

Supporting Information

Recognition of Dicarboxylic Acids by 3,3'-Bipyridine Amide Based Receptors and Its Supramolecular Behavior in the Solid State

Shyamaprosad Goswami,^{a*} Subrata Jana,^a and Hoong-Kun Fun.^{b*}

^aDepartment of Chemistry, Bengal Engineering and Science University, Shibpur, Howrah-711 103, INDIA. Fax: + 91 33 2668 2916; Tel: +91 33 2668 4561-3;

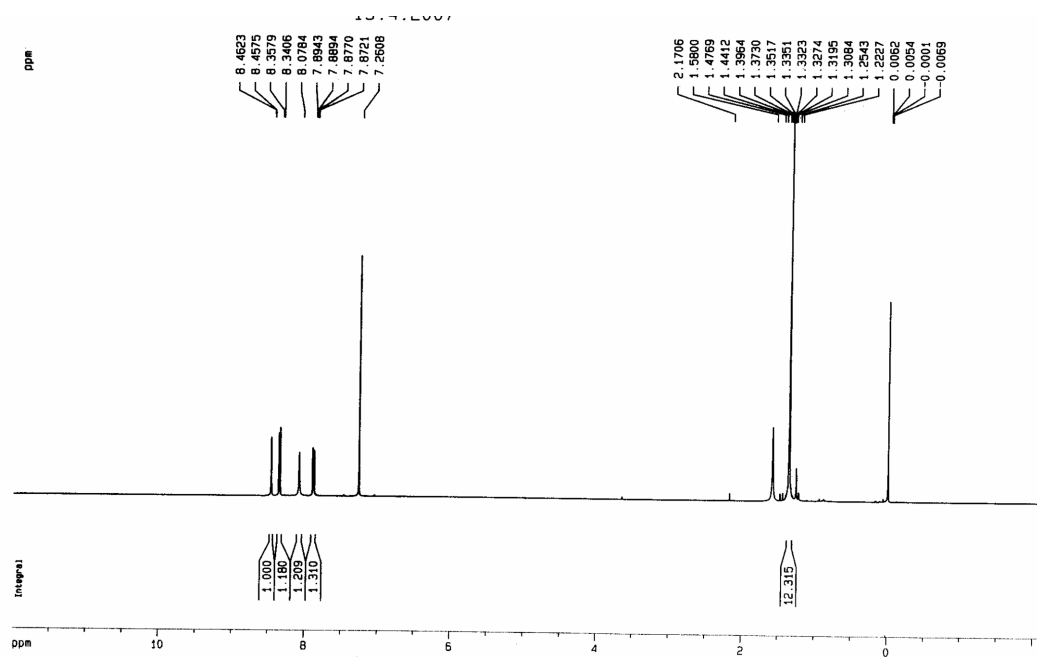
E-mail: spgoswamical@yahoo.com

^bX-Ray Crystallography Unit, School of Physics, Universiti Sains Malaysia, 11800 USM, Penang, MALAYSIA. Tel: +604 6533652; Fax: +604-33-6579150.

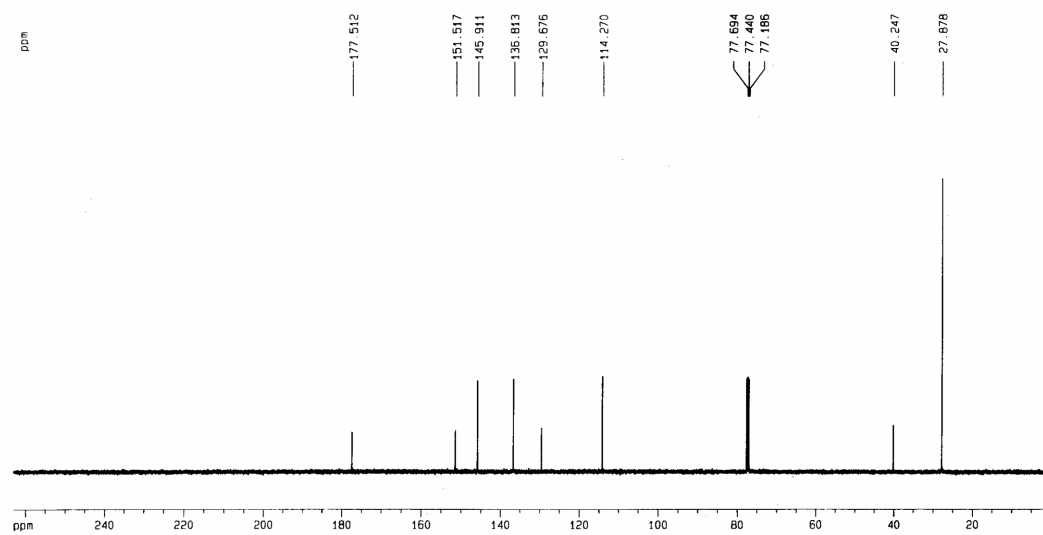
E-mail: hkfun@usm.my

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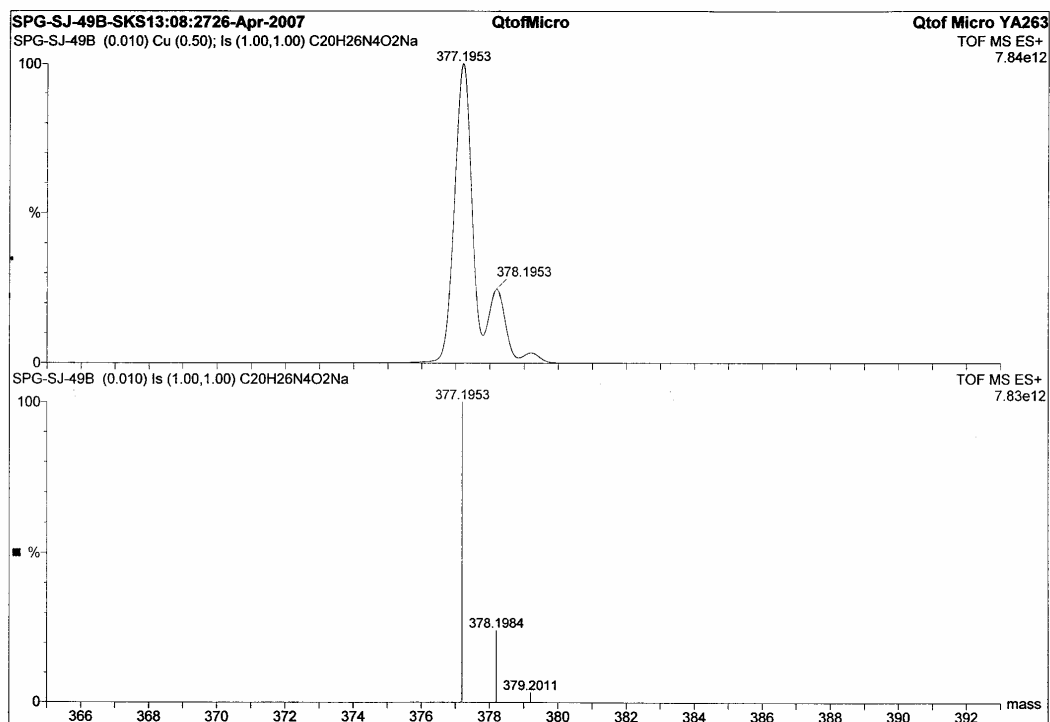
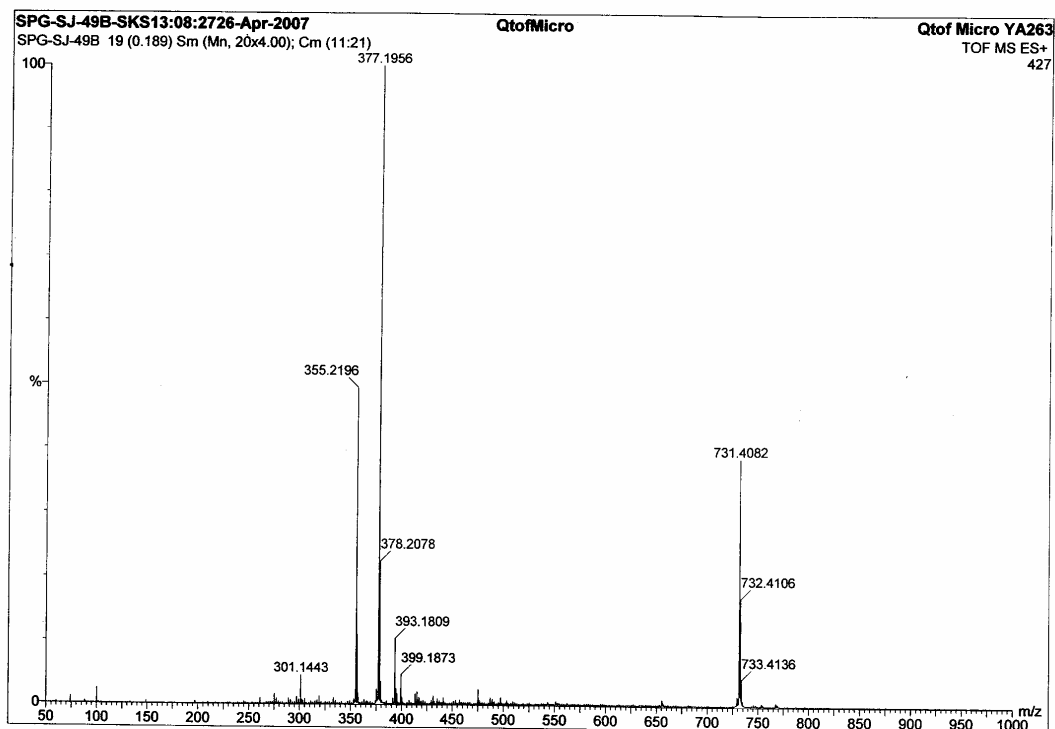
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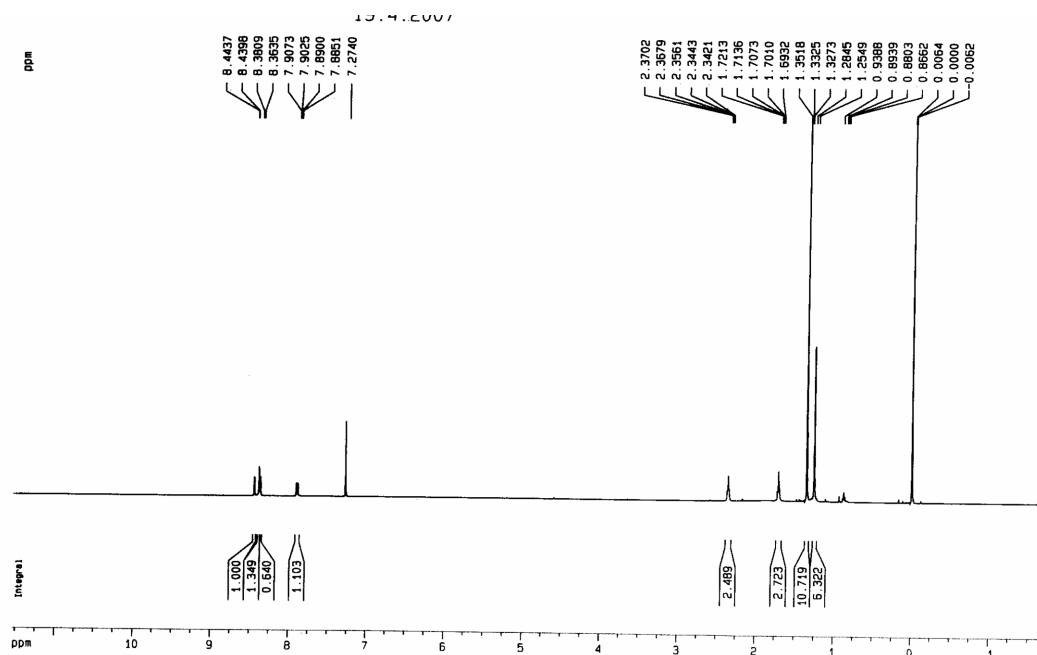
^1H NMR (CDCl_3 , 500 MHz) spectrum of Receptor **1**



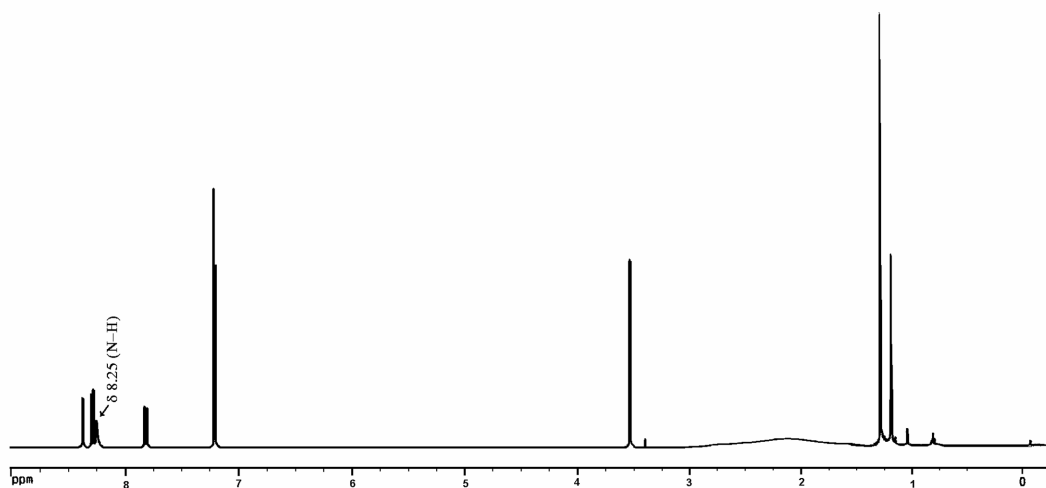
¹³C NMR (CDCl₃, 125 MHz) spectrum of Receptor **1**



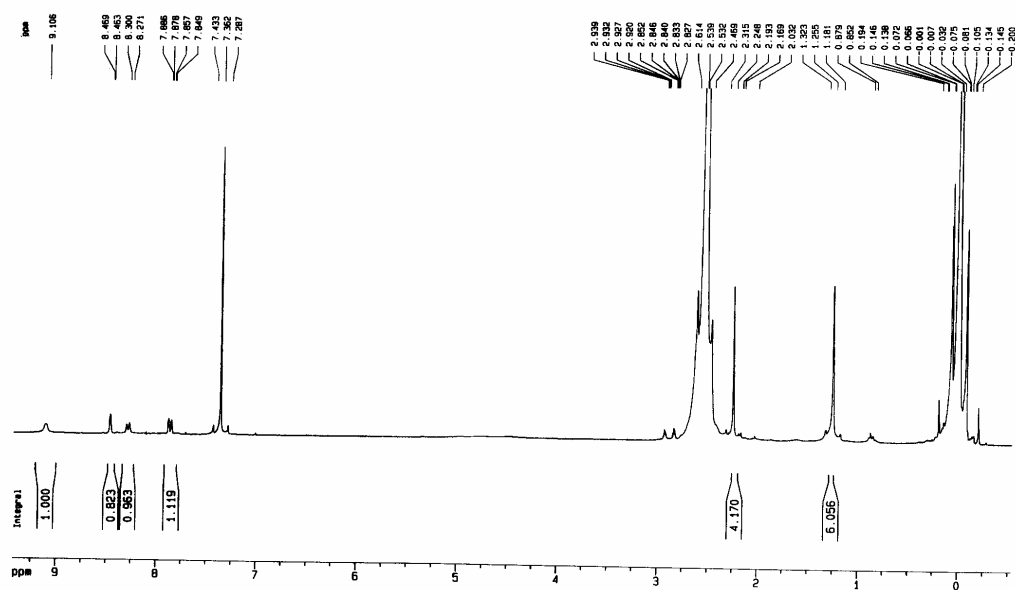
Mass(HRMS-ESI) spectrum of Receptor 1



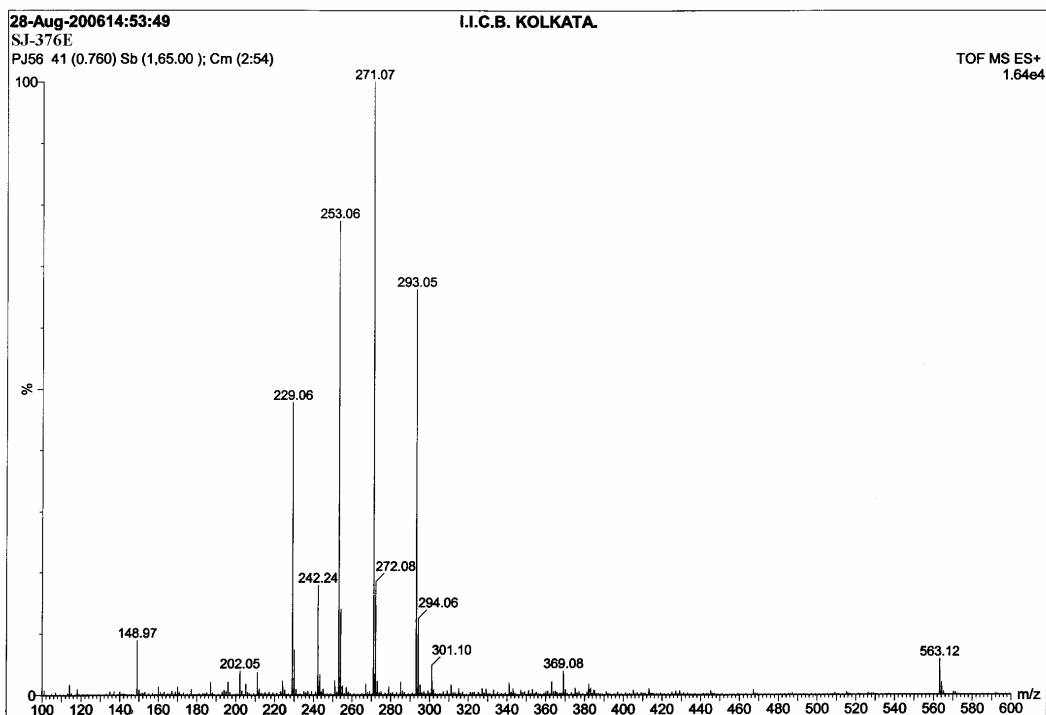
¹H NMR (CDCl₃ + 1% DMSO-*d*₆, 500 MHz) spectrum of 1:1 Complex.
Complex A(Receptor **1** and adipic acid)



^1H NMR ($\text{CDCl}_3 + 1\% \text{DMSO-}d_6$, 500 MHz) spectrum of 1:1 Complex
Complex **B**(Receptor **1** and 1,4-phenylenediacetic acid)



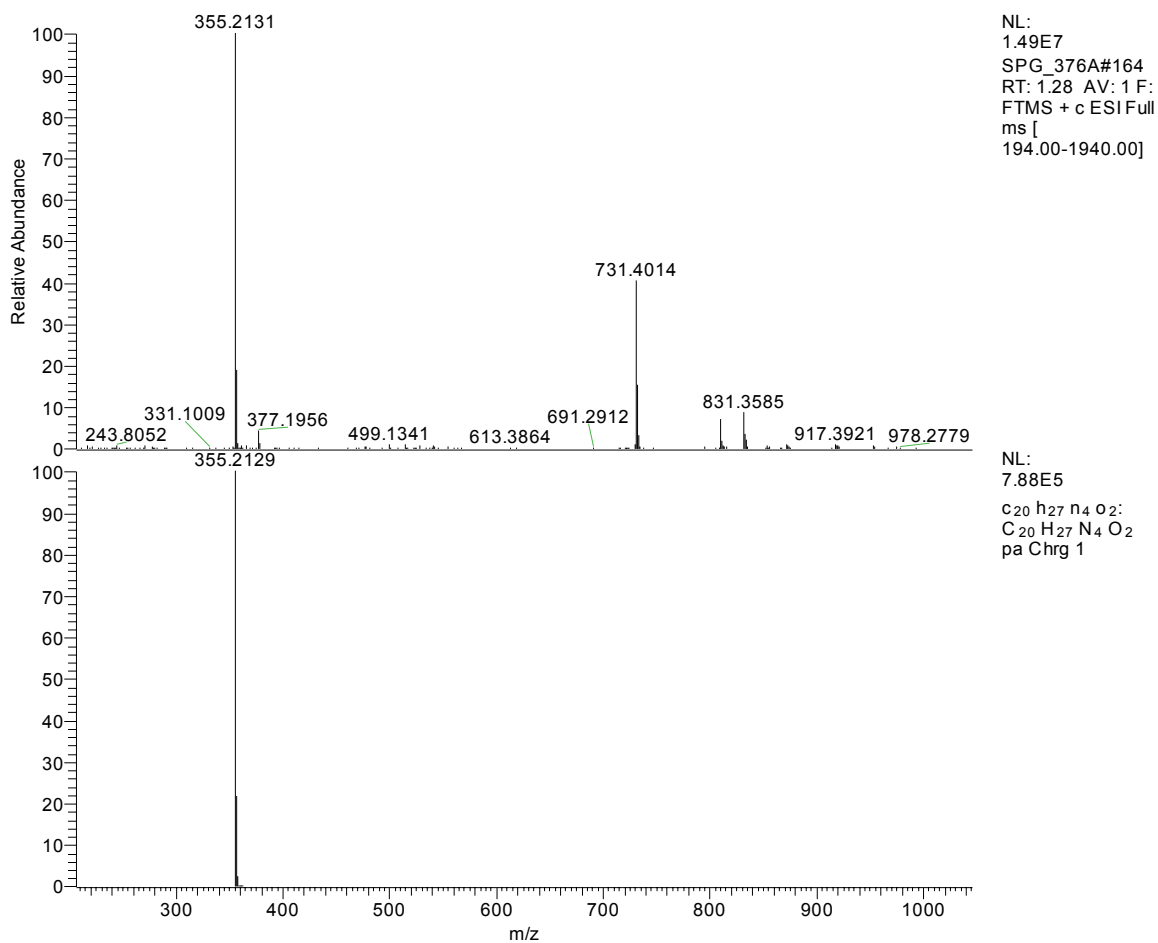
^1H NMR ($\text{CDCl}_3 + 1\% \text{DMSO-}d_6$, 300 MHz) spectrum of Receptor **2**



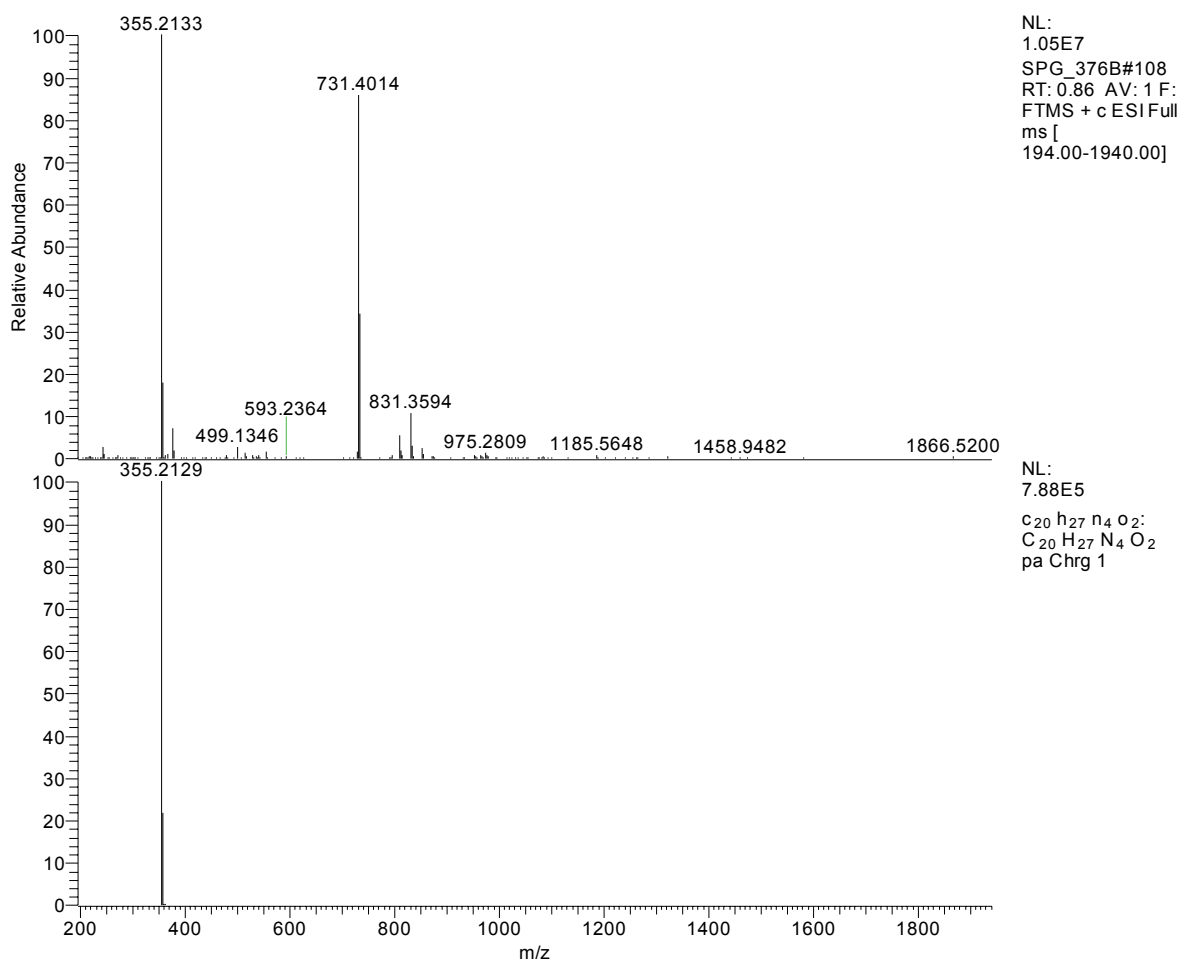
Mass(ESI) spectrum of Receptor 2

HRMS Studies of the complexes:

We have done the HRMS of the receptor **1** and its complexes to study the polymeric nature of the complexes. In case of receptor **1** we have found $M+Na^+$ as the base peak whereas in the complexes $M+H^+$ was found as the base peak. The interesting aspect of the mass spectra is that some peaks of higher mass were found in case of the complexes though of weak intensity.²¹ So from the HRMS it is not confirmed that hosts and guests are in complex rather it is shown that binding is weak in solution.



Mass(HRMS-ESI) spectrum of Complex A(Receptor 1 and adipic acid)



Mass(HRMS-ESI) spectrum of Complex **B**(Receptor **1** and 1,4-phenylenediacetic acid)