

Supporting information for

A rhodamine-quinoline type molecule switch as highly selective sequential sensor for Al³⁺ and F⁻ in aqueous solution

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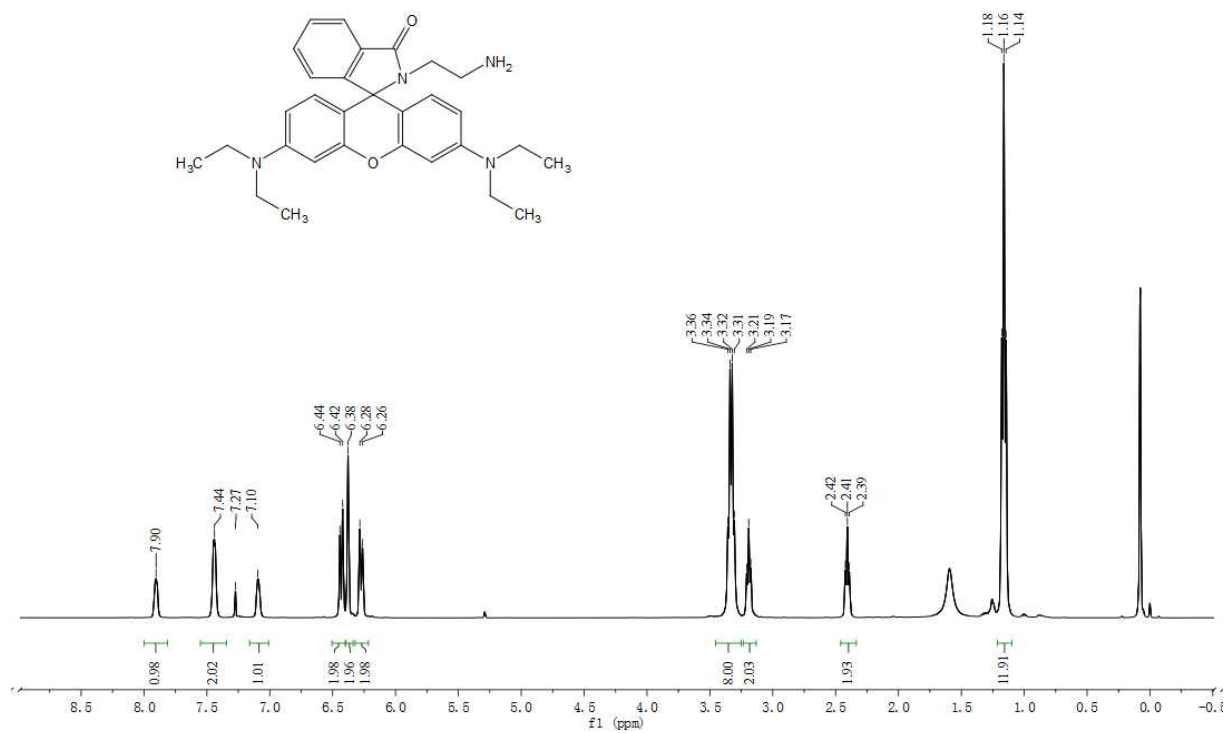


Figure S1. ¹H NMR spectrum of compound **RhB-EDA** in CDCl₃.

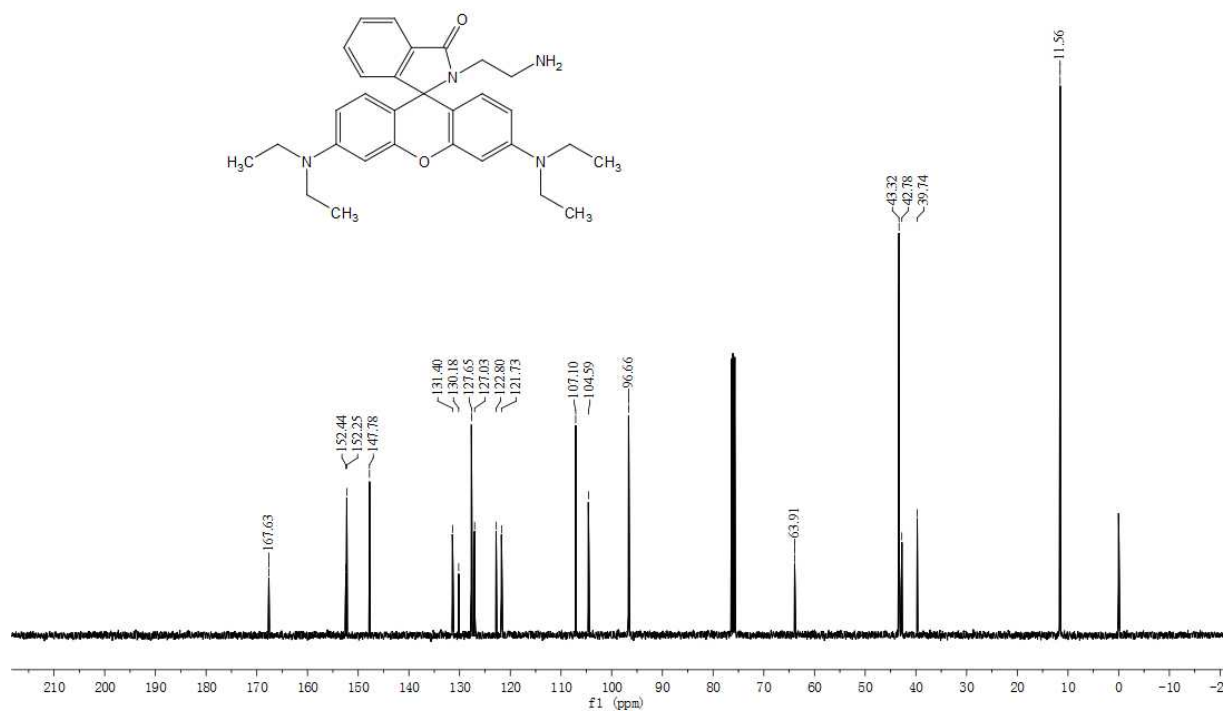


Figure S2. ¹³C NMR spectrum of compound **RhB-EDA** in CDCl₃.

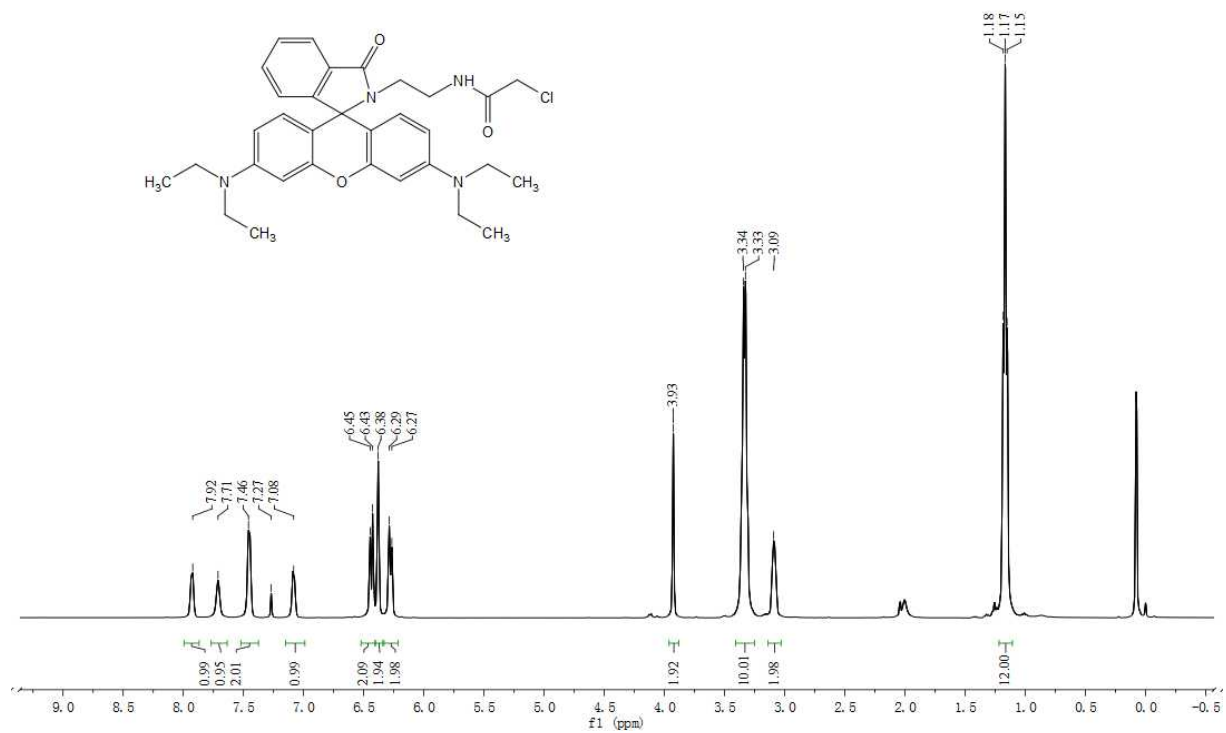


Figure S3. ^1H NMR spectrum of compound **RhB-EDA-CE** in CDCl_3 .

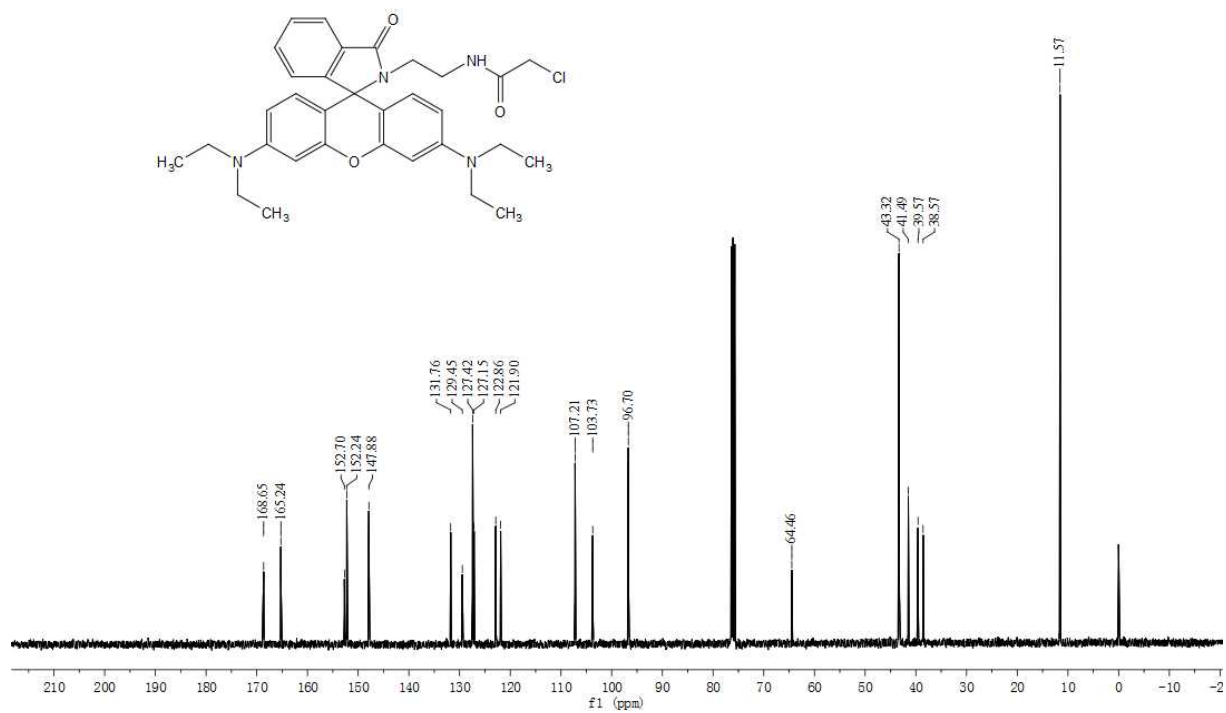


Figure S4. ^{13}C NMR spectrum of compound **RhB-EDA-CE** in CDCl_3 .

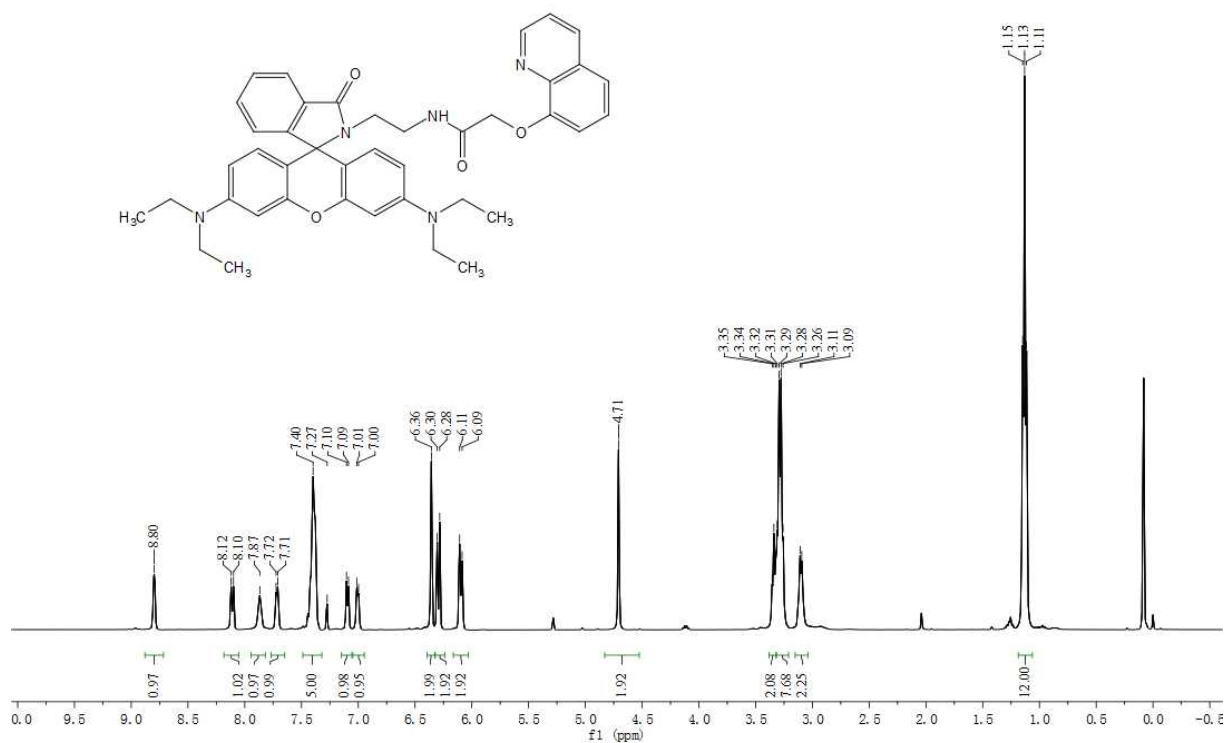


Figure S5. ^1H NMR spectrum of the probe **REQ** in CDCl_3 .

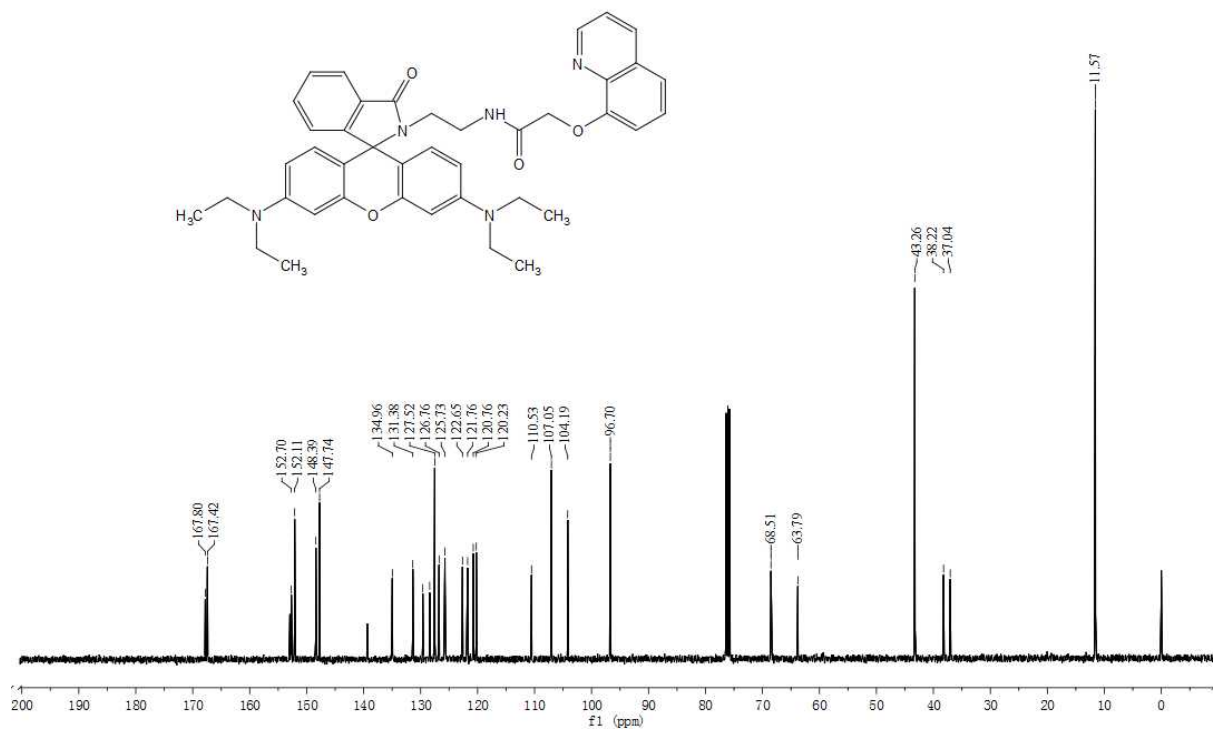


Figure S6. ^{13}C NMR spectrum of the probe **REQ** in CDCl_3 .

mysh-140422-rhb #5 RT: 0.99 AV: 1 SB: 1 0.41 NL: 4.43E6
T: + c EI Full ms [49.50-700.50]

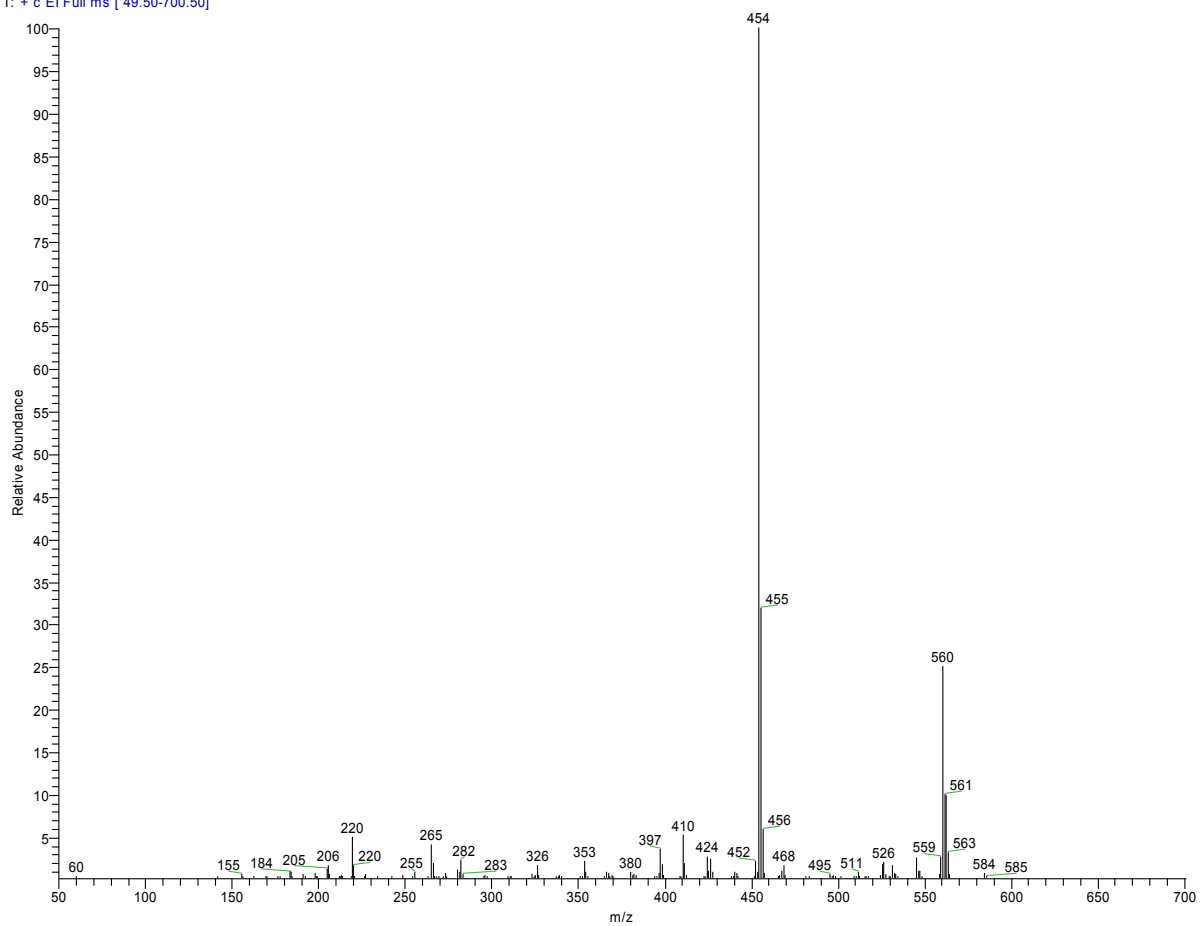


Figure S7. EI-MS of compound **RhB-EDA-CE**.

mysh-140422-req #17 RT: 3.40 AV: 1 NL: 2.88E6
 T: + c EI Full ms [49.50-700.50]

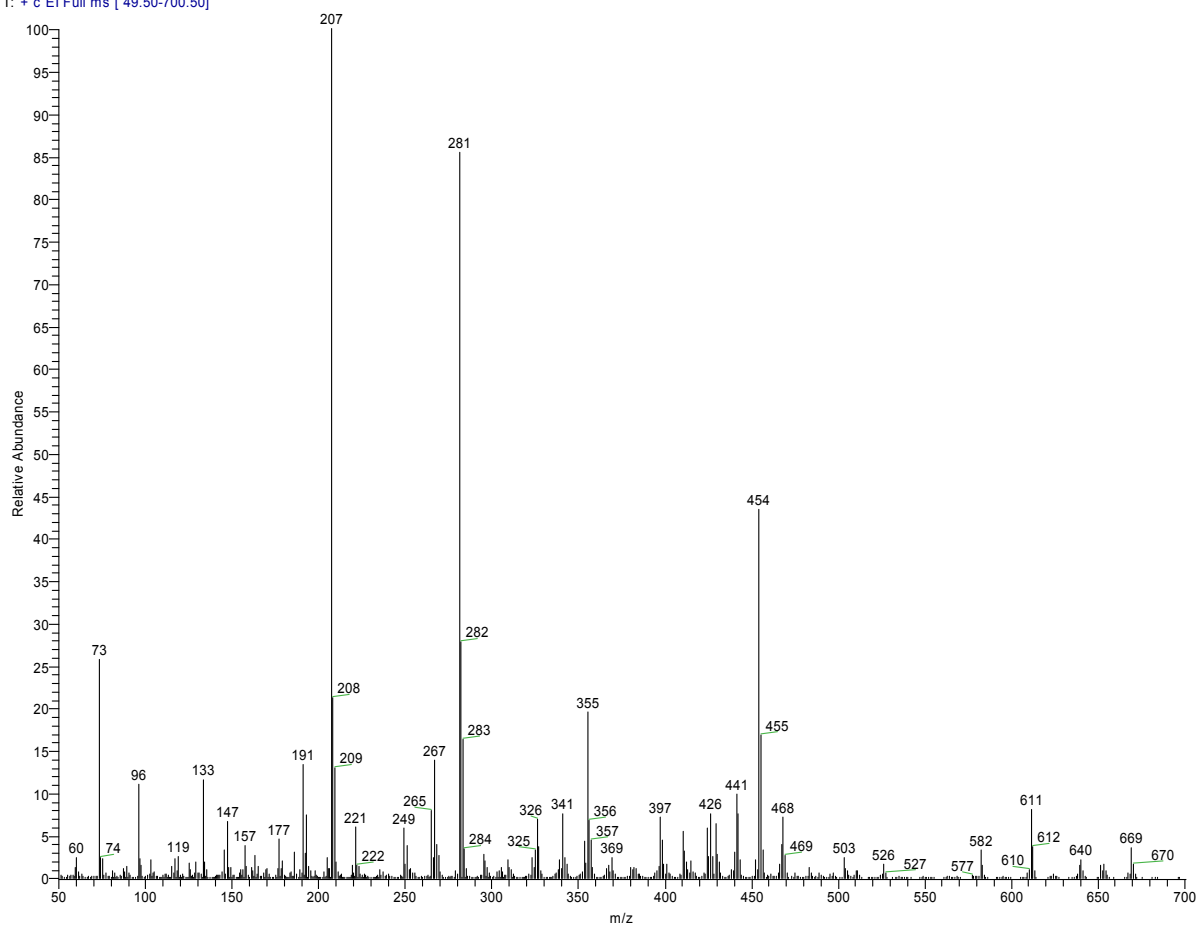


Figure S8. EI-MS of compound **REQ**.

File : D:\Xcalibur\data\mysh-140425-669-hr-av2.RAW
 Full ms [663.500 - 684.500] - Range: 663.500 - 684.500
 Scan No. 1 of 1

Mass	Relative Intensity	Theoretical Mass	Delta [ppm]	Delta [mmu]	Composition
669.3300	100.0	669.3310	-1.5	-1.0	C ₄₁ H ₄₃ O ₄ N ₅
		669.3224	11.3	7.5	C ₄₅ H ₄₁ O ₂ N ₄
		669.3435	-20.3	-13.6	C ₄₂ H ₄₅ O ₄ N ₄
		669.3462	-24.3	-16.3	C ₄₅ H ₄₃ O ₁ N ₅
		669.3098	30.1	20.1	C ₄₄ H ₃₉ O ₂ N ₅

Figure S9. HRMS(EI) of compound **REQ**.