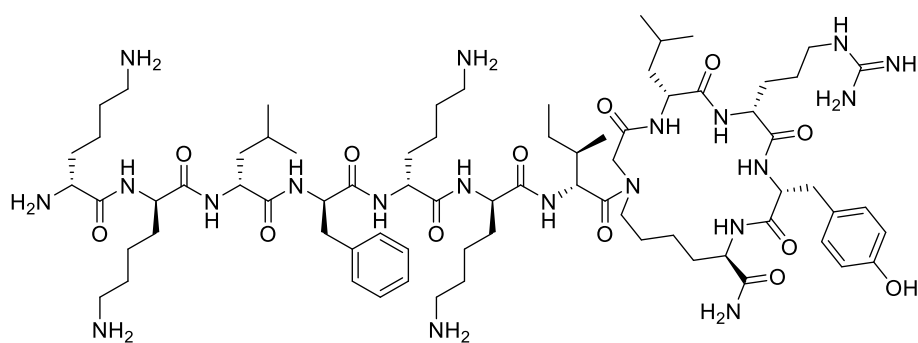
[C₄]BP214 (2), [C₆]BP214 (3), and [C₈]BP214 (4), [C₁₀]BP214 (5), [C₁₂]BP214 (6), and [C₁₄]BP214 (7).



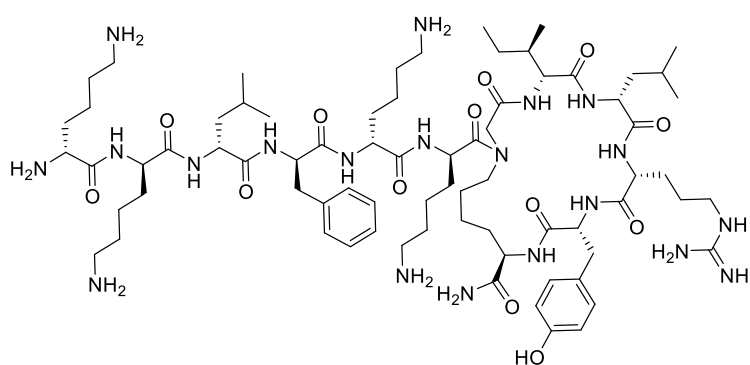
[C3]BP214 (7)



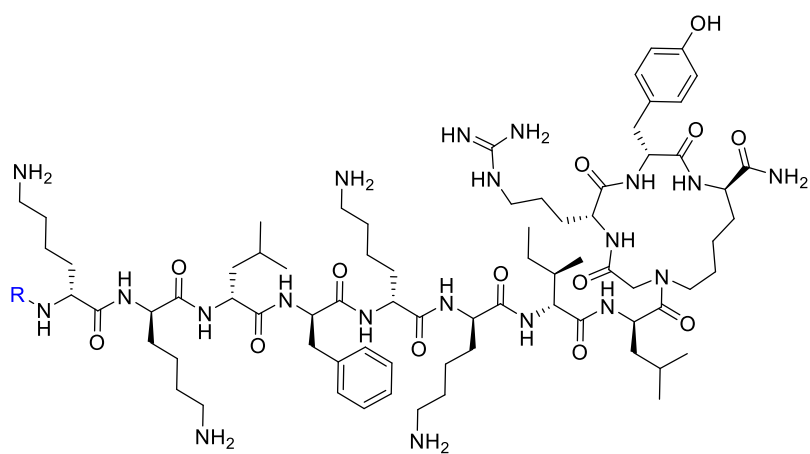
[C4]BP214 (8)



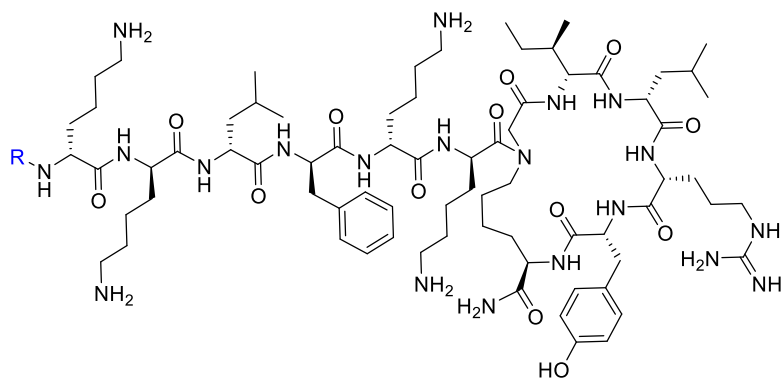
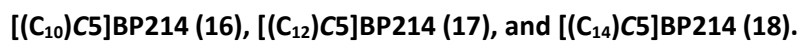
[C5]BP214 (9)



[(C₁₀)C3]BP214 (10), [(C₁₂)C3]BP214 (11), and [(C₁₄)C3]BP214 (12)



[(C₁₀)C4]BP214 (13), [(C₁₂)C4]BP214 (14), and [(C₁₄)C4]BP214 (15).



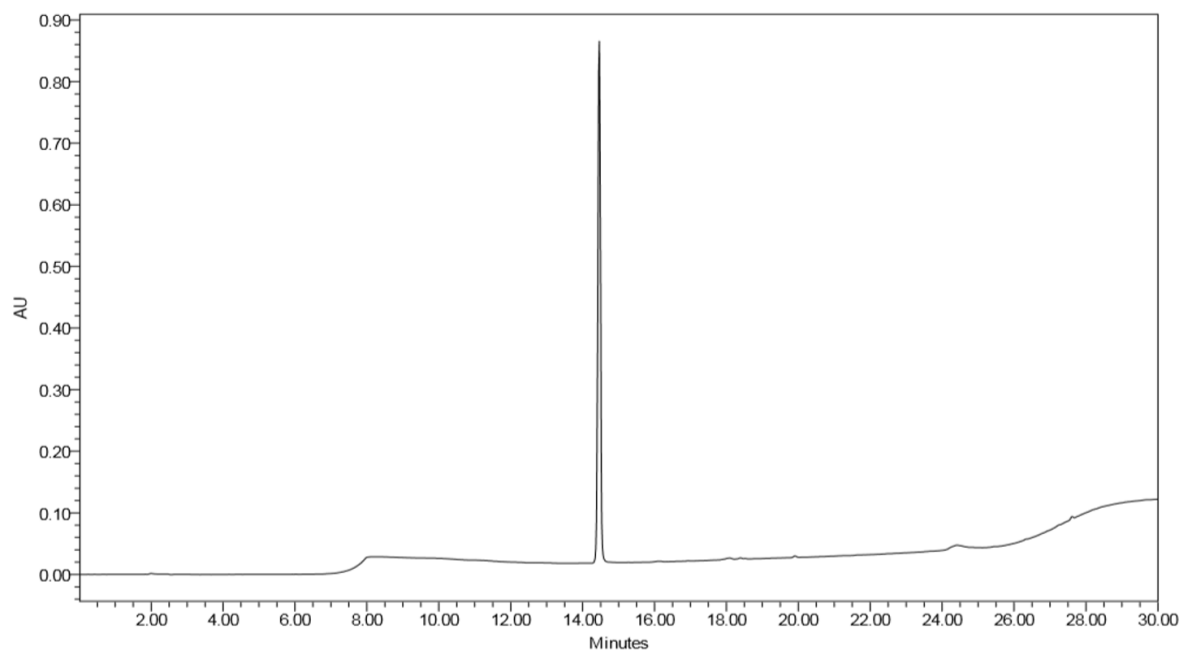
SII: Schematic overview of the synthesised BP214 analogs

Peptide name	Theoretical Mw (Da)	Yield (mg)	%B*	Purity (%)
BP214	1448.91	42.1	50.8	100.0
[C ₄]BP214	1519.00	9.3	63.0	98.5
[C ₆]BP214	1547.06	5.9	67.9	99.9
[C ₈]BP214	1575.11	14.0	64.1	95.4
[C ₁₀]BP214	1603.17	27.6	85.0	98.1
[C ₁₂]BP214	1631.22	31.0	90.5	98.5
[C ₁₄]BP214	1659.27	24.5	96.5	95.3
[C ₃]BP214	1503.95	2.2	44.1	99.7
[C ₄]BP214	1503.95	14.5	44.8	100.0
[C ₅]BP214	1503.95	6.5	46.6	99.5
[(C ₁₀)C ₃]BP214	1658.20	4.1	62.7	93.0
[(C ₁₂)C ₃]BP214	1686.26	6.2	66.2	99.4
[(C ₁₄)C ₃]BP214	1714.31	4.4	70.0	96.6
[(C ₁₀)C ₄]BP214	1658.20	16.1	60.9	97.8
[(C ₁₂)C ₄]BP214	1686.26	23.1	65.1	98.1
[(C ₁₄)C ₄]BP214	1714.31	22.5	78.5	99.5
[(C ₁₀)C ₅]BP214	1658.20	9.3	61.3	97.8
[(C ₁₂)C ₅]BP214	1686.26	15.1	65.5	93.9
[(C ₁₄)C ₅]BP214	1714.31	17.2	78.5	99.5

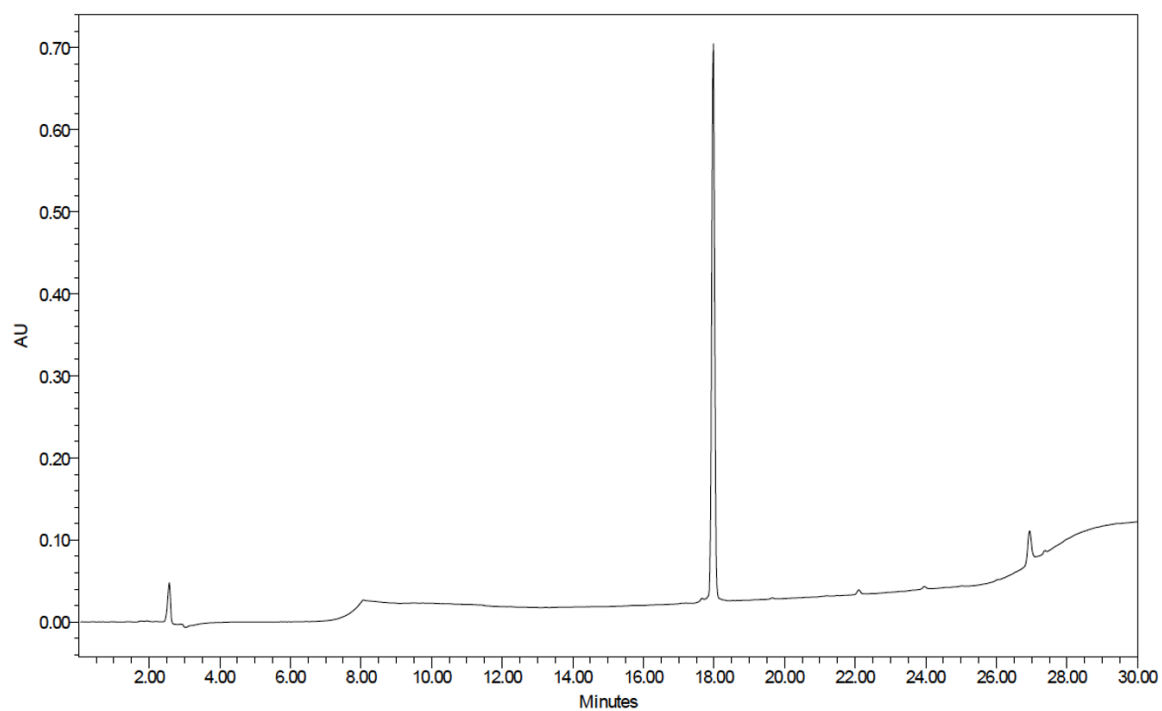
*Hydrophobicity as indicated by the percentage of mobile phase B (%B) at the peak elution time on analytical reversed-phase HPLC.

SIII:Analytical HPLC chromatograms after purification

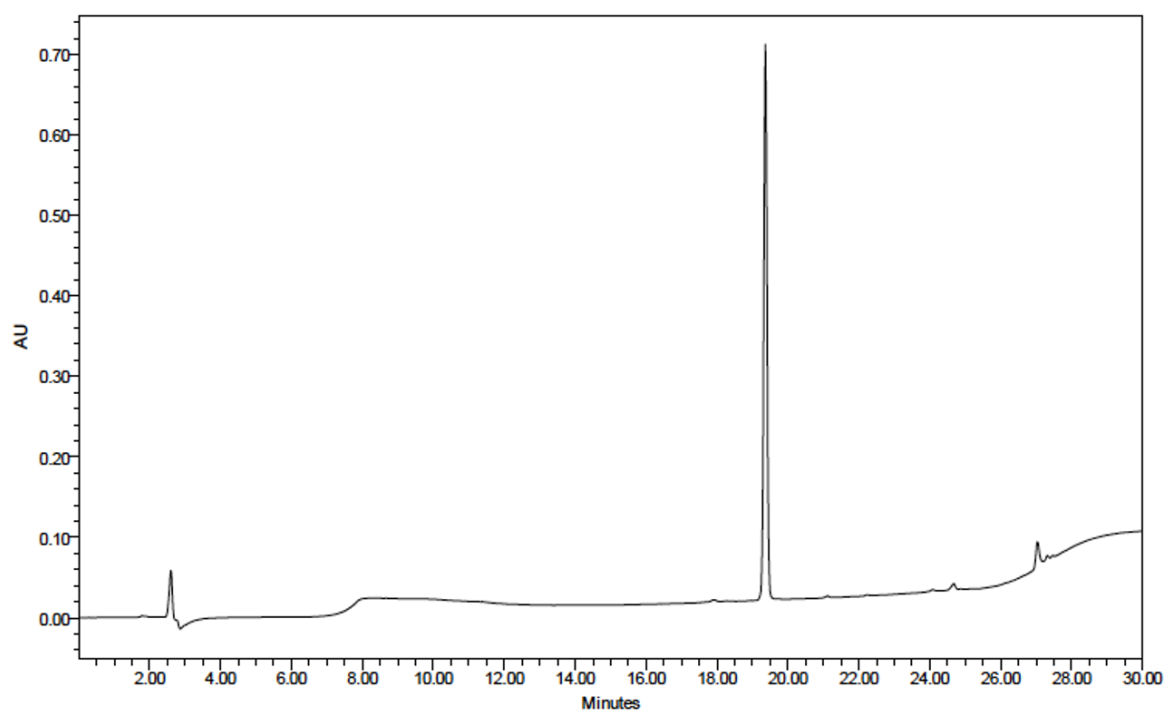
BP214



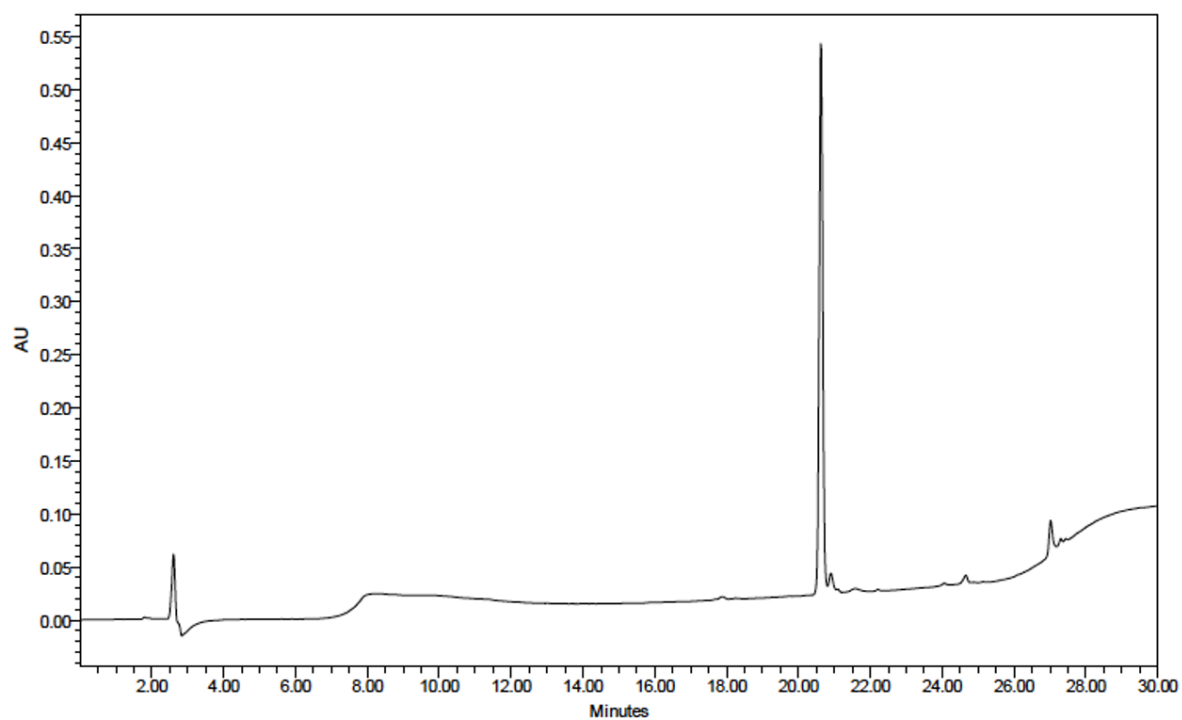
[C4]BP214 (1)



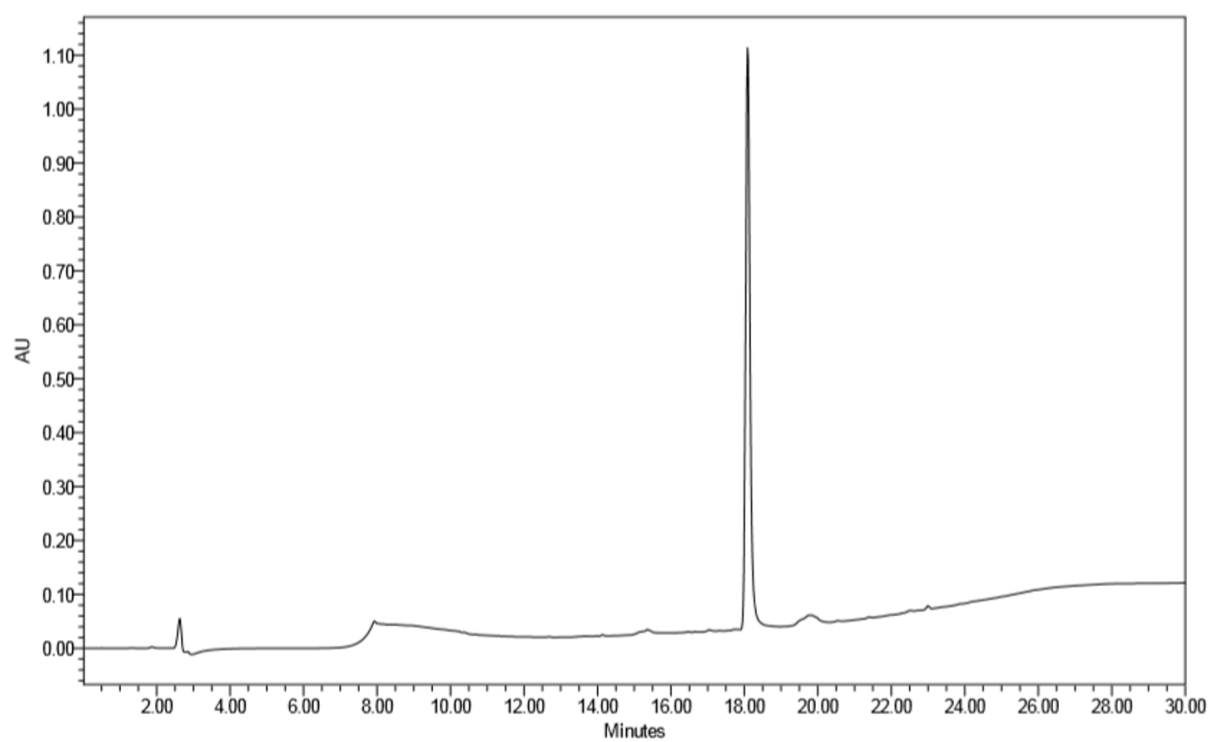
[C6]BP214 (2)



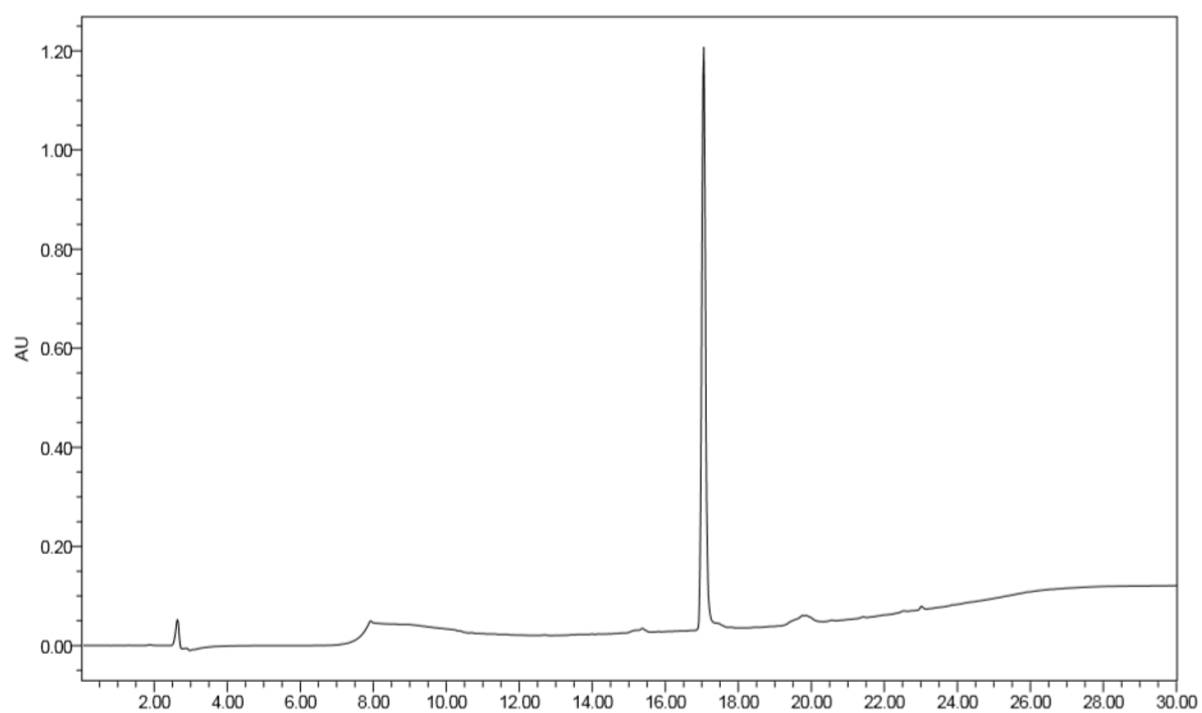
[C8]BP214 (3)



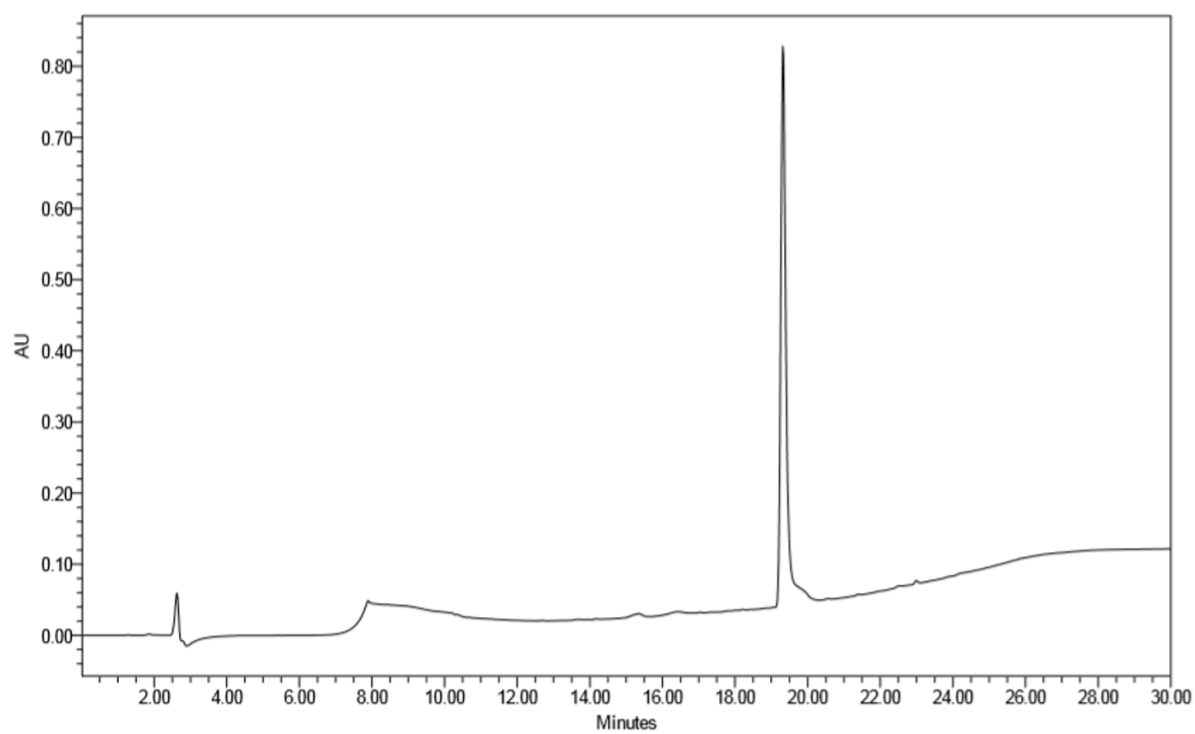
[C10]BP214 (4)



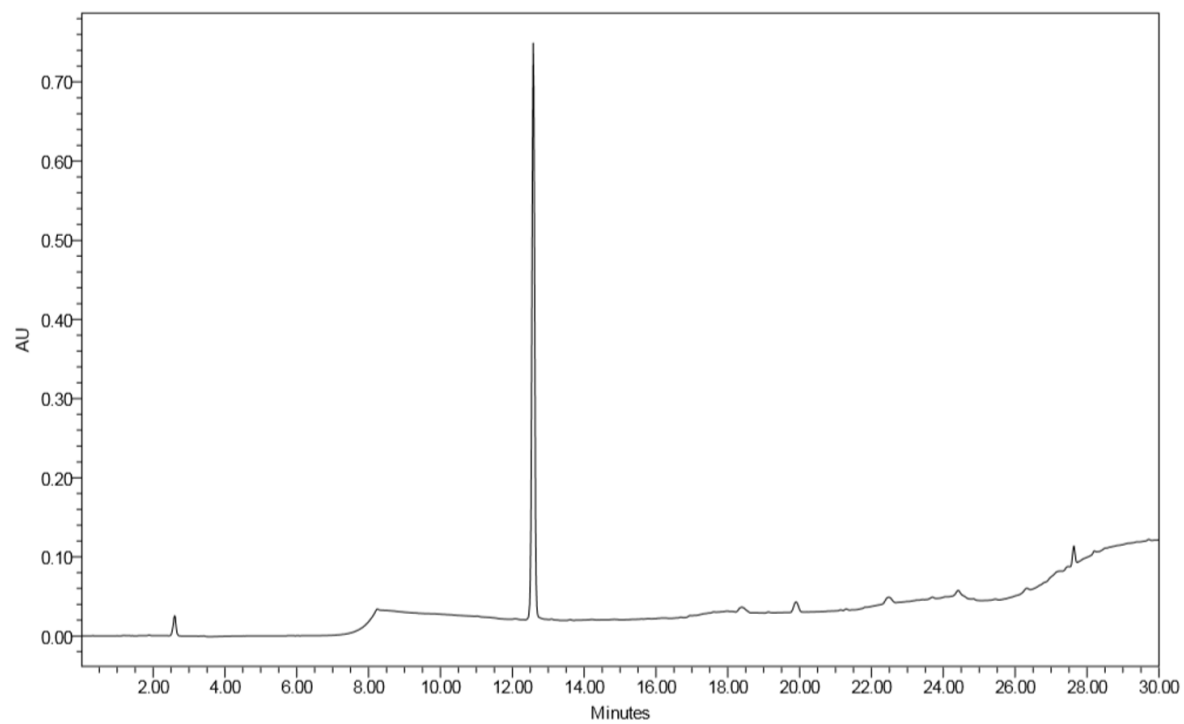
[C12]BP214 (5)



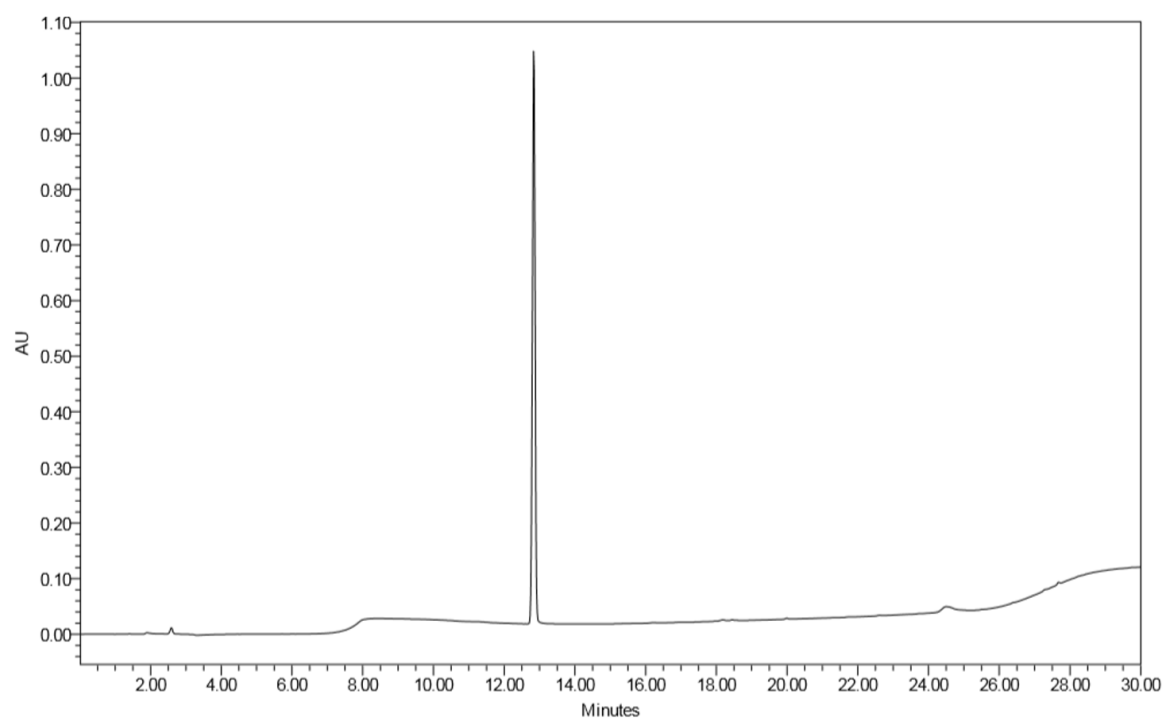
[C14]BP214 (6)



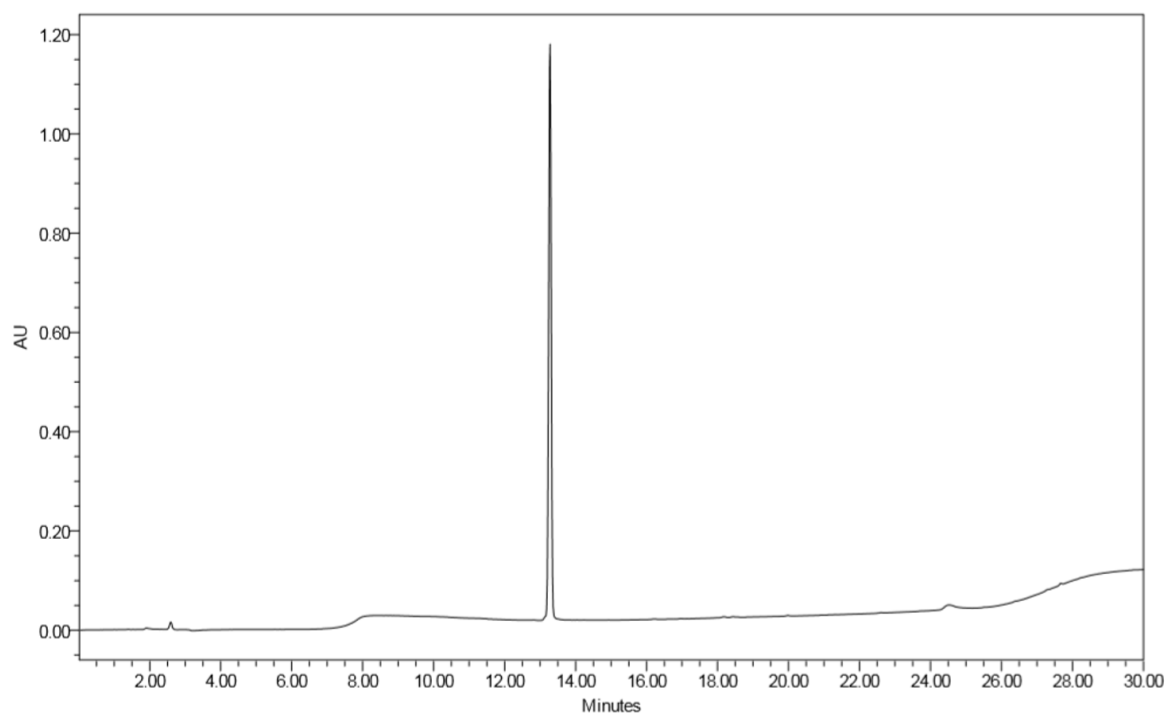
[C3]BP214 (7)



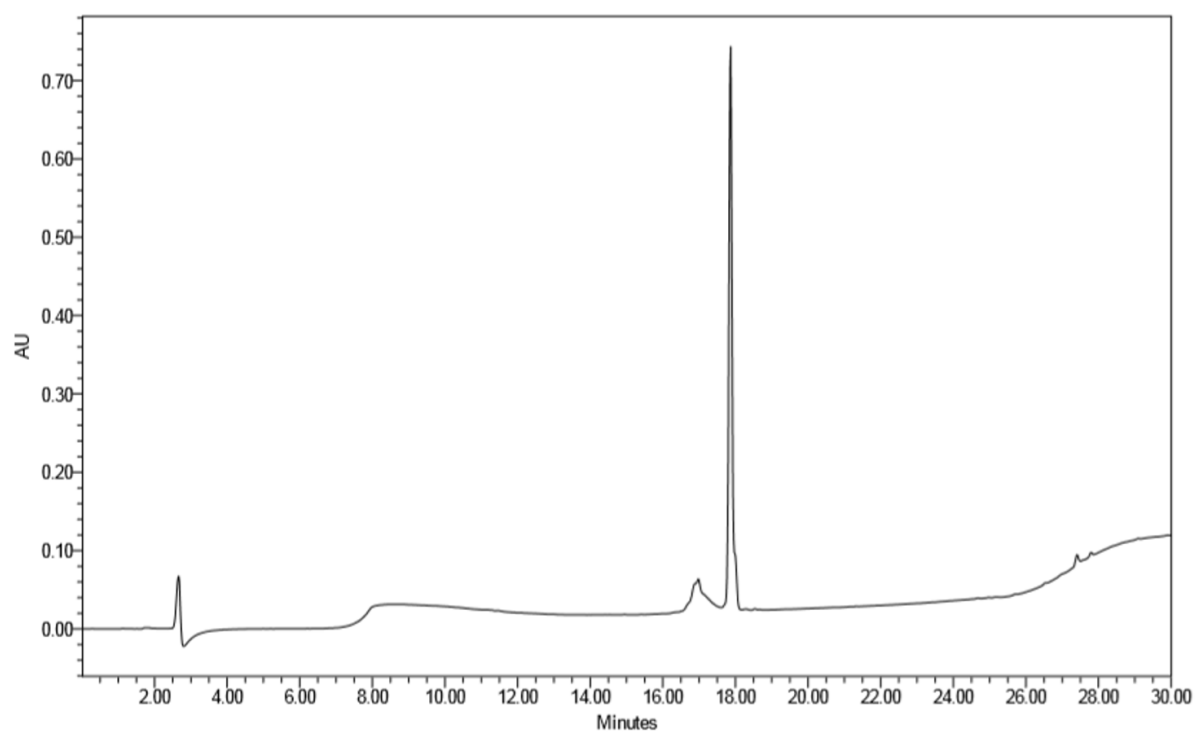
[C4]BP214 (8)



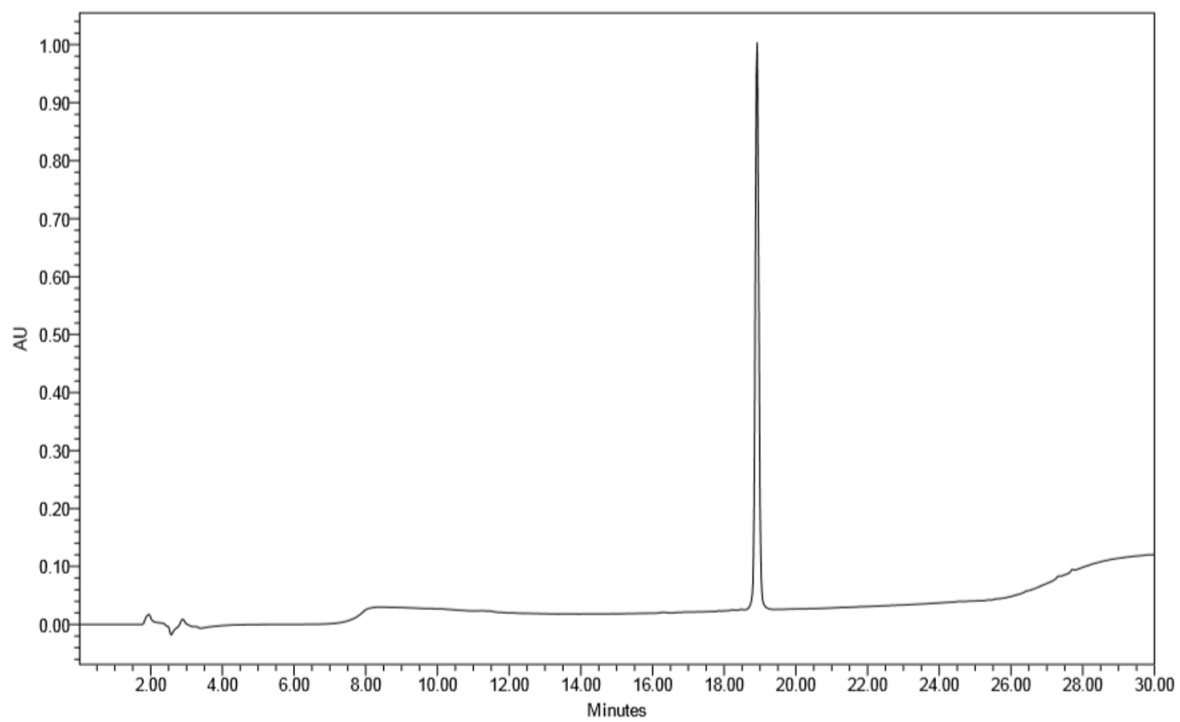
[C5]BP214 (9)



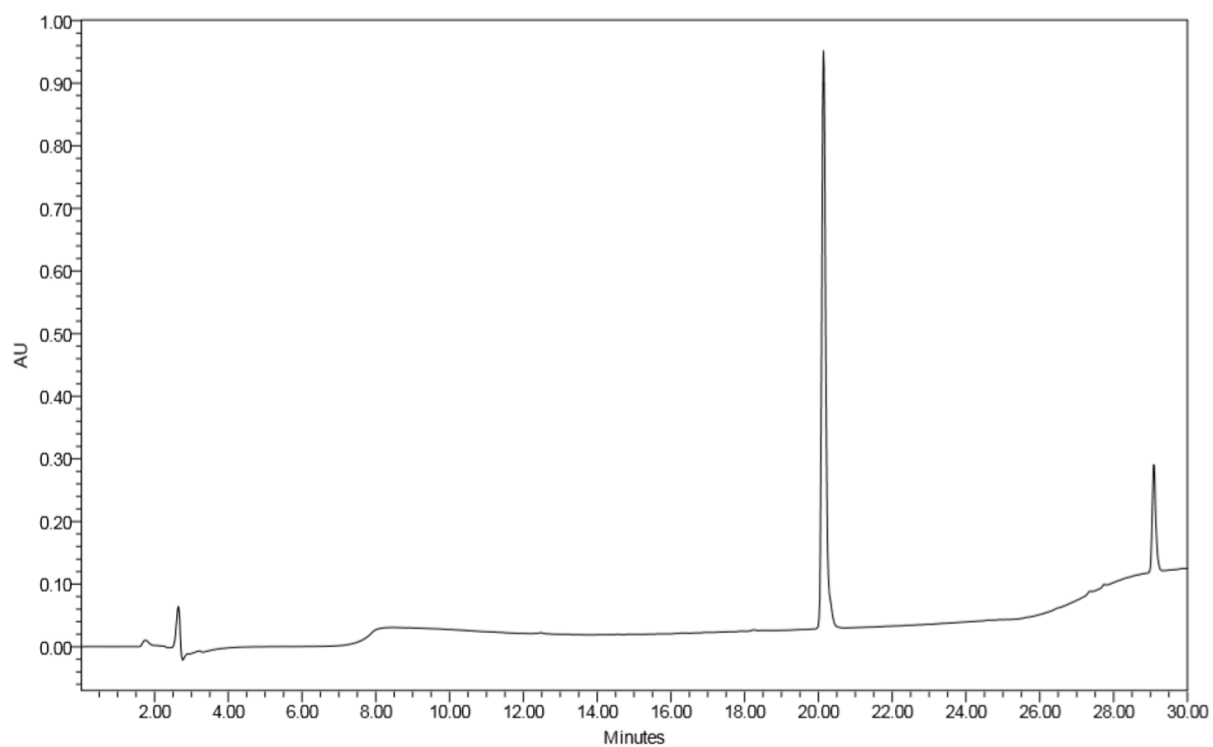
[(C₁₀)C3]BP214 (10)



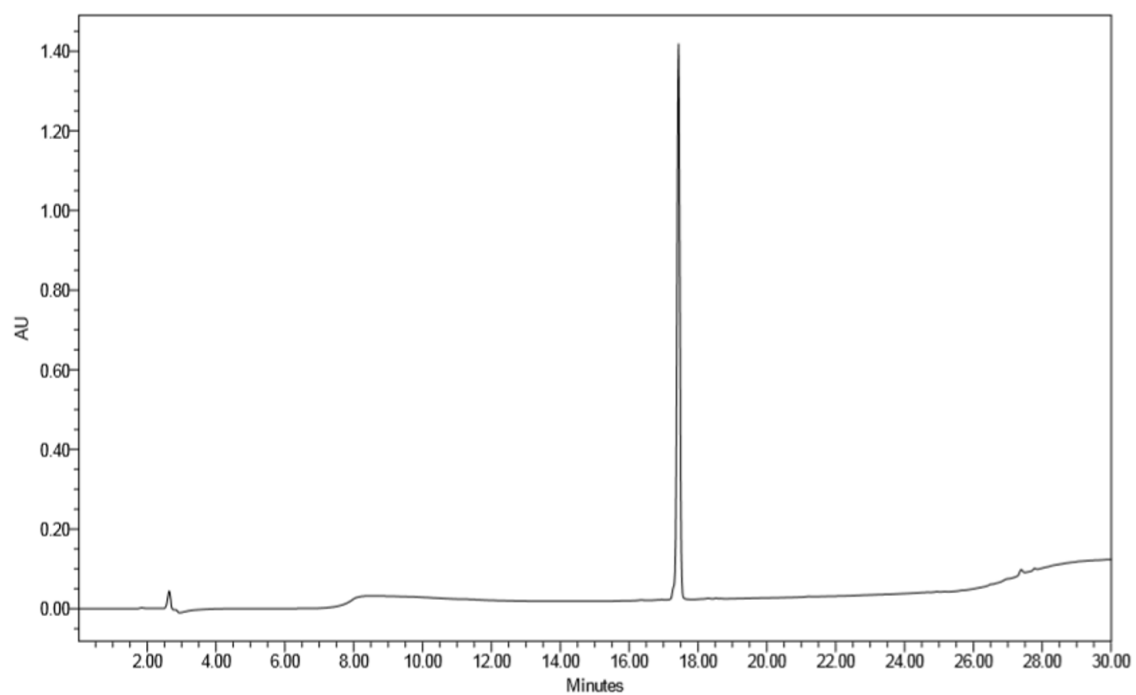
[(C₁₂)C3]BP214 (11)



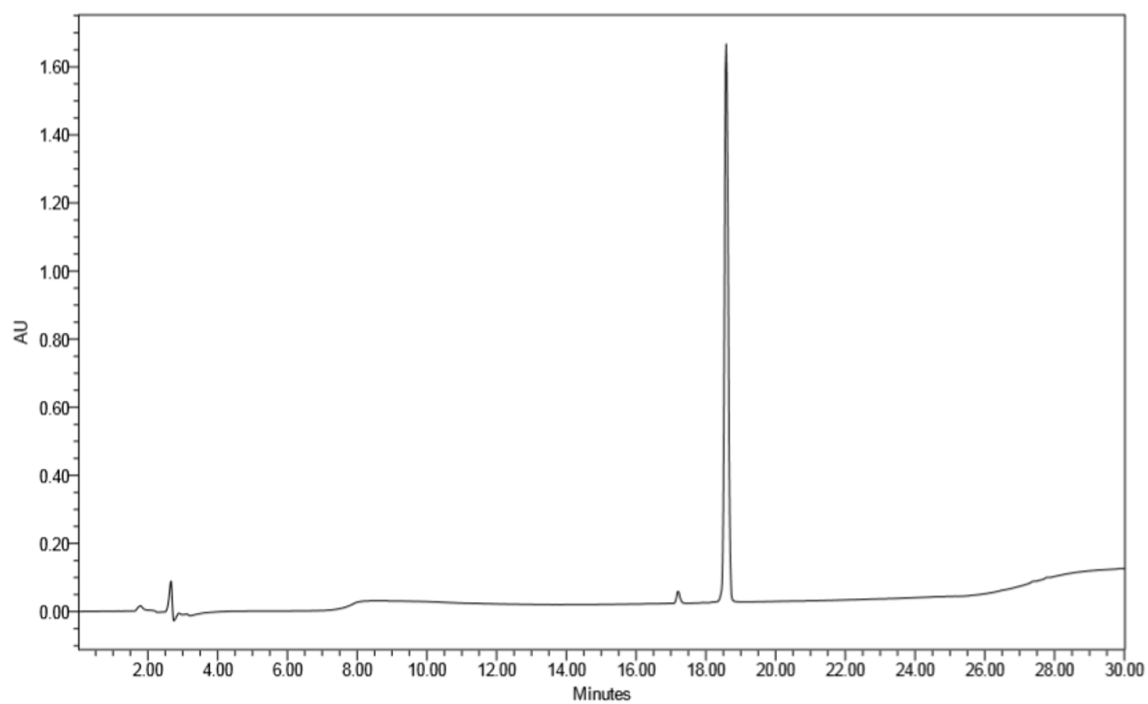
[(C₁₄)C3]BP214 (12)



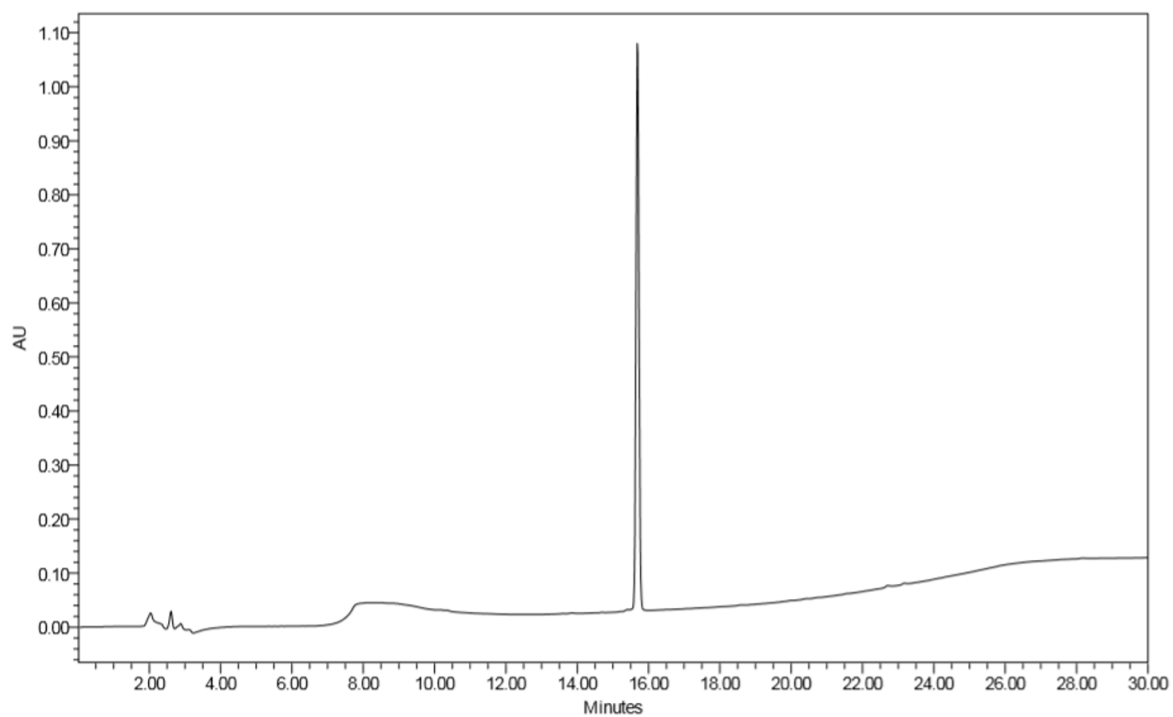
[(C₁₀)C4]BP214 (13)



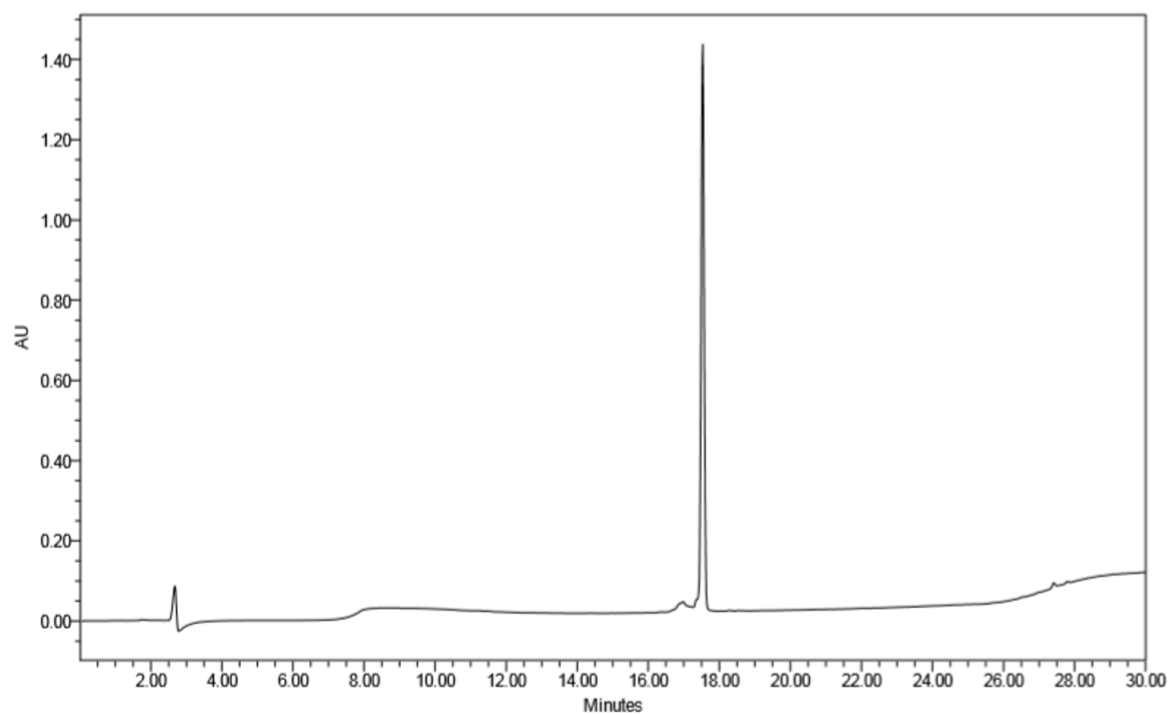
[(C₁₂)C₄]BP214 (14)



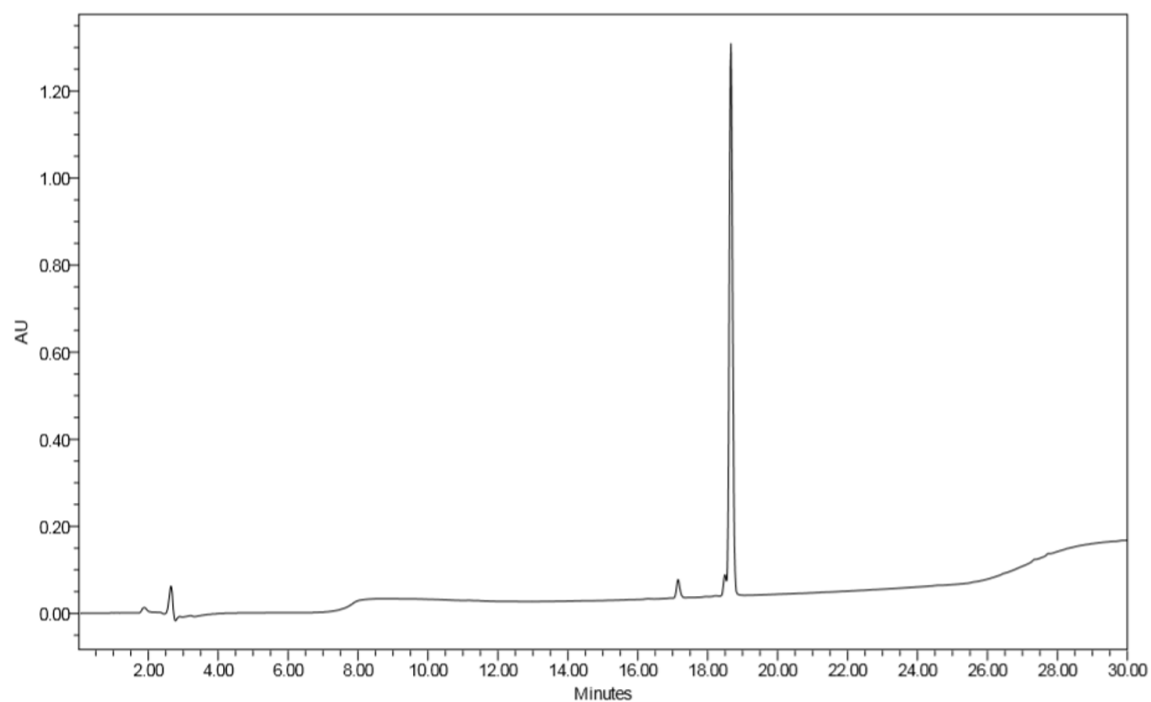
[(C₁₄)C₄]BP214 (15)



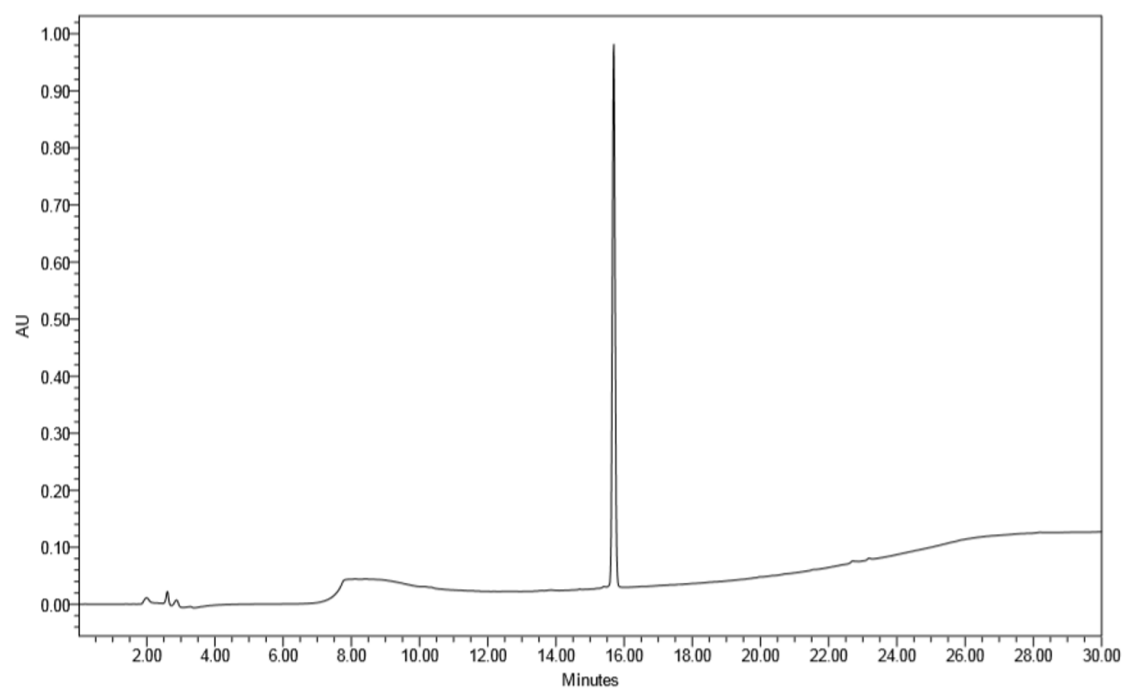
[(C₁₀)C5]BP214 (16)



[(C₁₂)C5]BP214 (17)



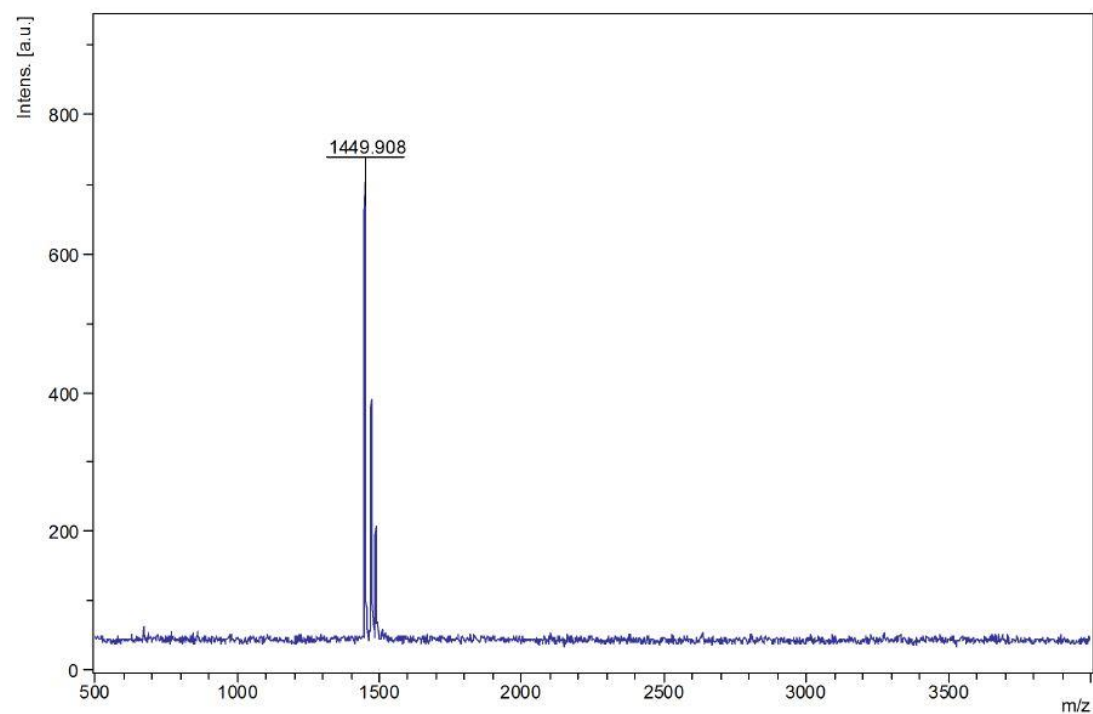
[(C₁₄)C5]BP214 (18)



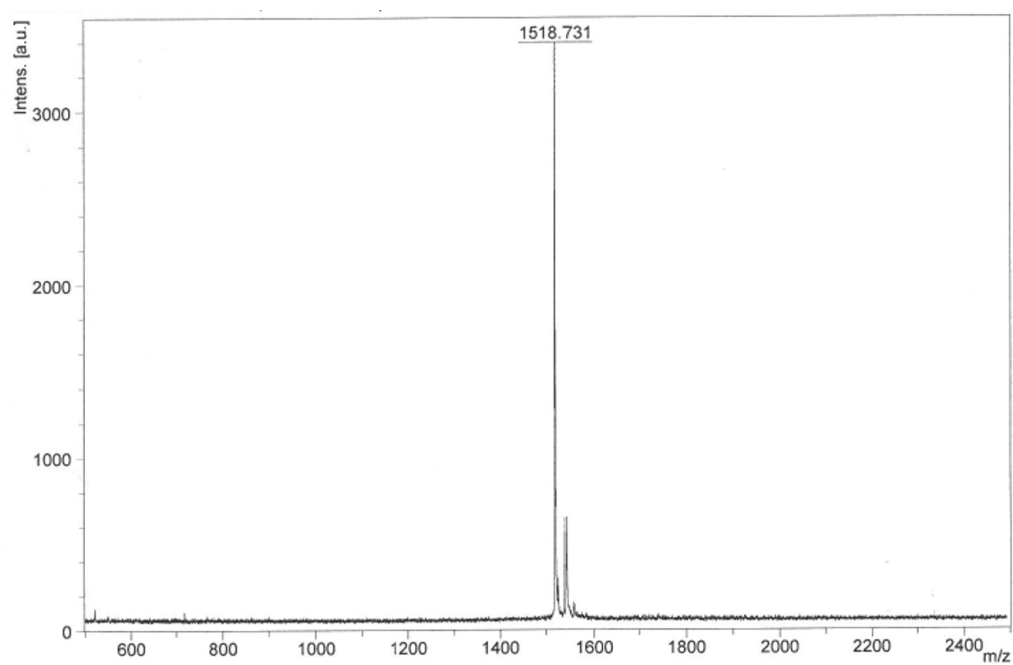
SIV: MALDI-TOF-MS spectra

BP214

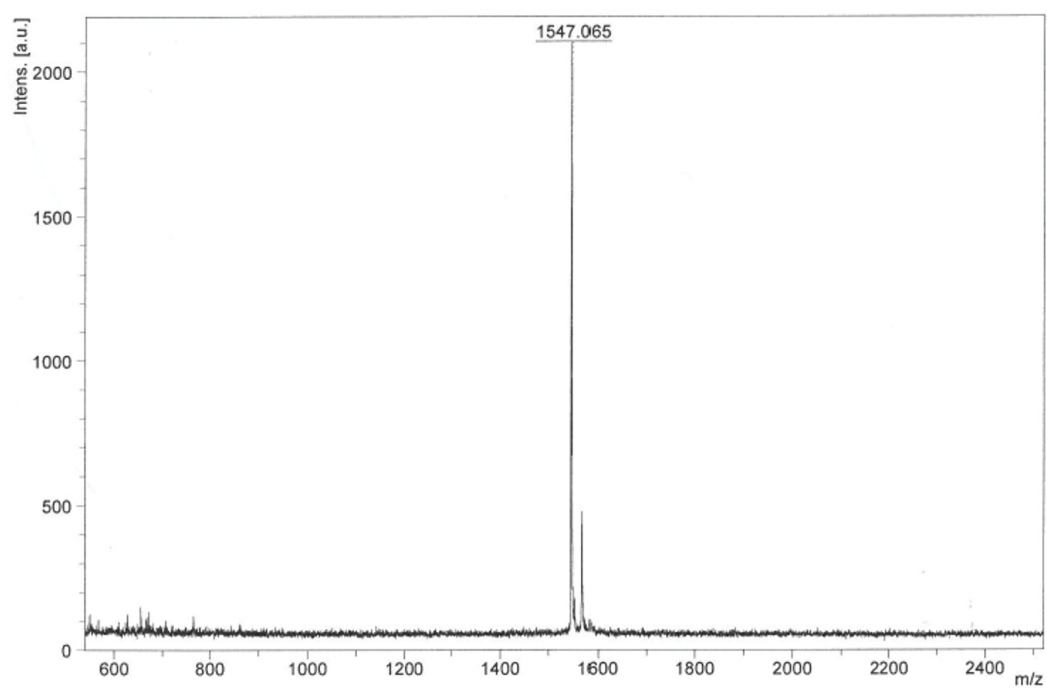
Mw = 1448.91 Da



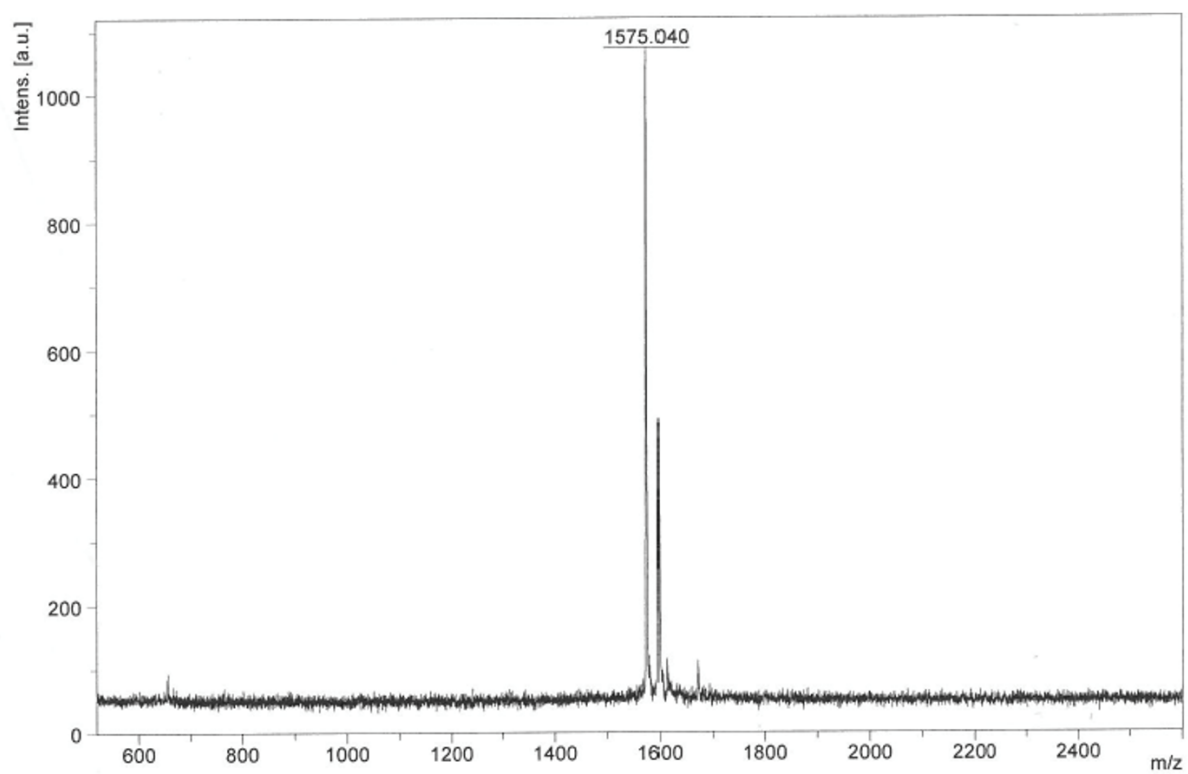
[C₄]BP214 (1)



[C₆]BP214 (2)

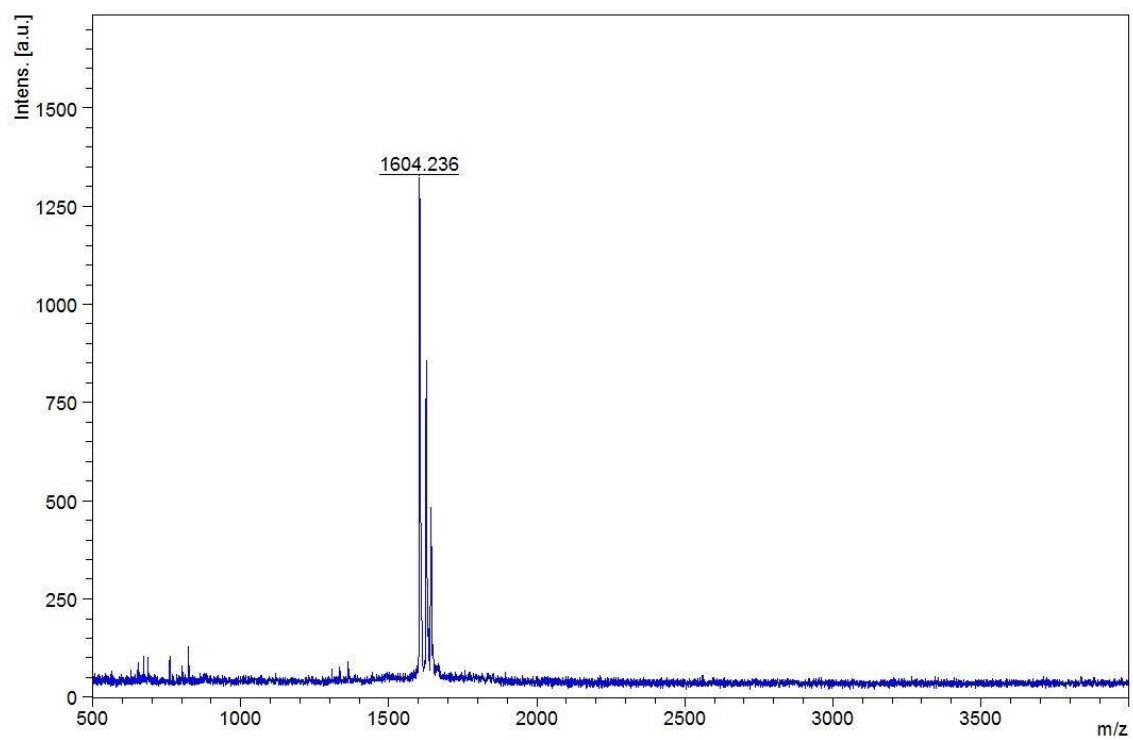


[C₈]BP214 (3)



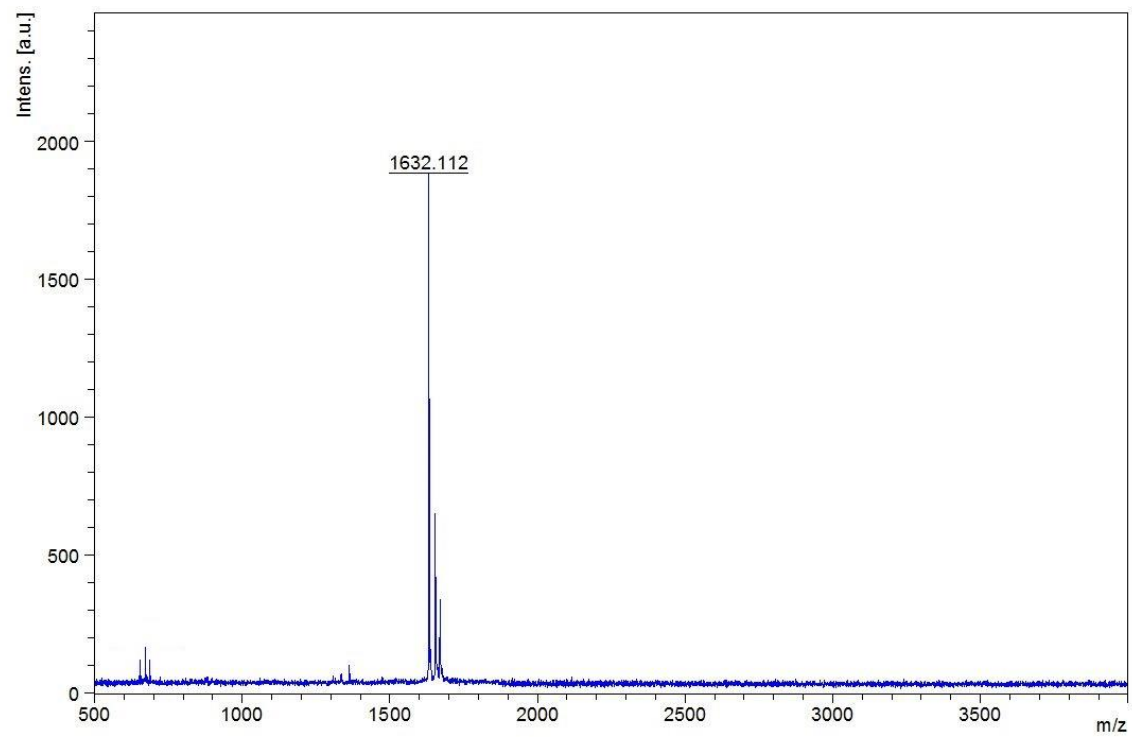
[C₁₀]BP214 (4)

Mw = 1603.17 Da



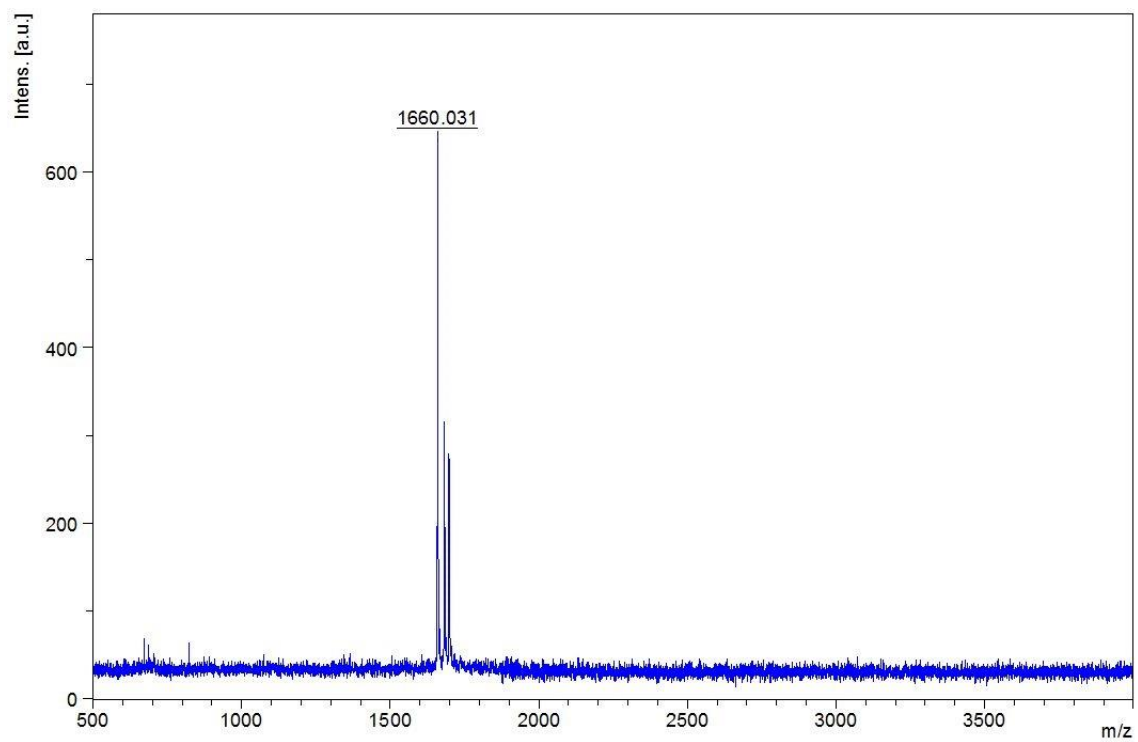
[C₁₂]BP214 (5)

Mw = 1631.22 Da



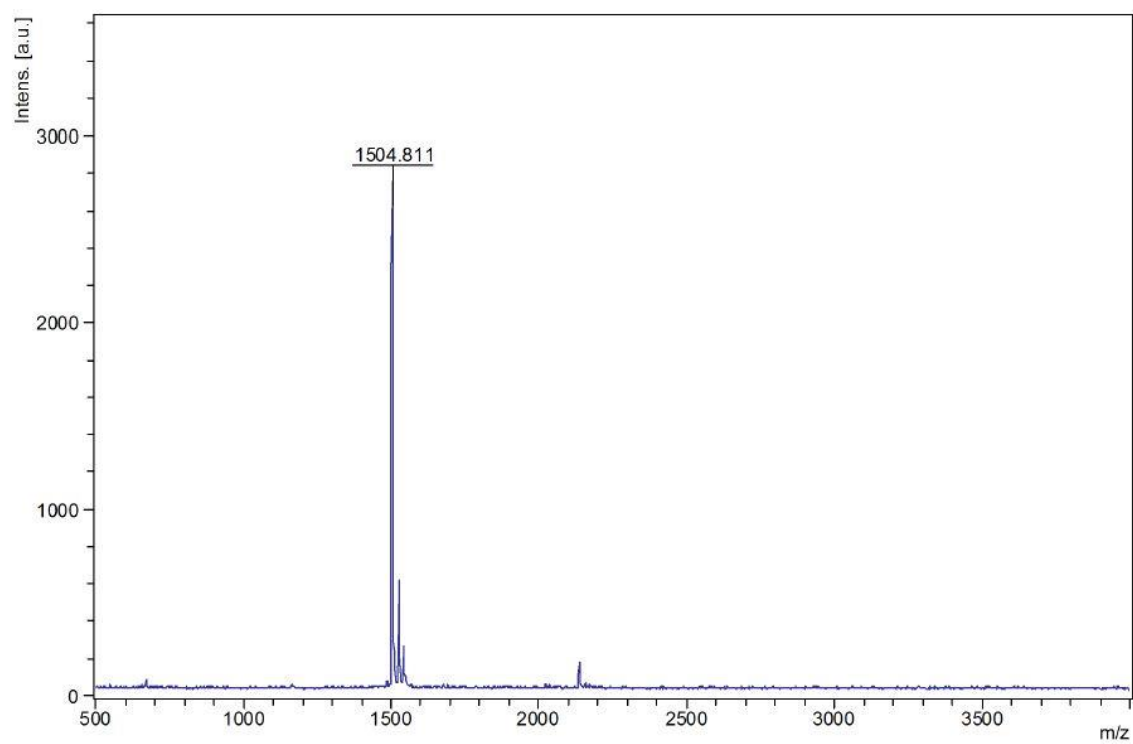
[C₁₄]BP214 (6)

Mw = 1659.27 Da



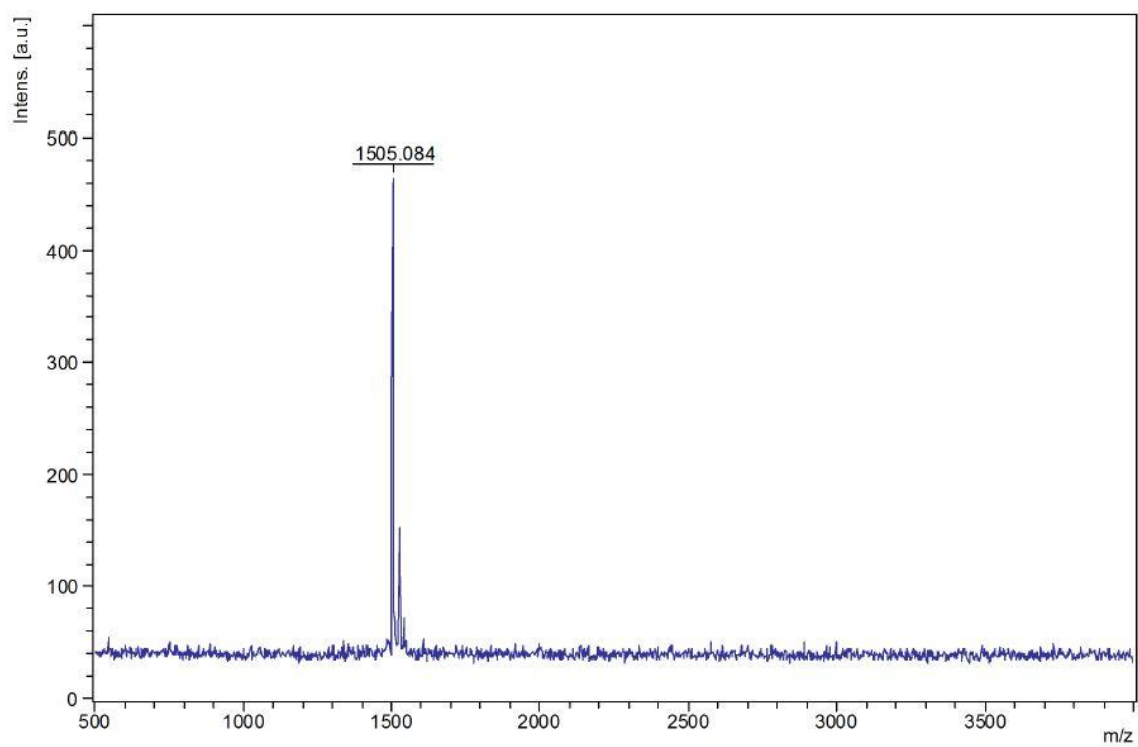
[C₃]BP214 (7)

Mw = 1503.95 Da



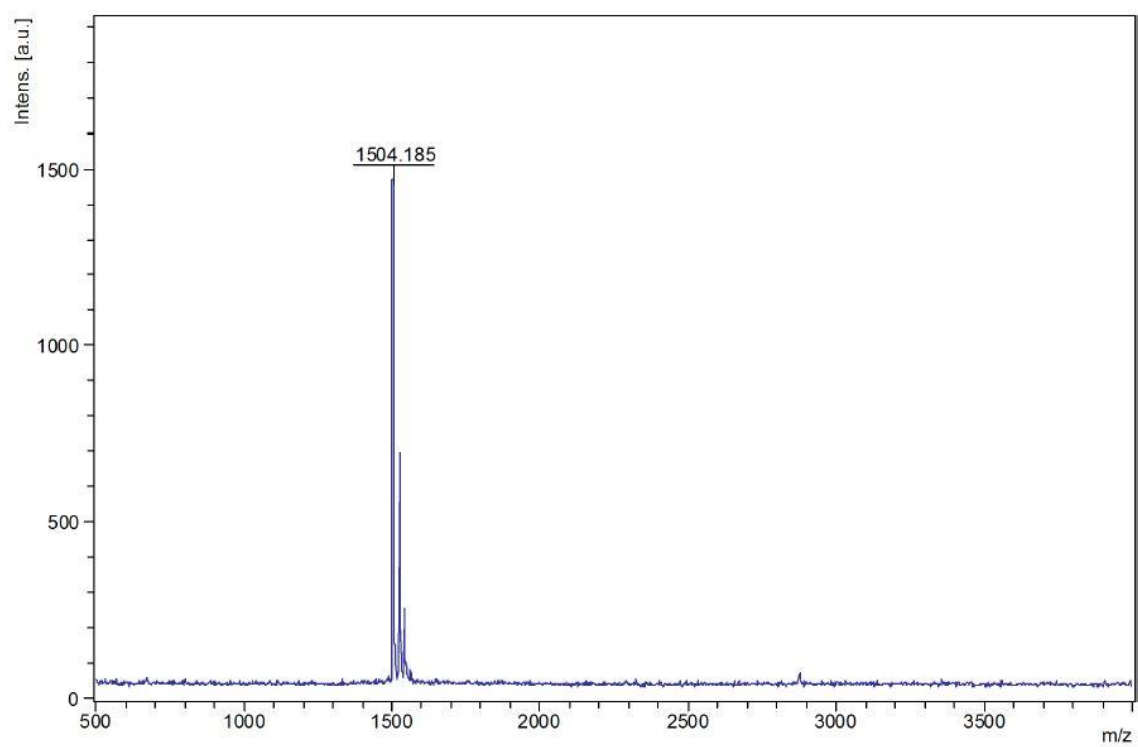
[C4]BP214 (8)

Mw = 1503.95 Da



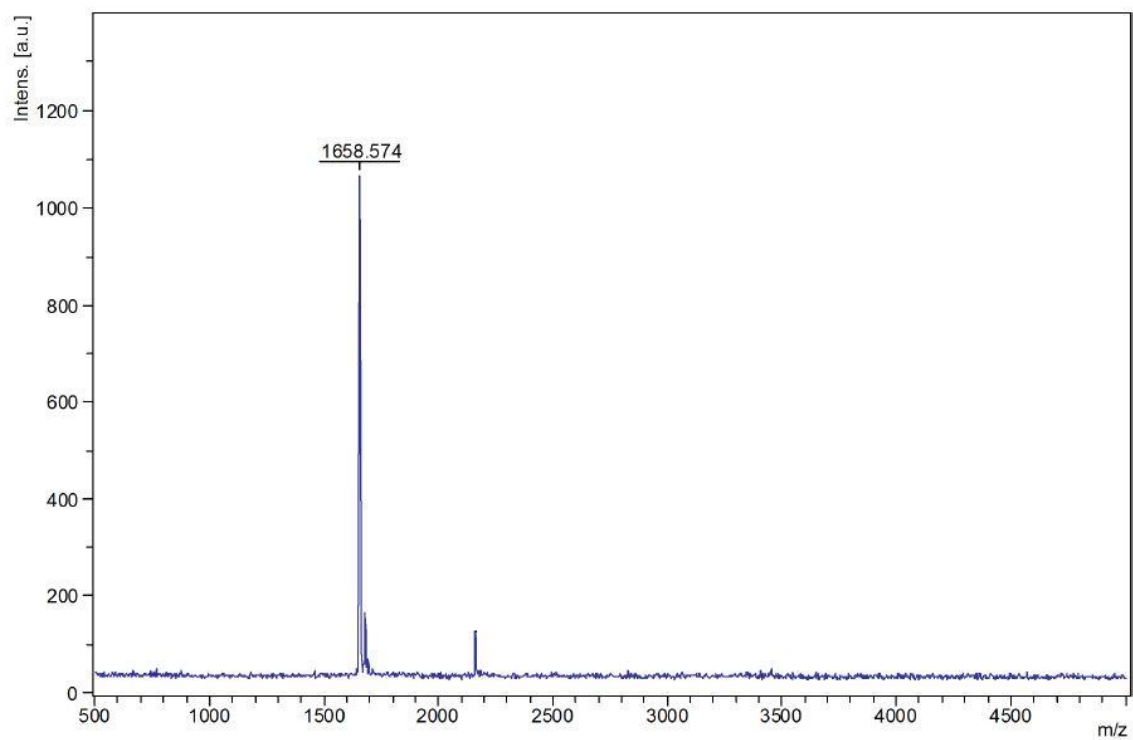
[C5]BP214 (9)

Mw = 1503.95 Da



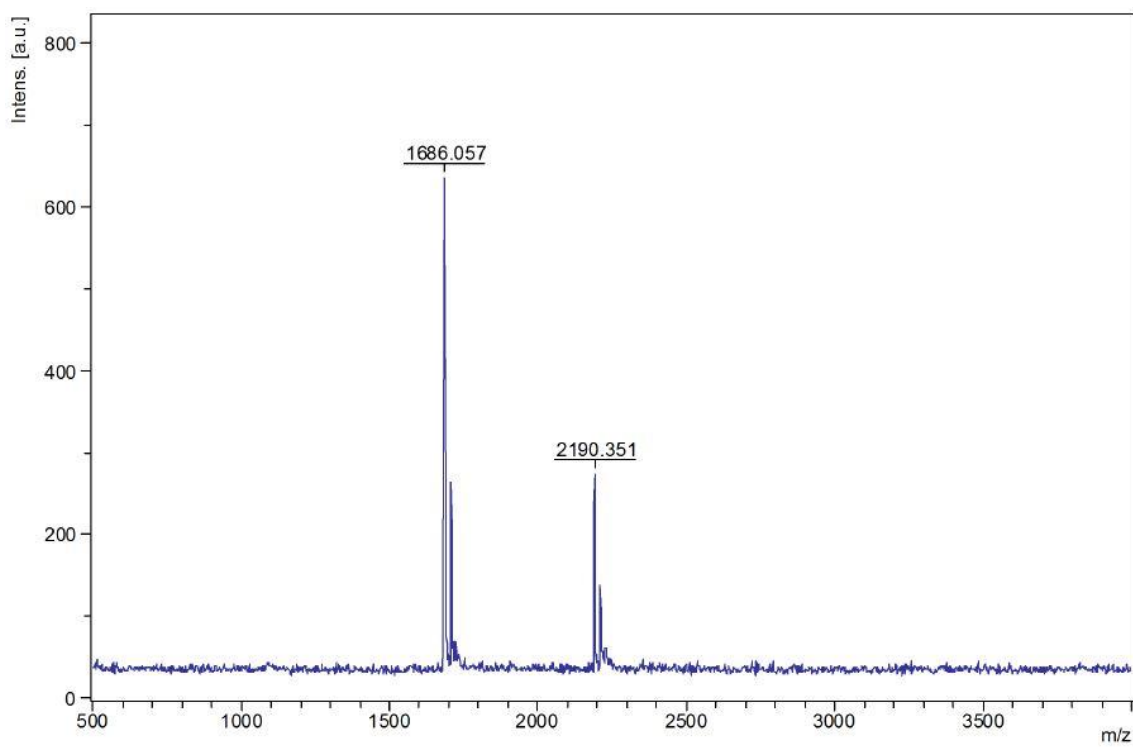
$[(C_{10})C_3]BP214$ (10)

Mw = 1658.20 Da



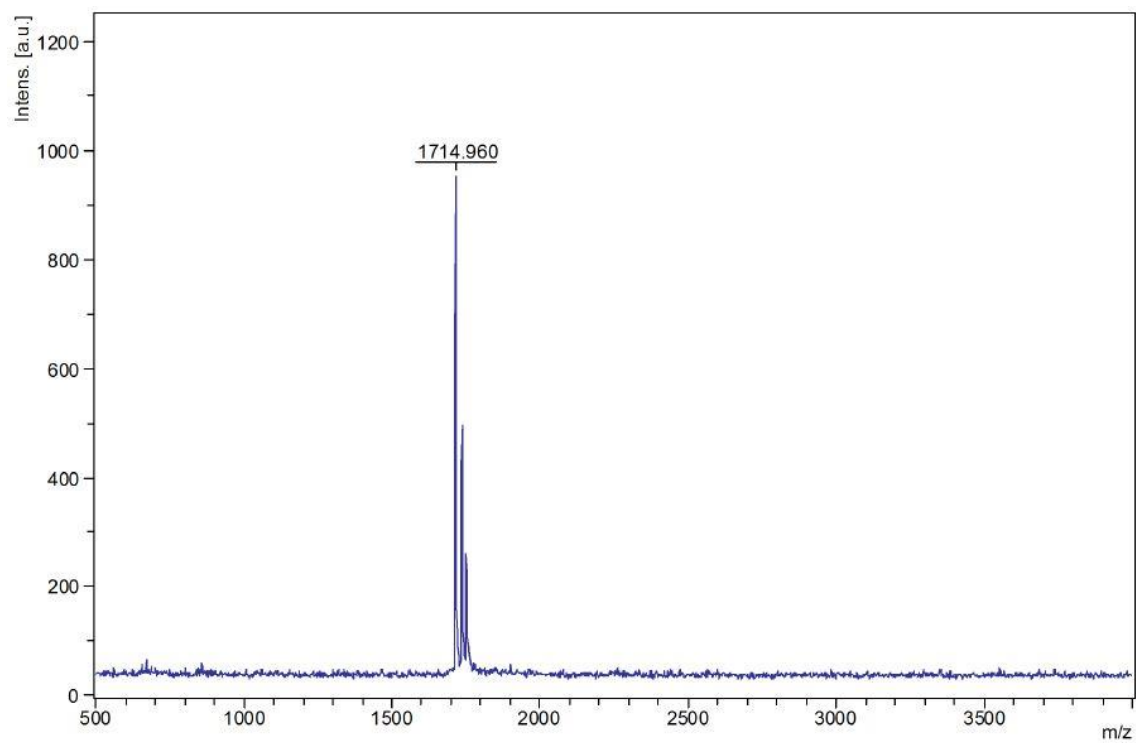
$[(C_{12})C_3]BP214$ (11)

Mw = 1686.26 Da



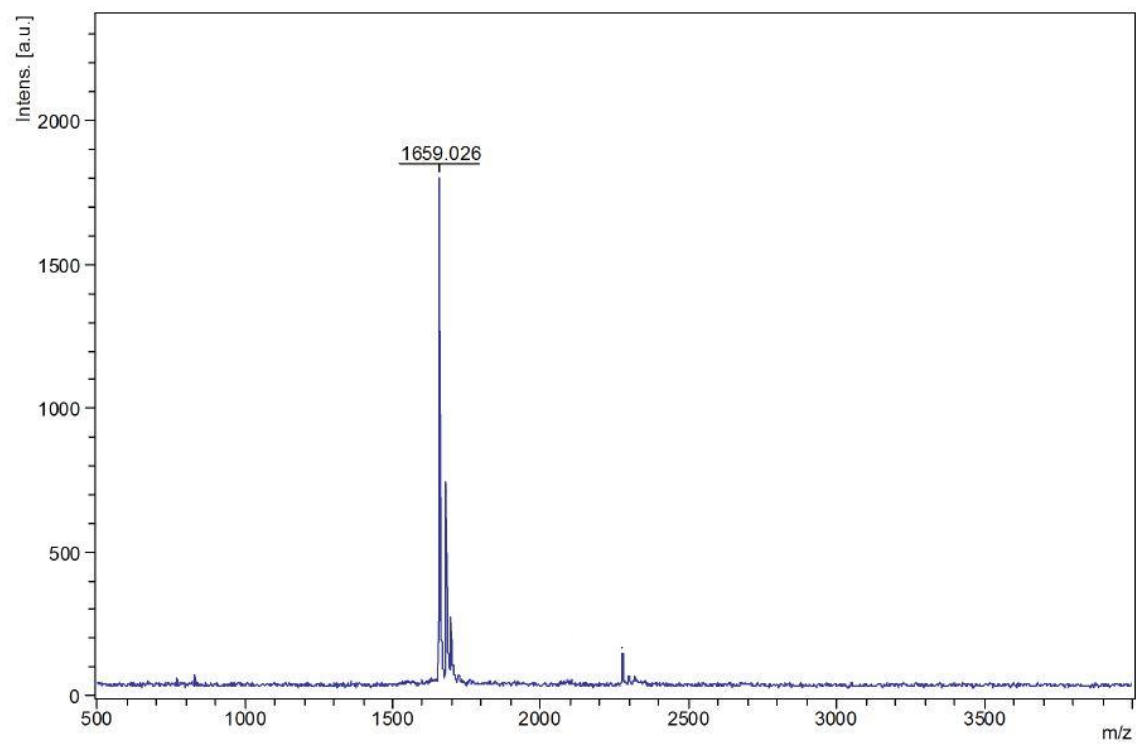
$[(C_{14})C3]BP214$ (12)

Mw = 1714.31 Da



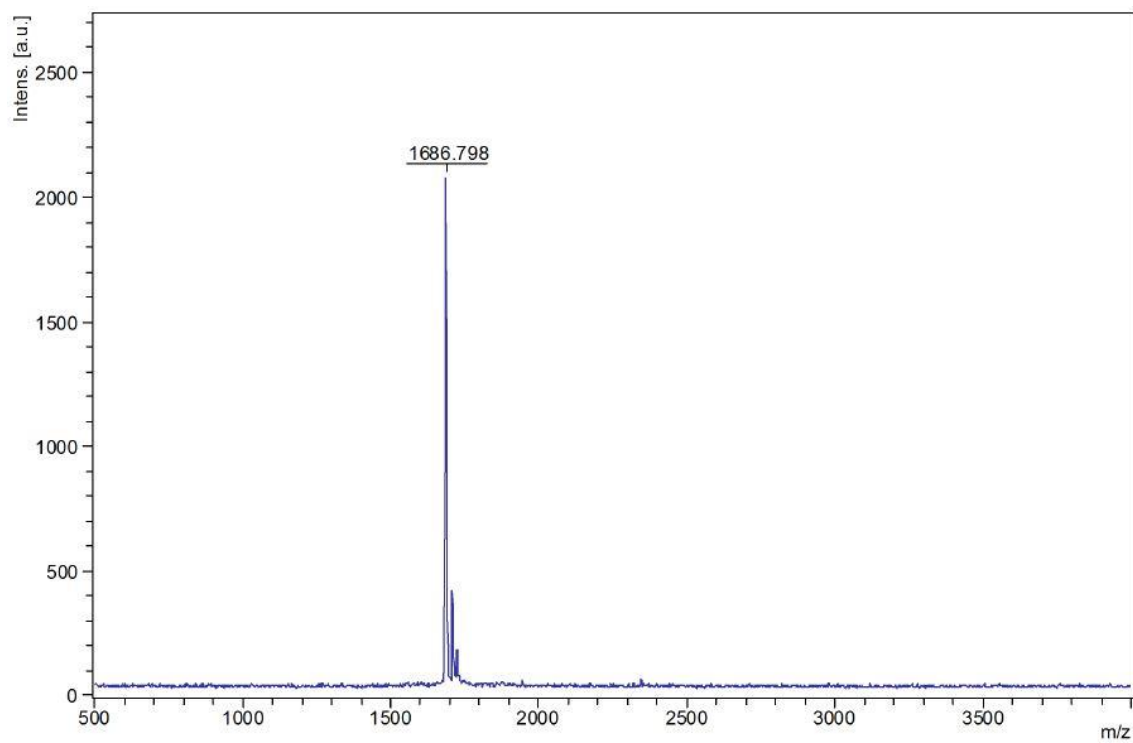
$[(C_{10})C4]BP214$ (13)

Mw = 1658.20 Da



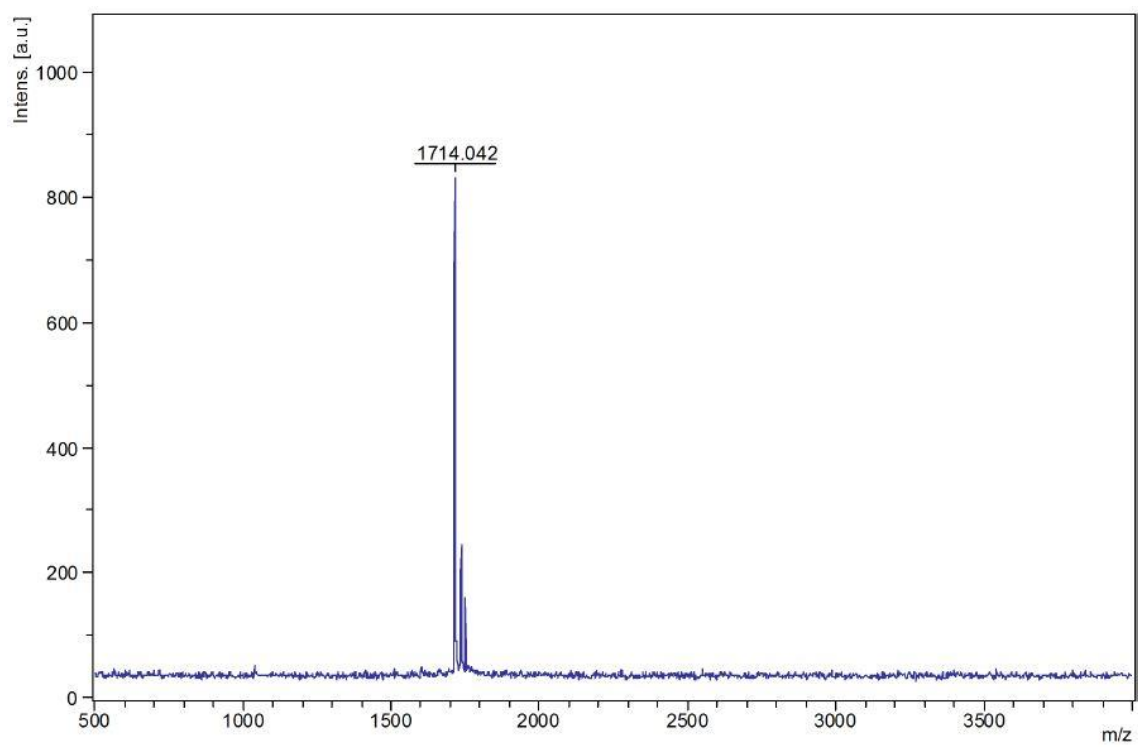
$[(C_{12})C_4]BP214$ (14)

Mw = 1686.26 Da



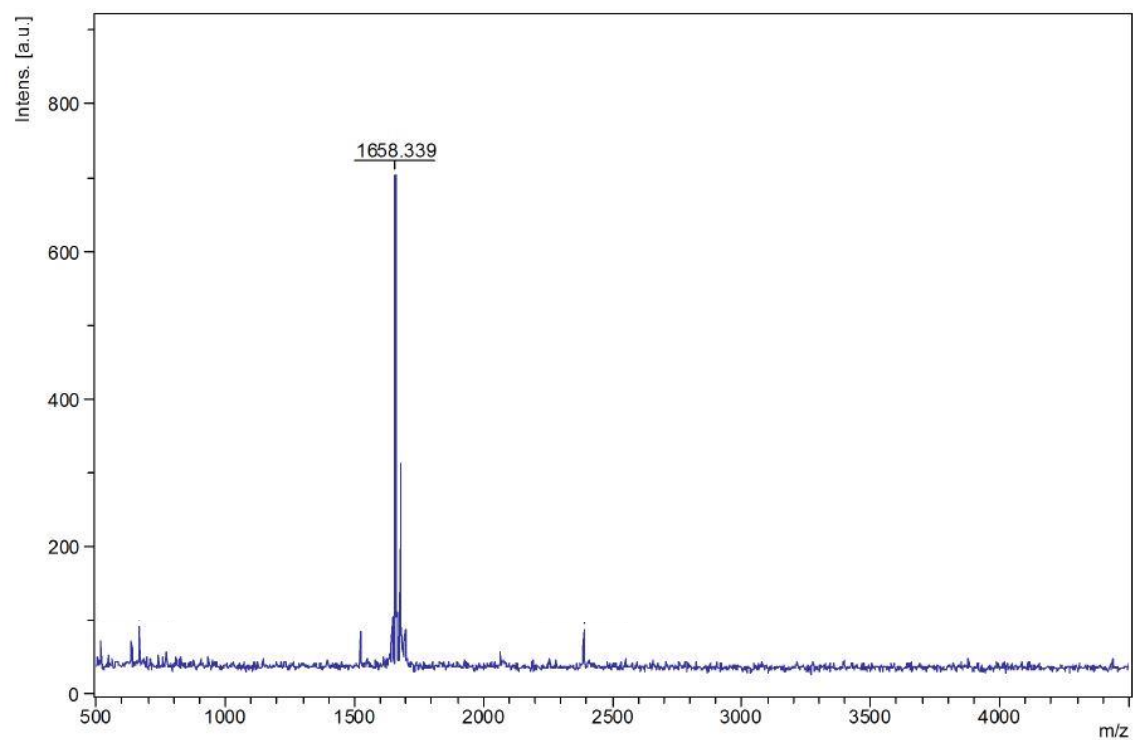
$[(C_{14})C_4]BP214$ (15)

Mw = 1714.31 Da



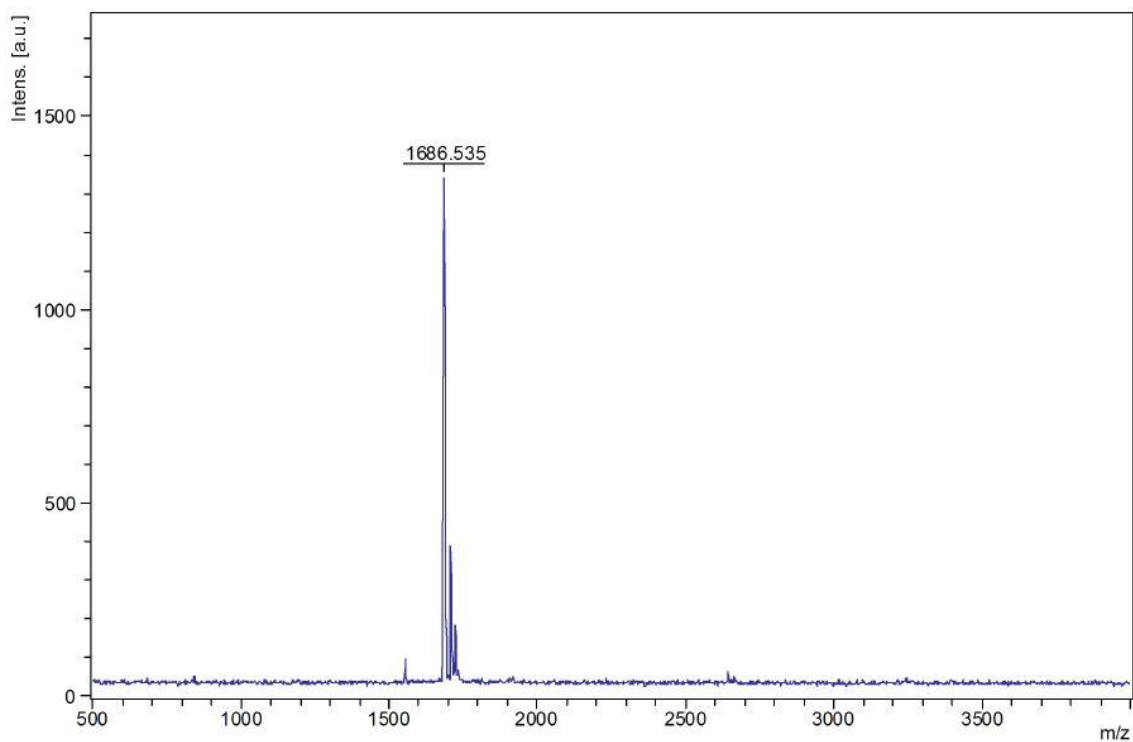
$[(C_{10})C5]BP214$ (16)

Mw = 1658.20 Da



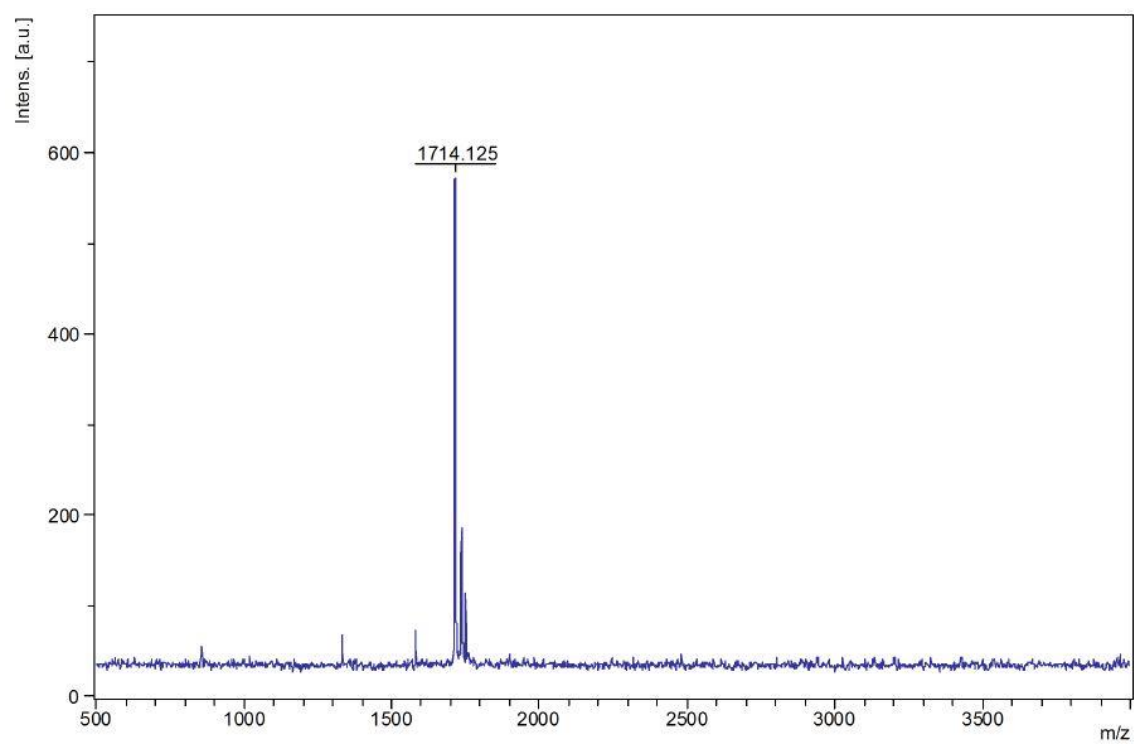
$[(C_{12})C5]BP214$ (17)

Mw = 1686.26 Da



[(C₁₄)C₅]BP214 (18)

Mw = 1714.31 Da



SV:

