

## Clicked tacrine conjugates as acetylcholinesterase and $\beta$ -amyloid directed compounds

Myriam Ouberai,<sup>a</sup> Kristoffer Brannstrom,<sup>b</sup> Monika Vestling,<sup>b</sup> Anders Olofsson,<sup>b</sup> Pascal Dumy,  
<sup>a</sup> Sabine Chierici,\*<sup>a</sup> and Julian Garcia\*<sup>a</sup>

<sup>a</sup> Département de Chimie Moléculaire (DCM), UMR 5250, ICMG-FR, Université Joseph Fourier, BP 53, 38041 Grenoble Cedex 9, France.

<sup>b</sup> Department of Medical, Biochemistry and Biophysics, Umeå University, SE-901 87 Umeå , Sweden.

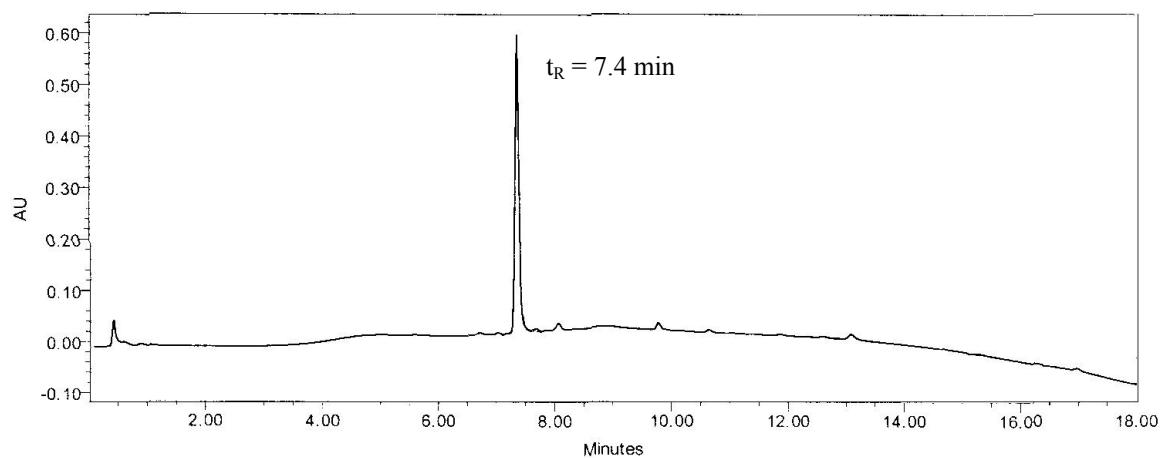
### Table of contents

|  |    |
|--|----|
| Table 1. RP-HPLC and ESI-MS analysis of synthesized compounds.             | S2 |
| Figure 1. RP-HPLC profile of <b>2</b> .                                    | S3 |
| Figure 2. ESI-MS analysis of <b>2</b> .                                    | S3 |
| Figure 3. RP-HPLC profile of <b>4</b> .                                    | S4 |
| Figure 4. ESI-MS analysis of <b>4</b> .                                    | S4 |
| Figure 5. RP-HPLC profile of <b>5</b> .                                    | S5 |
| Figure 6. ESI-MS analysis of <b>5</b> .                                    | S5 |
| Figure 7. RP-HPLC profile of <b>6</b> .                                    | S6 |
| Figure 8. ESI-MS analysis of <b>6</b> .                                    | S6 |
| Figure 9. RP-HPLC profile of <b>7</b> .                                    | S7 |
| Figure 10. ESI-MS analysis of <b>7</b> .                                   | S7 |
| Figure 11. ESI-MS analysis of <b>8</b> .                                   | S8 |
| Figure 12. ESI-MS analysis of <b>8</b> .                                   | S8 |
| Figure 13. $^1\text{H}$ NMR (500 MHz, $\text{D}_2\text{O}$ ) of <b>8</b> . | S8 |

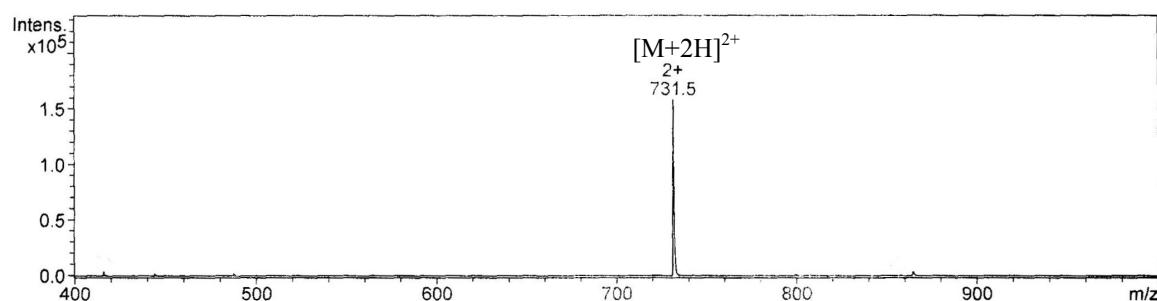
**Table 1.** RP-HPLC and ESI-MS analysis of synthesized compounds.

| Product  | HPLC $t_R$ (min) | ESI-MS  |
|----------|------------------|---|
| <b>1</b> | 9.8              | calc for<br>$C_{78}H_{128}N_{20}O_{16}S_2$ : 1664.9<br>found: 1665.6  |
| <b>2</b> | 7.4              | calc for<br>$C_{66}H_{100}N_{20}O_{18}$ : 1460.7<br>found: 1460.7     |
| <b>3</b> | 10.1             | calc for<br>$C_{106}H_{164}N_{24}O_{22}S_4$ : 2253.1<br>found: 2253.6 |
| <b>4</b> | 6.5              | calc for<br>$C_{60}H_{100}N_{24}O_{12}$ : 1348.8<br>found: 1348.6     |
| <b>5</b> | 7.9              | calc for<br>$C_{15}H_{17}N_5$ : 267.1<br>found: 266.9                 |
| <b>6</b> | 7.8              | calc for<br>$C_{126}H_{168}N_{40}O_{18}$ : 2529.3<br>found: 2529.8    |
| <b>7</b> | 6.5              | calc for<br>$C_{90}H_{134}N_{34}O_{12}$ : 1883.1<br>found: 1883.7     |
| <b>8</b> | 6.5              | calc for<br>$C_{19}H_{23}N_5O$ : 337.2<br>found: 336.6                |

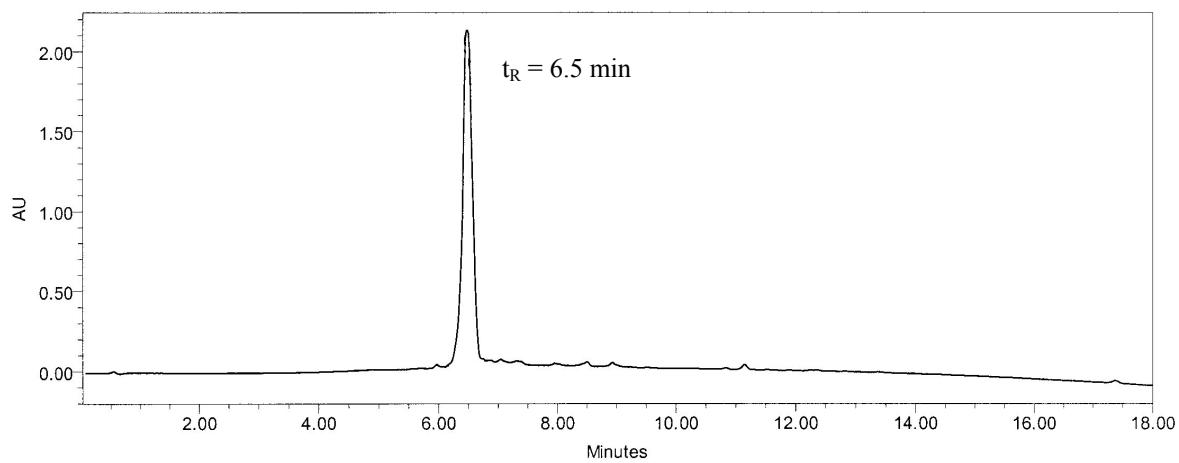
**Figure 1.** RP-HPLC profile of **2**.



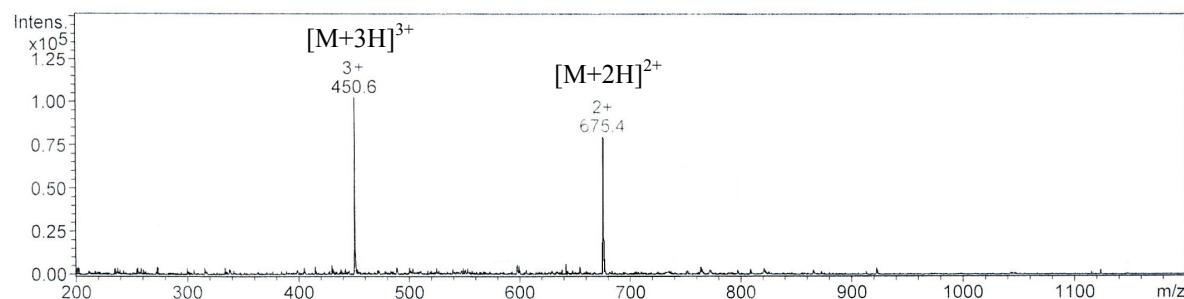
**Figure 2.** ESI-MS analysis of **2**.



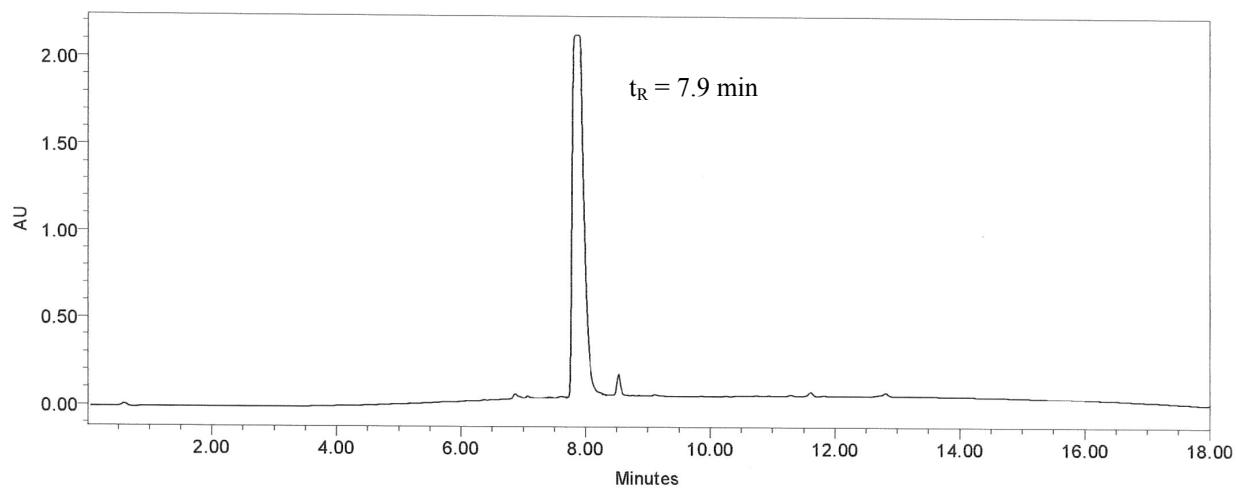
**Figure 3.** RP-HPLC profile of 4.



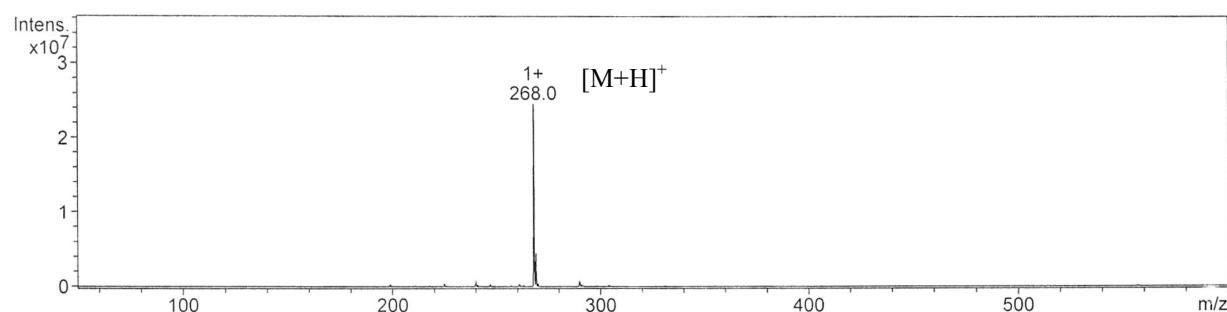
**Figure 4.** ESI-MS analysis of 4.



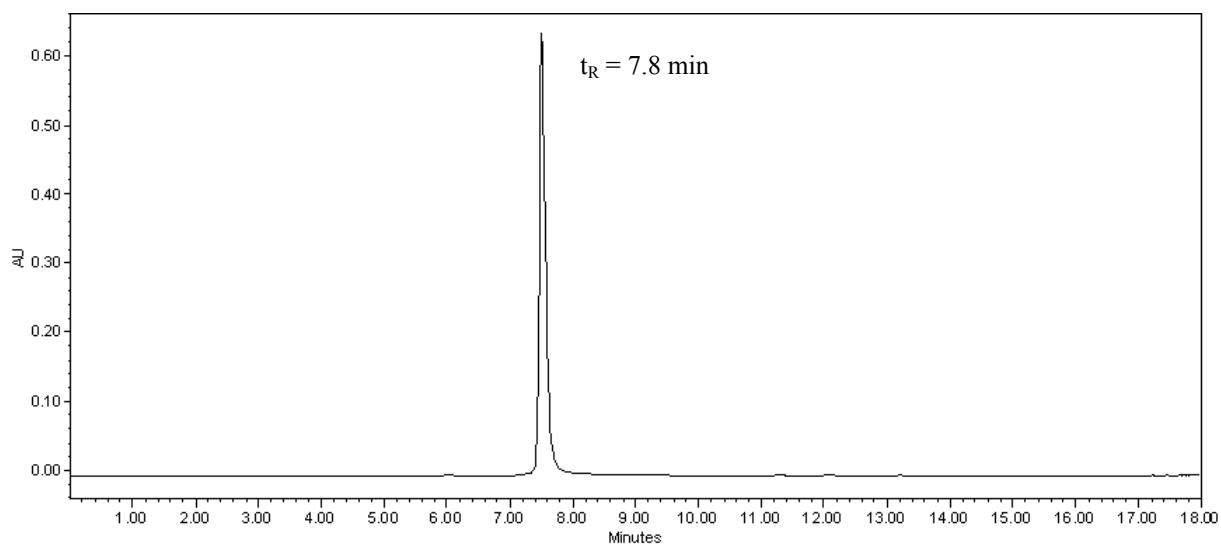
**Figure 5.** RP-HPLC profile of **5**.



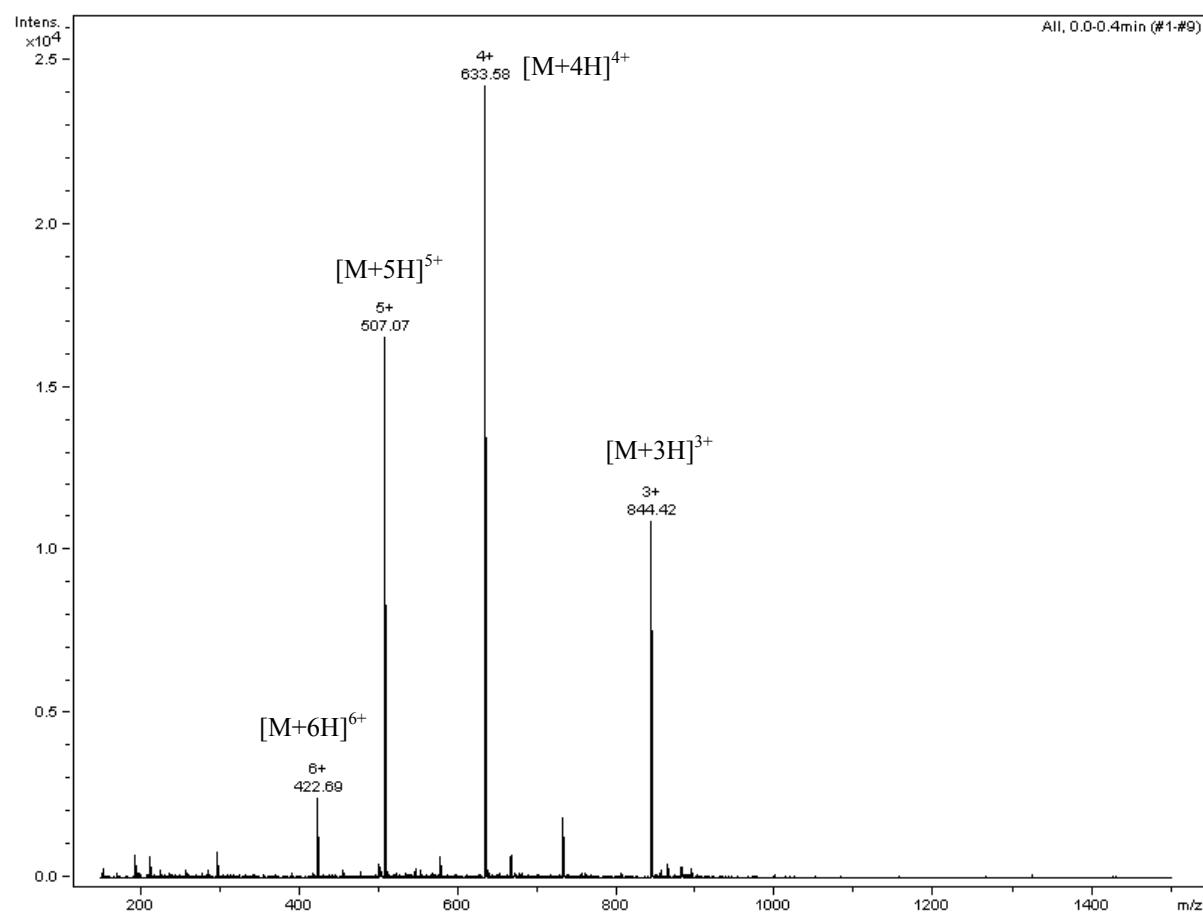
**Figure 6.** ESI-MS analysis of **5**.



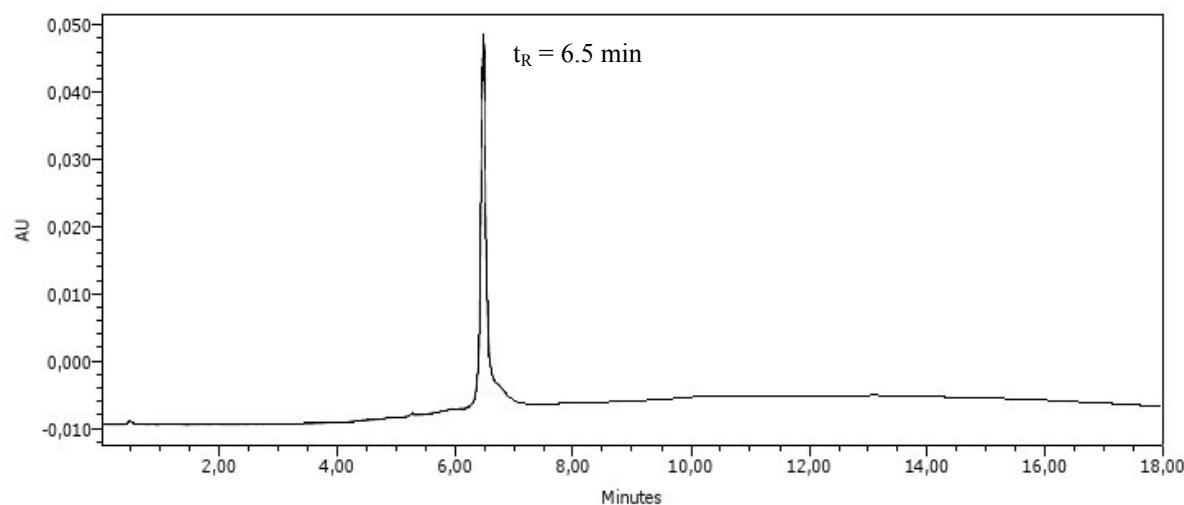
**Figure 7.** RP-HPLC profile of **6**.



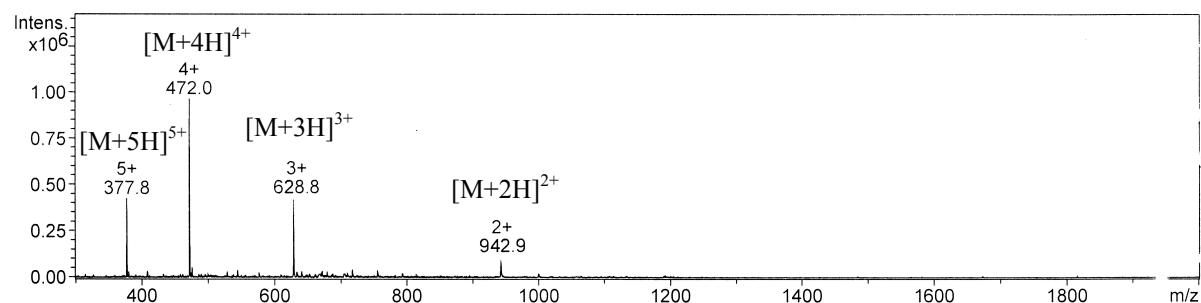
**Figure 8.** ESI-MS analysis of **6**.



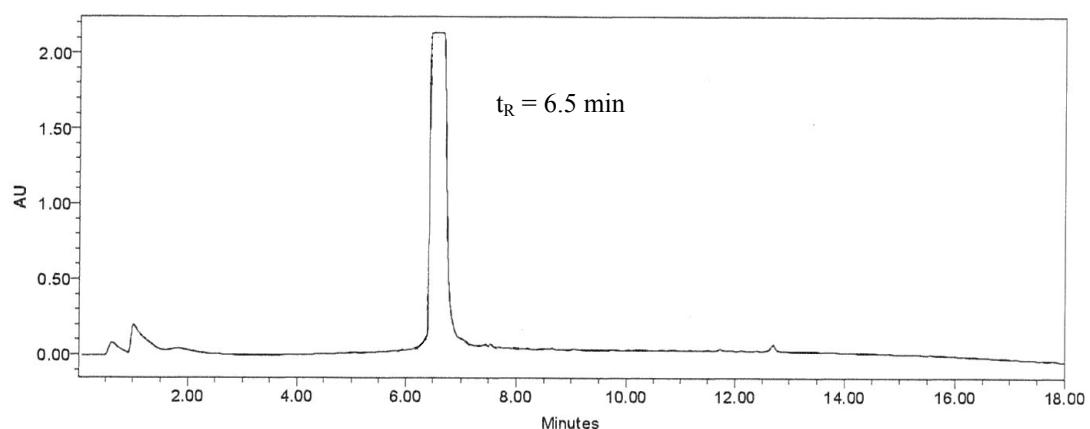
**Figure 9.** RP-HPLC profile of 7.



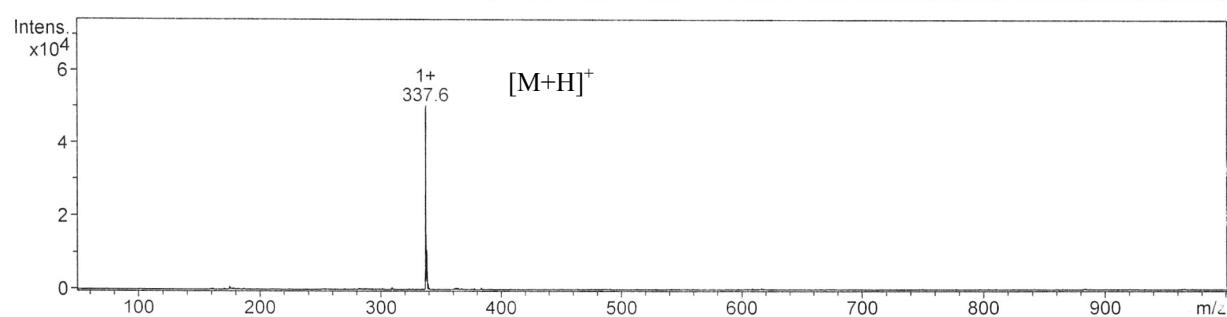
**Figure 10.** ESI-MS analysis of 7.



**Figure 11.** RP-HPLC profile of **8**.



**Figure 12.** ESI-MS analysis of **8**.



**Figure 13.**  $^1\text{H}$  NMR (500 MHz,  $\text{D}_2\text{O}$ ) of **8**.

