

## **SUPPORTING INFORMATION**

### **$\alpha$ -Dialkylamino *N,N*-diisobutylacetamides: A new class of anion exchanger with intramolecular buffering properties**

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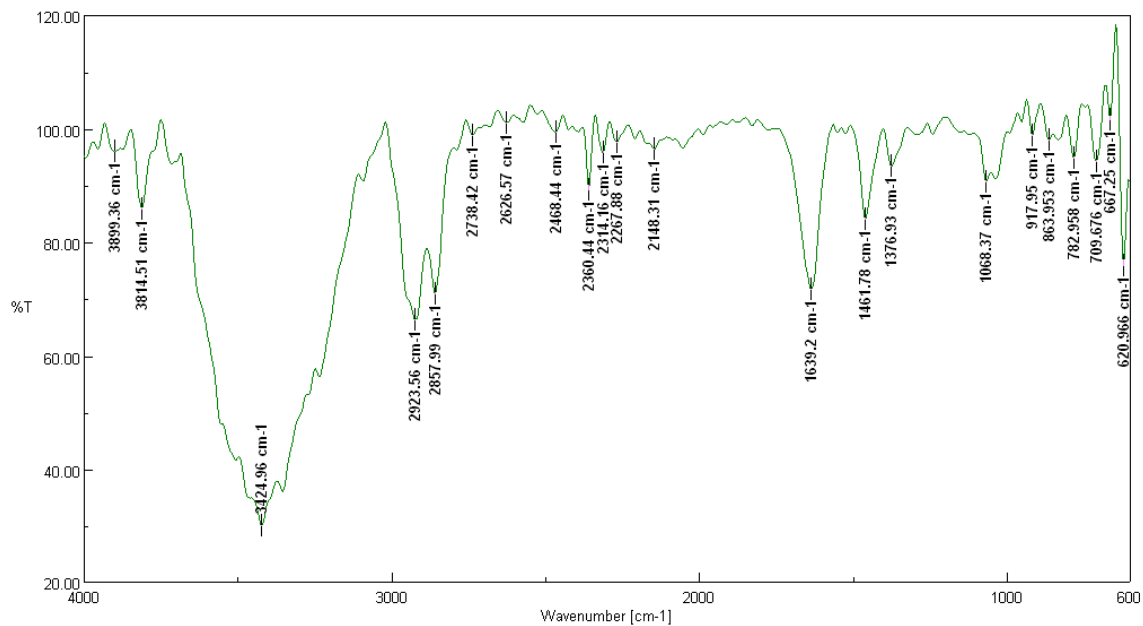
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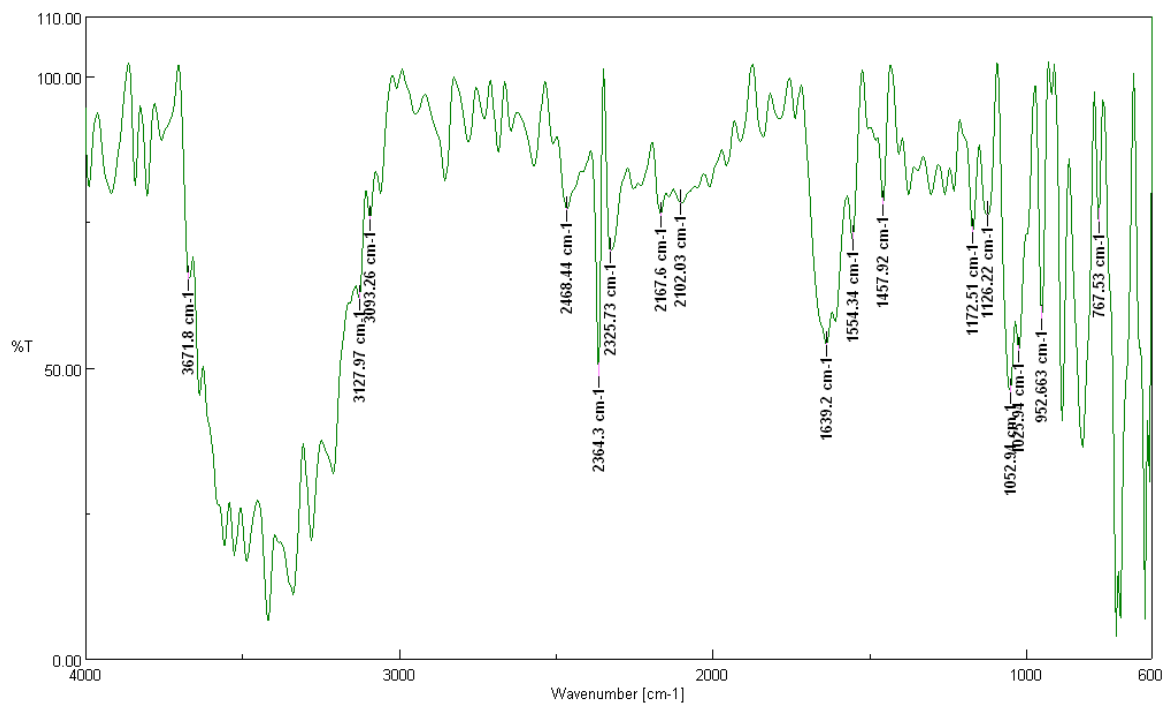
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**Fig. 8 (a)** IR spectra of organic phase containing **1** before contact.



**Fig. 8 (b)** IR spectra of loaded organic phase (**1** and molybdate).

before

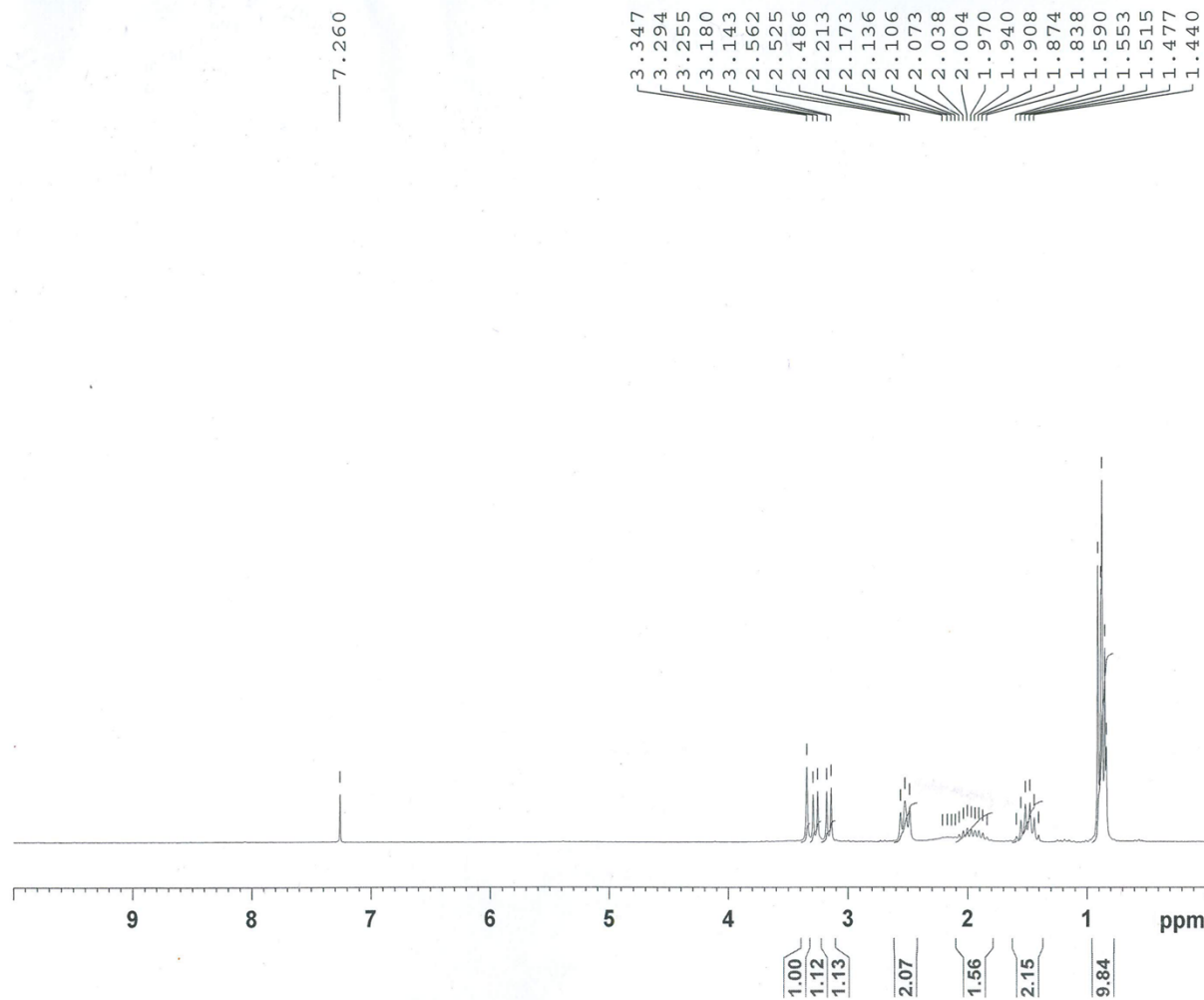
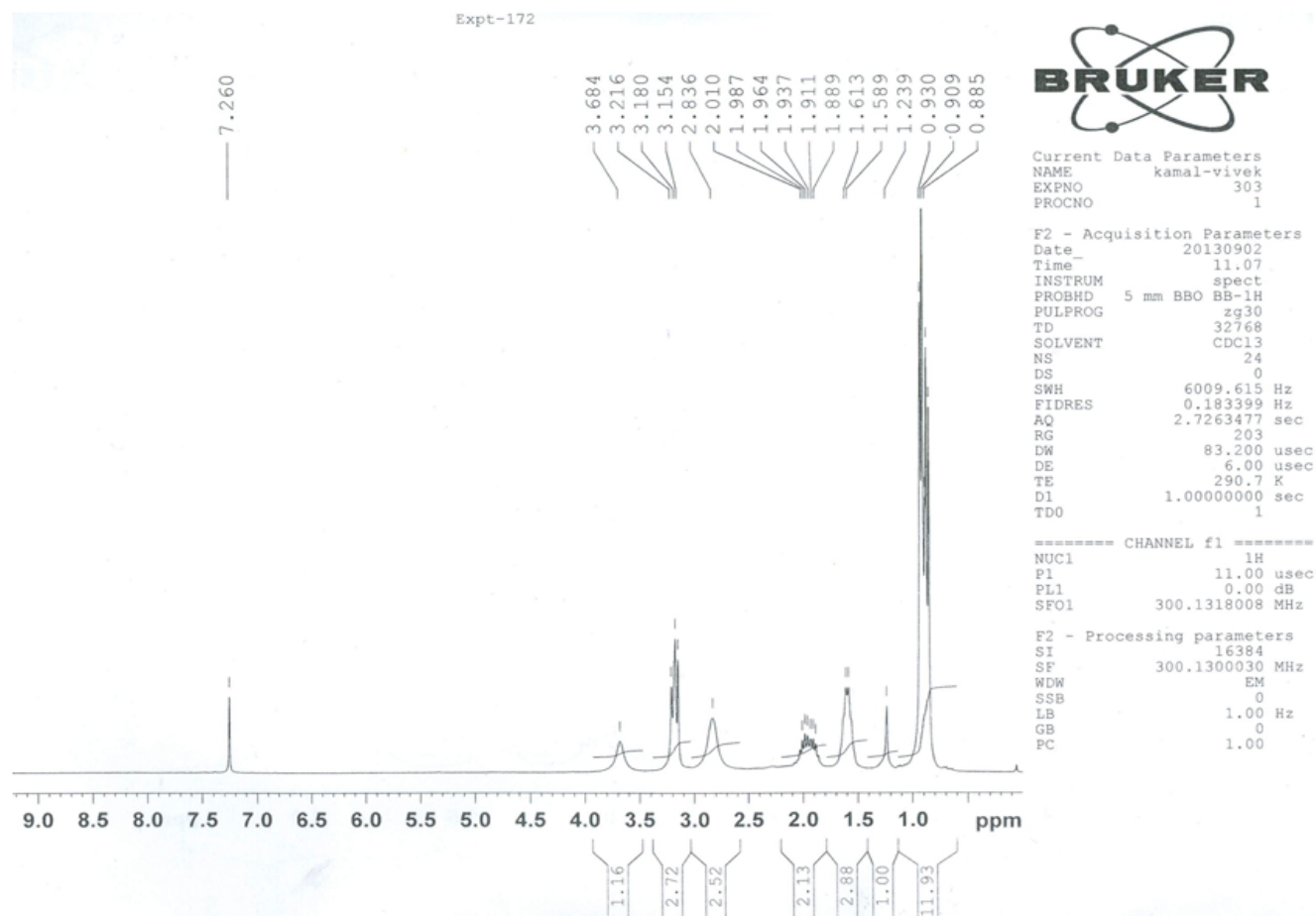
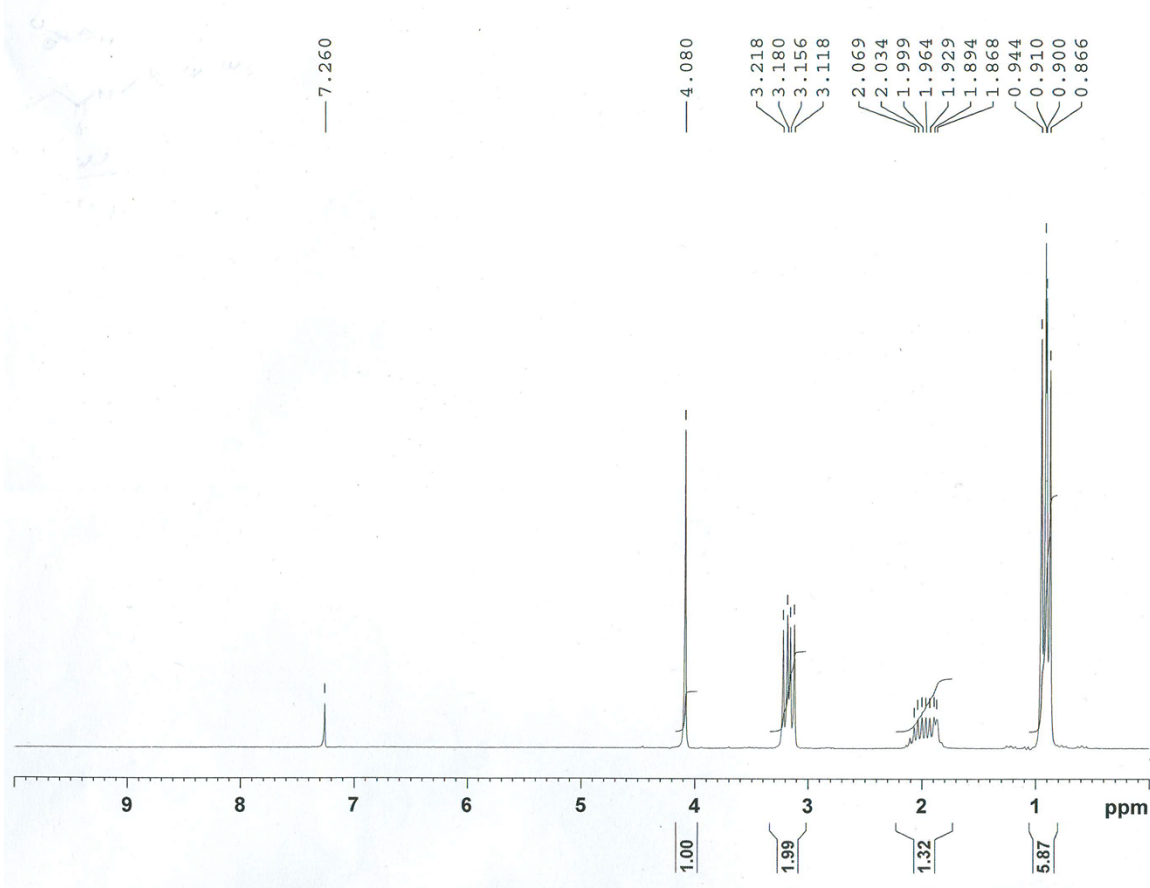


Fig. 9 (a)  $^1\text{H}$  NMR of  $\alpha$ -dipropylamino  $N,N'$ -diisobutylacetamide **1**.



**Fig. 9 (b)**  $^1\text{H}$  NMR of complex of  $\text{MoO}_4^{2-}$  with  $\alpha$ -dipropylamino  $N,N'$ -diisobutylacetamide **1**.

snikna



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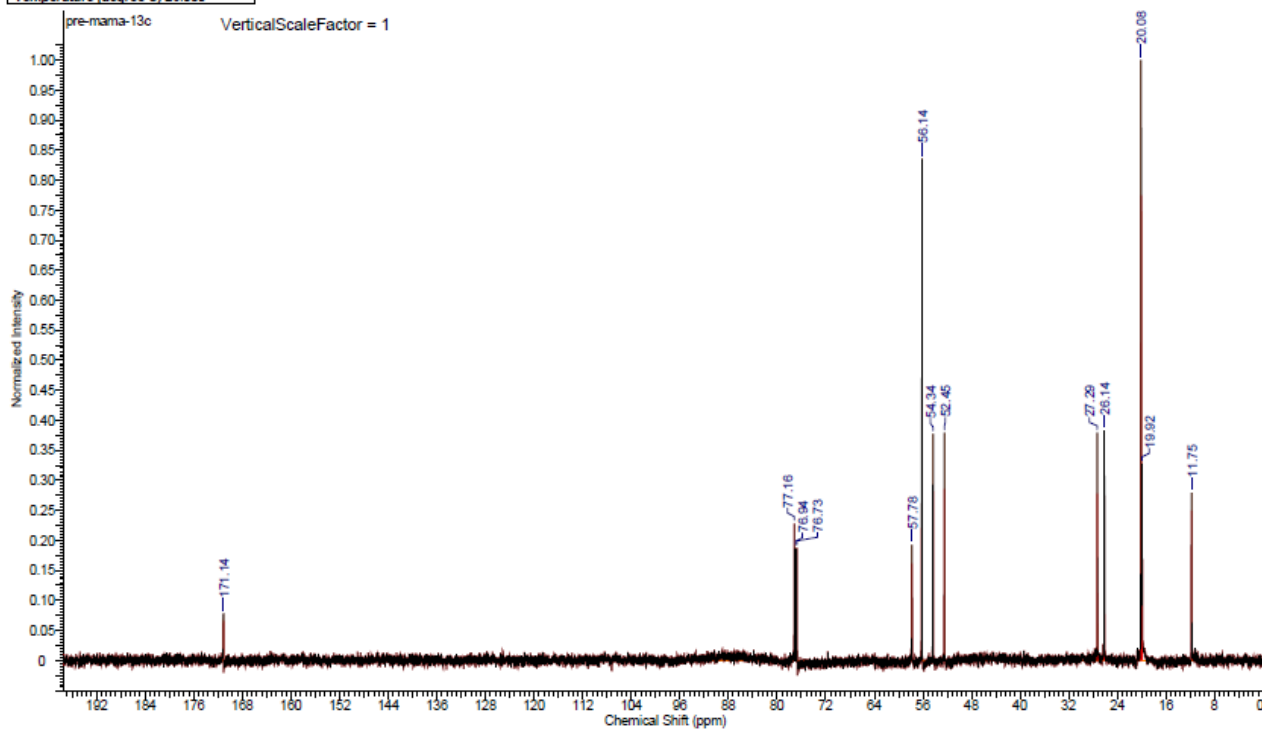
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DS 2  
SWH 4132.201 Hz  
FIDRES 0.663053 Hz  
AQ 7.929959 sec  
RG 202.52  
DM 121.000 usec  
DE 6.50 usec  
TE 303.0 K  
D0 1.09000000 sec

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
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PL1 13.50000000 W  
SFO1 200.1312159 MHz

F2 - Processing parameters  
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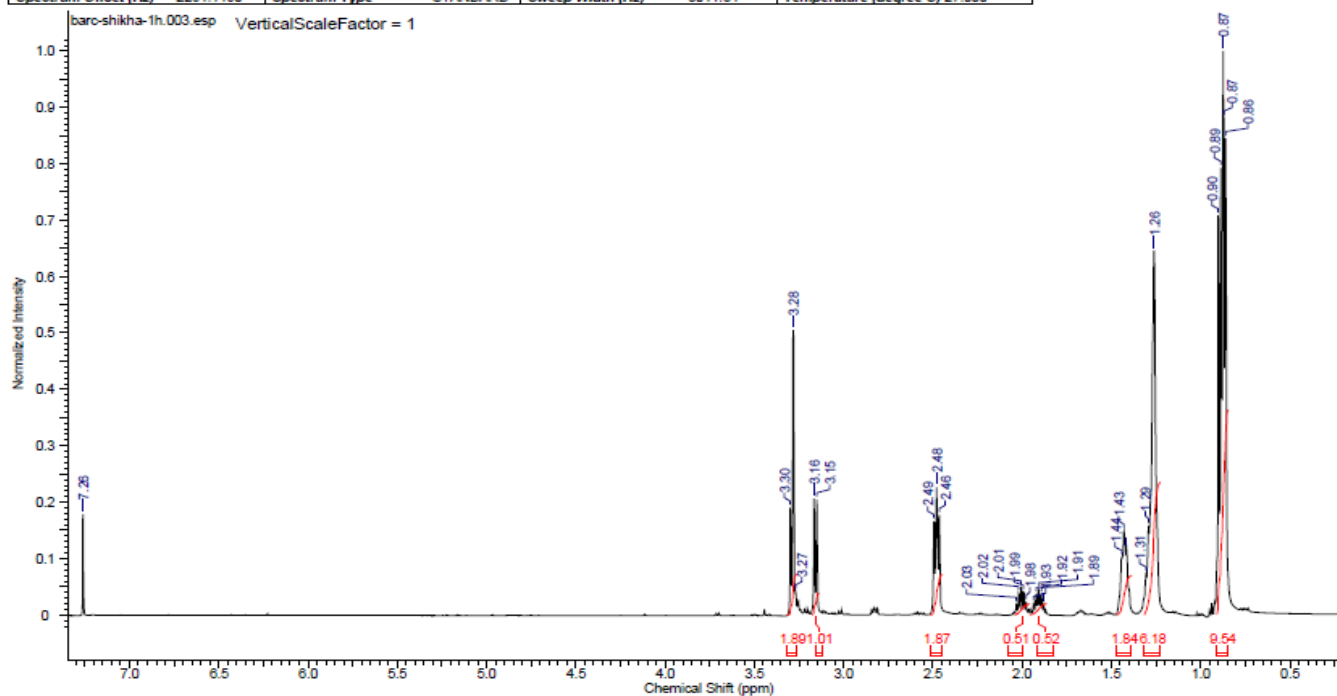
$^1\text{H}$  NMR of *N,N'*-diisobutylchloroacetamide 7.

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Solvent	CHLOROFORM-d	Spectrum Offset (Hz)	16176.1162	Spectrum Type	STANDARD	Receiver Gain	36.00
Temperature (degree C)	20.000					Sweep Width (Hz)	50000.00



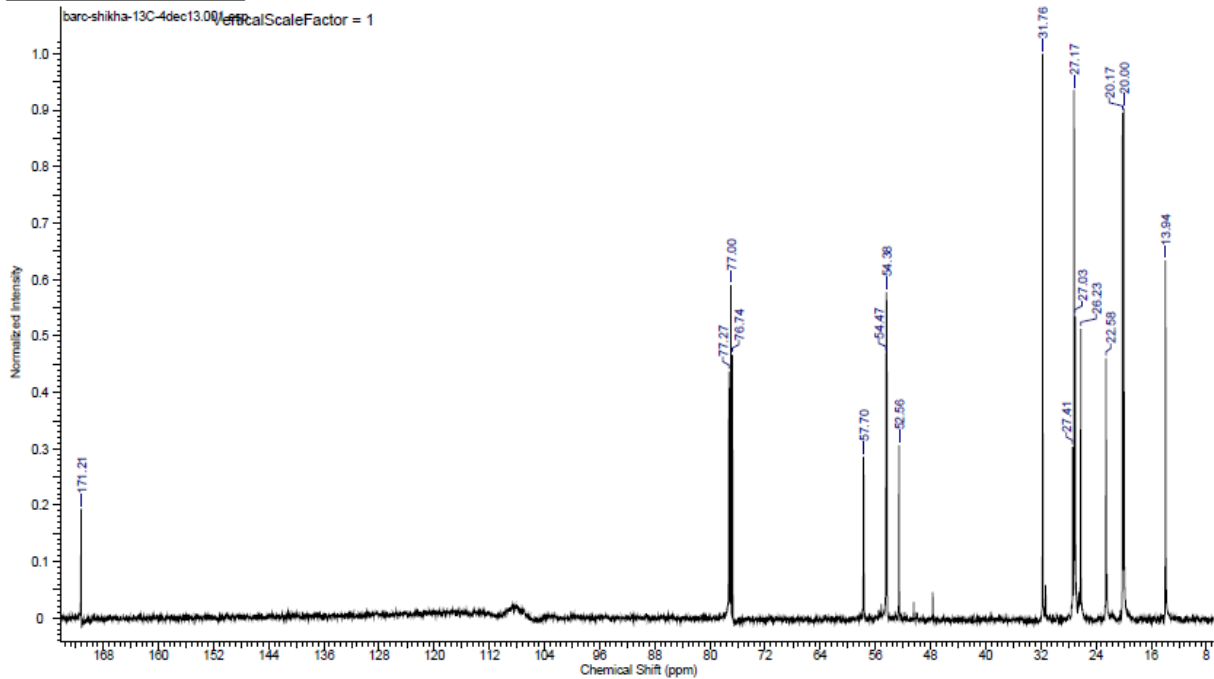
<sup>13</sup>C NMR of  $\alpha$ -dipropylamino *N,N'*-diisobutylacetamide **1**.

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Nucleus	<sup>1</sup> H	Number of Transients	64	Origin	av500
Points Count	8192	Pulse Sequence	zg	Original Points Count	8192
Spectrum Offset (Hz)	2264.1450	Receiver Gain	90.50	SW(cyclical) (Hz)	8012.82
Spectrum Type	STANDARD	Sweep Width (Hz)	8011.84	Temperature (degree C)	27.000
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<sup>1</sup>H NMR of  $\alpha$ -dihexylamino *N,N'*-diisobutylacetamide **2**.

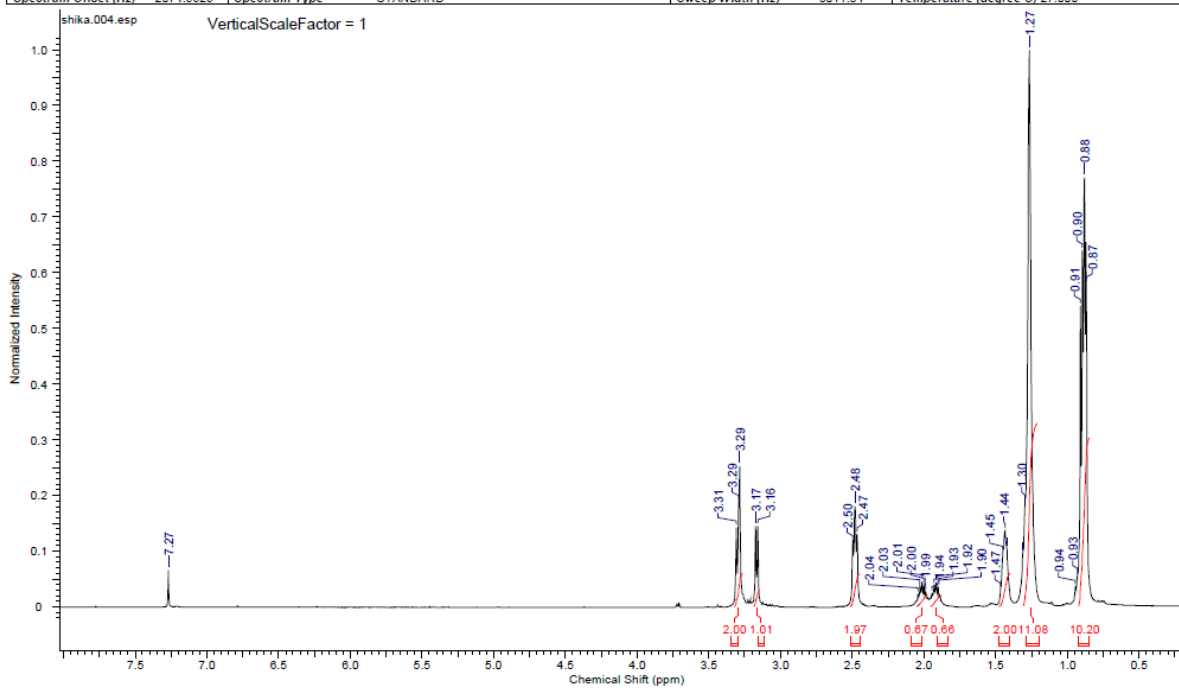
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Solvent	CHLOROFORM-d	Spectrum Offset (Hz)	13513.8164	Receiver Gain	1820.00
Temperature (degree C)	27.000	Spectrum Type	STANDARD	SW(cyclical) (Hz)	30303.03
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$^{13}\text{C}$  NMR of  $\alpha$ -dihexylamino  $N,N'$ -diisobutylacetamide **2**.

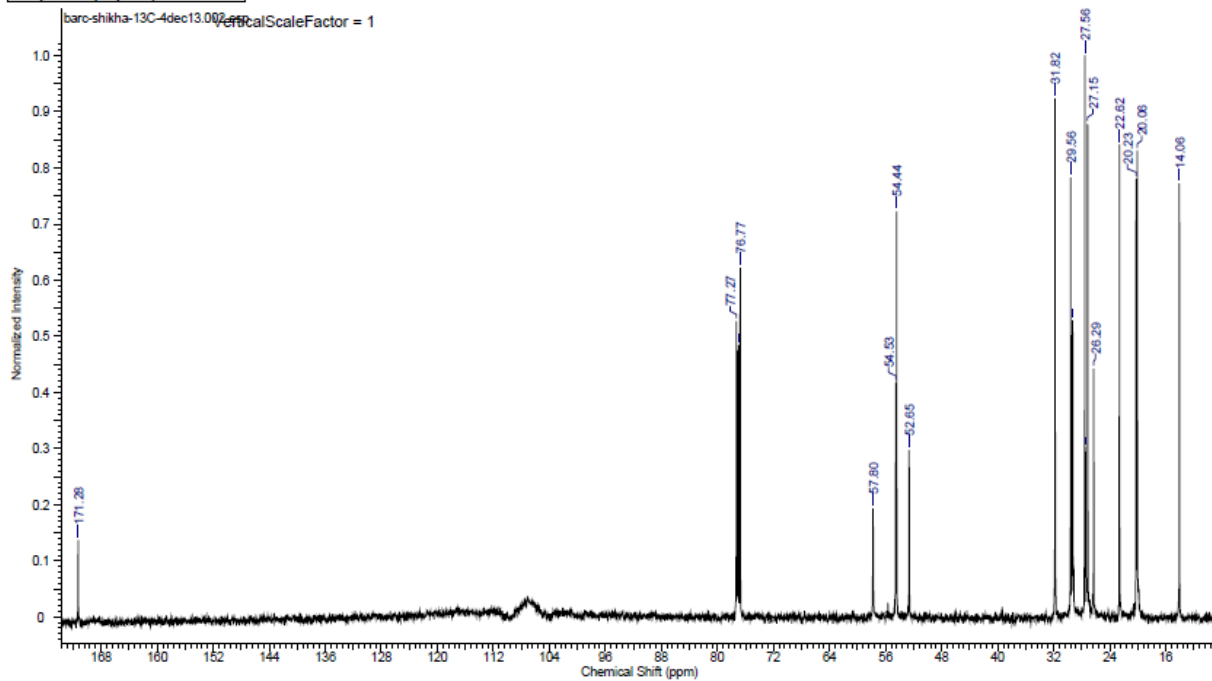


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		Spectrum Type	STANDARD	Solvent	CHLOROFORM-d
				Sweep Width (Hz)	8011.84
				Temperature (degree C)	27.000



$^1\text{H}$  NMR of  $\alpha$ -dioctylamino  $N,N'$ -diisobutylacetamide **3**.

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Solvent	CHLOROFORM-d	Pulse Sequence	zgdc	Receiver Gain	1820.00
Temperature (degree C)	37.000	Spectrum Offset (Hz)	13510.4238	Spectrum Type	STANDARD
				Sweep Width (Hz)	30303.03



<sup>13</sup>C NMR of  $\alpha$ -dioctylamino *N,N'*-diisobutylacetamide **3**.