

Supplementary Information
**Synthesis, characterization, antimicrobial and antioxidant screening of
novel oxazepines**

Rishabh Sheth^a, Tirth Thaker*^a, Sweta Maurya^a & Anupam Jyoti^b

^a Department of Chemistry, Parul Institute of Applied Sciences, Parul University, Vadodara 391 760, Gujarat, India

^b Department of Life Sciences, Parul Institute of Applied Sciences, Parul University, Vadodara 391 760, Gujarat, India

E-mail: tirth6582@gmail.com

Received 22 June 2025; accepted (revised) 25 September 2025

Table of contents

Sr. No	Content	Page no.
1.	Figure 1: IR Spectrum of compound 3a	2
2.	Figure 2: IR Spectrum of compound 3b	2
3.	Figure 3: ¹ H NMR Spectrum of compound 3b	3
4.	Figure 4: IR Spectrum of compound 3c	3
5.	Figure 5: ¹ H NMR Spectrum of compound 3c	4
6.	Figure 6: IR Spectrum of compound 3d	4
7.	Figure 7: ¹ H NMR Spectrum of compound 3d	5
8.	Figure 8: IR Spectrum of compound 3e	5
9.	Figure 9: ¹ H NMR Spectrum of compound 3e	6
10.	Figure 10: IR Spectrum of compound 4a	6
11.	Figure 11: ¹ H NMR Spectrum of compound 4a	7
12.	Figure 12: IR Spectrum of compound 4b	7
13.	Figure 13: ¹ H NMR Spectrum of compound 4b	8
14.	Figure 14: IR Spectrum of compound 4c	8
15.	Figure 15: ¹ H NMR Spectrum of compound 4c	9
16.	Figure 16: IR Spectrum of compound 4d	9
17.	Figure 17: ¹ H NMR Spectrum of compound 4d	10
18.	Figure 18: IR Spectrum of compound 4e	10
19.	Figure 19: ¹ H NMR Spectrum of compound 4e	11

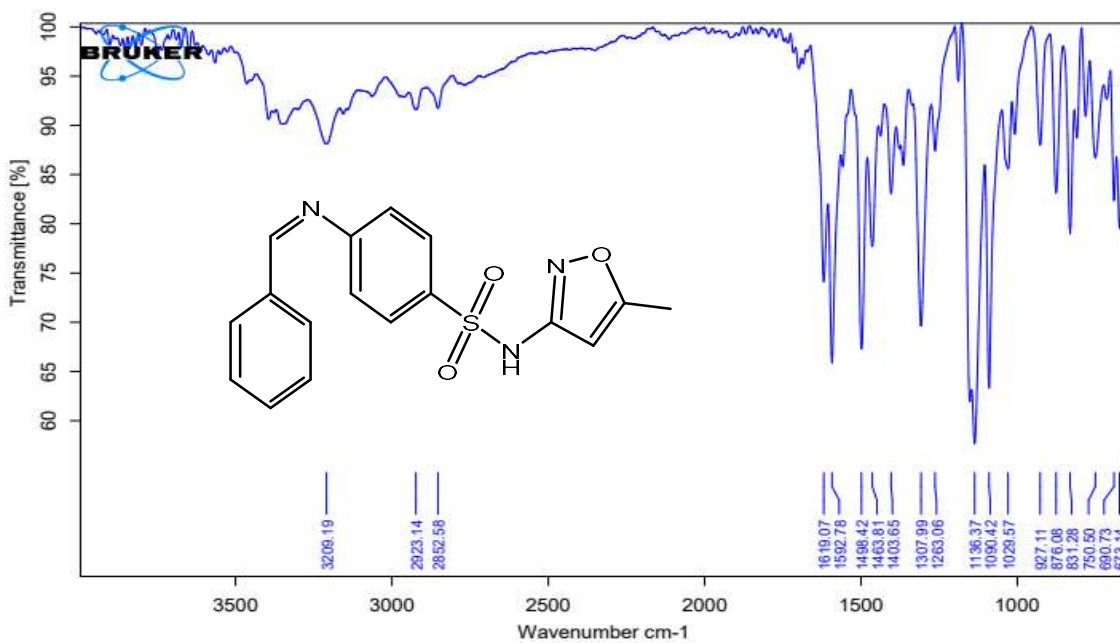


Figure 1: IR Spectrum of compound **3a**

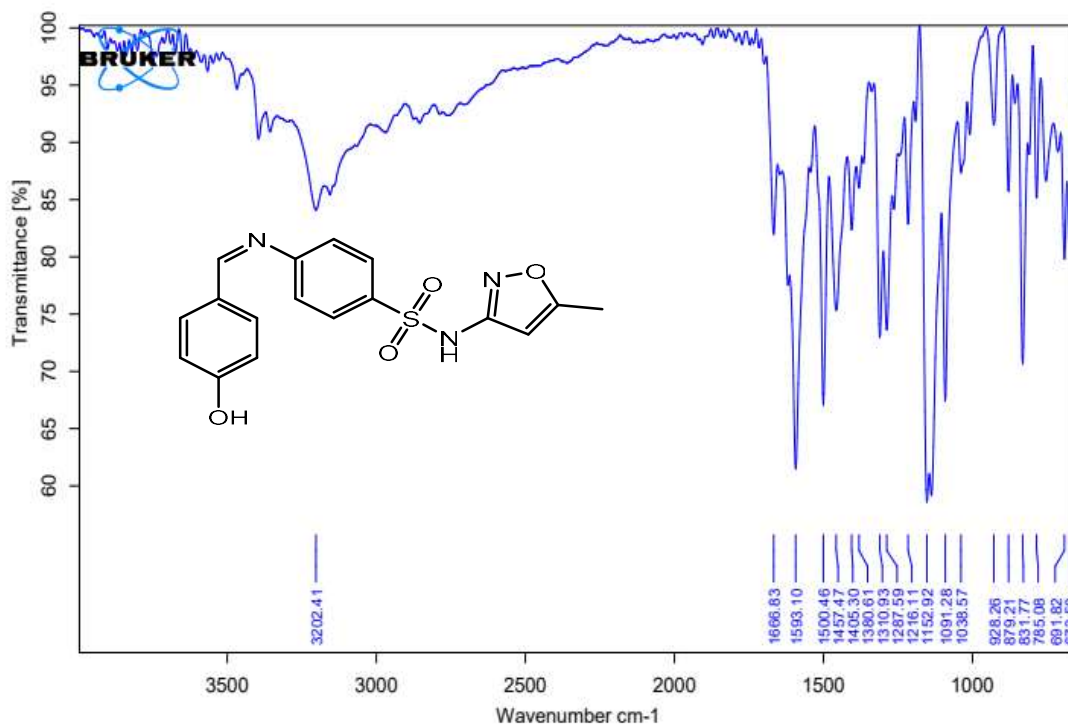
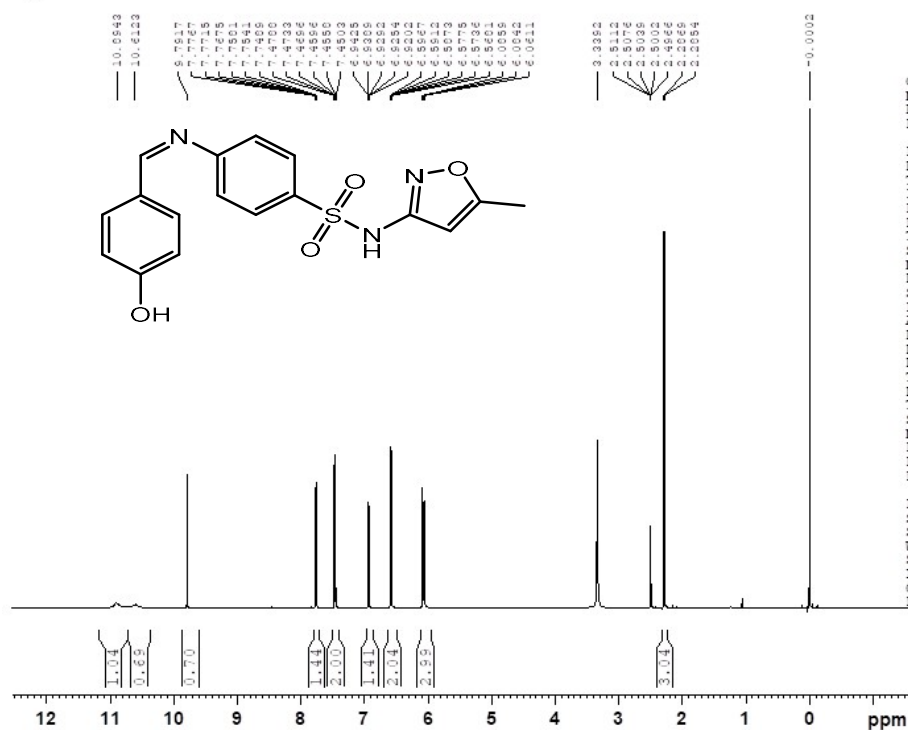


Figure 2: IR Spectrum of compound **3b**

RS02
1H_8scan DMSO (D:\Spectra) nmr 27



BRUKER
AVANCE NEO
500 MHz NMR
SPECTROMETER
SAIF, P.U.

Current Data Parameters
NAME Jul05-2024
EXPNO 270
PROCNO 1

F2 - Acquisition Parameters
Date_ 20240705
Time_ 13.42 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 ()
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 16
DS 0
SWH 14705.883 Hz
FIDRES 0.448788 Hz
AQ 2.2282240 sec
RG 101
DN 34.000 usec
DE 6.75 usec
TE 300.2 K
D1 1.00000000 sec
TDO 1
SF01 500.1730885 MHz
NUC1 1H
P0 3.33 usec
F1 10.00 usec
FLN1 20.93000031 W

F2 - Processing parameters
SI 65536
SF 500.1700020 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

Figure 3: ¹H NMR Spectrum of compound 3b

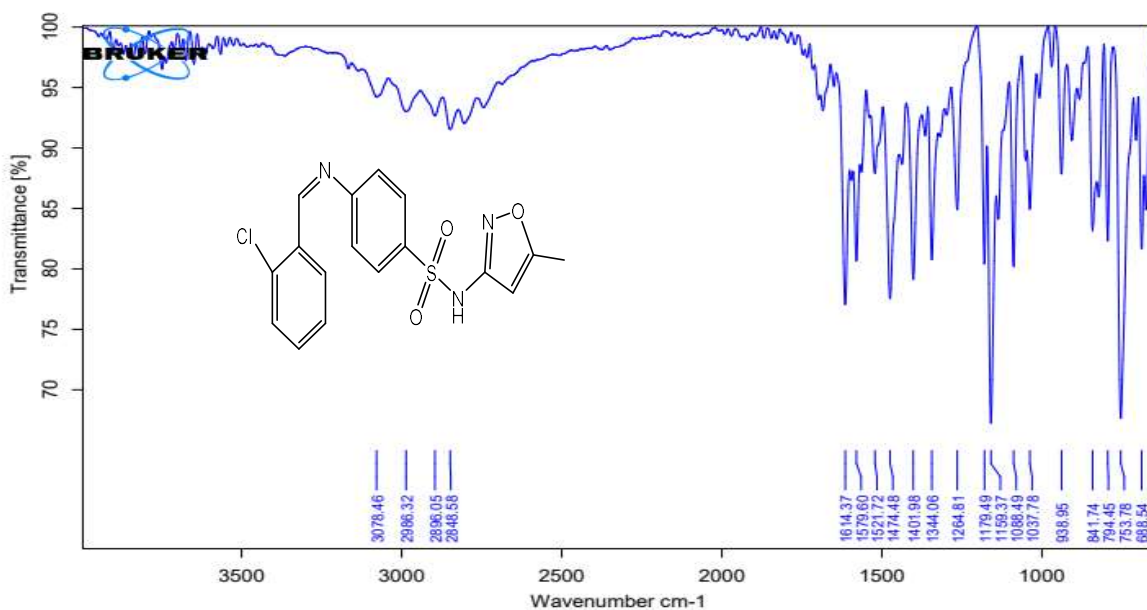


Figure 4: IR Spectrum of compound 3c

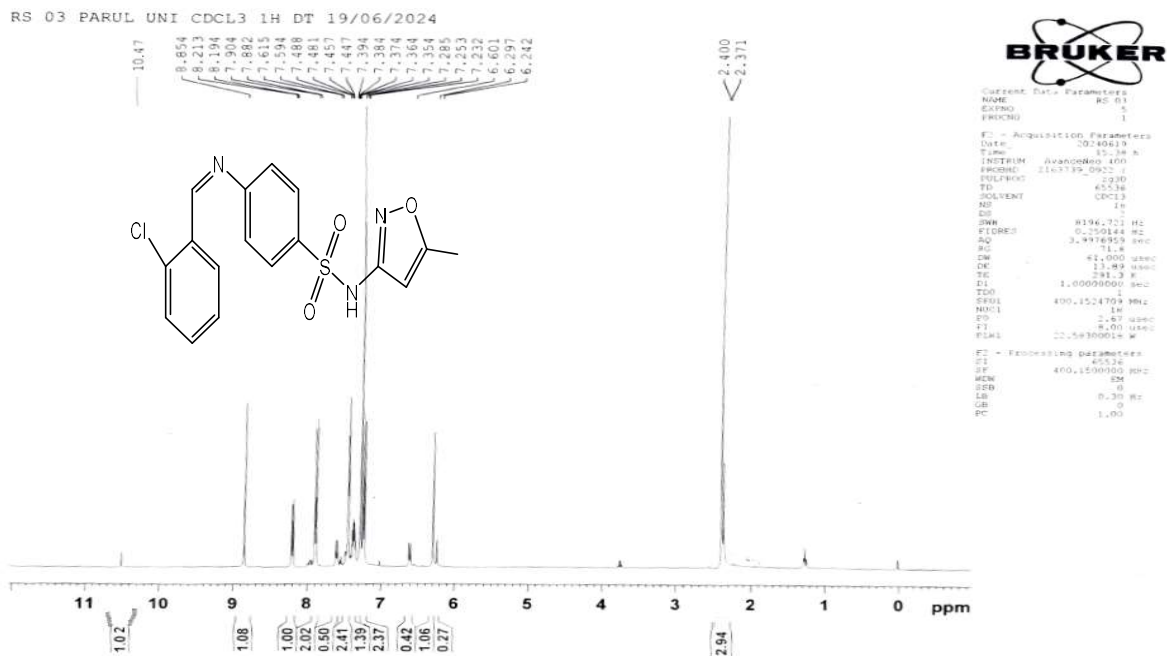


Figure 5: ^1H NMR Spectrum of compound 3c

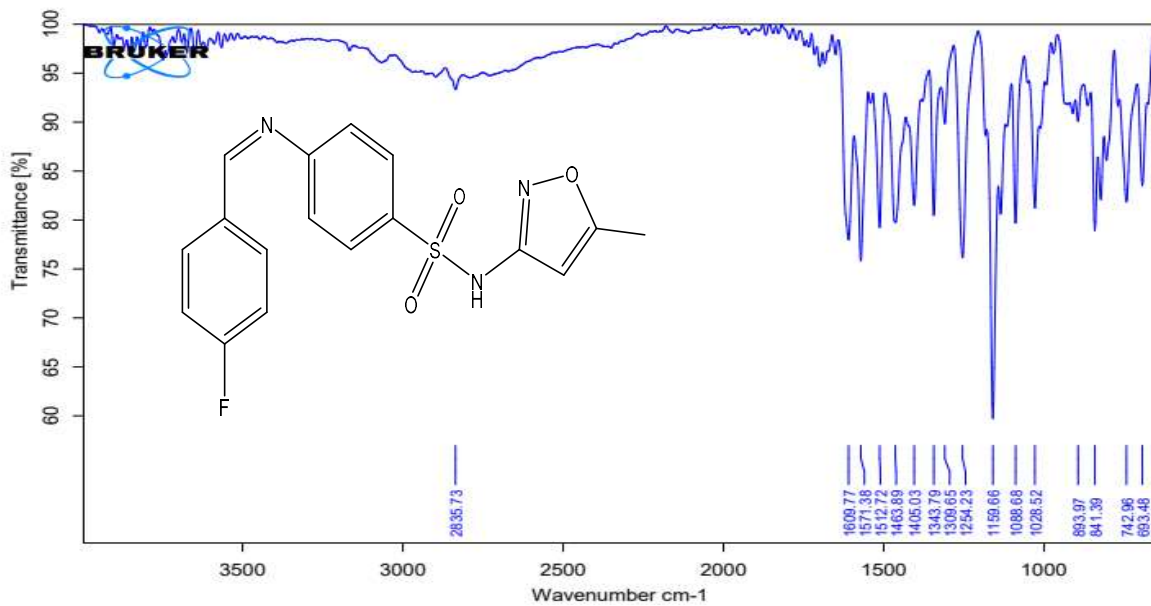


Figure 6: IR Spectrum of compound 3d

RS04
1H_8scan DMSO (D:\Spectra) nmr 9

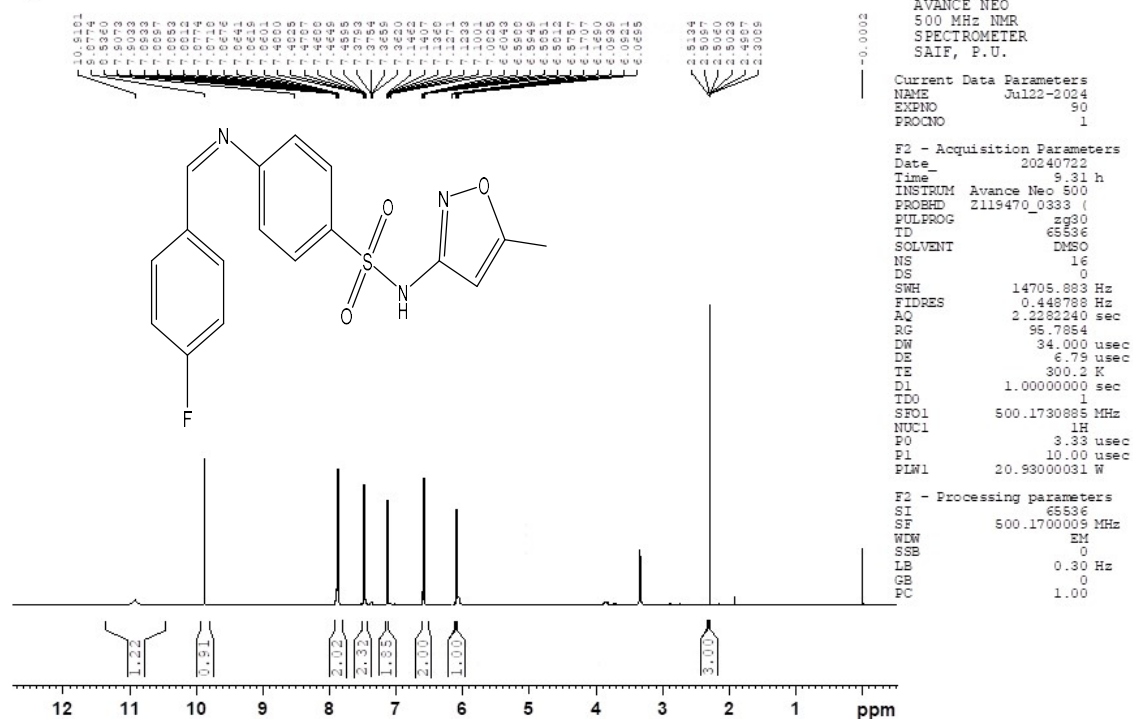


Figure 7: ¹H NMR Spectrum of compound 3d

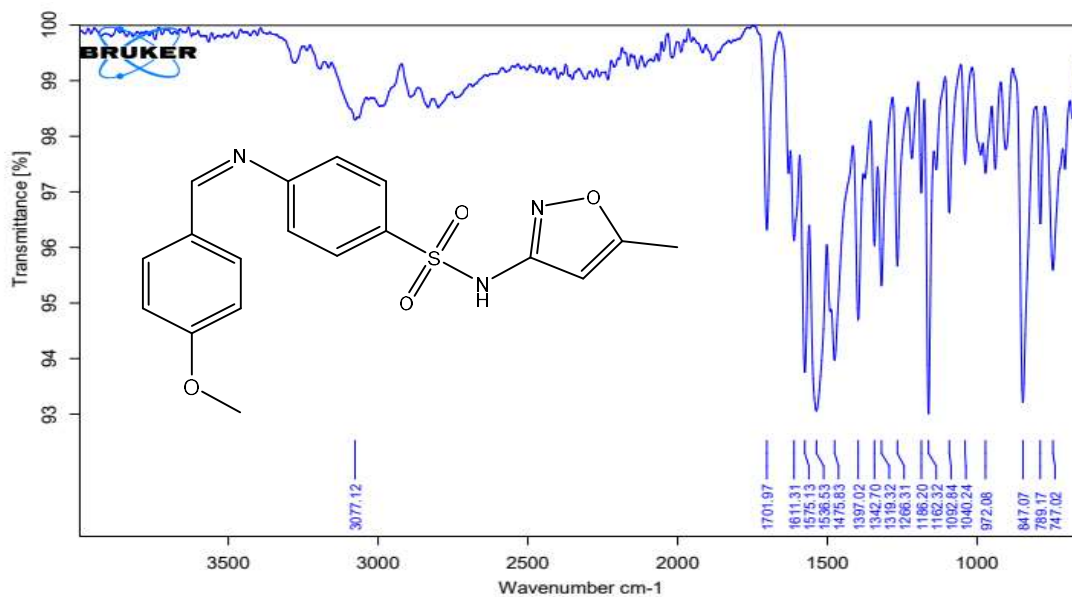


Figure 8: IR Spectrum of compound 3e

RS06
1H_8scan DMSO {D:\Spectra} nmr 10

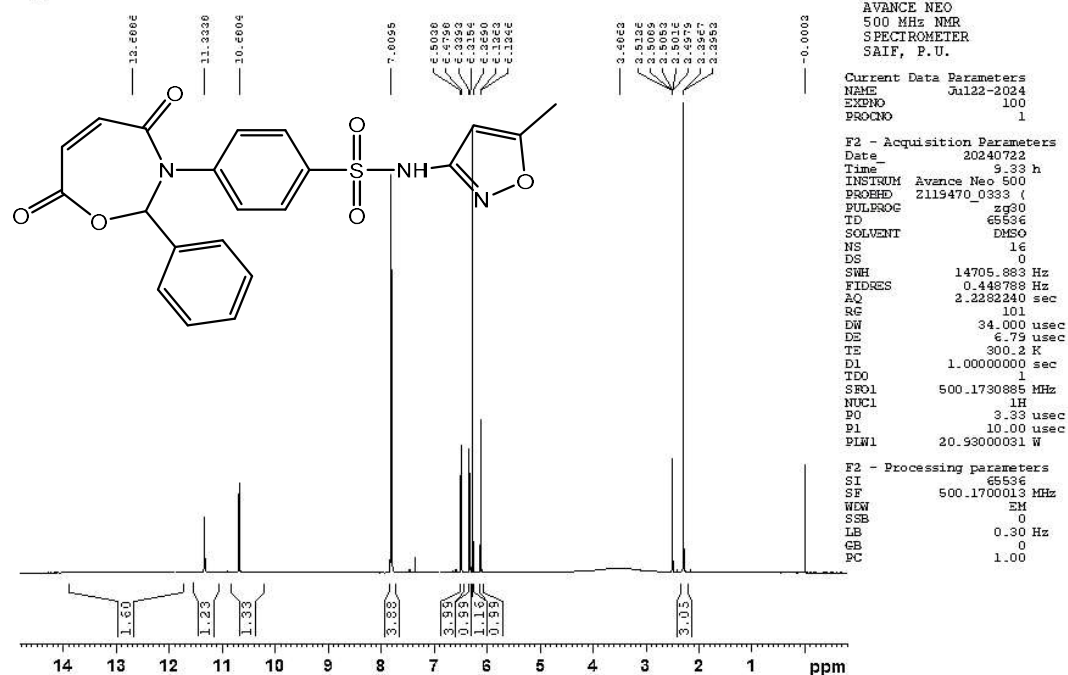


Figure 11: ¹H NMR Spectrum of compound 4a

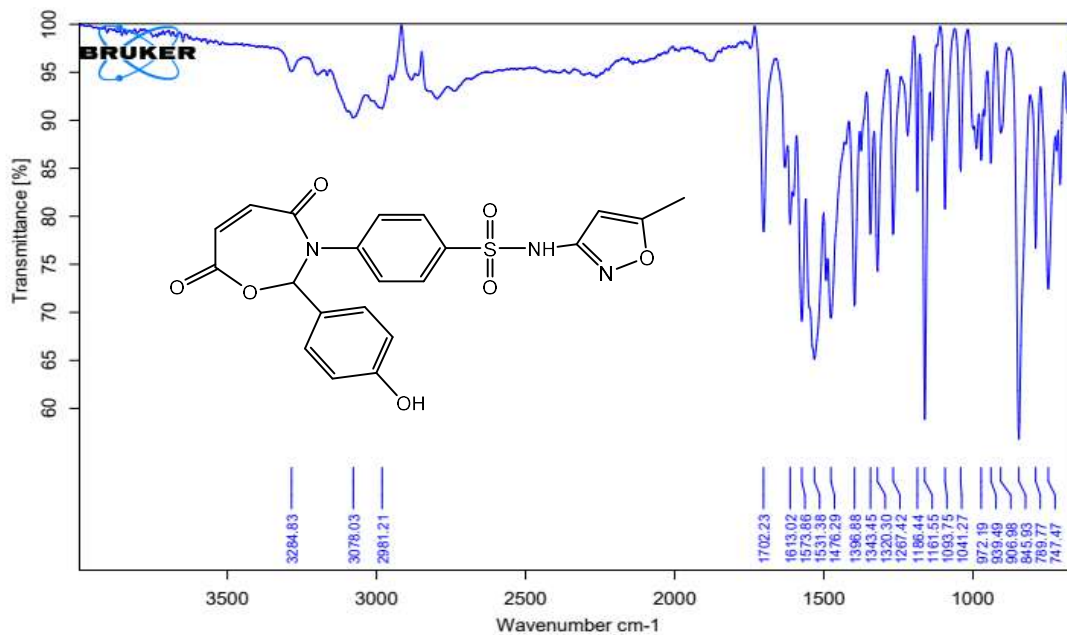


Figure 12: IR Spectrum of compound 4b

RS09
1H_scan DMSO (D:\Spectra) nmr 13

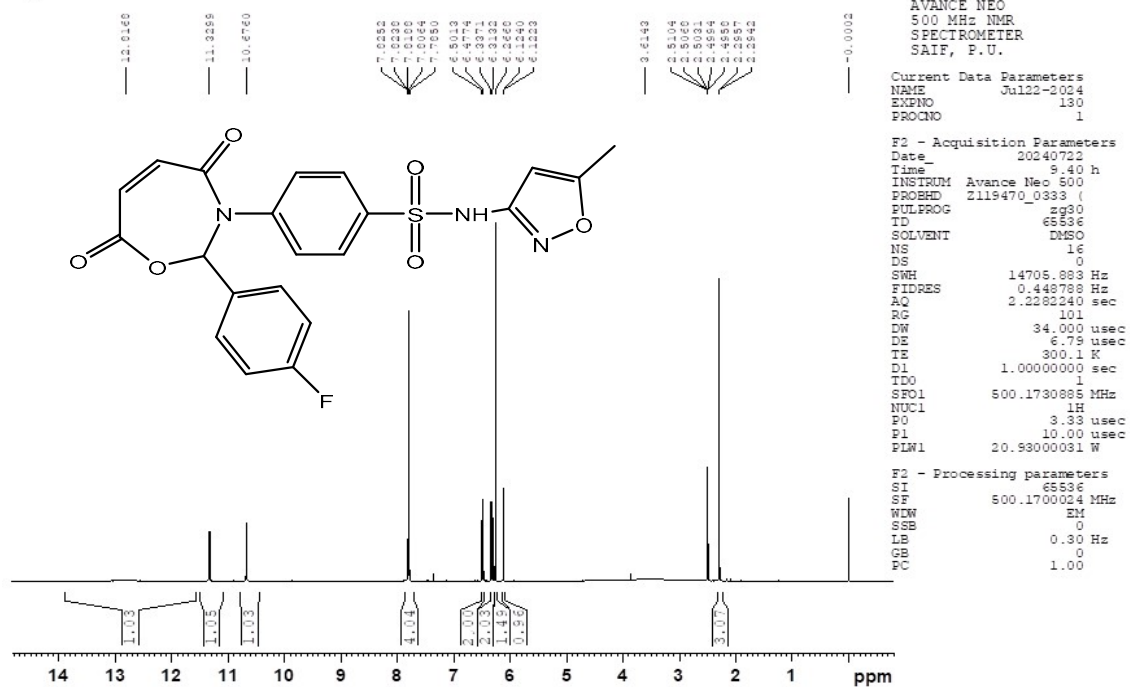


Figure 17: ¹H NMR Spectrum of compound 4d

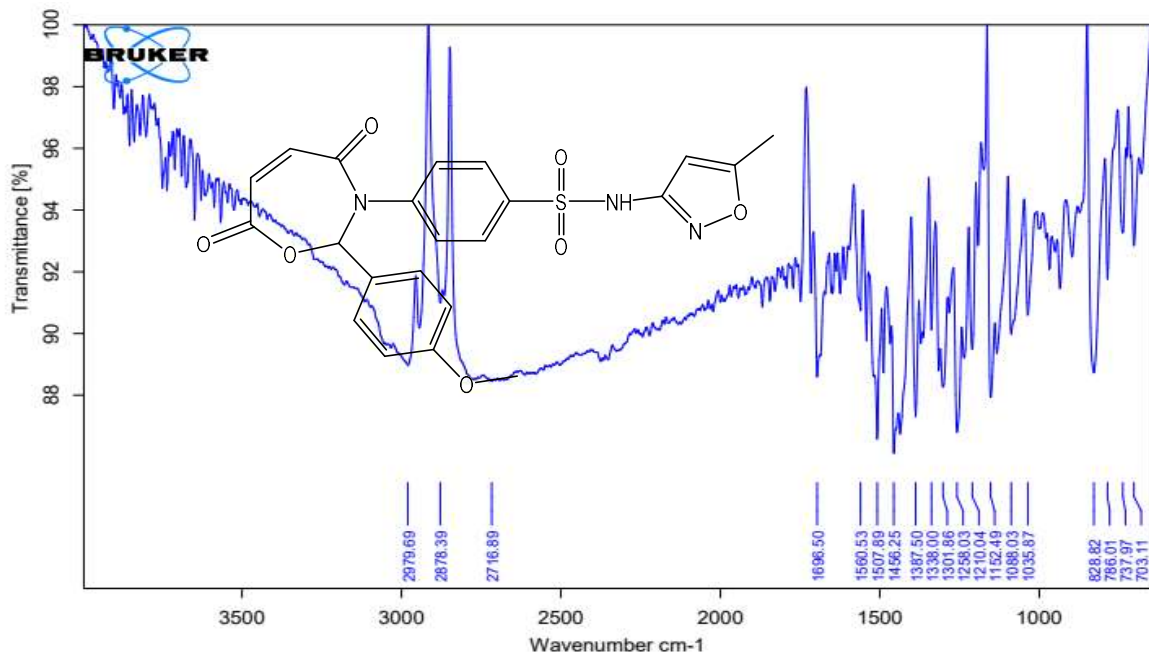


Figure 18: IR Spectrum of compound 4e

RS-10

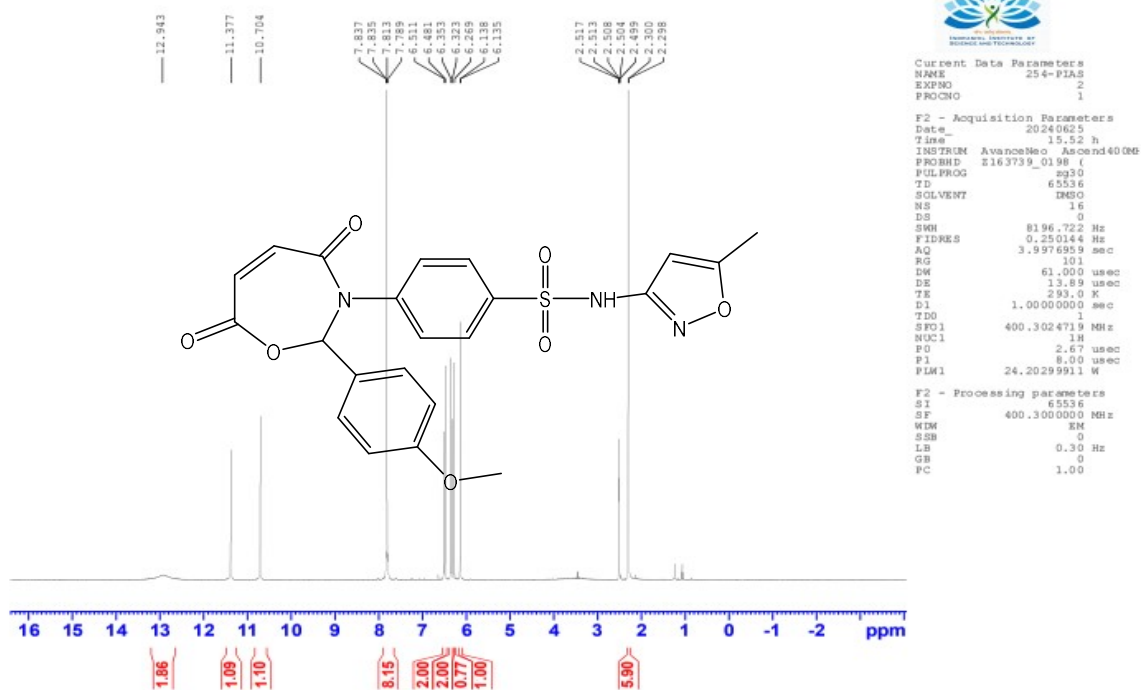


Figure 19: ¹H NMR Spectrum of compound 4e