

Figure S1. The MS^2 spectrum of **1** (C13-[Val7]) eluted at $Rt = 78.08$ min ($m/z = 1016$).

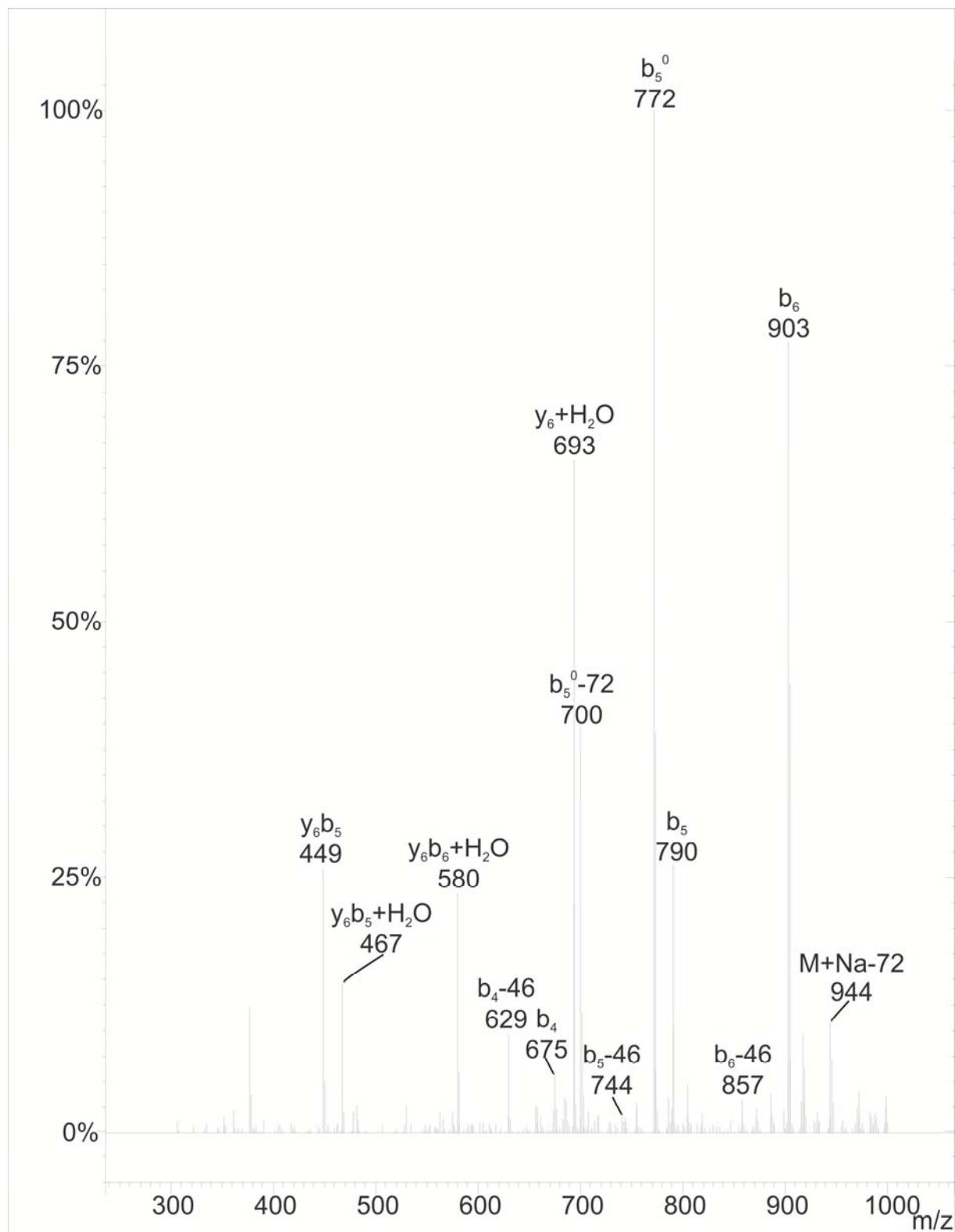


Figure S2. The MS^2 spectrum of **2** (C13-[Val2]) eluted at $Rt = 78.74$ min ($m/z = 1016$).

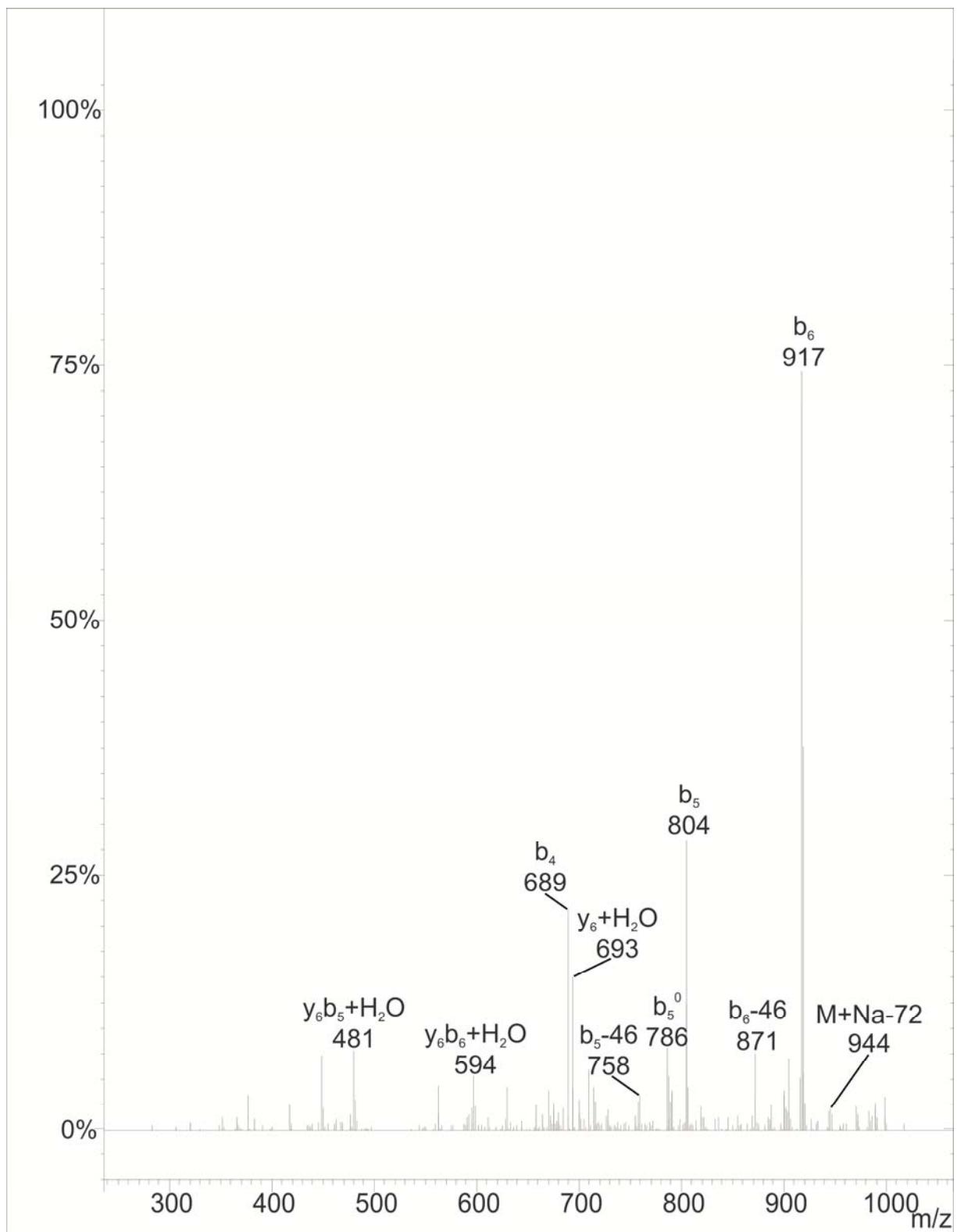


Figure S3. The MS^2 spectrum of 3 (C13-[Val7]) eluted at $Rt = 79.23$ min ($m/z = 1016$).

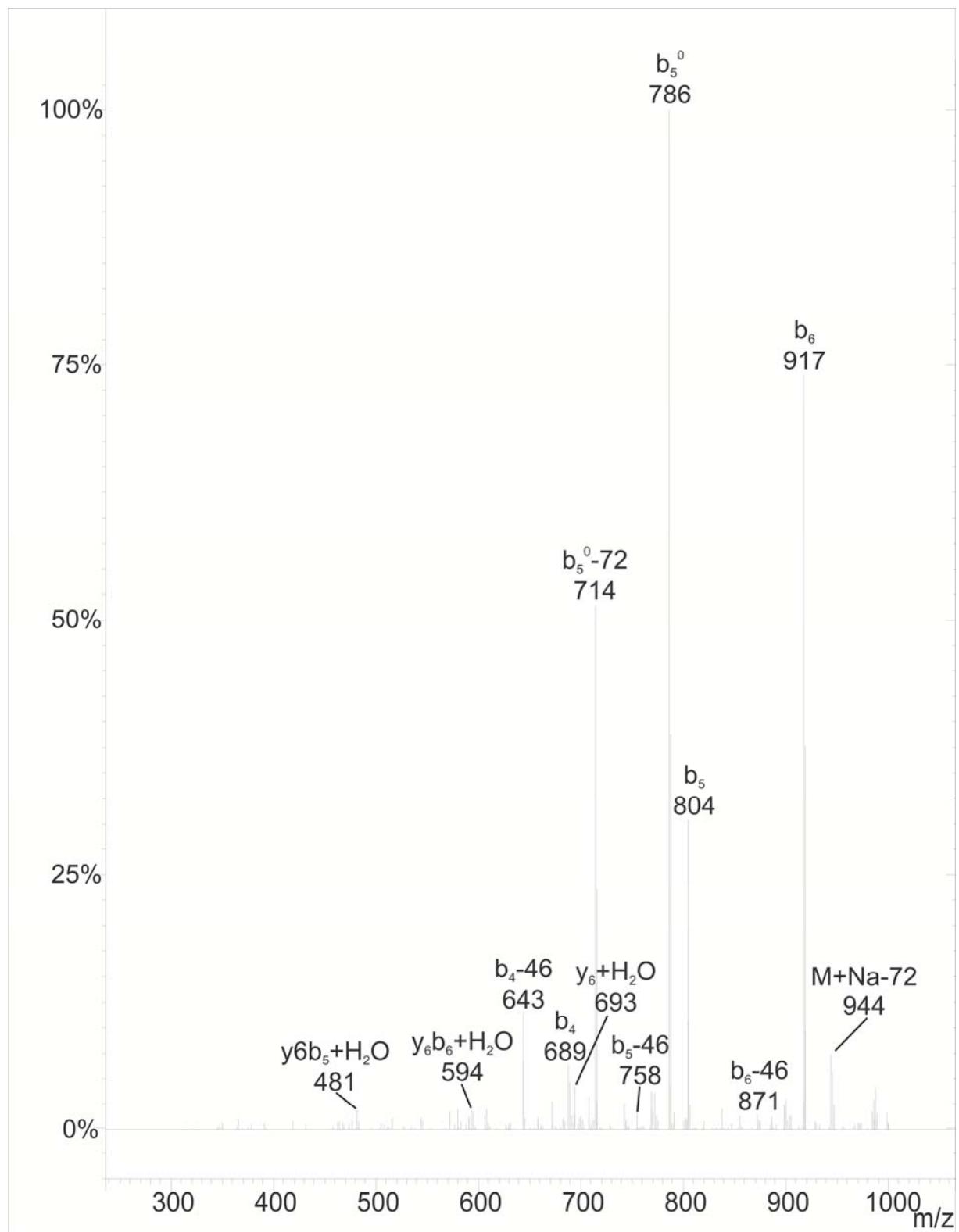


Figure S4. The MS^2 spectrum of **4** (C13-[Val7]) eluted at $Rt = 79.80$ min ($m/z = 1016$).

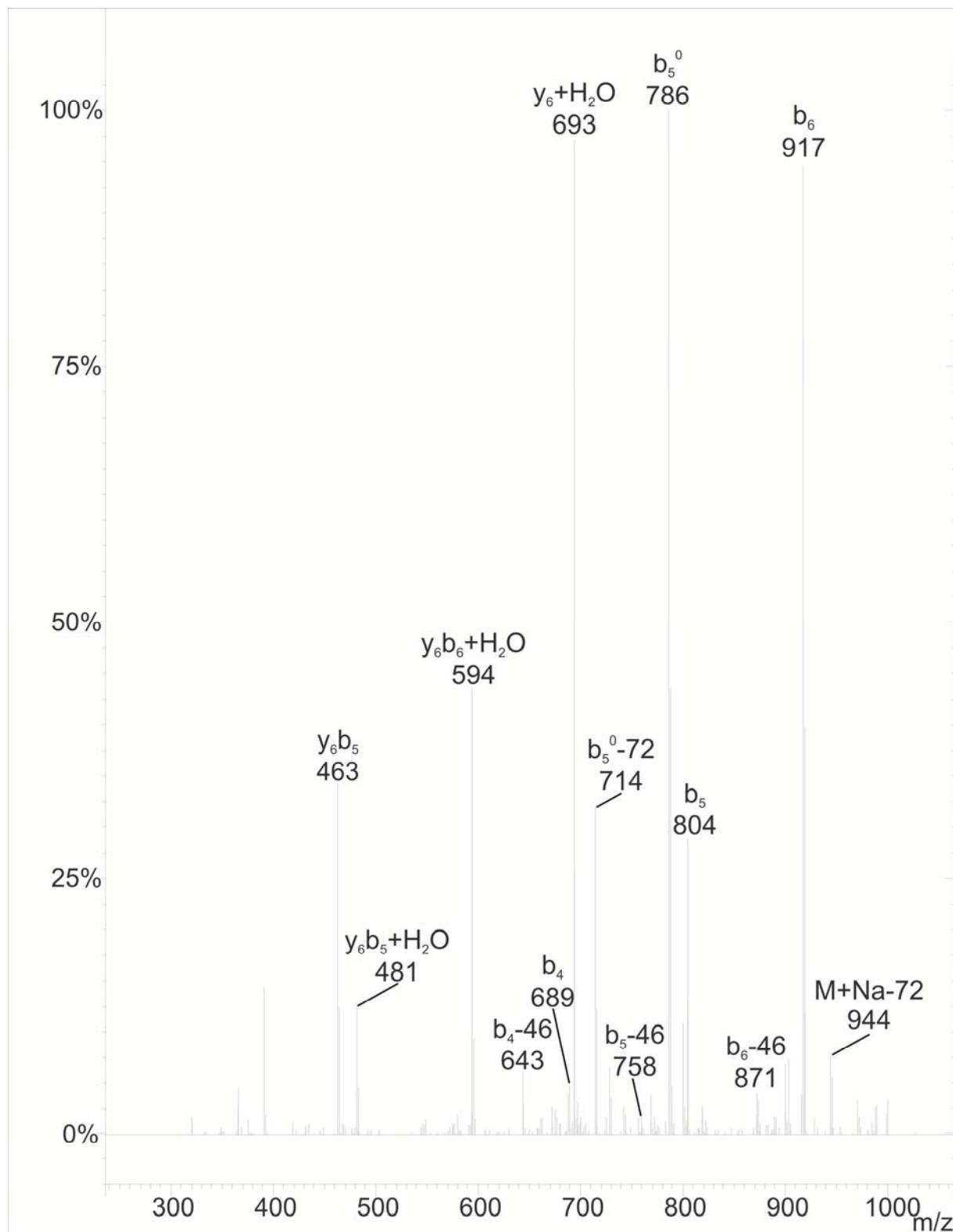


Figure S5. The MS^2 spectrum of 5 (C13-[Val7]) eluted at $Rt = 80.63$ min ($m/z = 1016$).

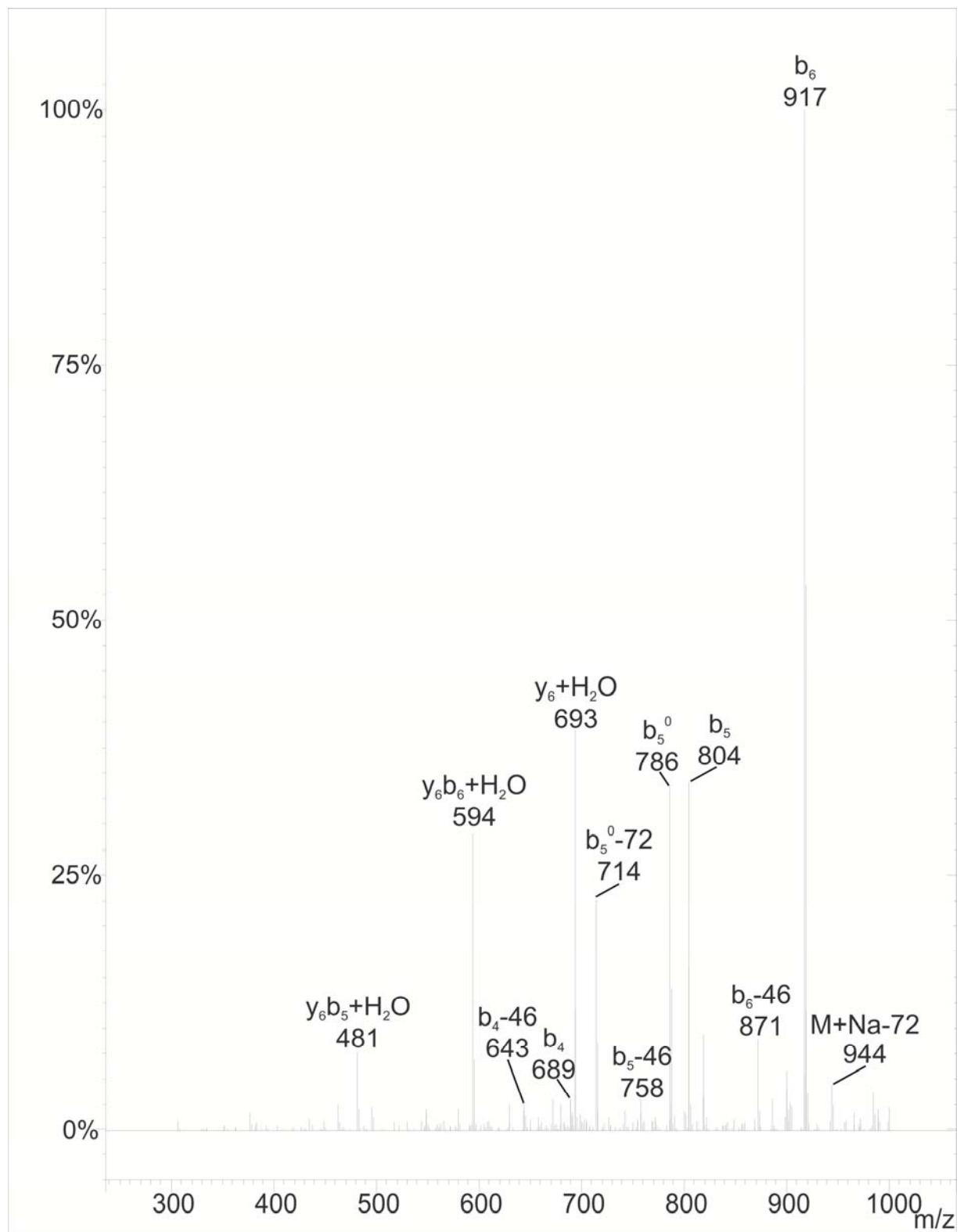


Figure S6. The MS^2 spectrum of **6** (C13-[Val7]) eluted at $Rt = 81.29$ min ($m/z = 1016$).

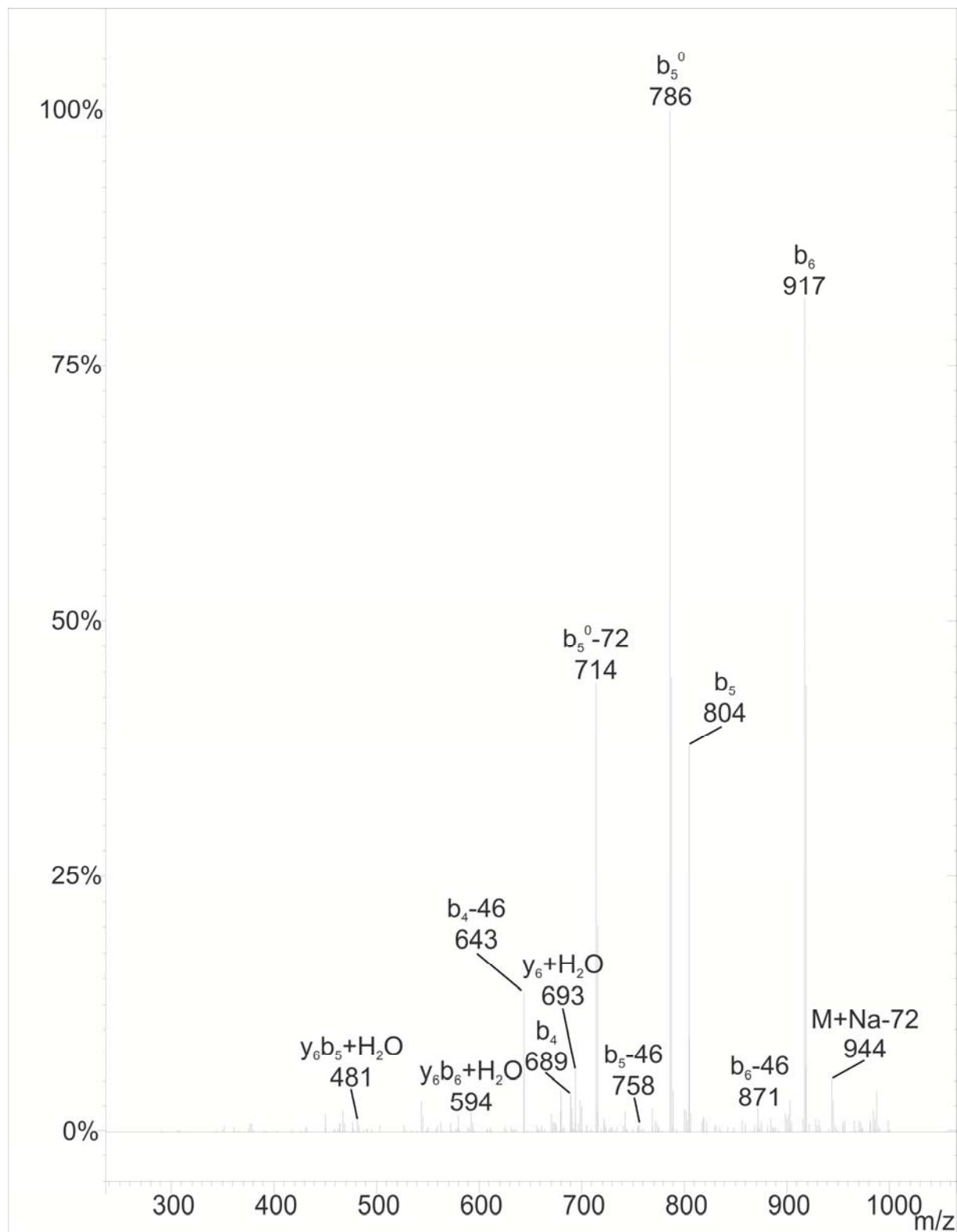


Figure S7. The MS^2 spectrum of **7** (C13-[Val7]) eluted at $Rt = 81.73$ min ($m/z = 1016$).

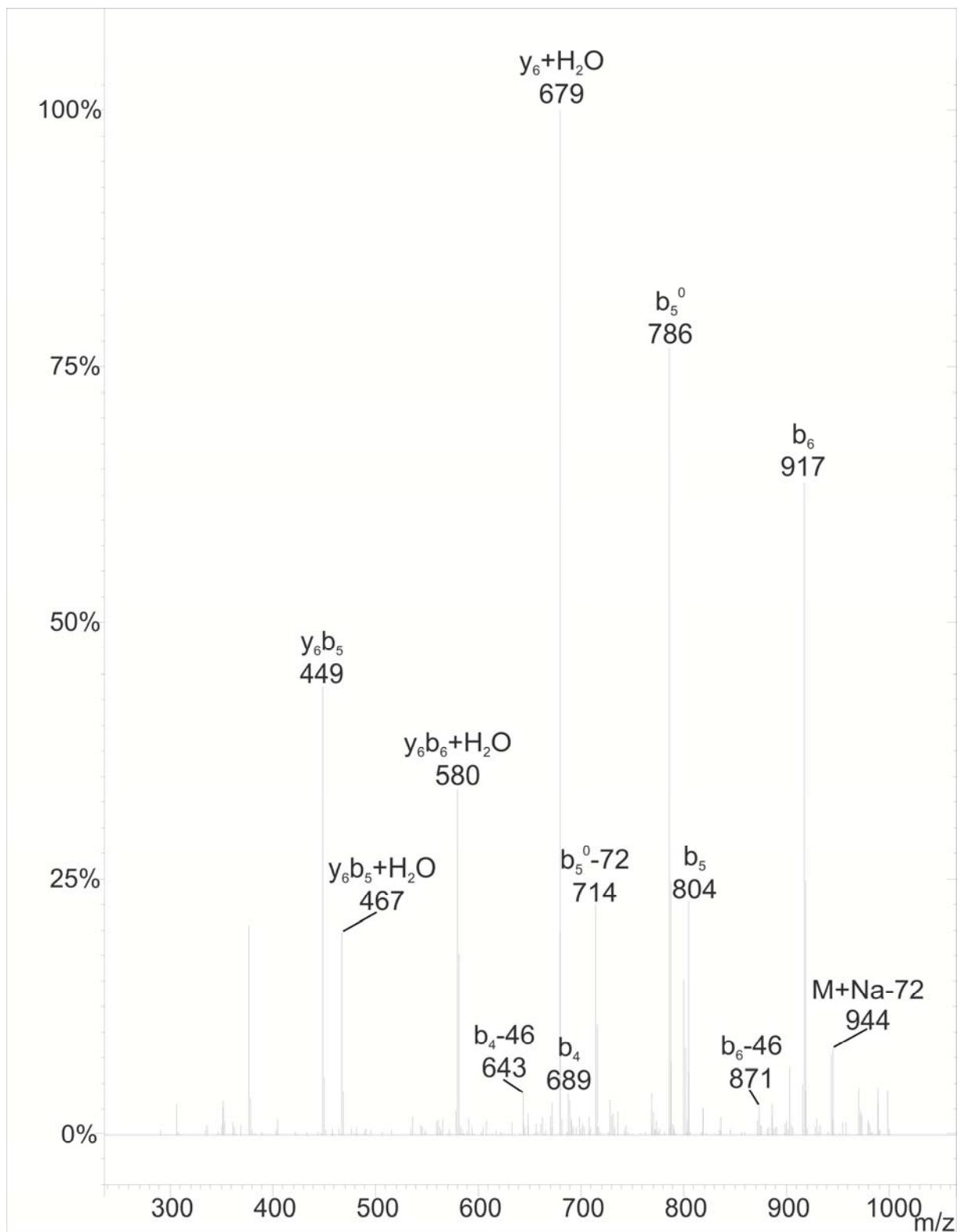


Figure S8. The MS^2 spectrum of 8 (C14-[Val2,7]) eluted at $Rt = 82.99$ min ($m/z = 1016$).

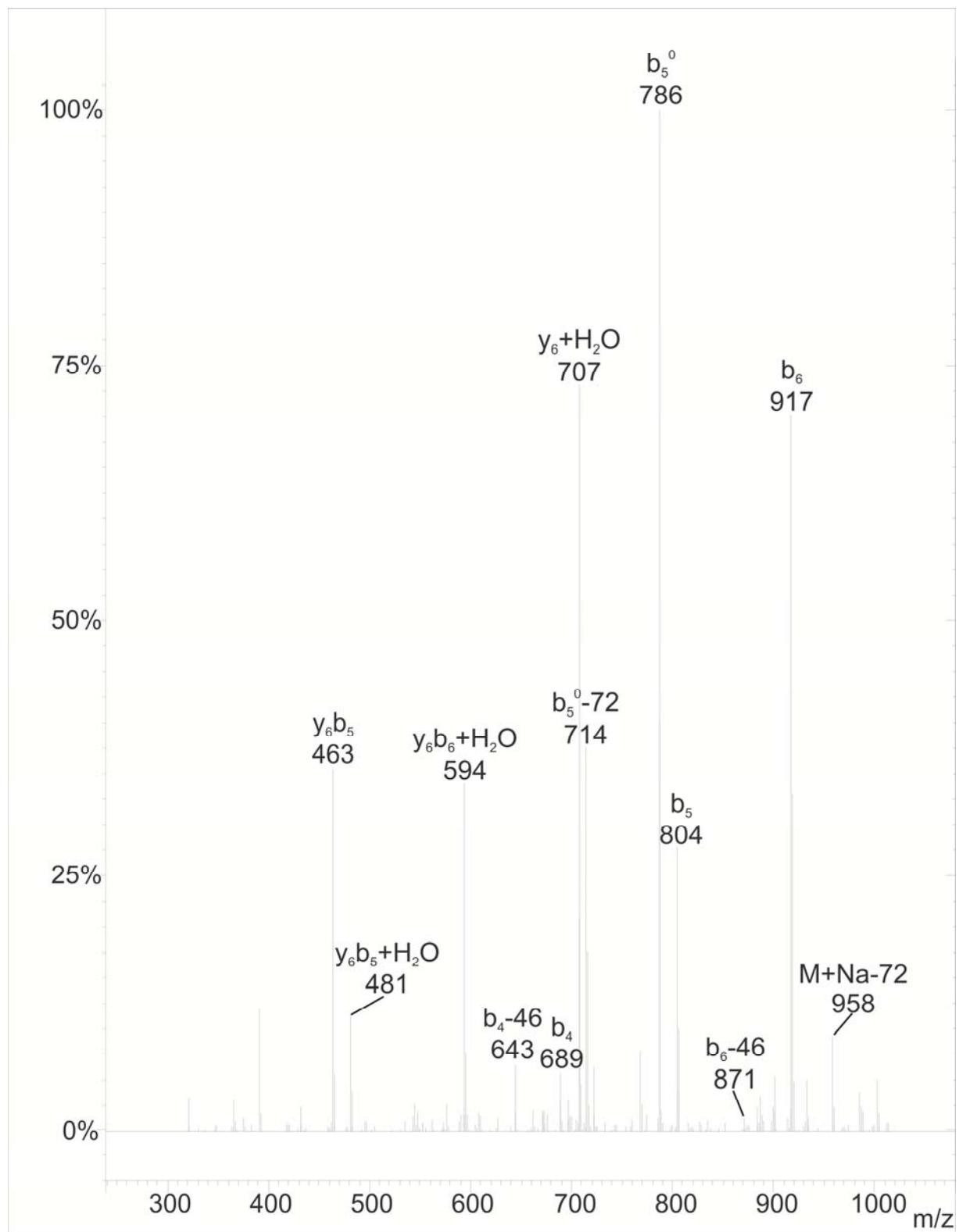


Figure S9. The MS^2 spectrum of **9** (C13-[Sur]) eluted at $Rt = 79.37$ min ($m/z = 1030$).

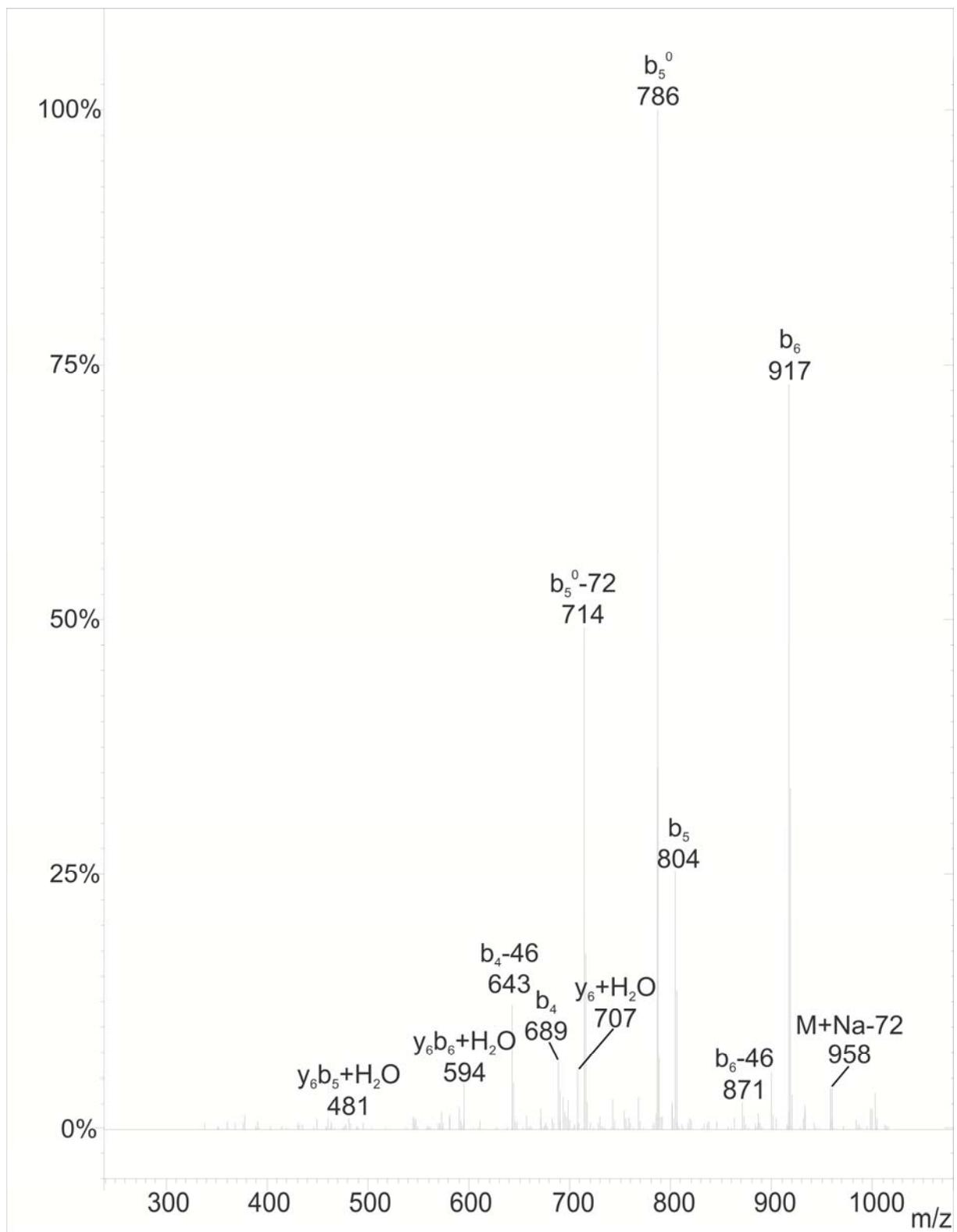


Figure S10. The MS^2 spectrum of **10** (C13-[Sur]) eluted at $Rt = 81.03$ min ($m/z = 1030$).

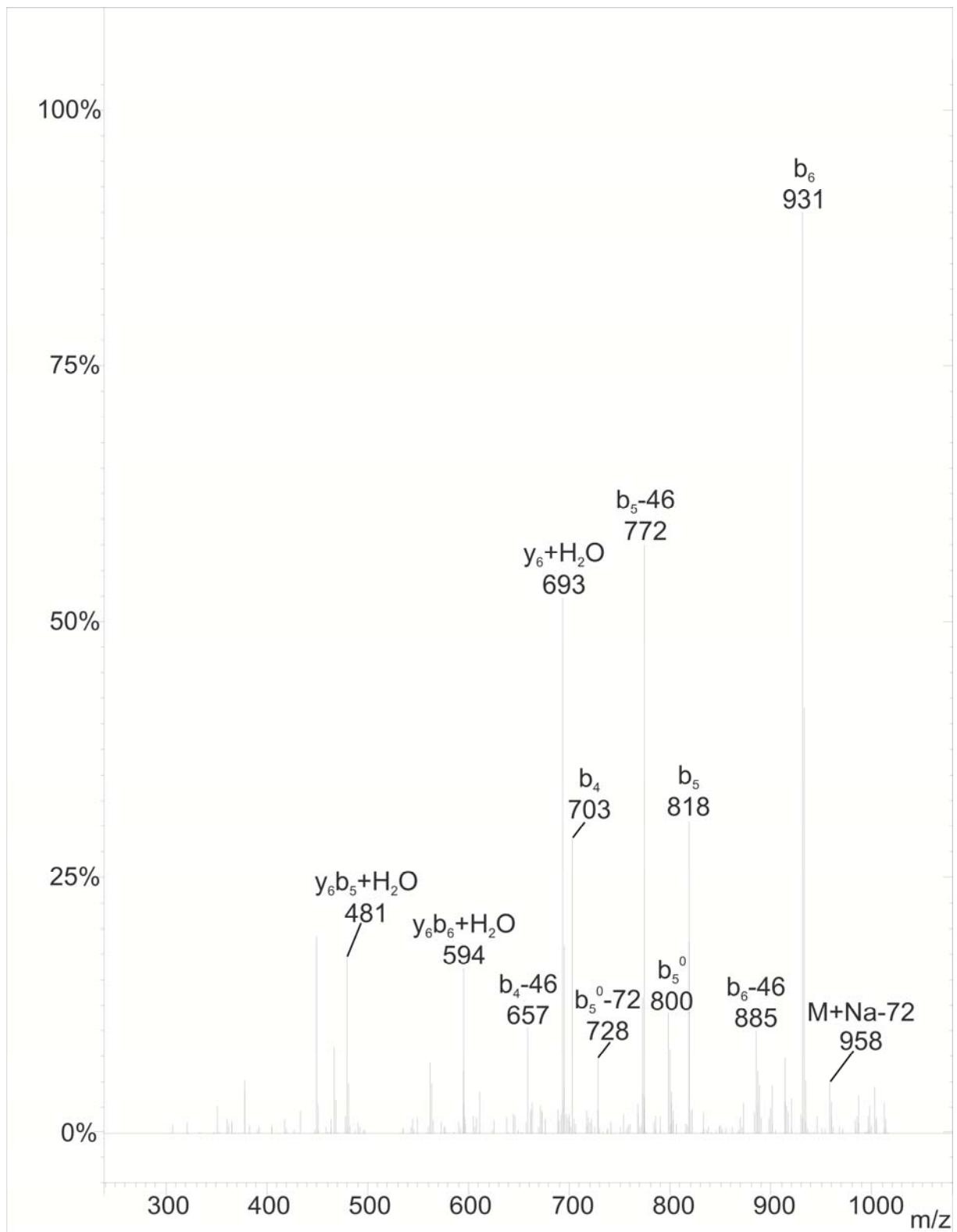


Figure S11. The MS^2 spectrum of **11** (C14-[Val7]) eluted at $Rt = 82.03$ min ($m/z = 1030$).

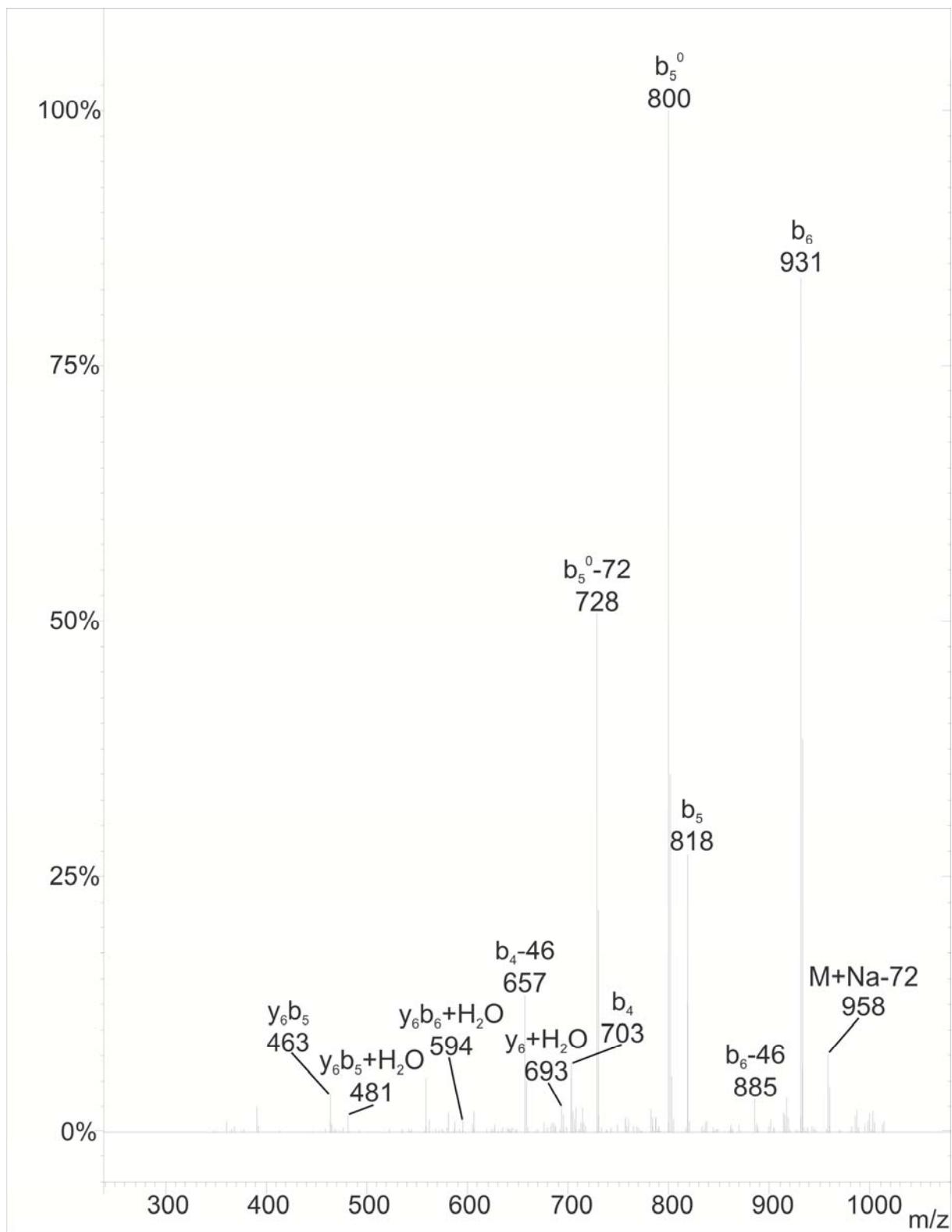


Figure S12. The MS^2 spectrum of **12** (C14-[Val7]) eluted at $Rt = 82.66$ min ($m/z = 1030$).

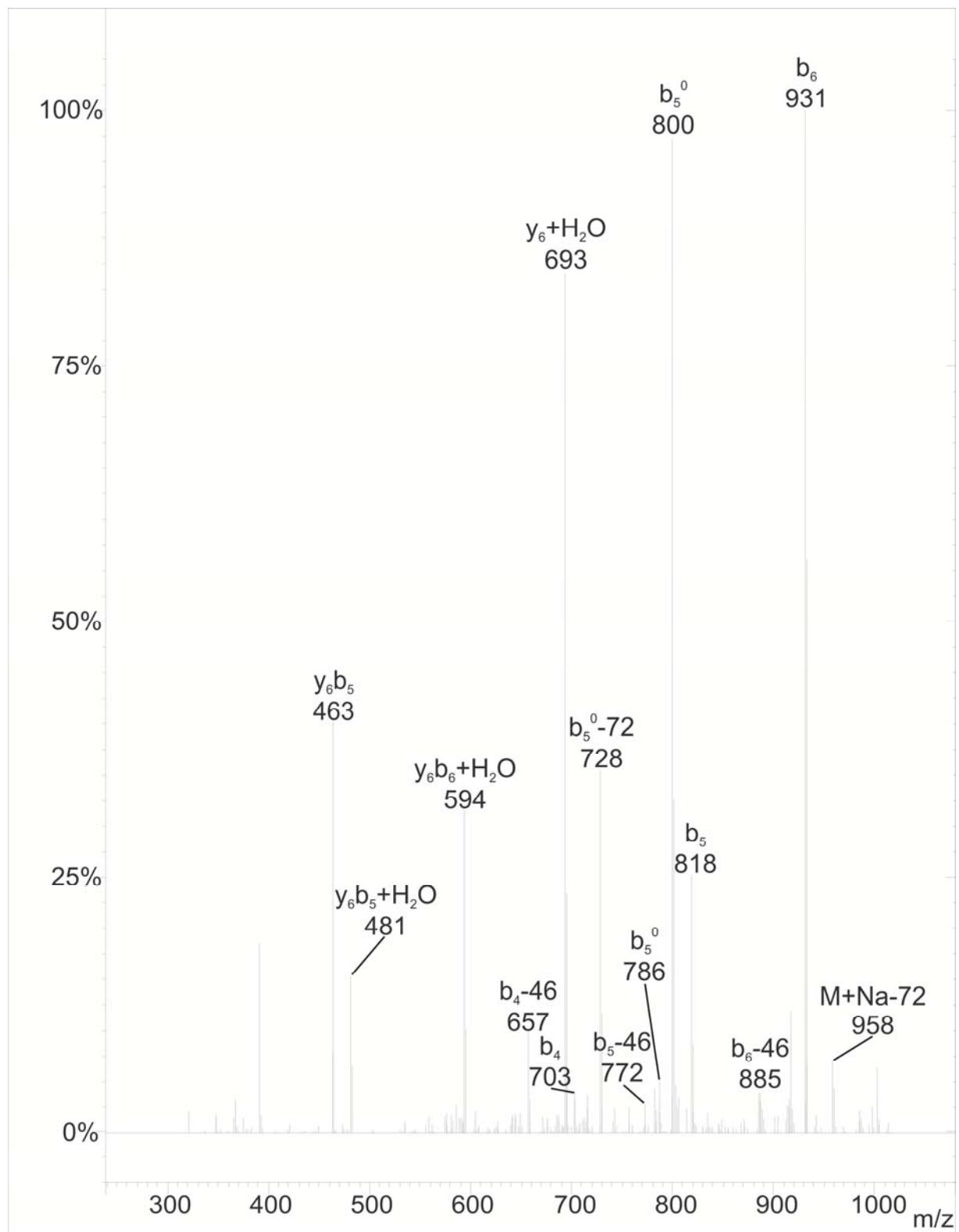


Figure S13. The MS^2 spectrum of **13** (C14-[Val7]) eluted at $Rt = 83.66$ min ($m/z = 1030$).

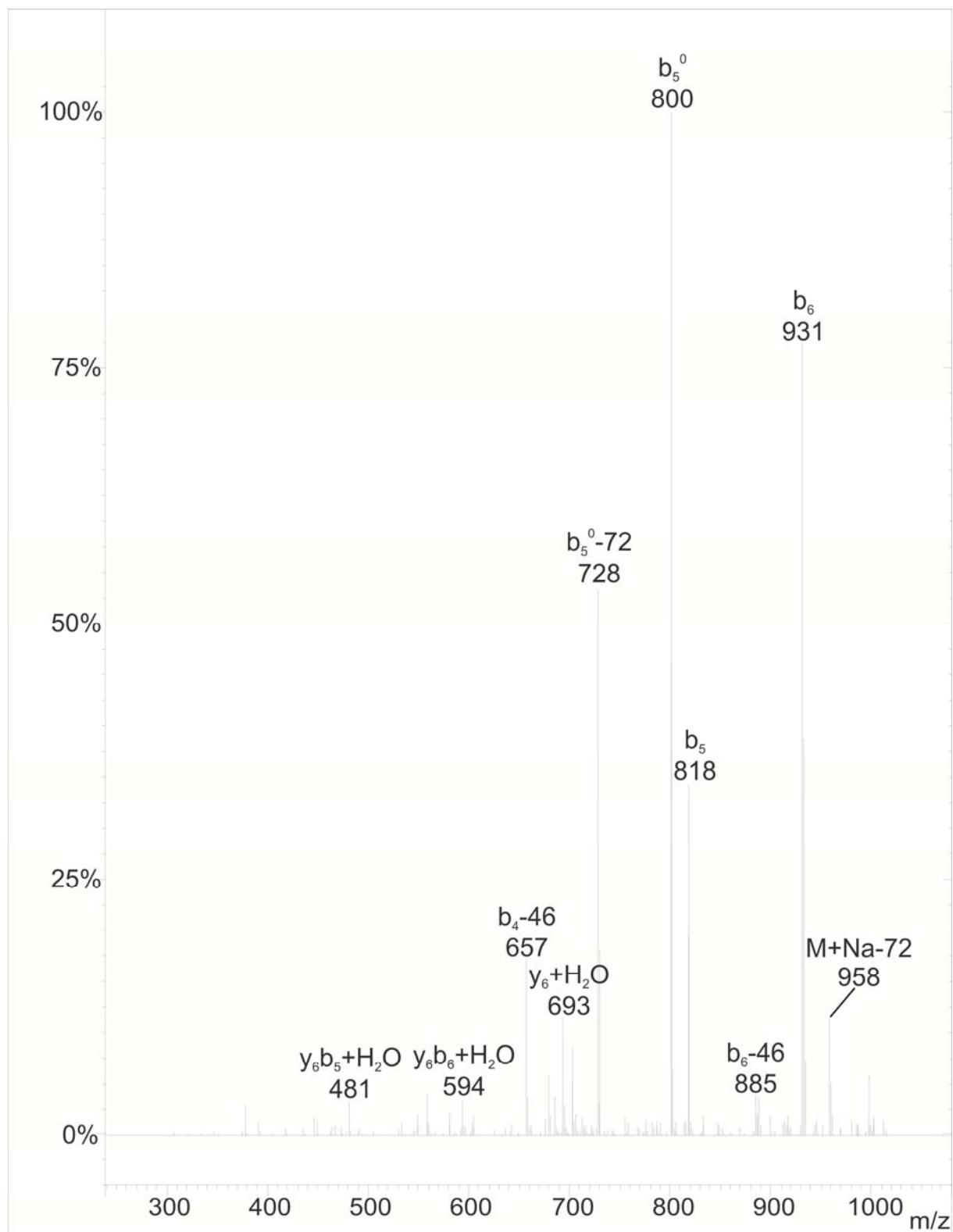


Figure S14. The MS^2 spectrum of **14** (C14-[Val7]) eluted at $Rt = 84.57$ min ($m/z = 1030$).

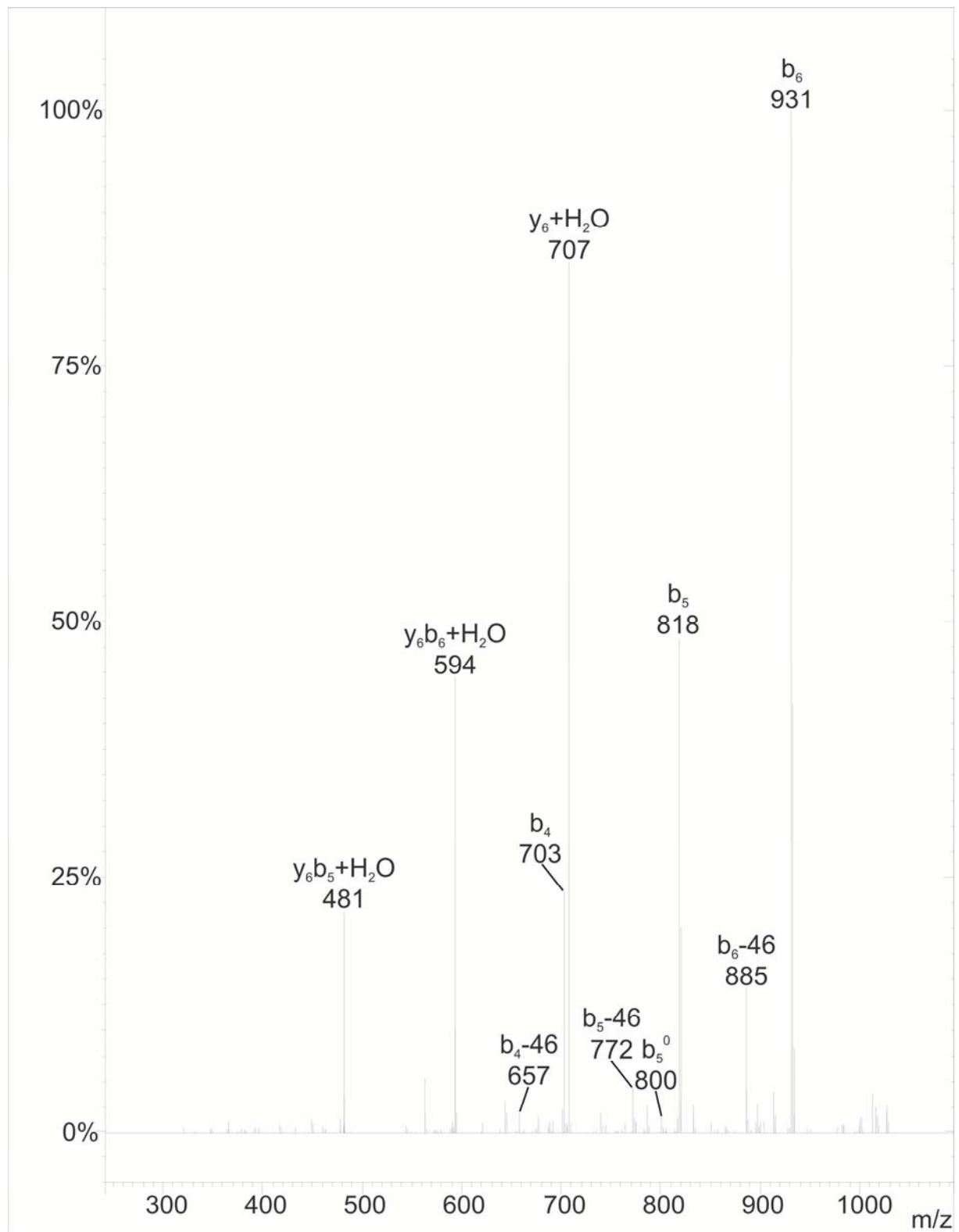


Figure S15. The MS^2 spectrum of **15** ($C_{14}-[Sur]$) eluted at $Rt = 81.55$ min ($m/z = 1044$).

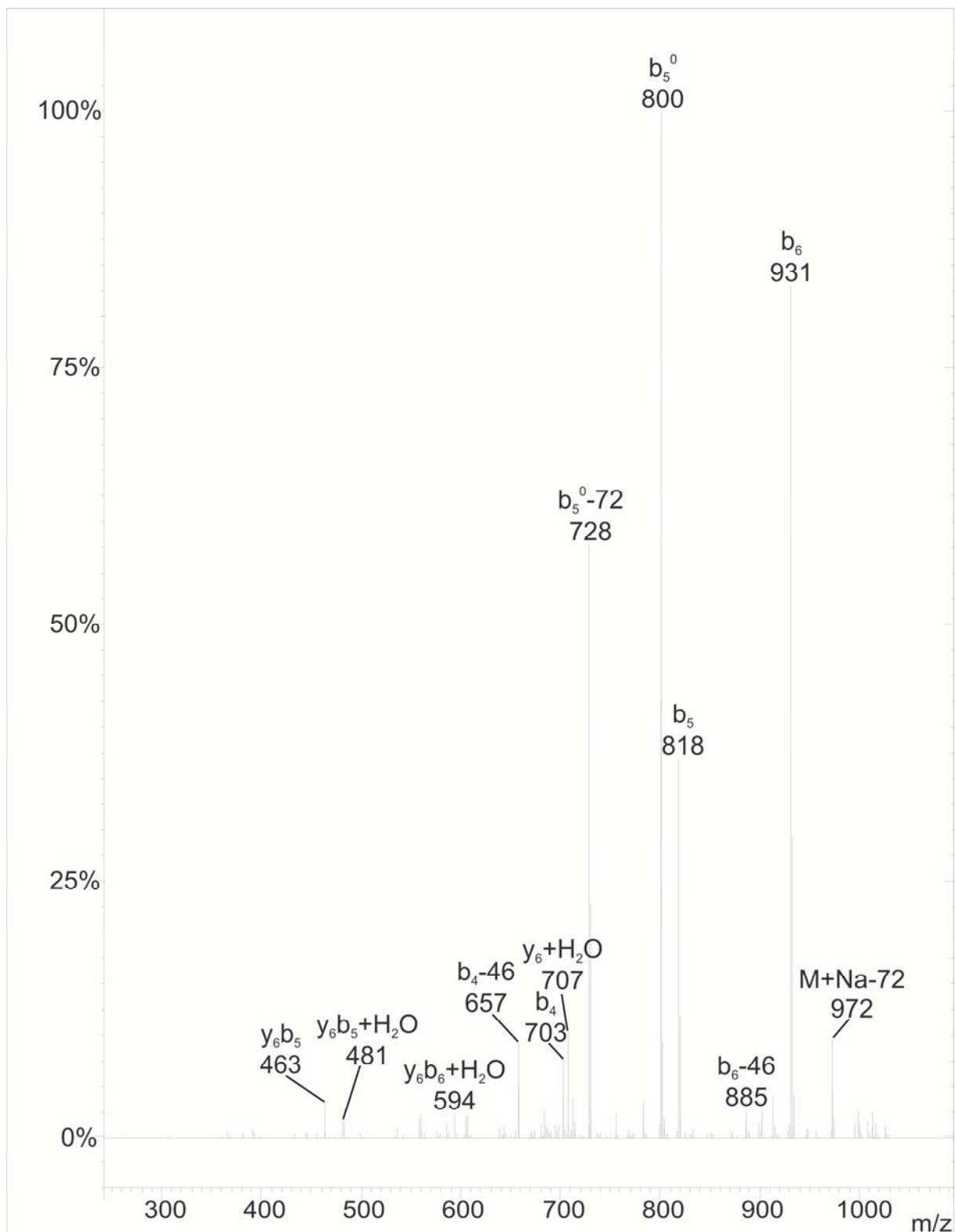


Figure S16. The MS^2 spectrum of **16** (C14-[Sur]) eluted at $Rt = 82.13$ min ($m/z = 1044$).

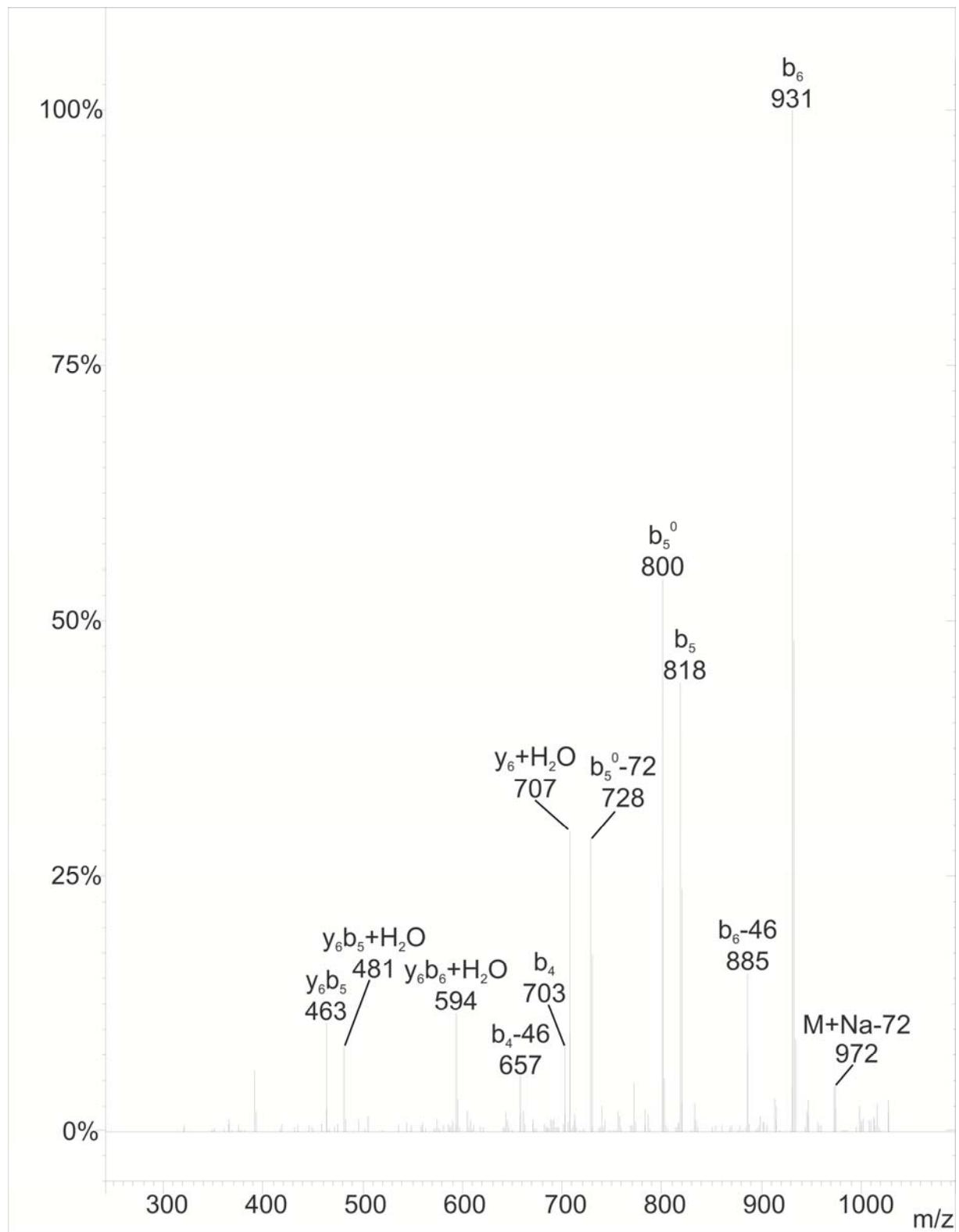


Figure S17. The MS^2 spectrum of **17** (C14-[Sur]) eluted at $Rt = 83.14$ min ($m/z = 1044$).

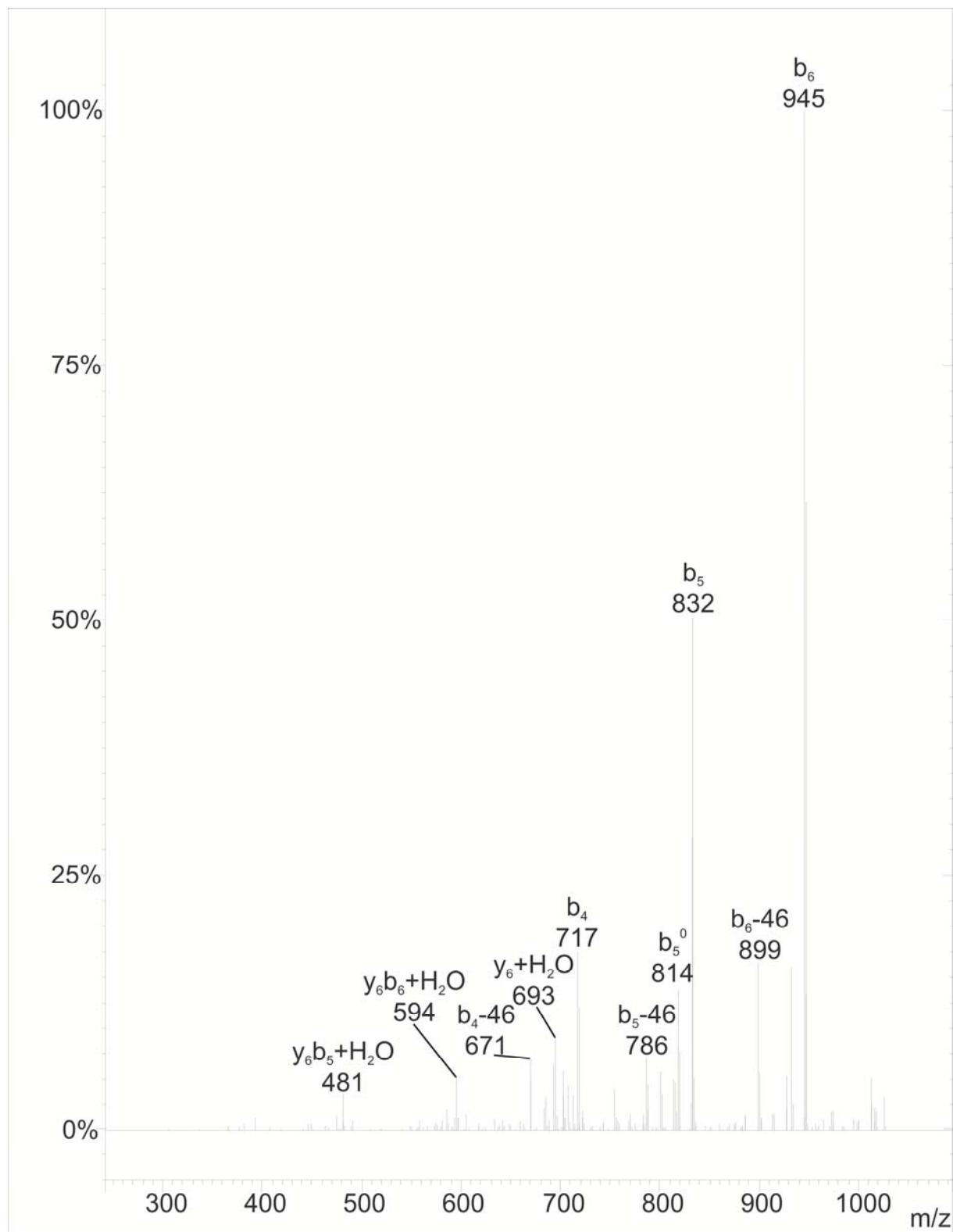


Figure S18. The MS^2 spectrum of **18** (C15-[Val7]) eluted at $Rt = 84.08$ min ($m/z = 1044$).

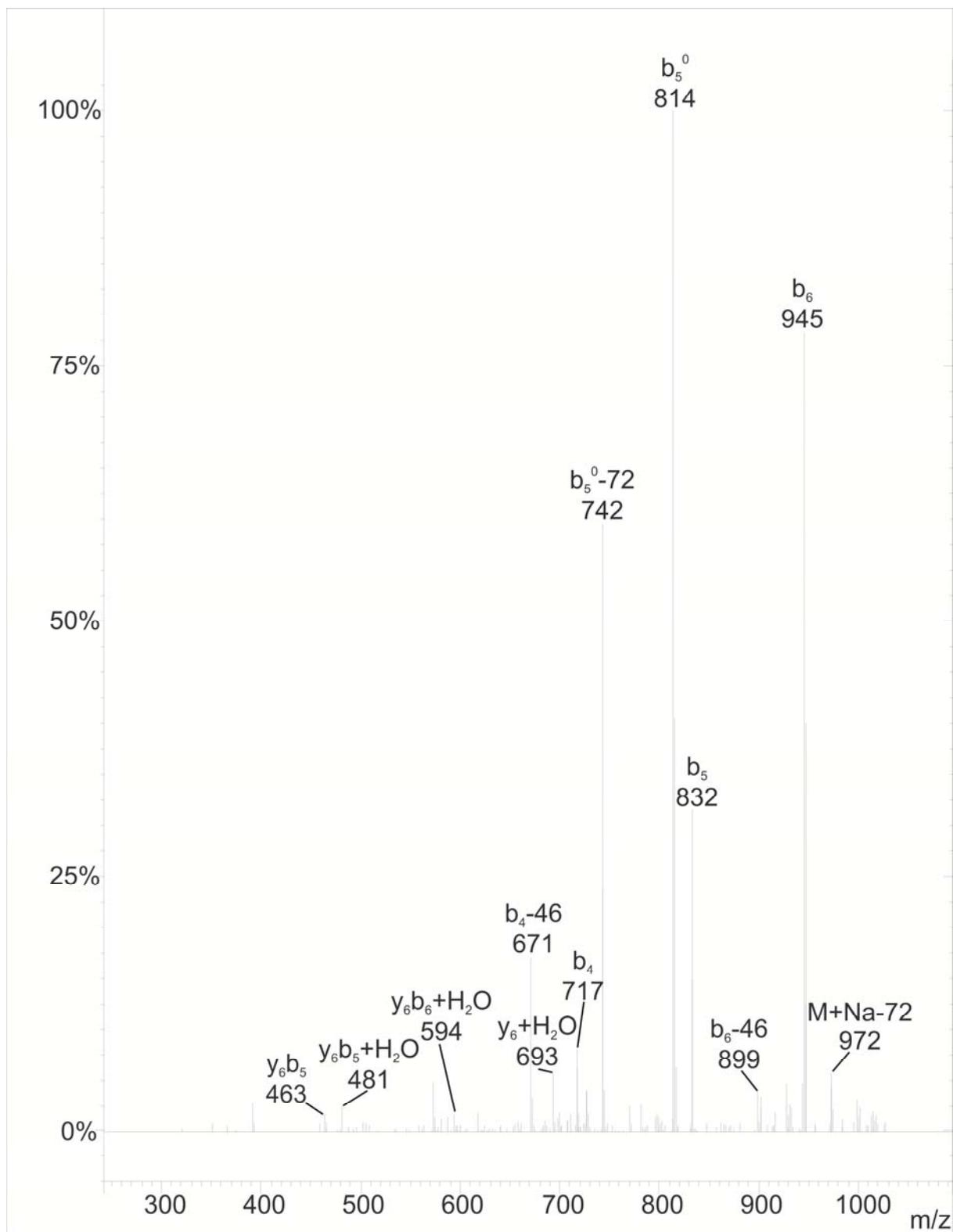


Figure S19. The MS^2 spectrum of **19** (C15-[Val7]) eluted at $Rt = 85.44$ min ($m/z = 1044$).

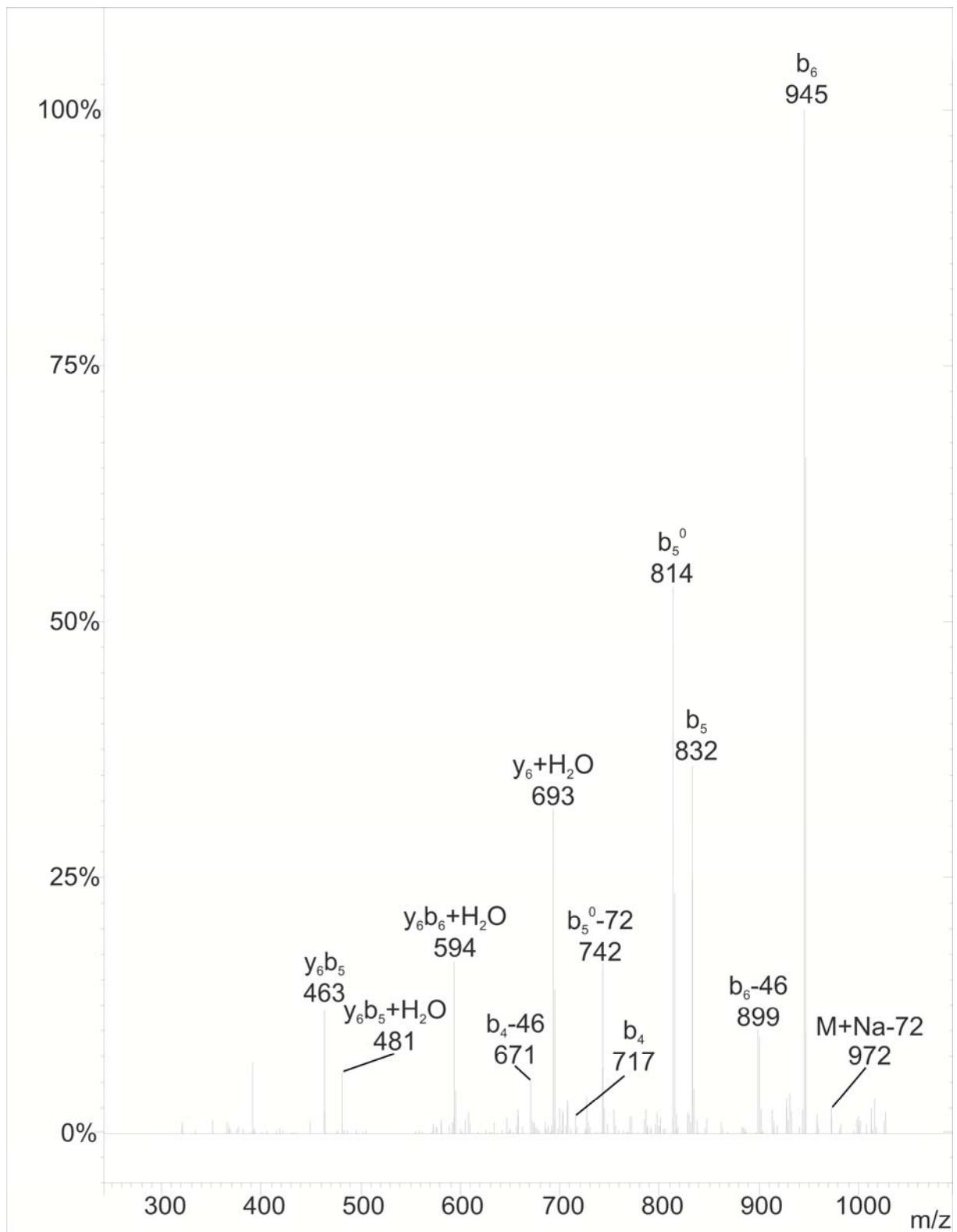


Figure S20. The MS^2 spectrum of **20** (C15-[Val7]) eluted at $R_t = 86.32$ min ($m/z = 1044$).

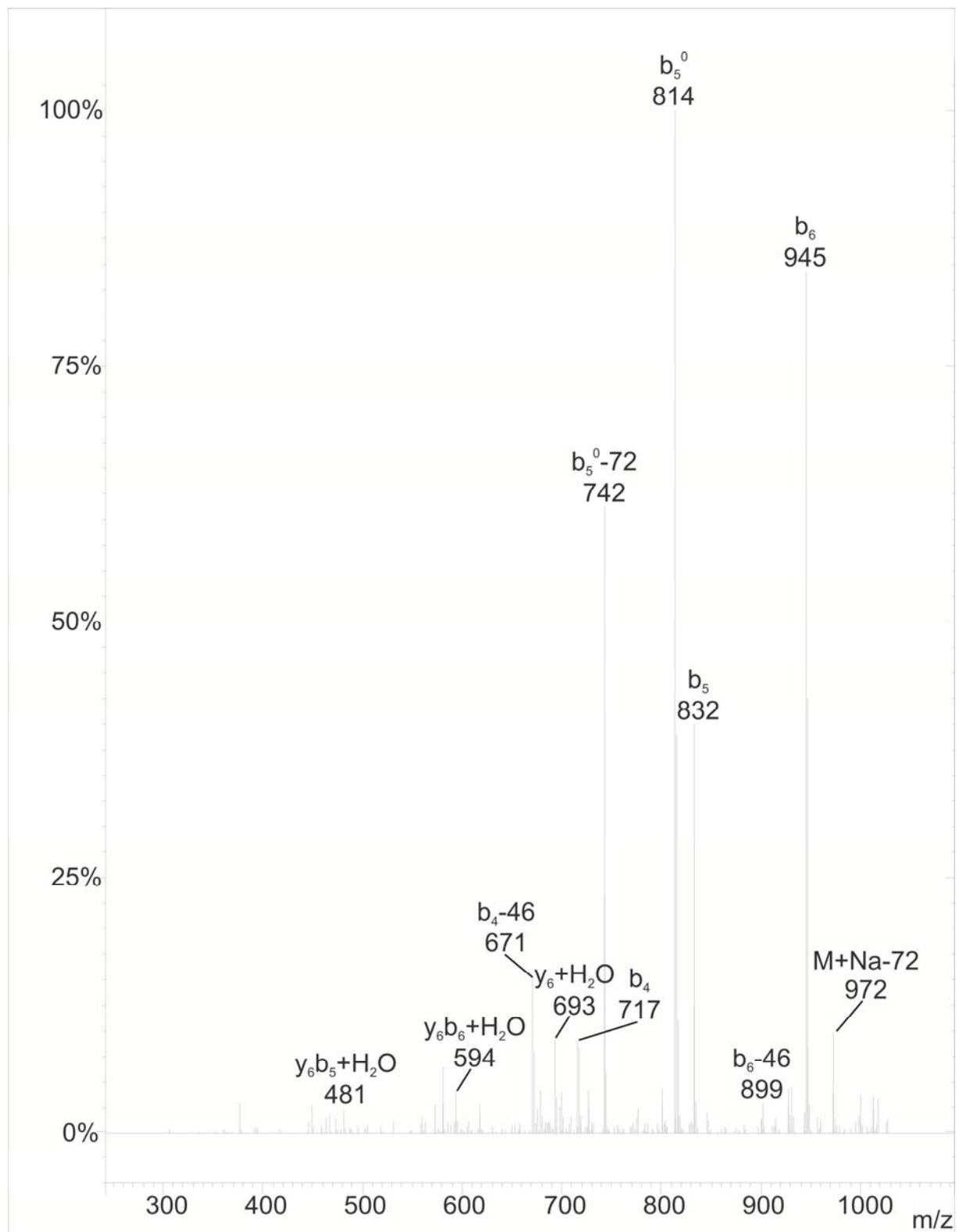


Figure S21. The MS^2 spectrum of **21** (C15-[Val7]) eluted at $Rt = 87.26$ min ($m/z = 1044$).

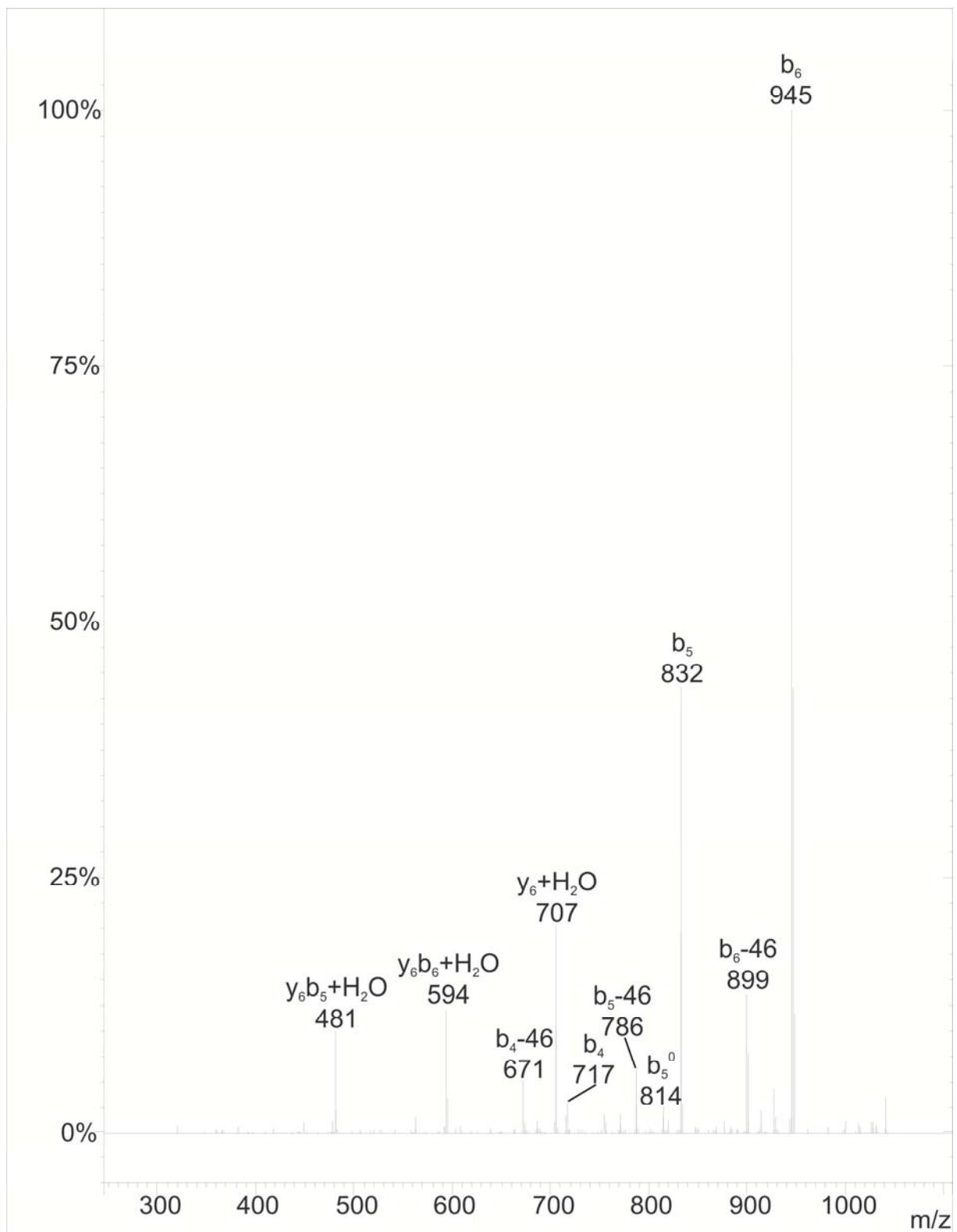


Figure S22. The MS^2 spectrum of **22** (C15-[Sur]) eluted at $\text{Rt} = 84.18$ min ($m/z = 1058$).

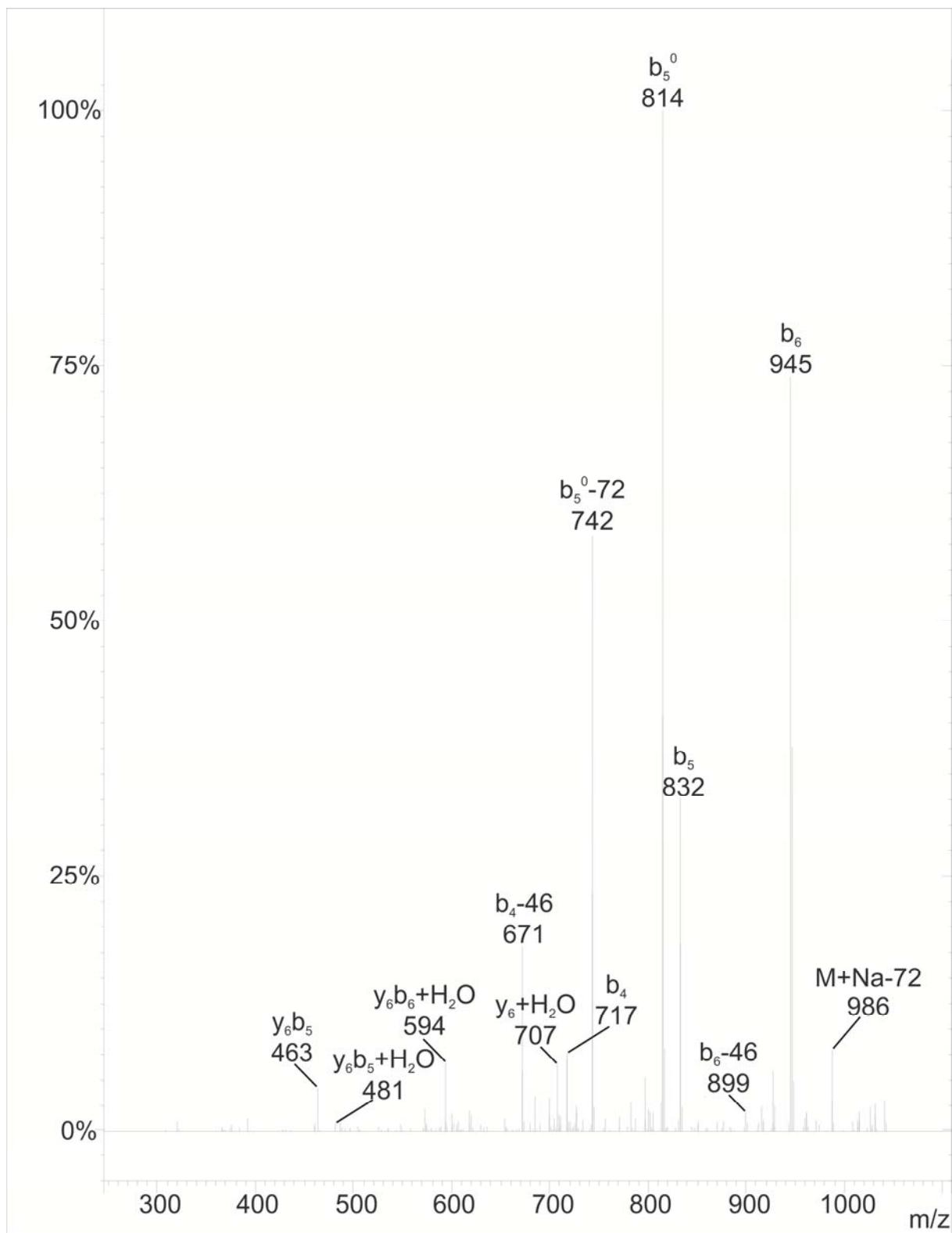


Figure S23. The MS^2 spectrum of 23 (C15-[Sur]) eluted at $Rt = 84.70$ min ($m/z = 1058$).

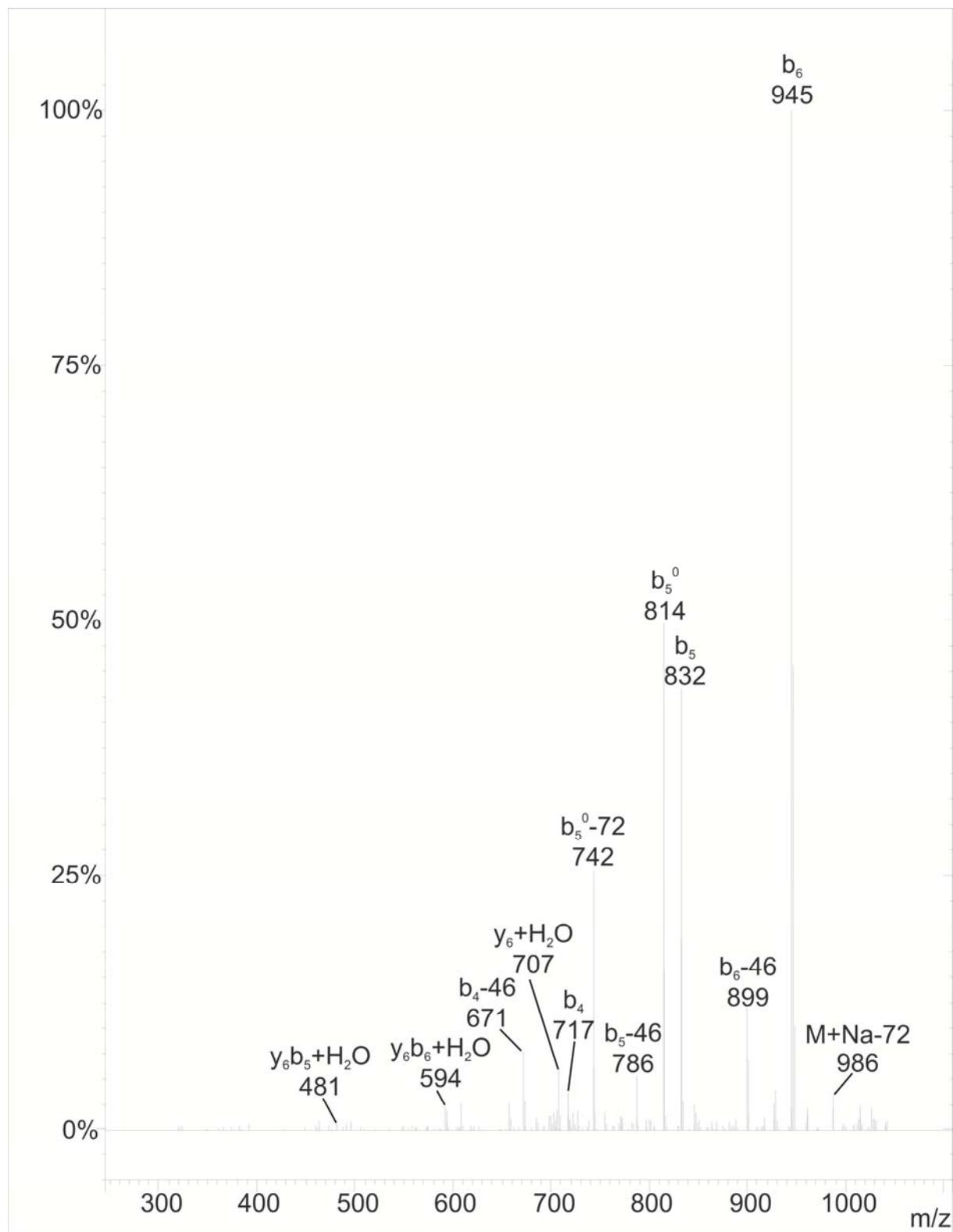


Figure S24. The MS^2 spectrum of **24** (C15-[Sur]) eluted at $Rt = 86.01$ min ($m/z = 1058$).

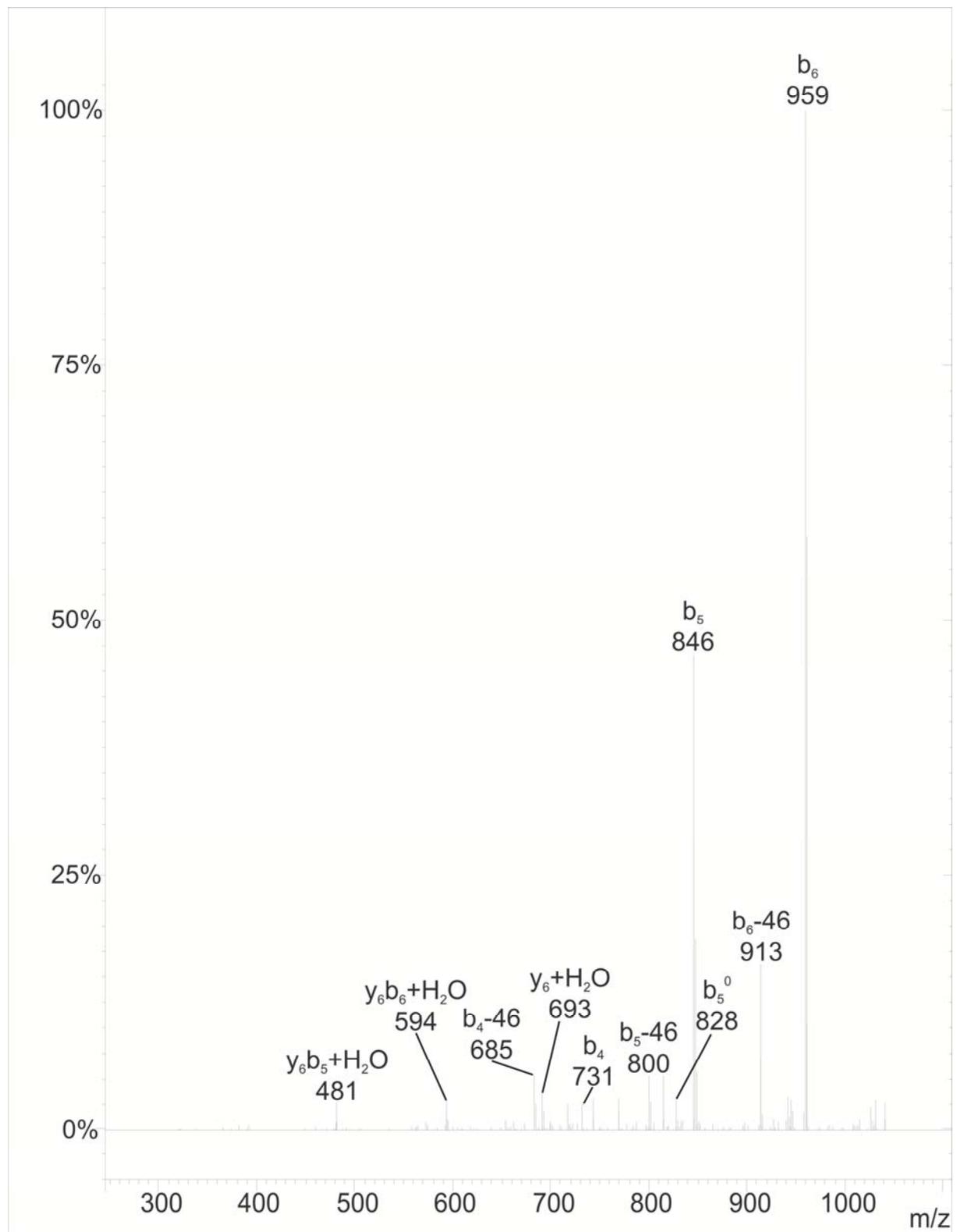


Figure S25. The MS^2 spectrum of **25** (C16-[Val7]) eluted at $Rt = 87.02$ min ($m/z = 1058$).

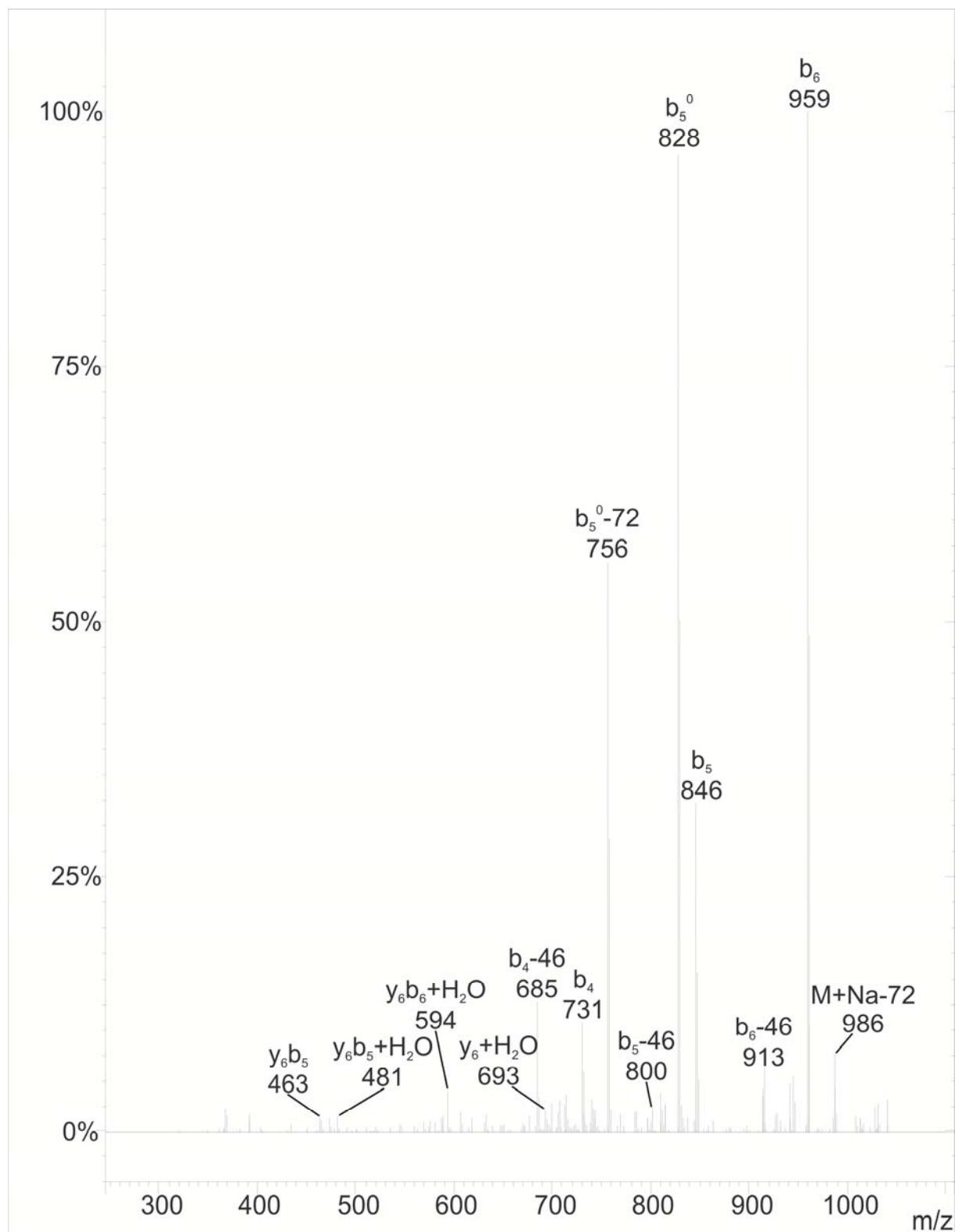


Figure S26. The MS^2 spectrum of **26** (C16-[Val7]) eluted at $Rt = 88.18$ min ($m/z = 1058$).

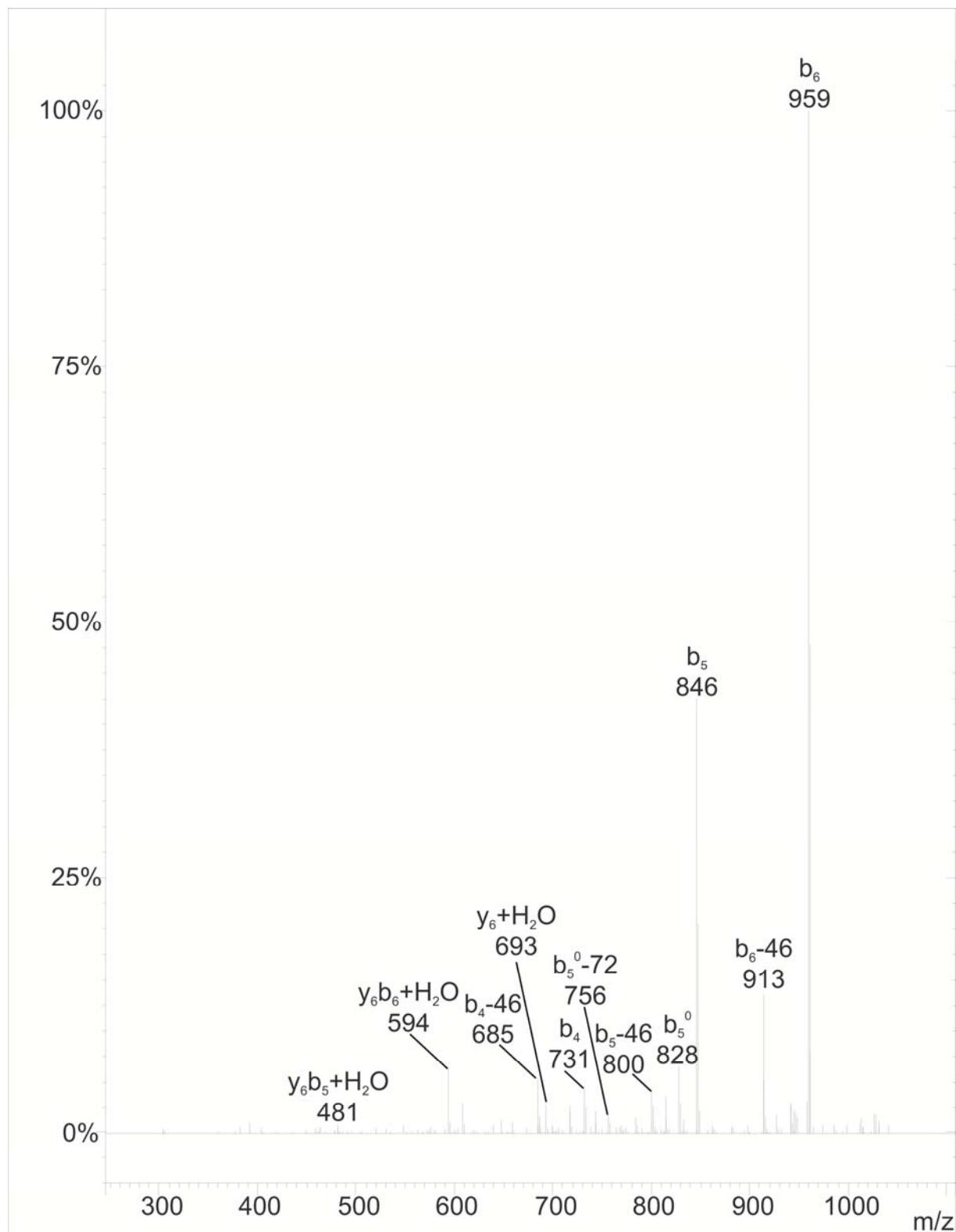


Figure S27. The MS^2 spectrum of **27** (C16-[Val7]) eluted at $Rt = 89.15$ min ($m/z = 1058$).

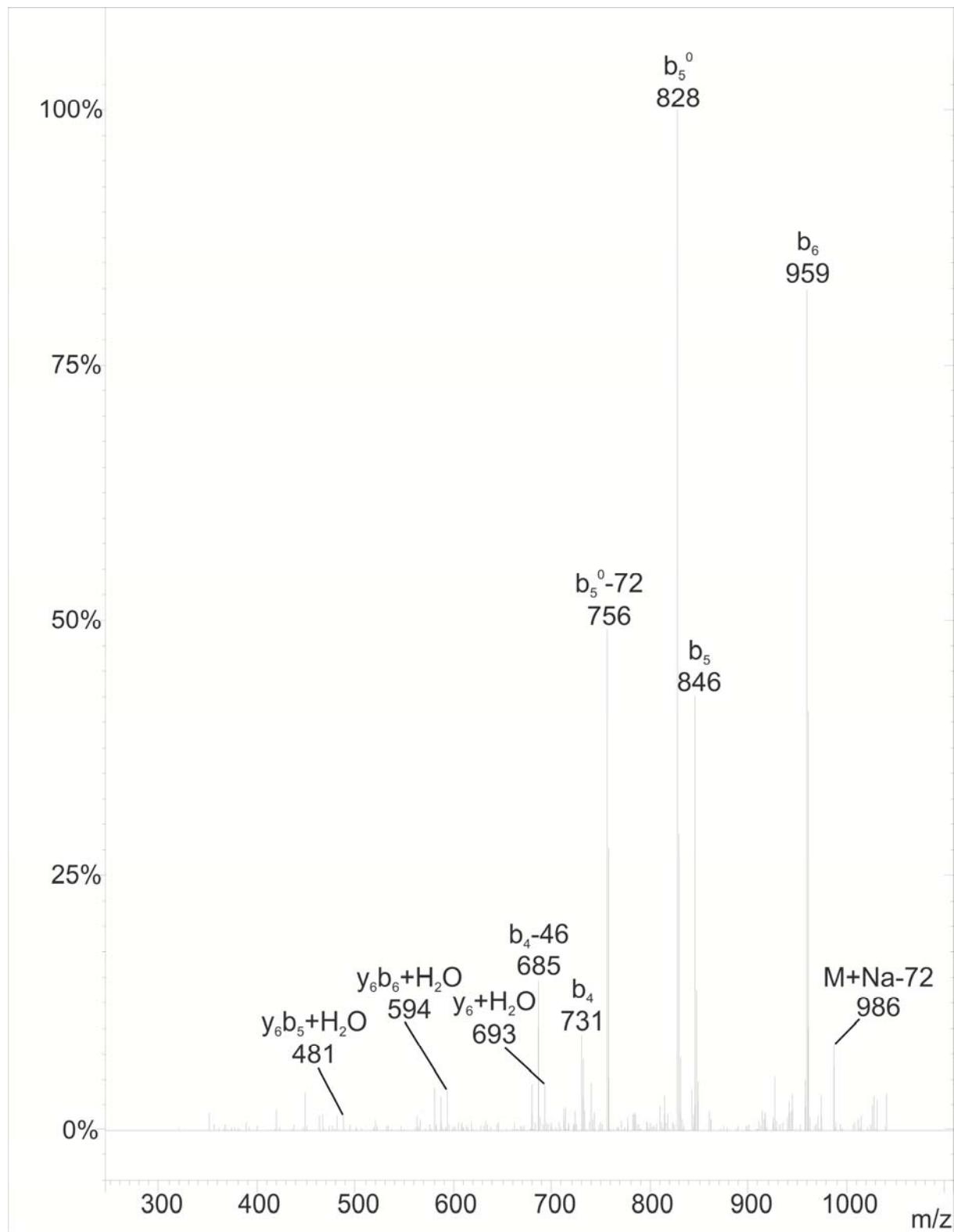


Figure S28. The MS^2 spectrum of **28** (C16-[Val7]) eluted at $Rt = 90.68$ min ($m/z = 1058$).

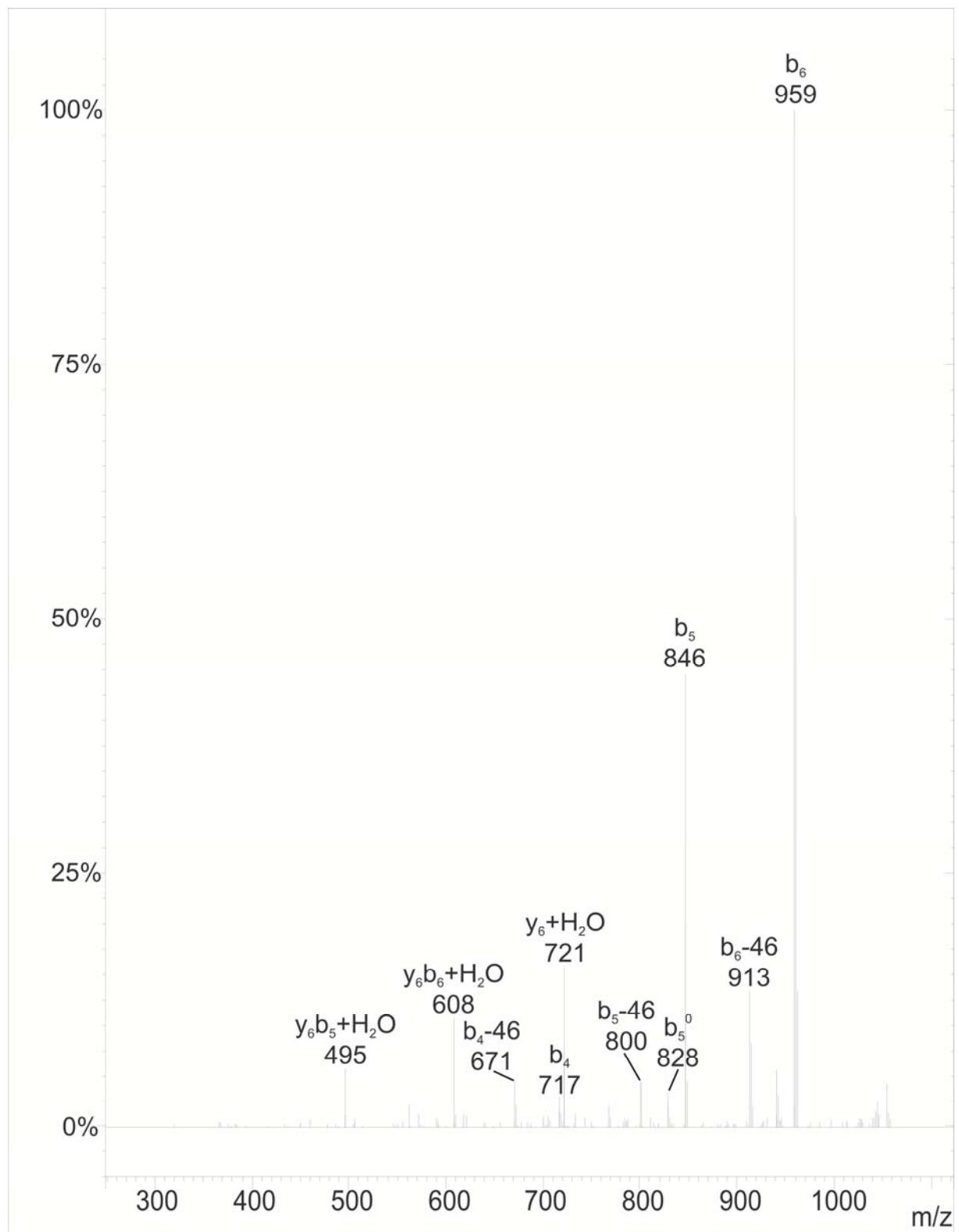


Figure S29. The MS^2 spectrum of **29** (C15-[AME5]) eluted at $Rt = 86.80$ min ($m/z = 1072$).

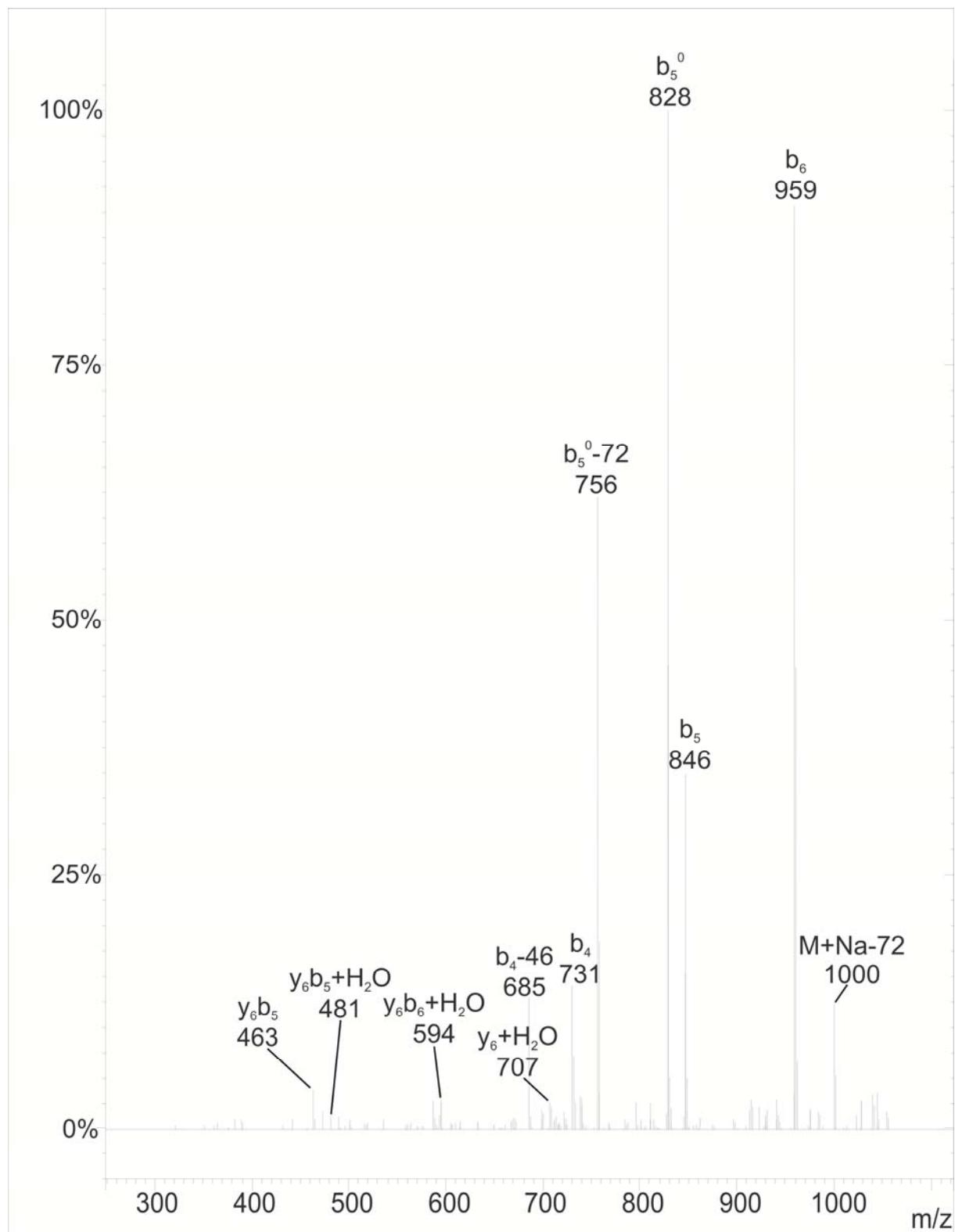


Figure S30. The MS^2 spectrum of 30 (C16-[Sur]) eluted at $R_t = 87.56$ min ($m/z = 1072$).



Figure S31. The MS^2 spectrum of **31** (C15-[AME5]) eluted at $Rt = 88.77$ min ($m/z = 1072$).



Figure S32. The MS^2 spectrum of 32 (C16-[AME5,Val7]) eluted at $Rt = 89.71$ min ($m/z = 1072$).

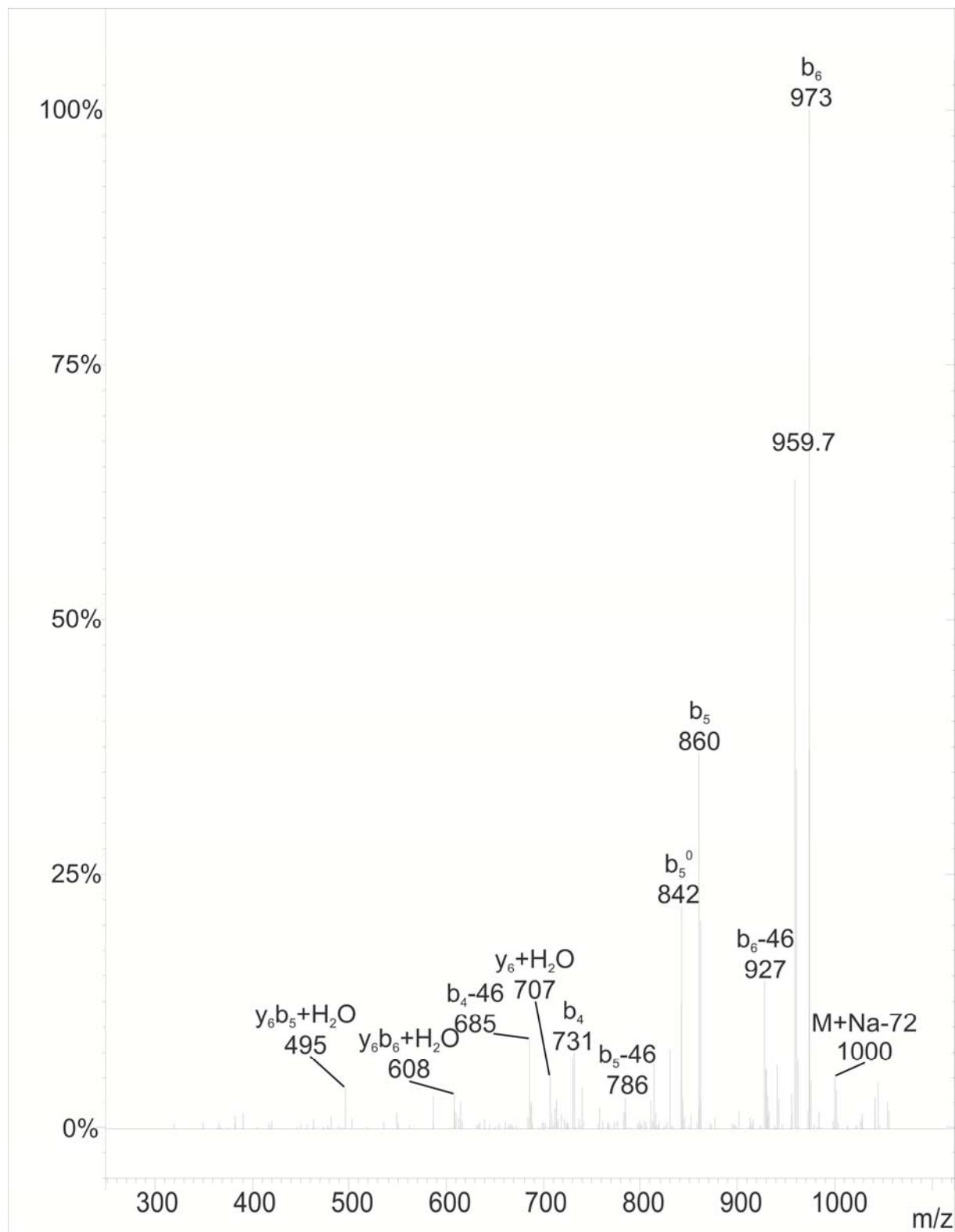


Figure S33. The MS^2 spectrum of 33 (C16-[AME5,Val7]) eluted at $Rt = 90.13$ min ($m/z = 1072$).

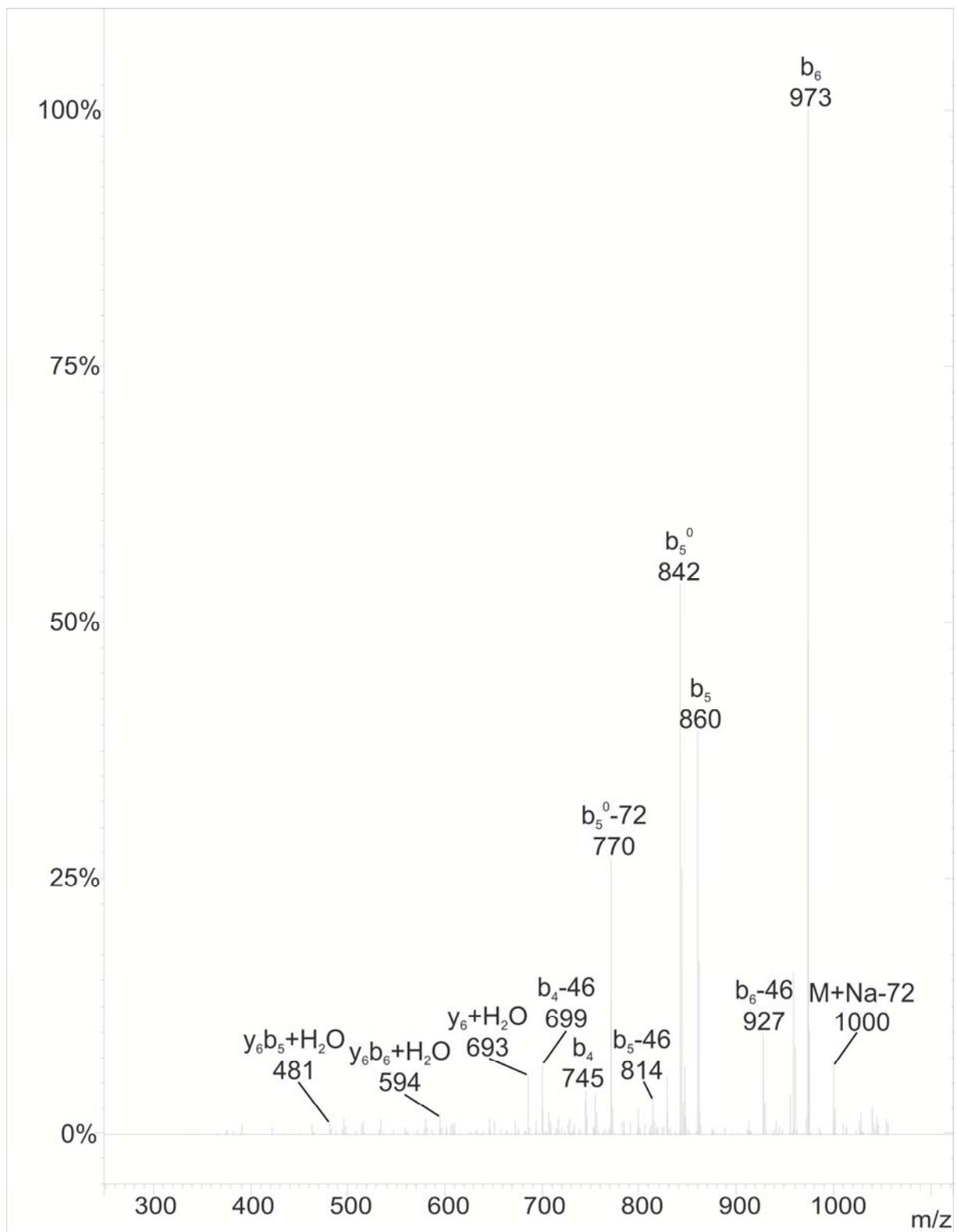


Figure S34. The MS^2 spectrum of **34** (C17-[Val7]) eluted at $Rt = 91.13$ min ($m/z = 1072$).

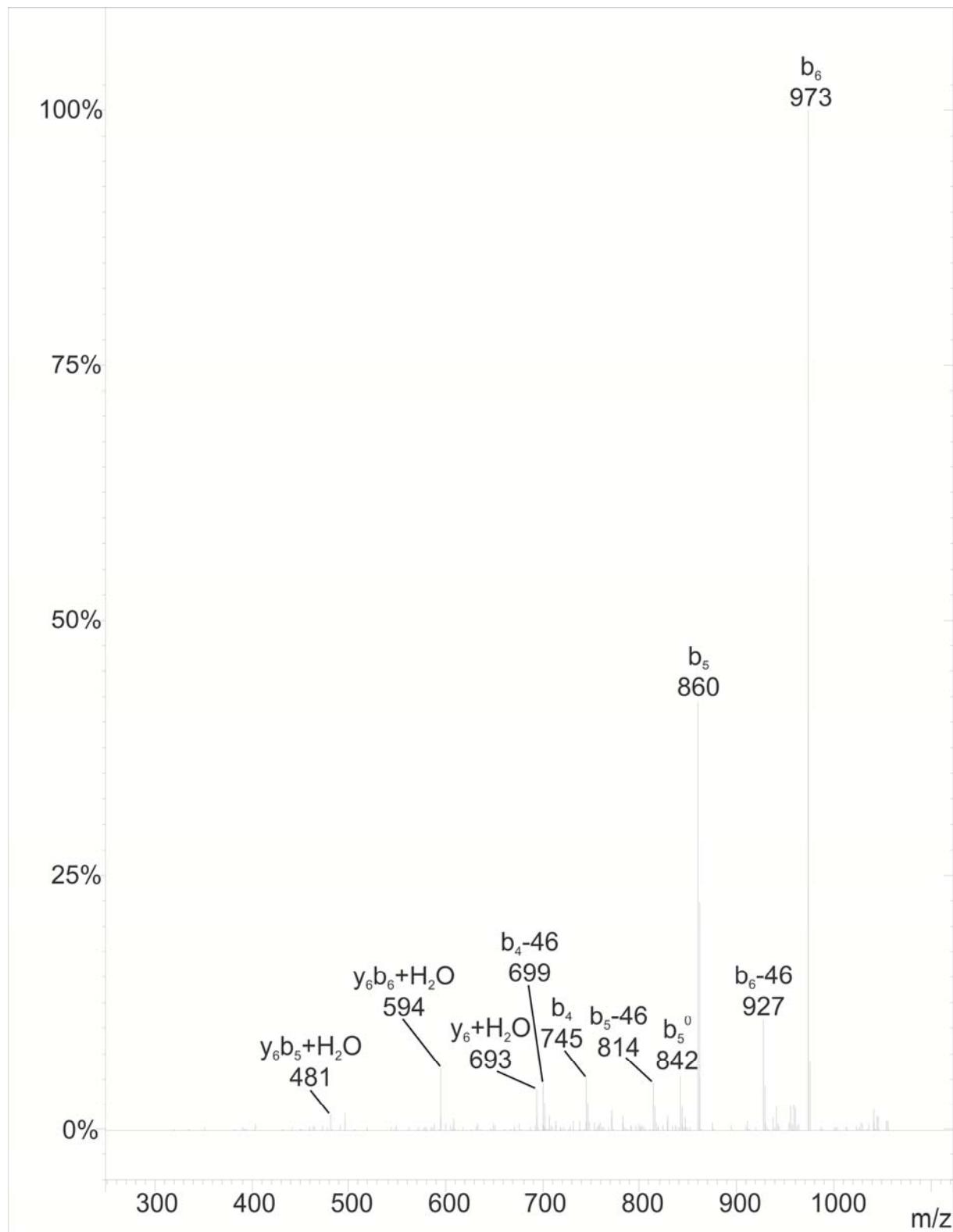


Figure S35. The MS^2 spectrum of 35 (C17-[Val7]) eluted at $Rt = 92.02$ min ($m/z = 1072$).

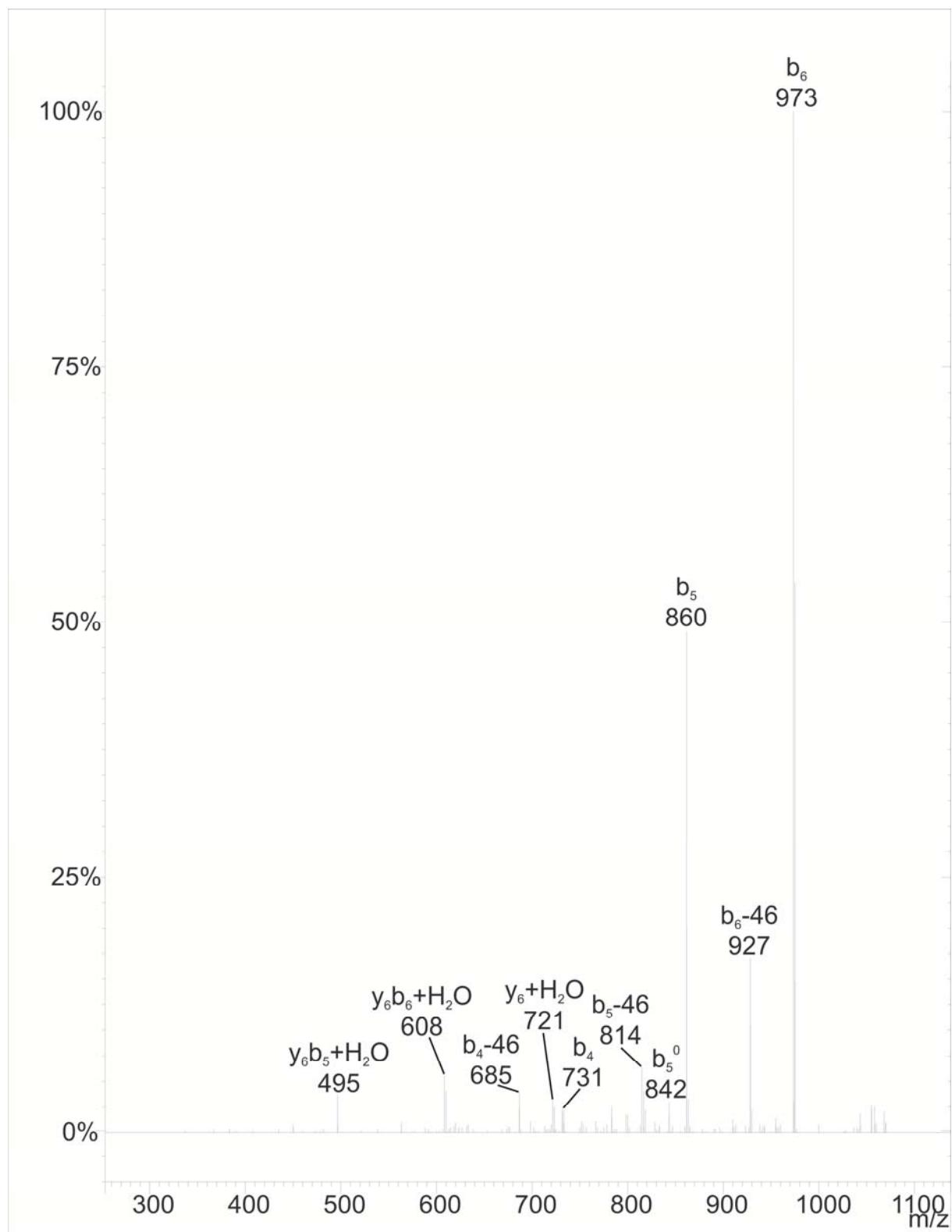


Figure S36. The MS^2 spectrum of **36** (C16-[AME5]) eluted at $Rt = 89.41$ min ($m/z = 1086$).

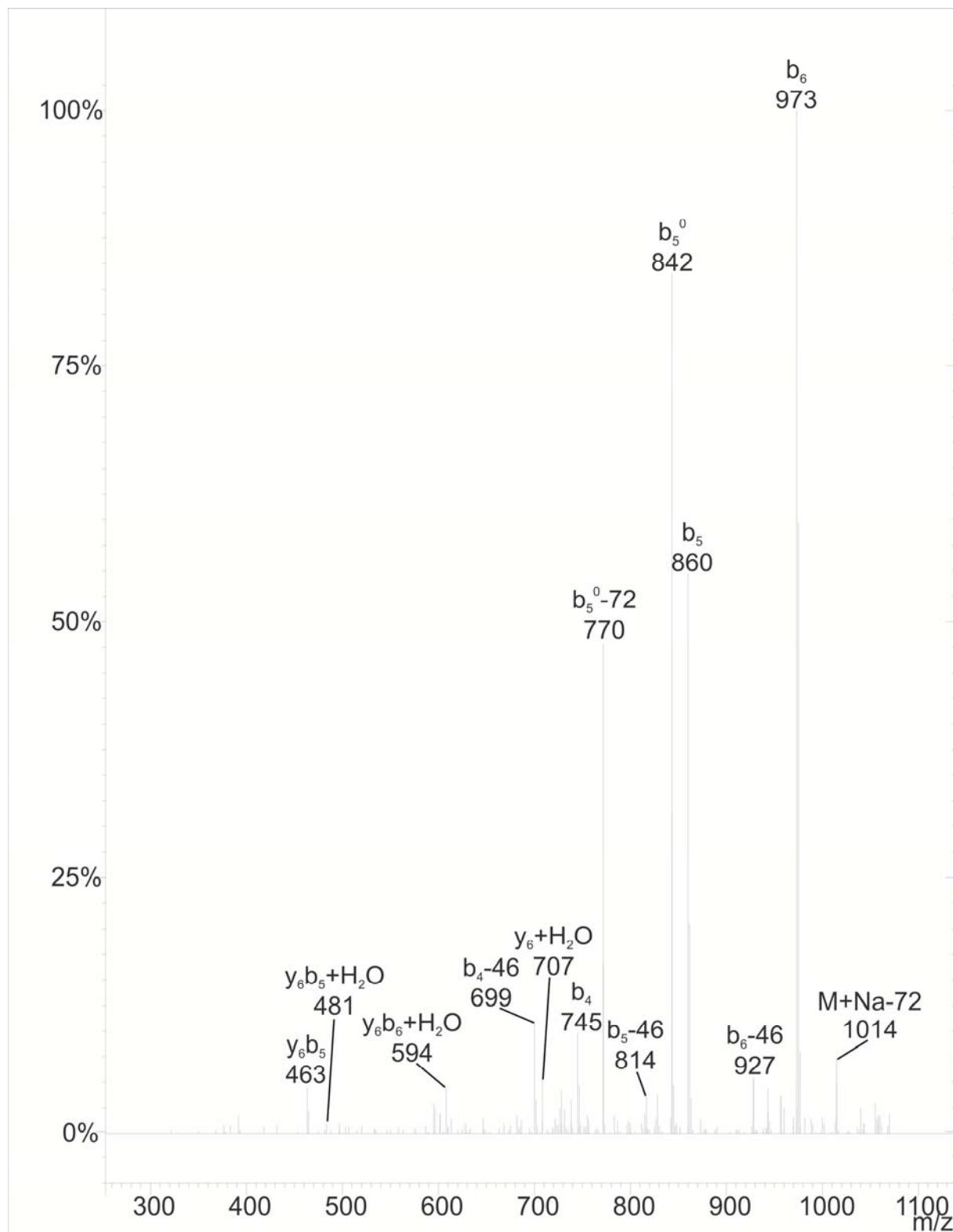


Figure S37. The MS^2 spectrum of 37 (C17-[Sur]) eluted at $Rt = 90.50$ min ($m/z = 1086$).

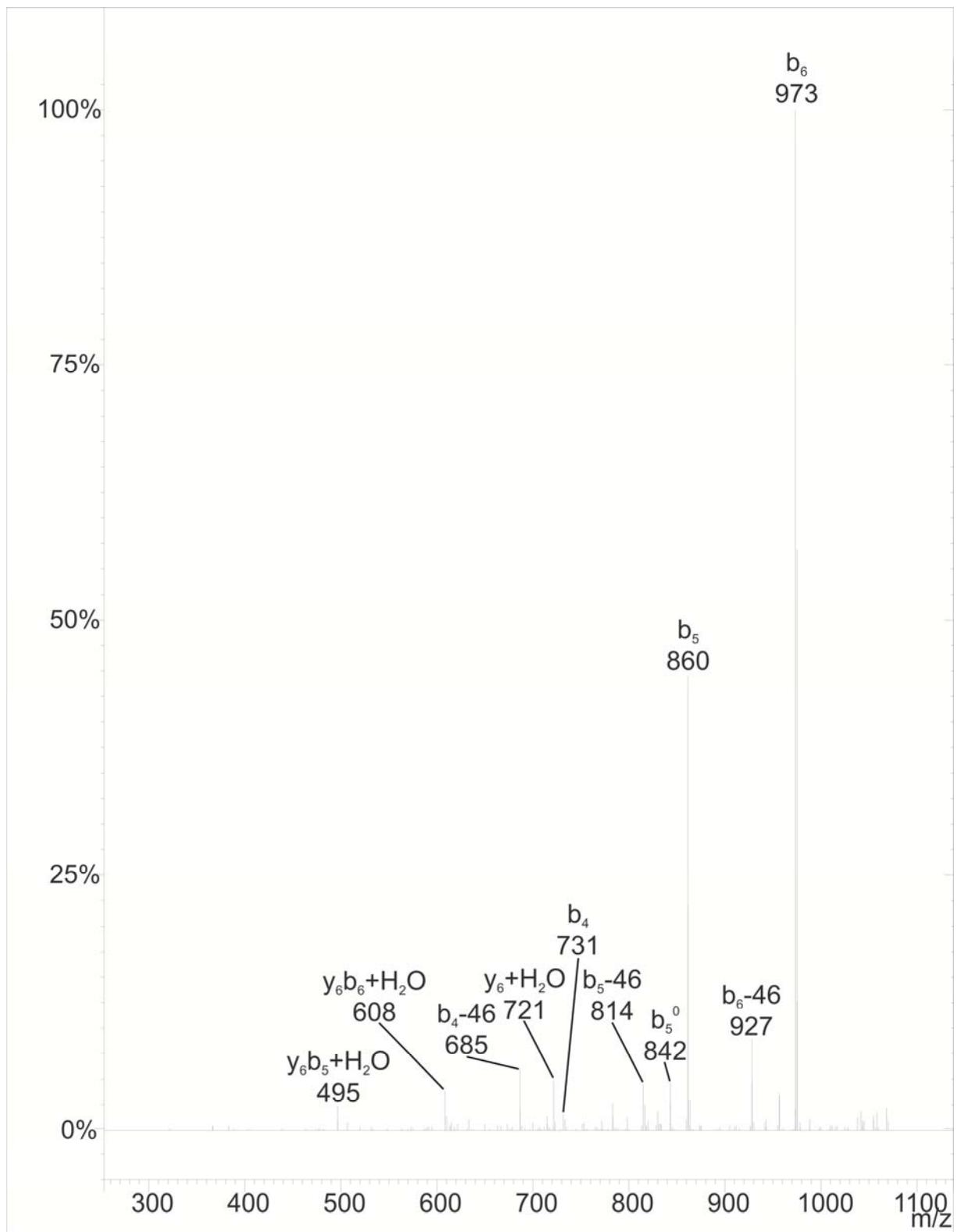


Figure S38. The MS^2 spectrum of **38** (C16-[AME5]) eluted at $Rt = 91.61$ min ($m/z = 1086$).

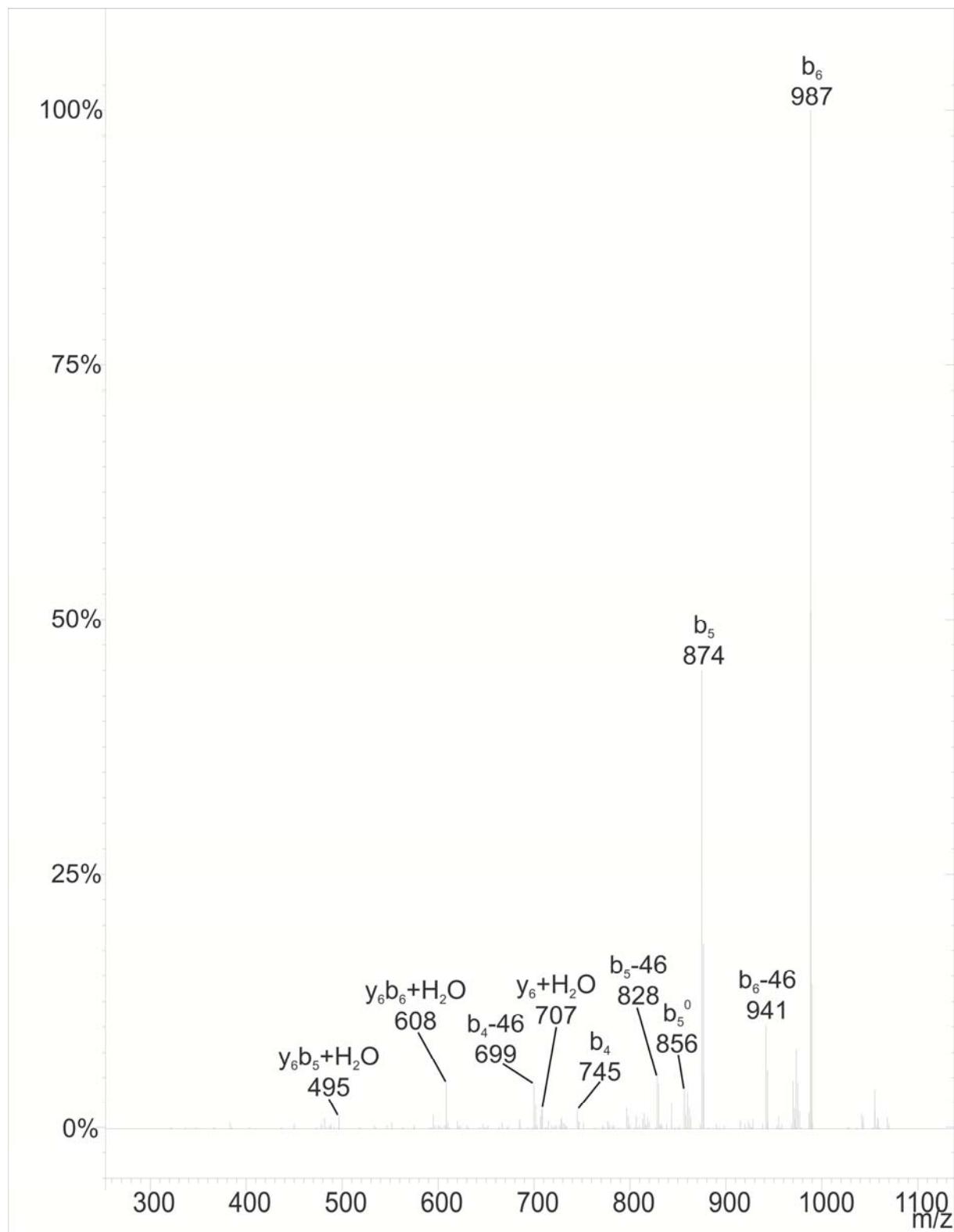


Figure S39. The MS^2 spectrum of **39** (C17-[AME5,Val7]) eluted at $Rt = 92.61$ min ($m/z = 1086$).

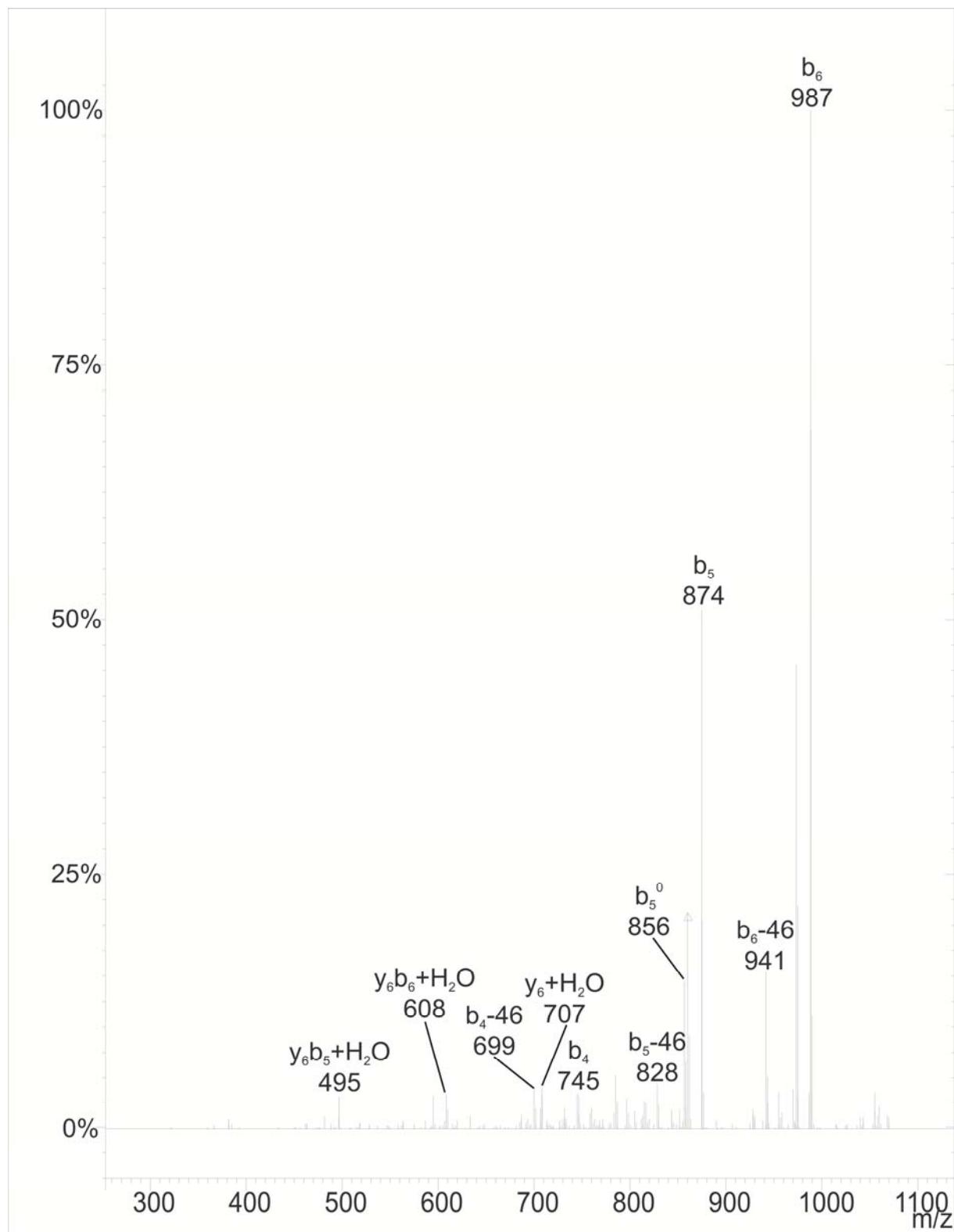


Figure S40. The MS^2 spectrum of **40** (C17-[AME5,Val7]) eluted at $Rt = 93.69$ min ($m/z = 1086$).

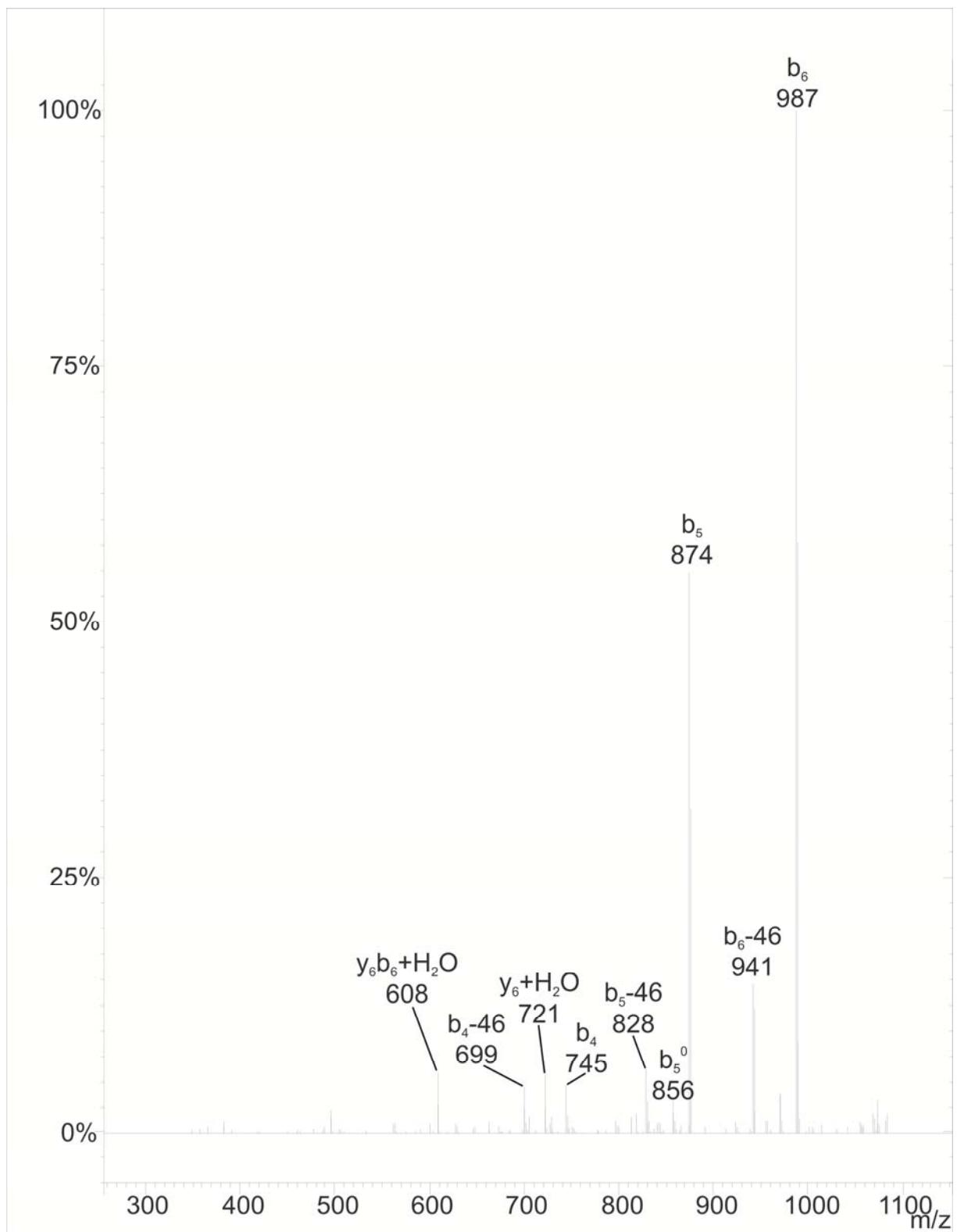


Figure S41. The MS^2 spectrum of **41** (C17-[AME5]) eluted at $Rt = 92.24$ min ($m/z = 1100$).

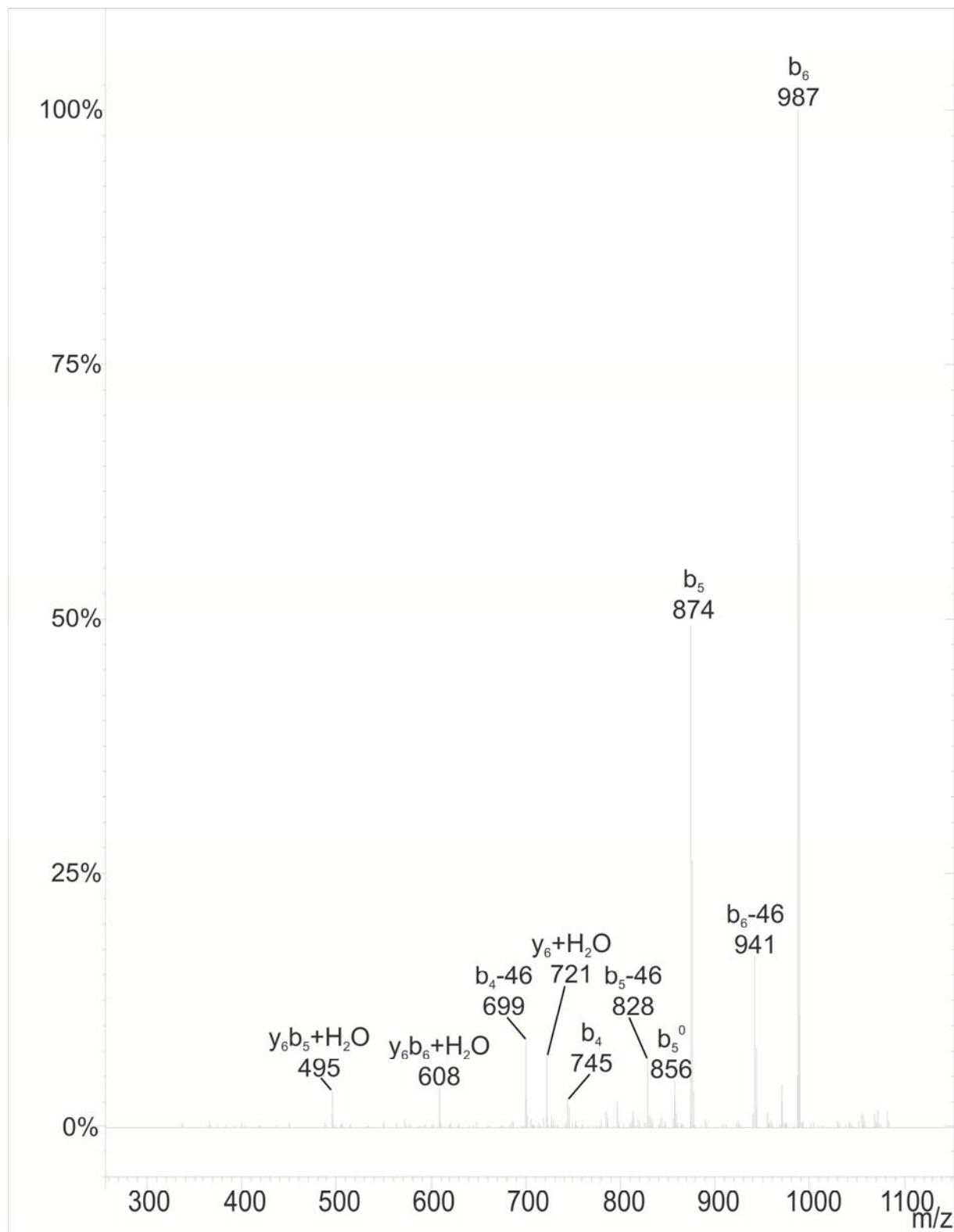


Figure S42. The MS^2 spectrum of **42** (C17-[AME5]) eluted at $Rt = 93.06$ min ($m/z = 1100$).

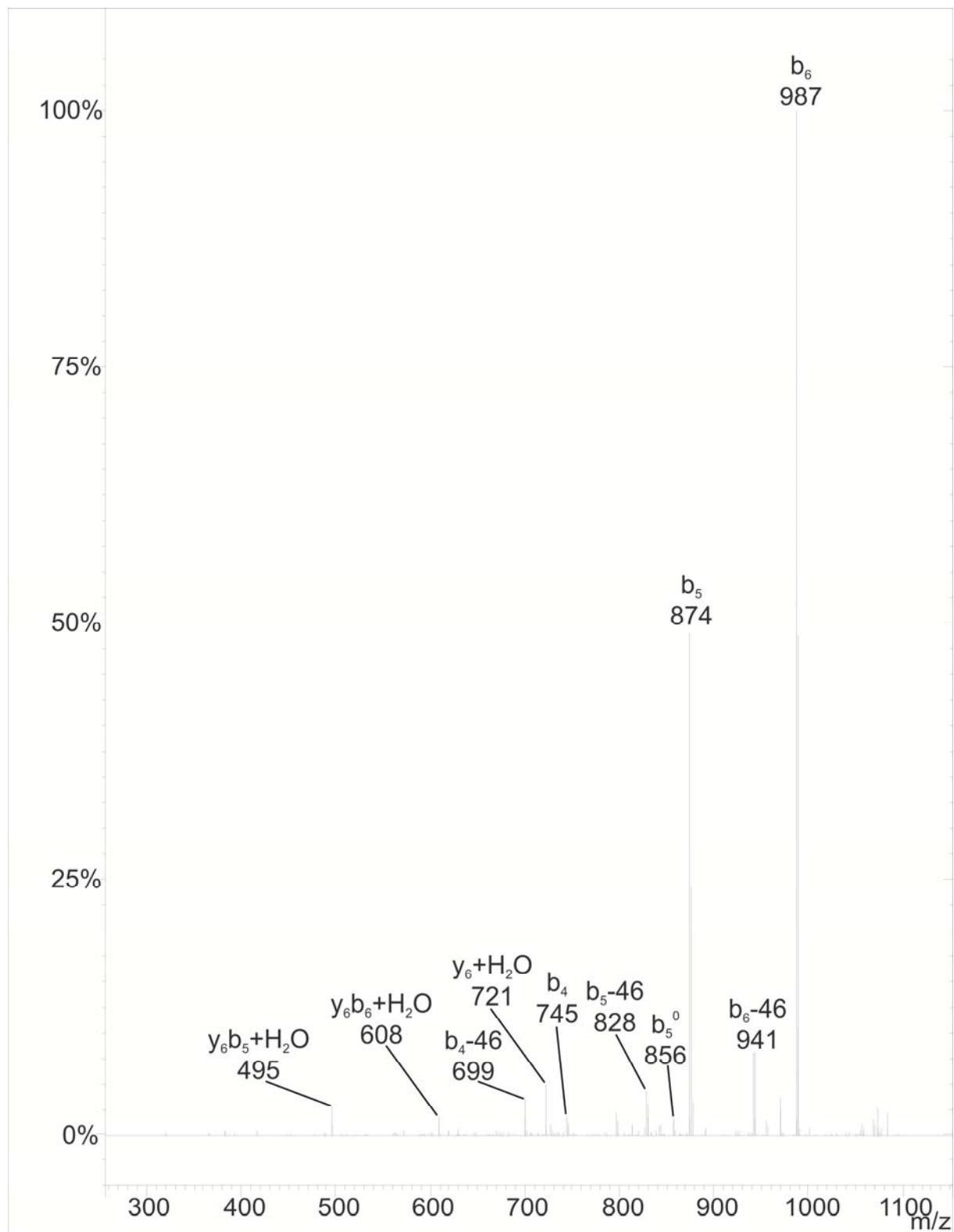


Figure S43. The MS^2 spectrum of **43** (C17-[AME5]) eluted at $Rt = 93.96$ min ($m/z = 1100$).

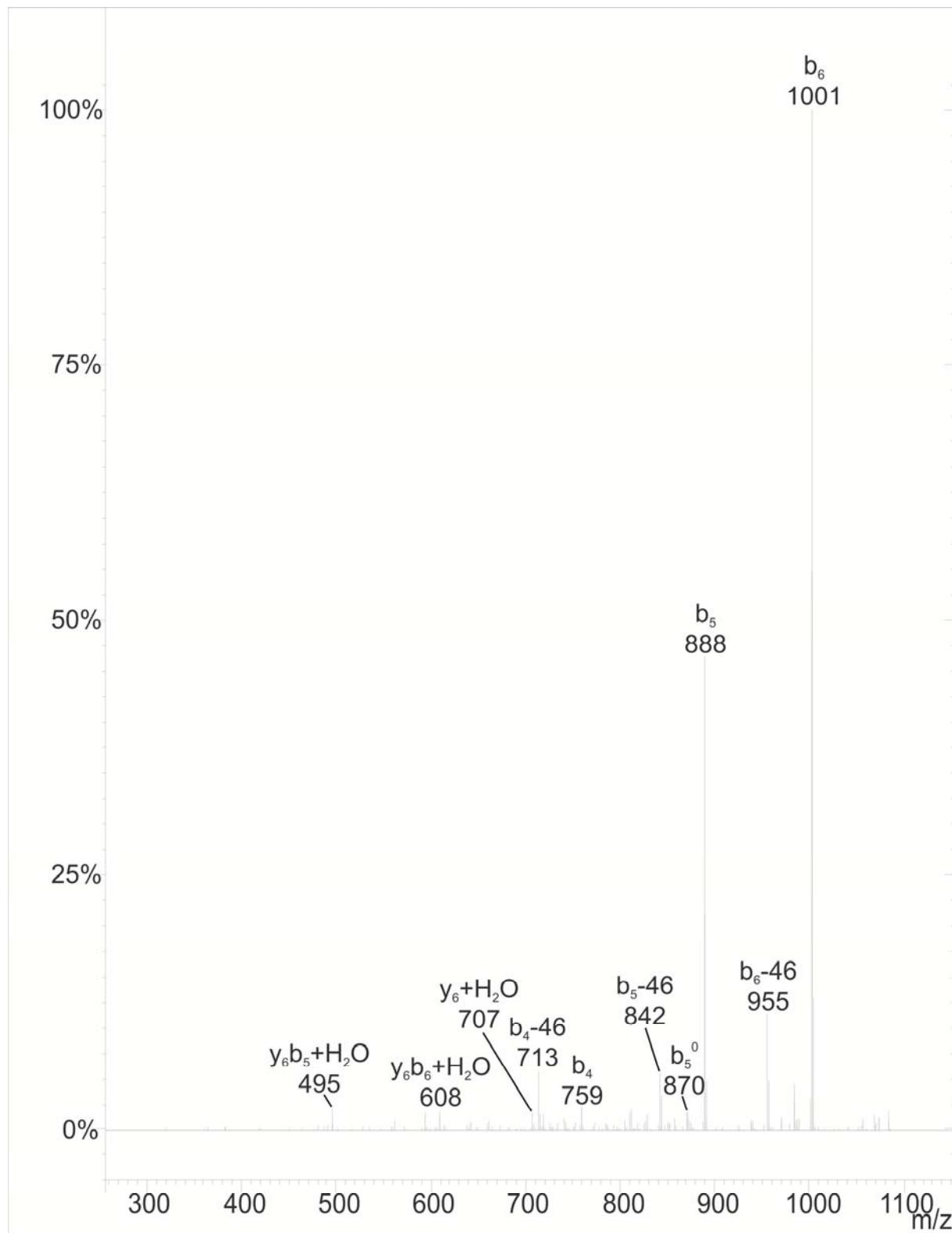


Figure S44. The MS^2 spectrum of **44** (C18-[AME5,Val7]) eluted at $Rt = 94.71$ min ($m/z = 1100$).

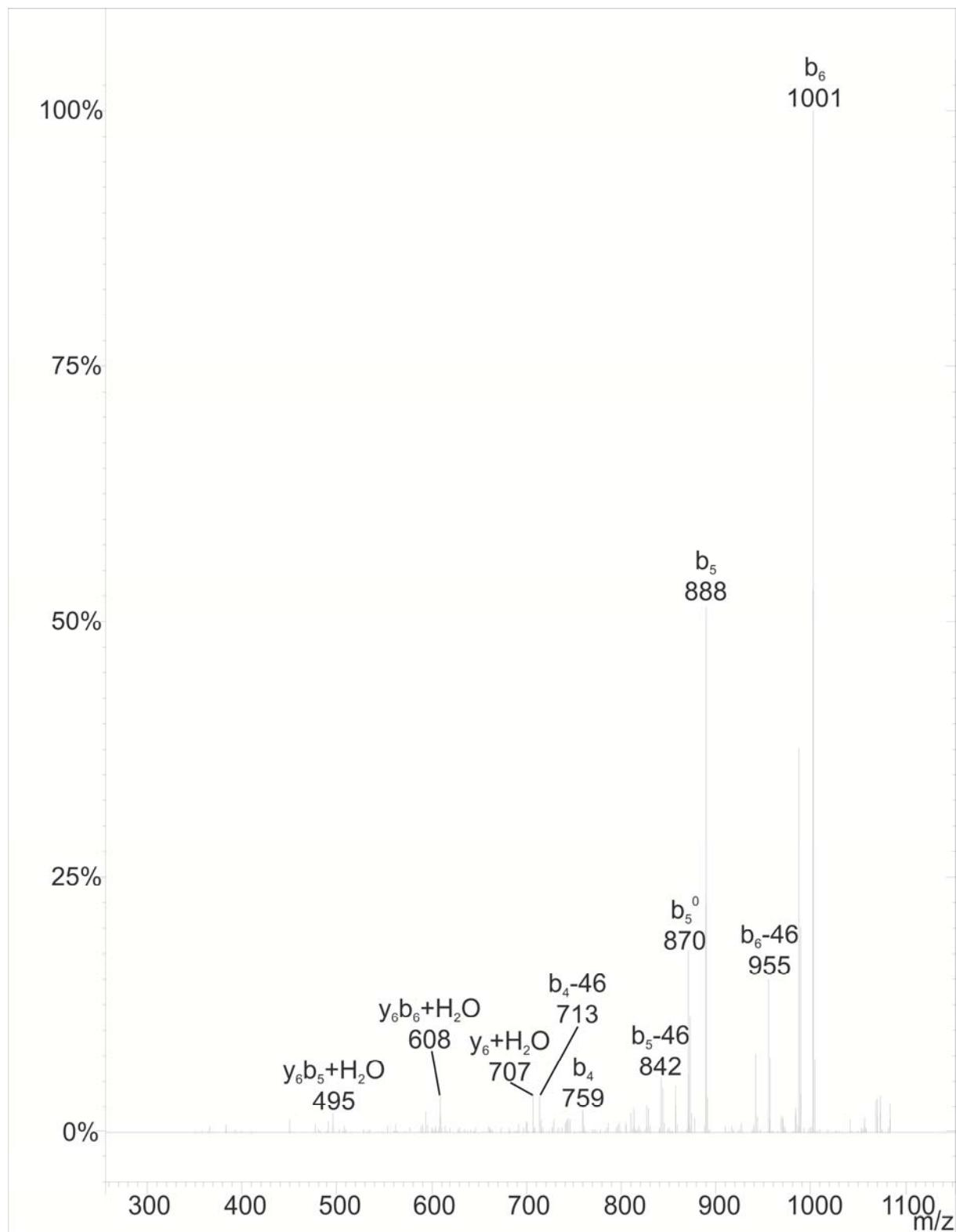


Figure S45. The MS^2 spectrum of **45** (C18-[AME5,Val7]) eluted at $Rt = 95.80$ min ($m/z = 1100$).

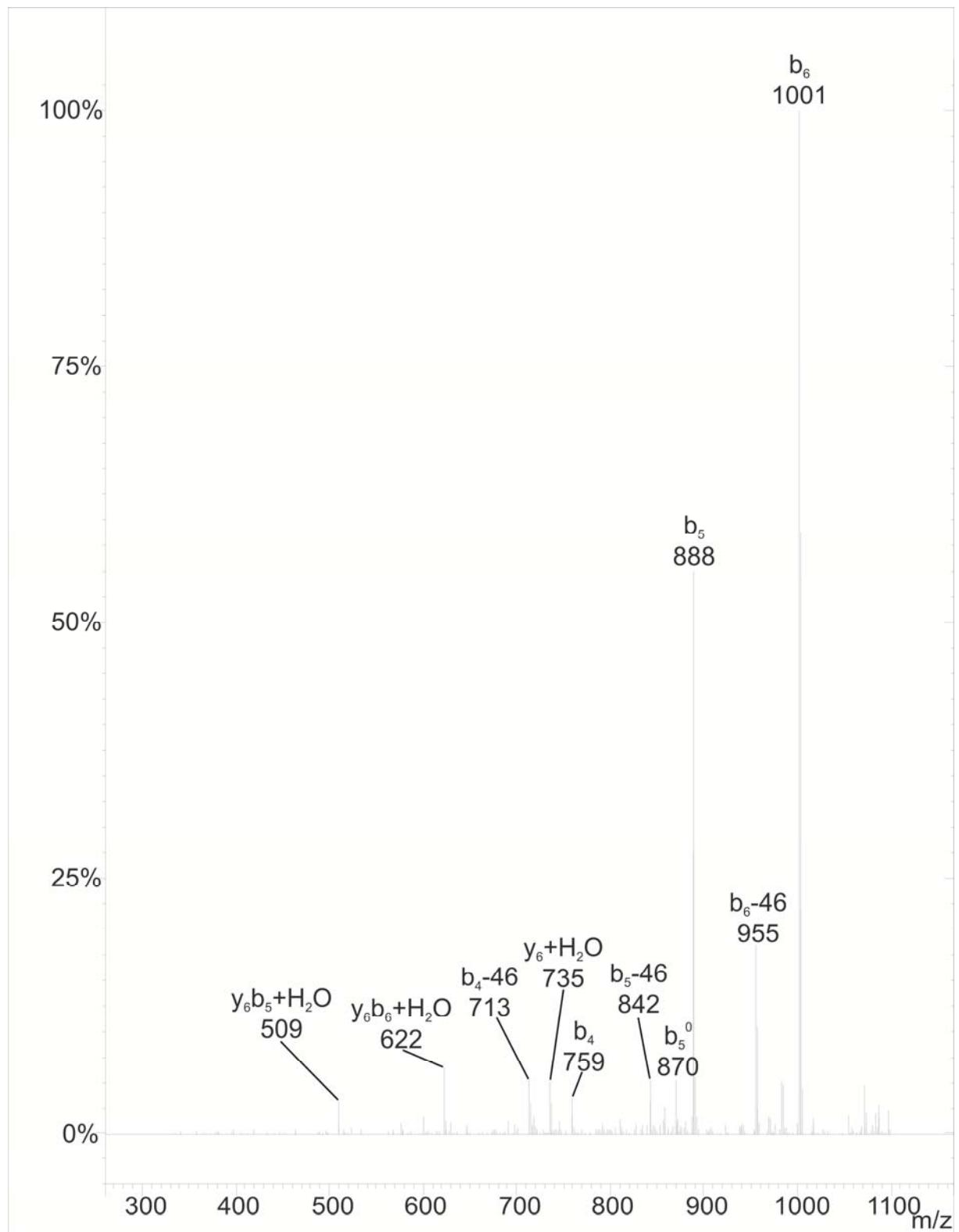


Figure S46. The MS² spectrum of **46** (C17-[Leu4,AME5]) eluted at Rt = 93.56 min (*m/z* = 1114).

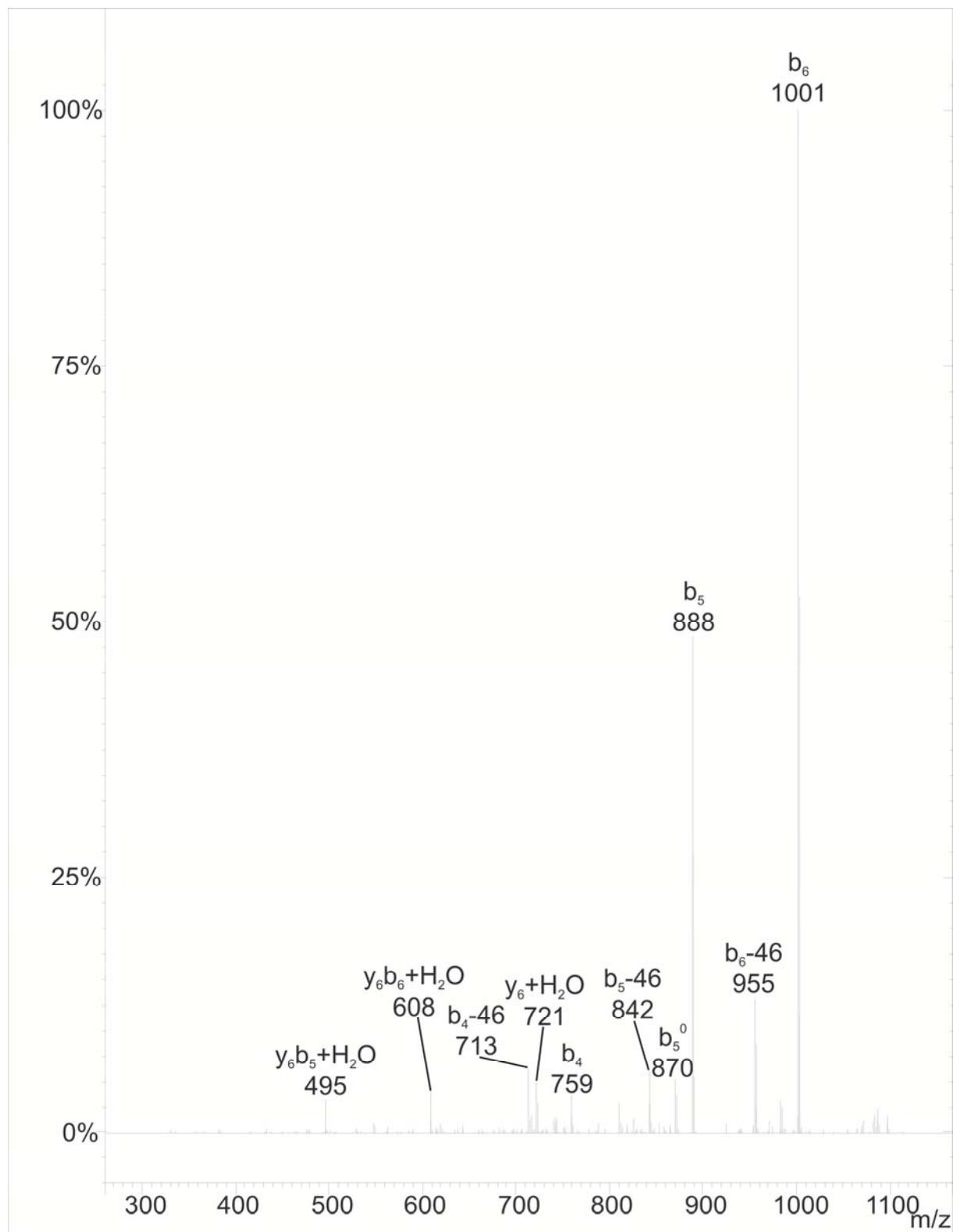


Figure S47. The MS^2 spectrum of **47** (C18-[AME5]) eluted at $Rt = 94.39$ min ($m/z = 1114$).

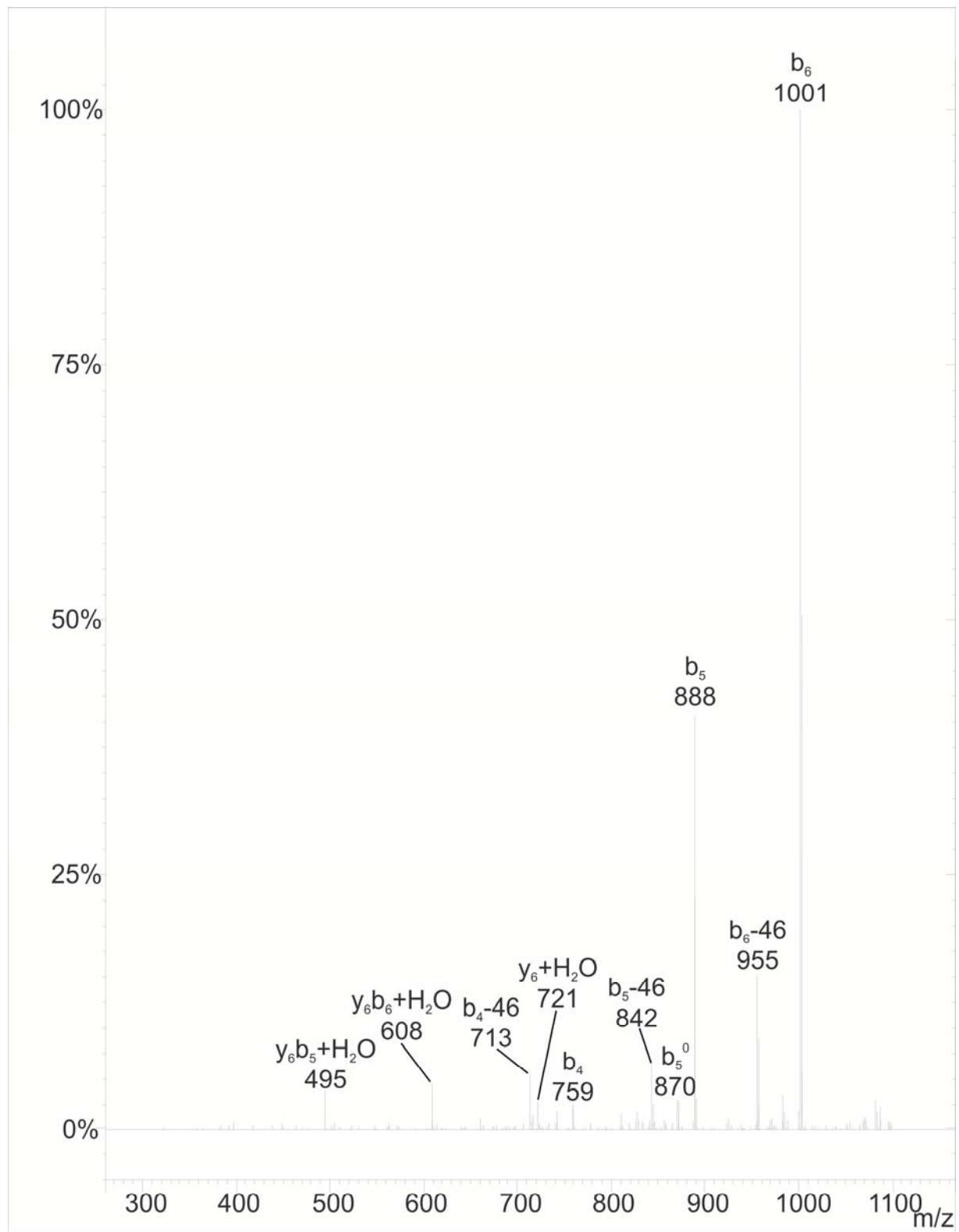


Figure S48. The MS^2 spectrum of **48** (C18-[AME5]) eluted at $Rt = 95.24$ min ($m/z = 1114$).

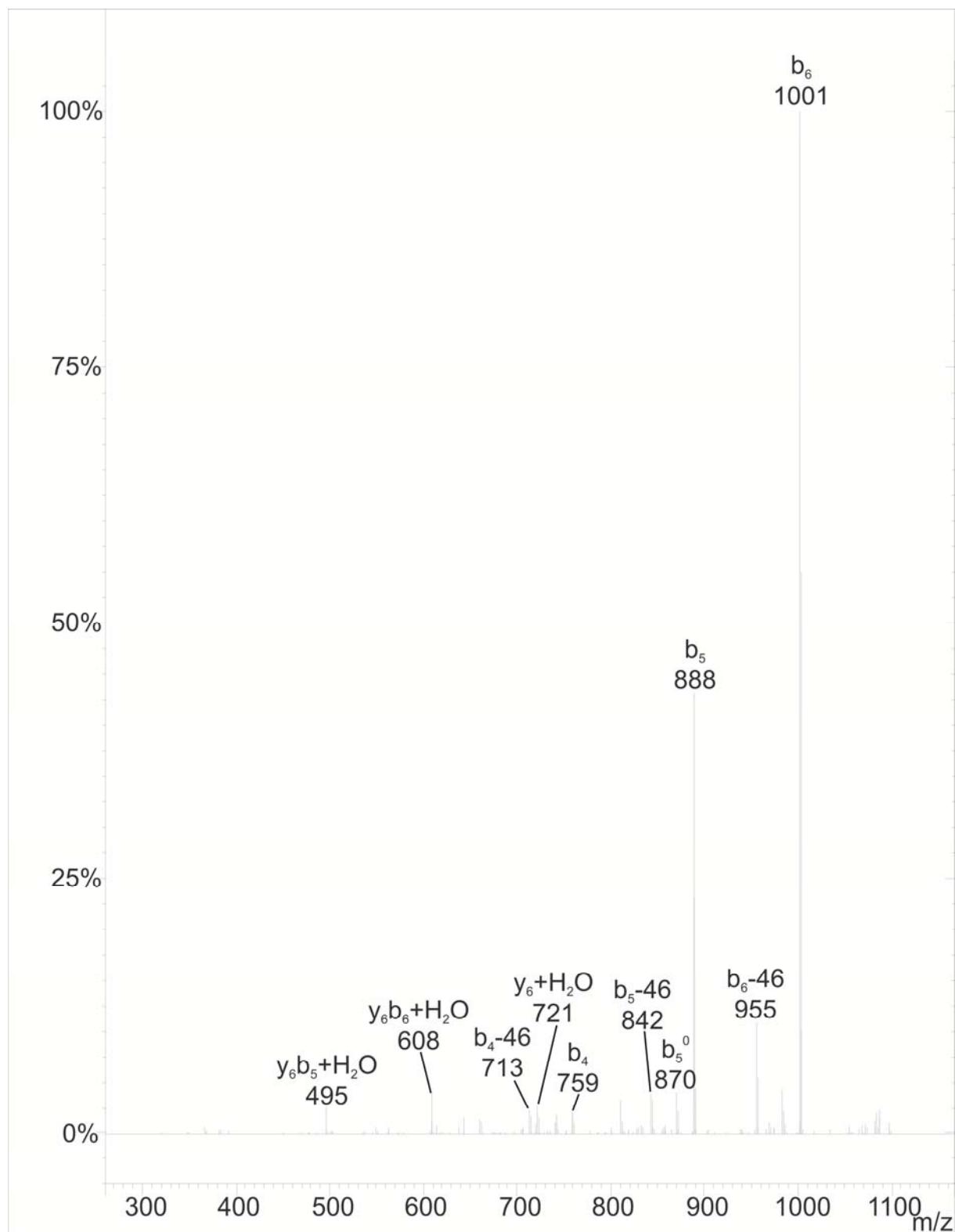


Figure S49. The MS^2 spectrum of **49** (C18-[AME5]) eluted at $Rt = 96.01$ min ($m/z = 1114$).