

**Supplementary Material For PCCP Manuscript B904687A**

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**“Competition Between Cluster Fragmentation, C-C Bond Coupling and C-X Bond Activation in Silver Hexynyl Cluster Cations,  $[(C_4H_9CCAg)_nAg]^+$ . Size Does Matter!”**

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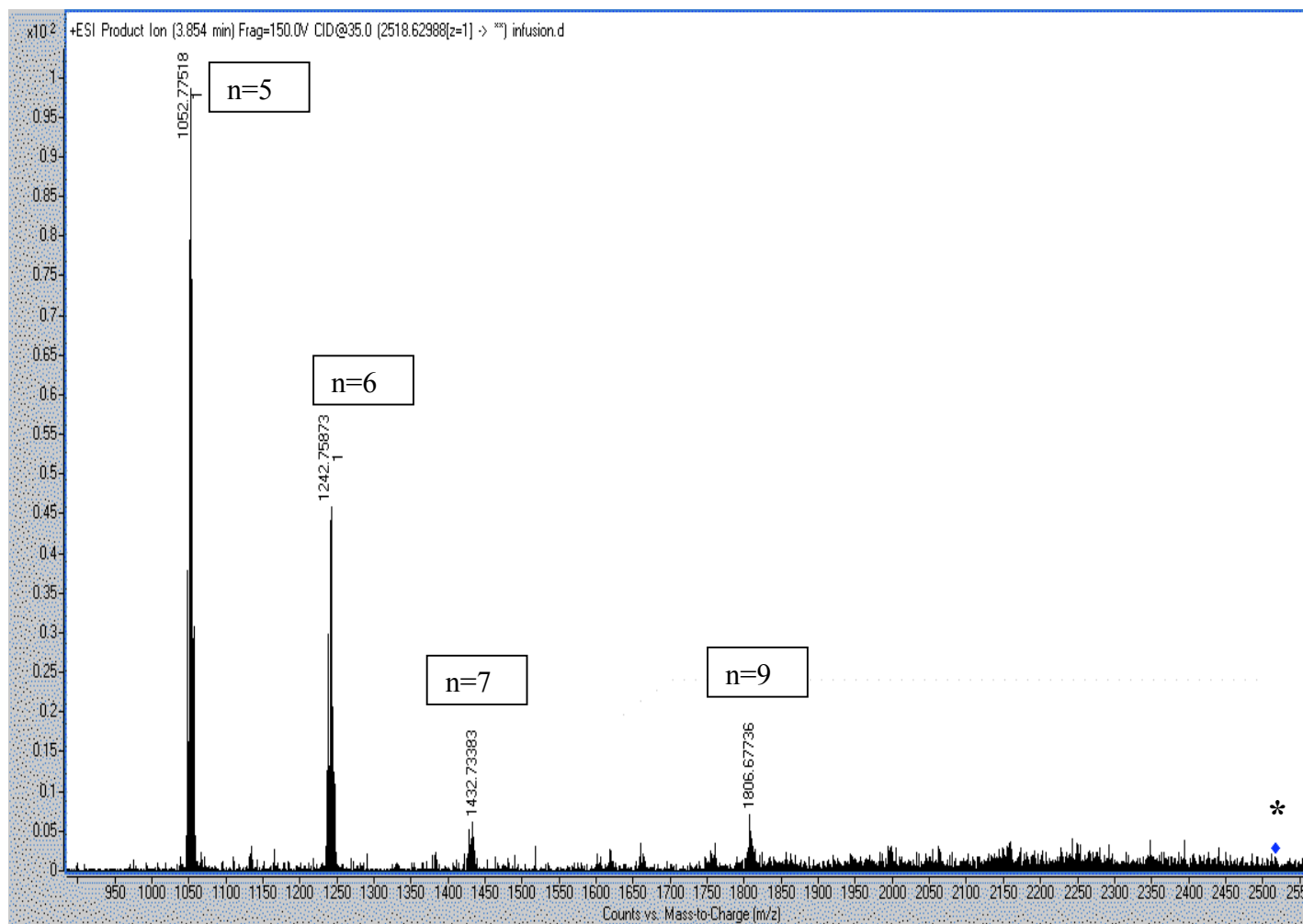
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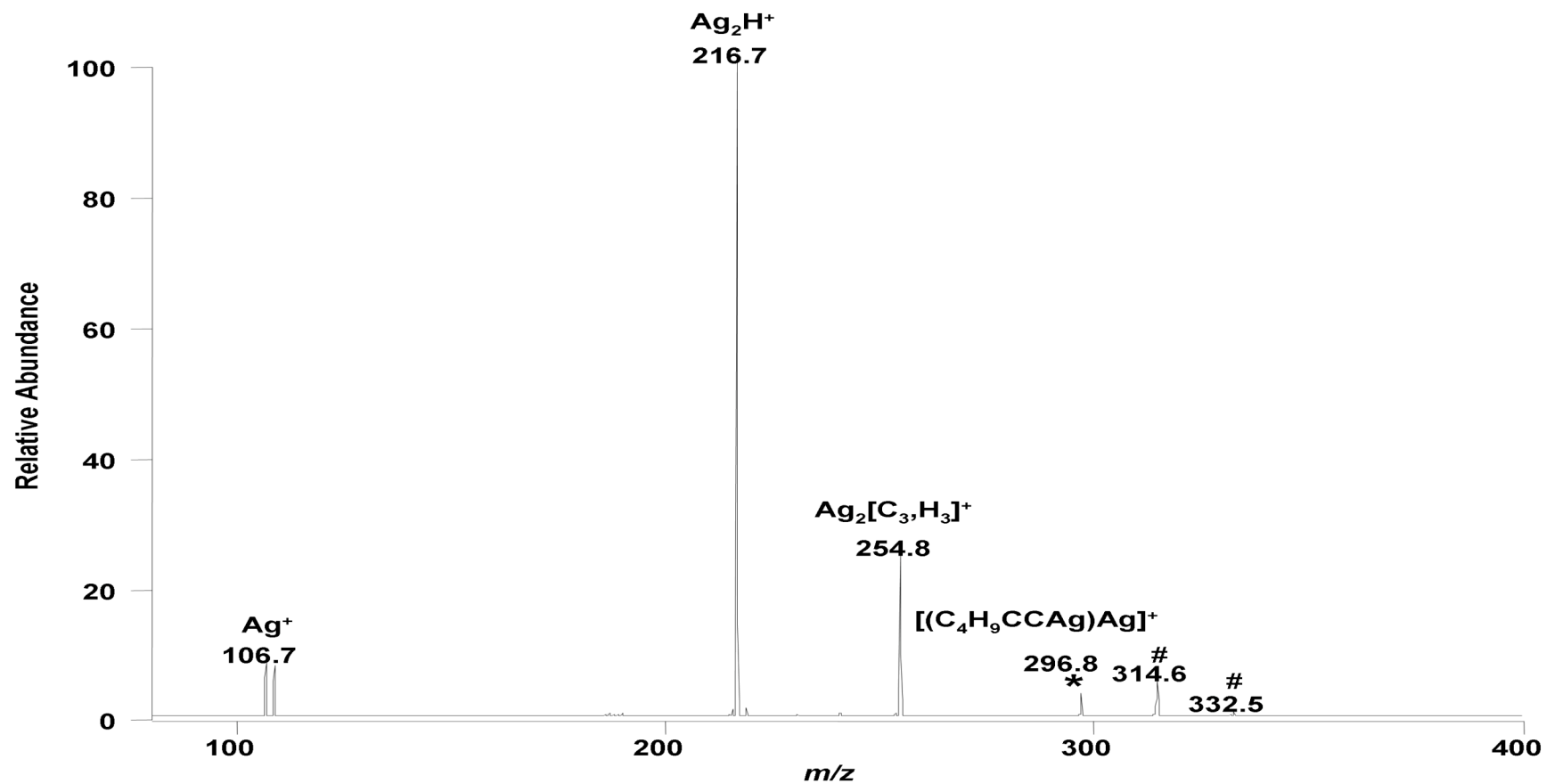
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**List of Supplementary Material:**

**Supplementary Figures S1 and S2.**



**Supplementary Figure S1:** CID on  $[(C_4H_9CCAg)_{12}Ag_2Cl]^+$  ( $m/z$  2518.6) in the QToF mass spectrometer. Isolation width, 9  $m/z$ ; CID energy 35 V. Note that the main fragment ions  $[(C_4H_9CCAg)_nAg]^+$  where  $n = 5, 6, 7$  and 9. A \* denotes the mass selected precursor ion.



**Supplementary figure S2:** CID of  $[(\text{C}_4\text{H}_9\text{Ag})\text{Ag}]^+$  on the LCQ mass spectrometer. Peak isolation width, 1.3  $m/z$ ; normalized collision energy (NCE), 50%; activation Q, 0.25; activation time, 30 msec. A # denotes solvent addition and a \* denotes the mass selected precursor ion.