

Prima prova scritta

Tecniche cromatografiche

Composti organici azotati

Metalli di transizione

CS  
B/B  
M  
P

Seconda prova scritta

Approccio quantitativo all'analisi chimica

Descrivere un processo industriale di sintesi chimica

Materiali polimerici

gm  
RB  
LD  
Cu

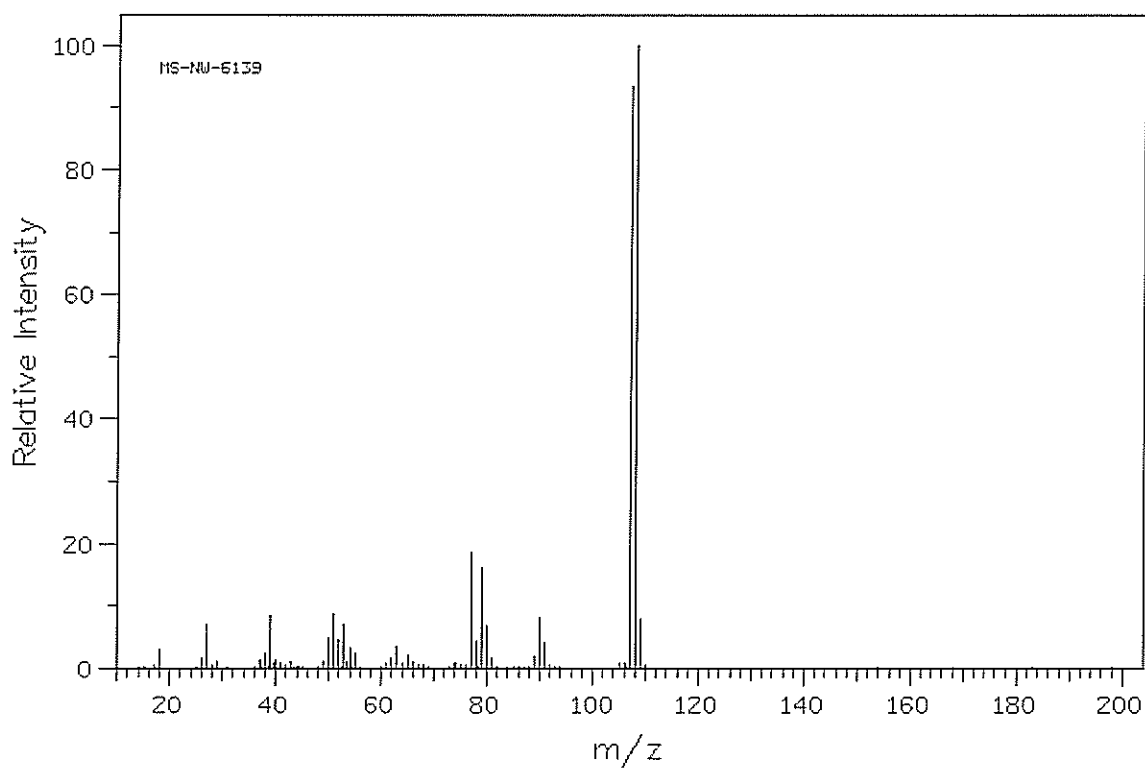
COMPOSTO 4: formula bruta C<sub>7</sub>H<sub>8</sub>O

g  
H  
O  
C

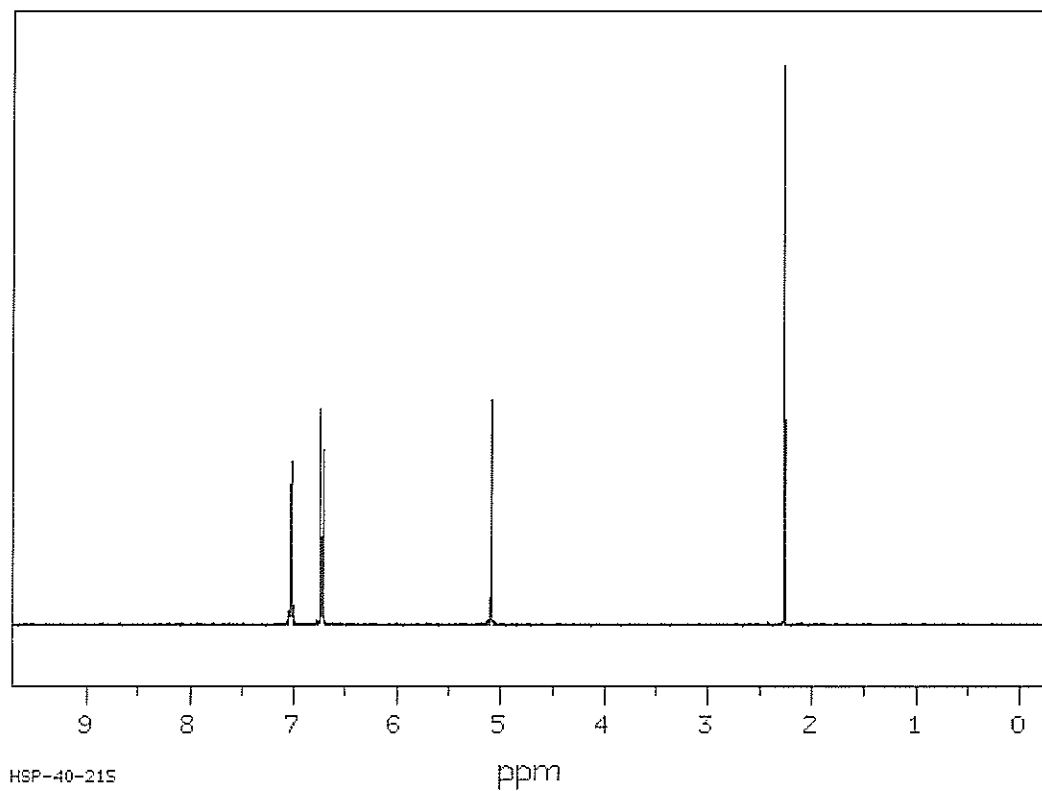
Identificare il composto dai dati presentati.  
Distinguere i due isomeri A e B spiegando le attribuzioni

ISOMERO A

Spettro di massa

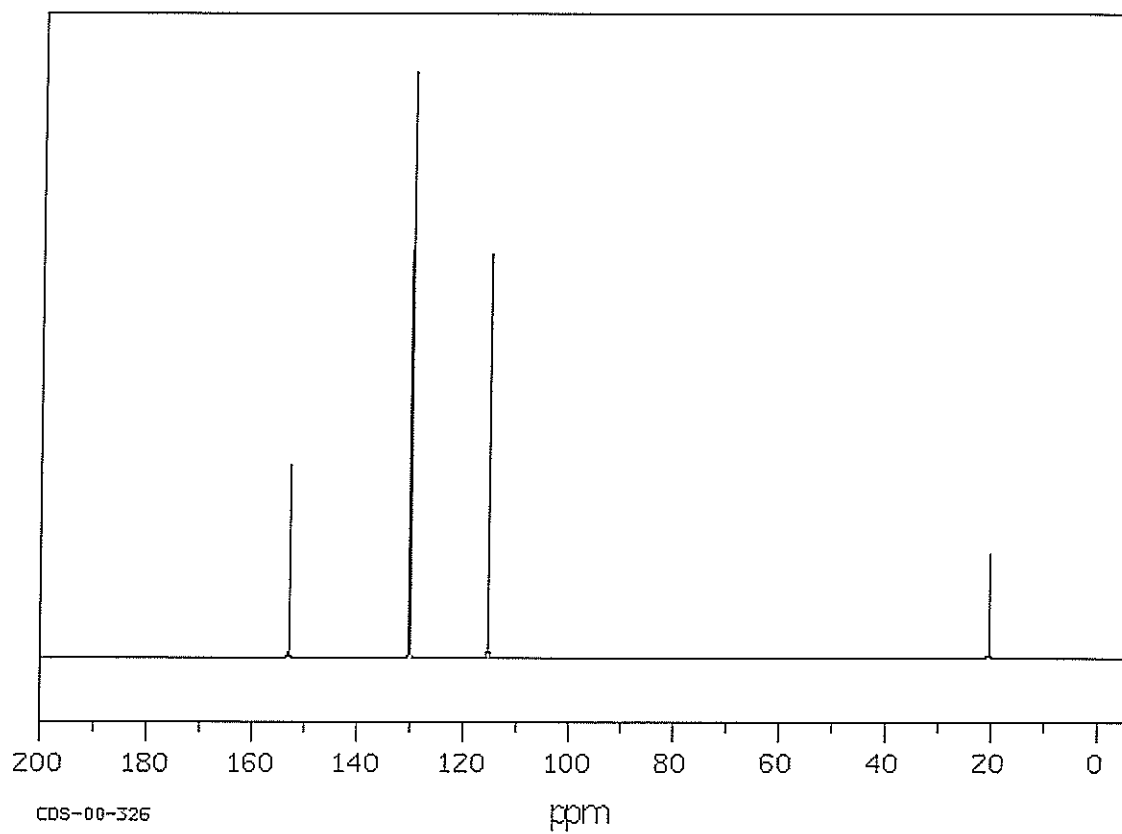


Spettro <sup>1</sup>H NMR in CDCl<sub>3</sub>

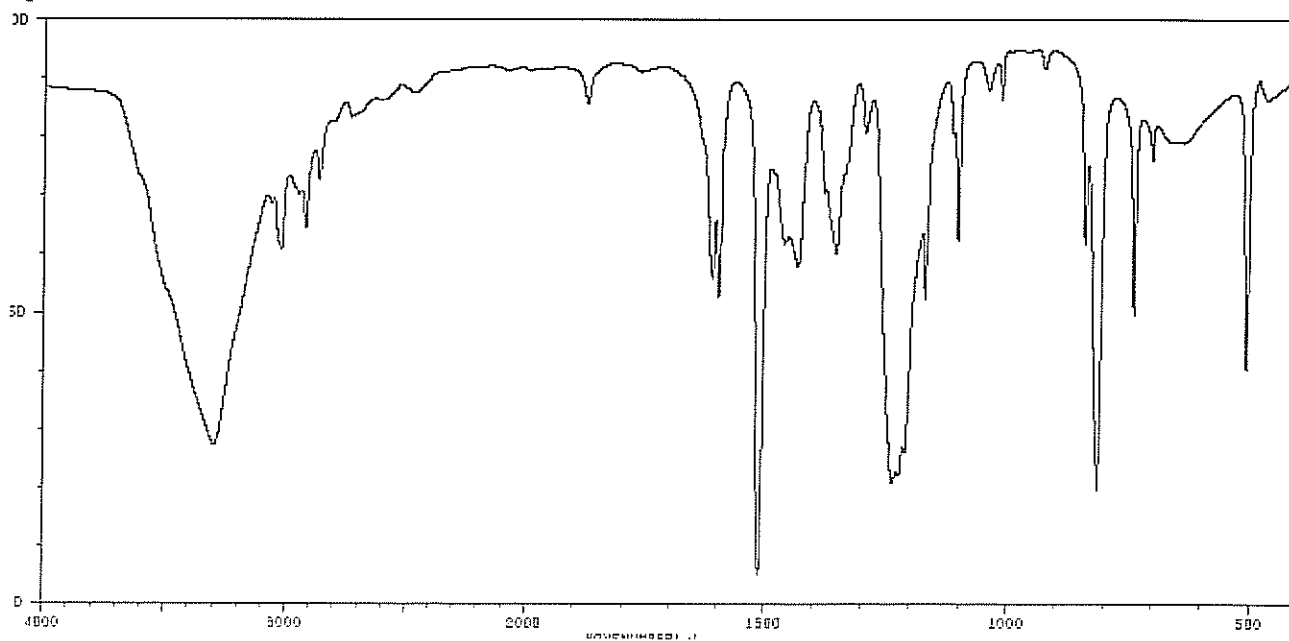


10      Cu      g

Spettro 13 C NMR in CDCl3



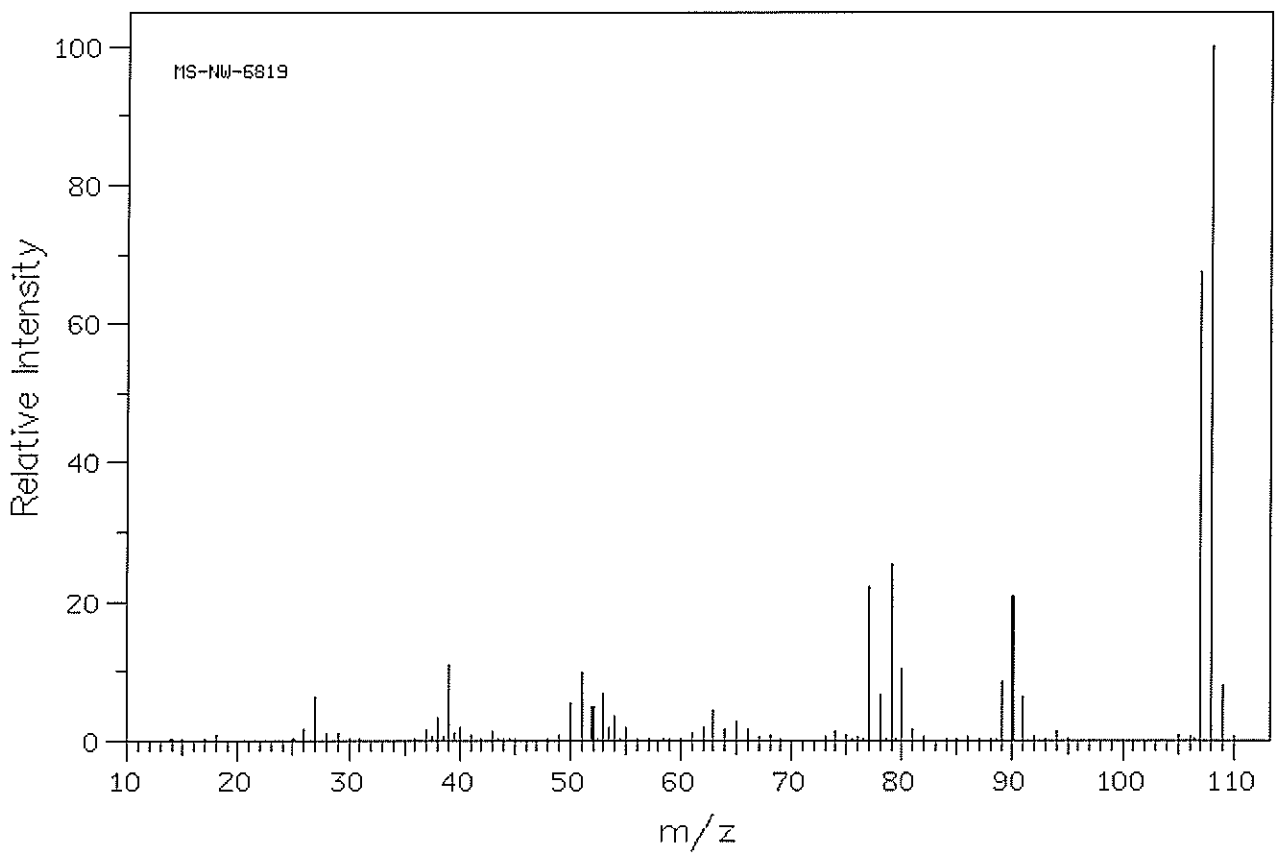
spettro FT IR in KBr



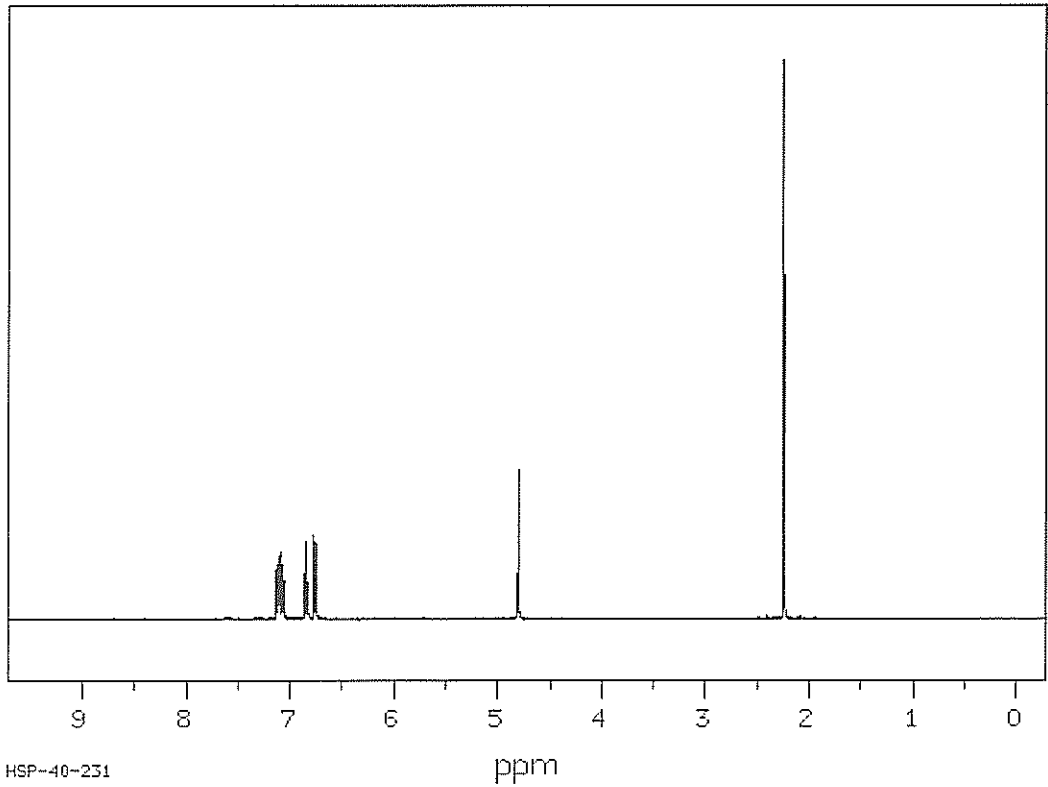
8  
AB  
Cw

ISOMERO B

Spettro di massa

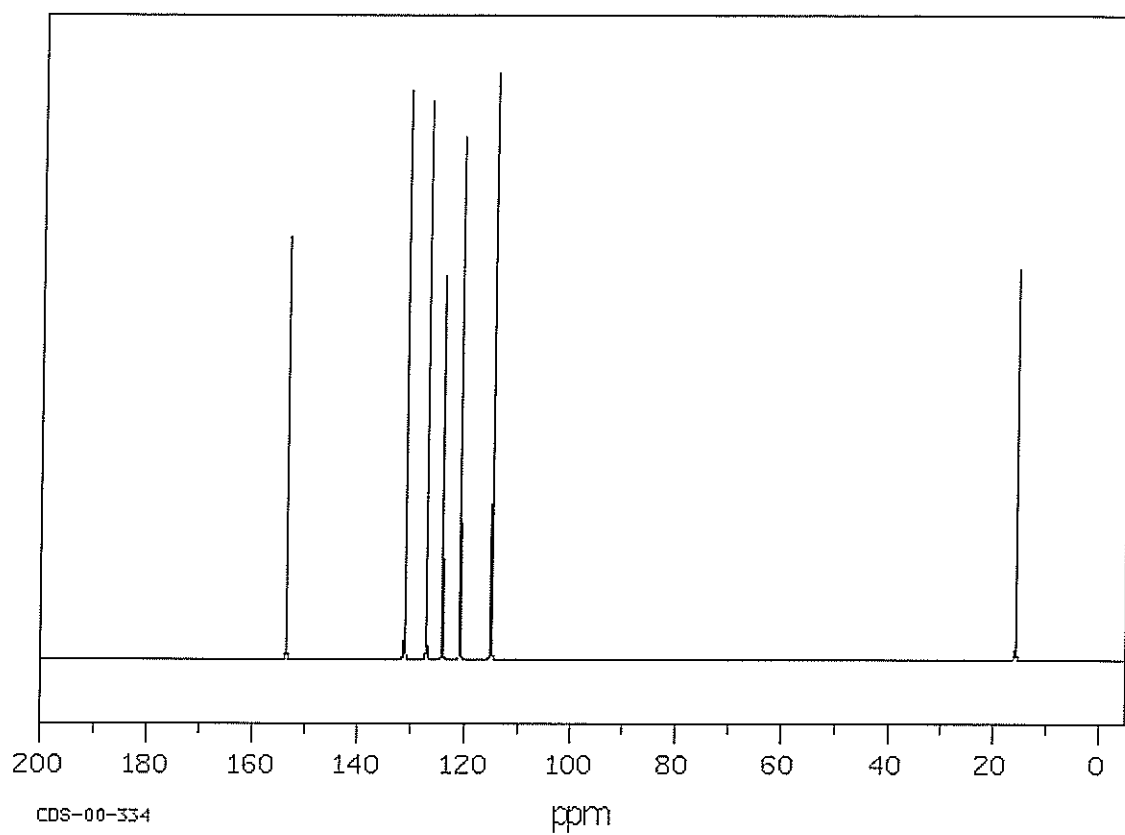


spettro  $^1\text{H}$  NMR in  $\text{CDCl}_3$

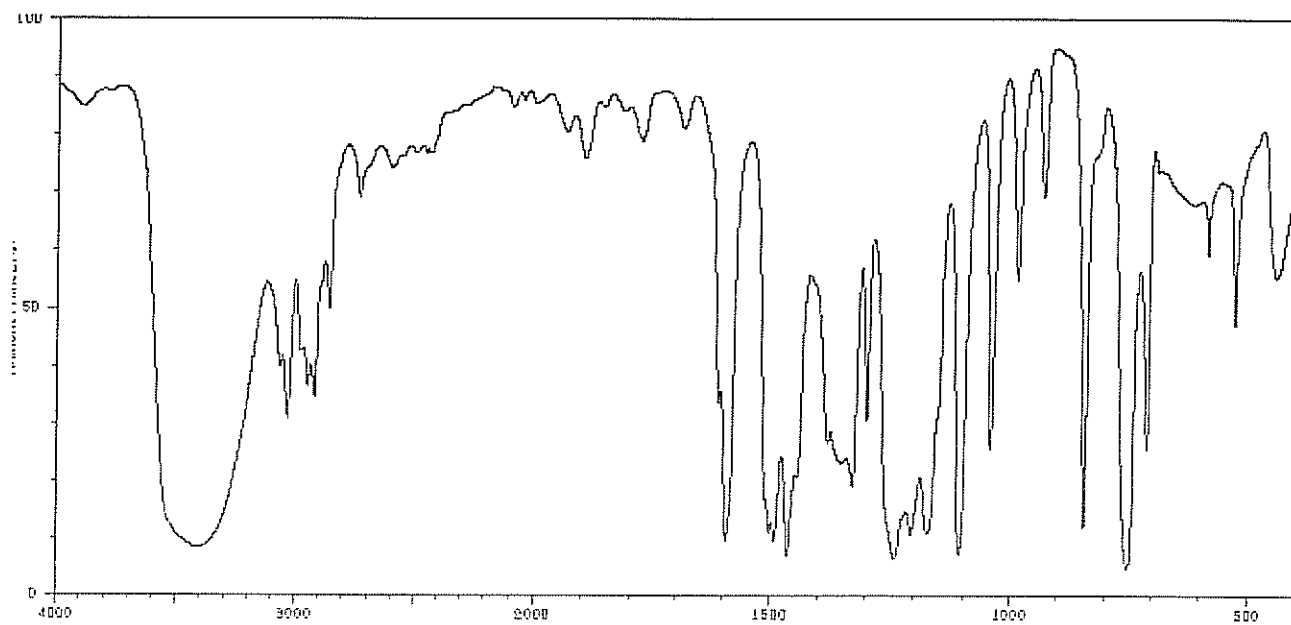


Spettro  $^{13}\text{C}$  NMR in  $\text{CDCl}_3$

4  
AB  
Cu



Spettro FT IR in film liquido

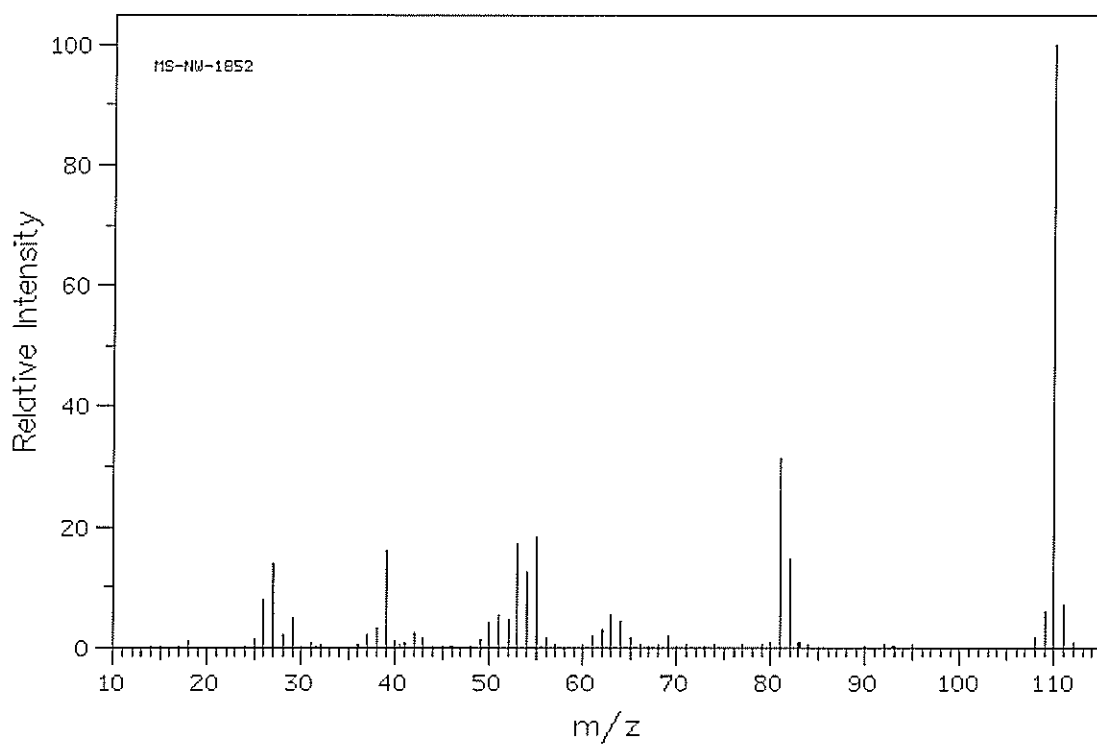


COMPOSTO 3 FORMULA BRUTA C<sub>6</sub>H<sub>6</sub>O<sub>2</sub>

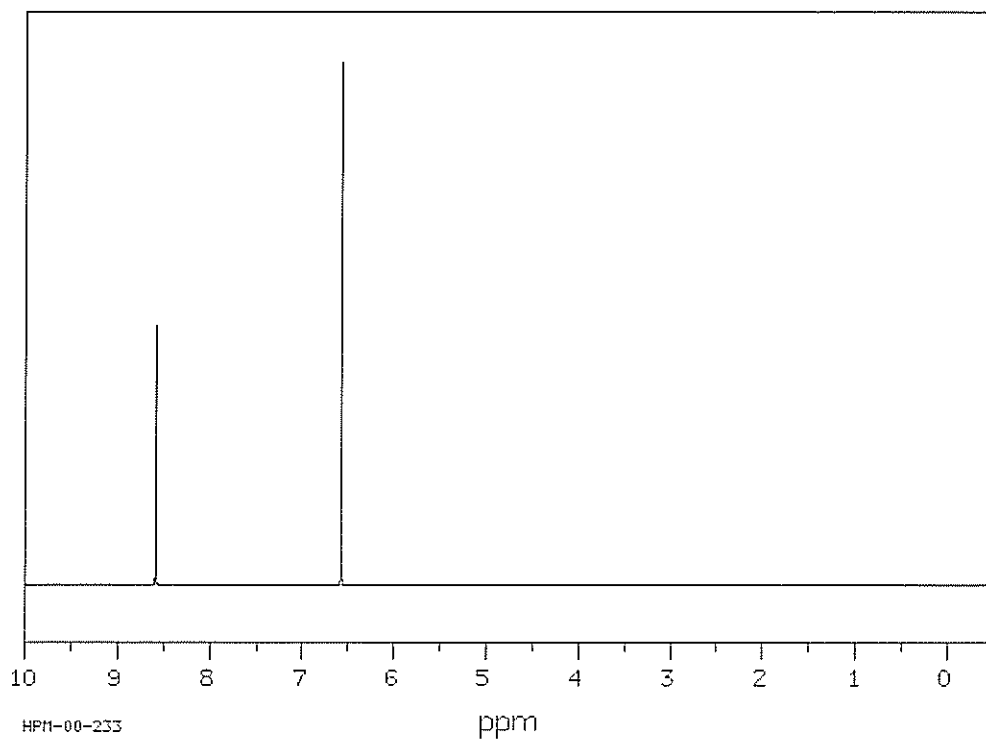
S  
PB  
Ch

Identificare il composto dai dati presentati.  
Distinguere i due isomeri A e B spiegando le attribuzioni

ISOMERO A

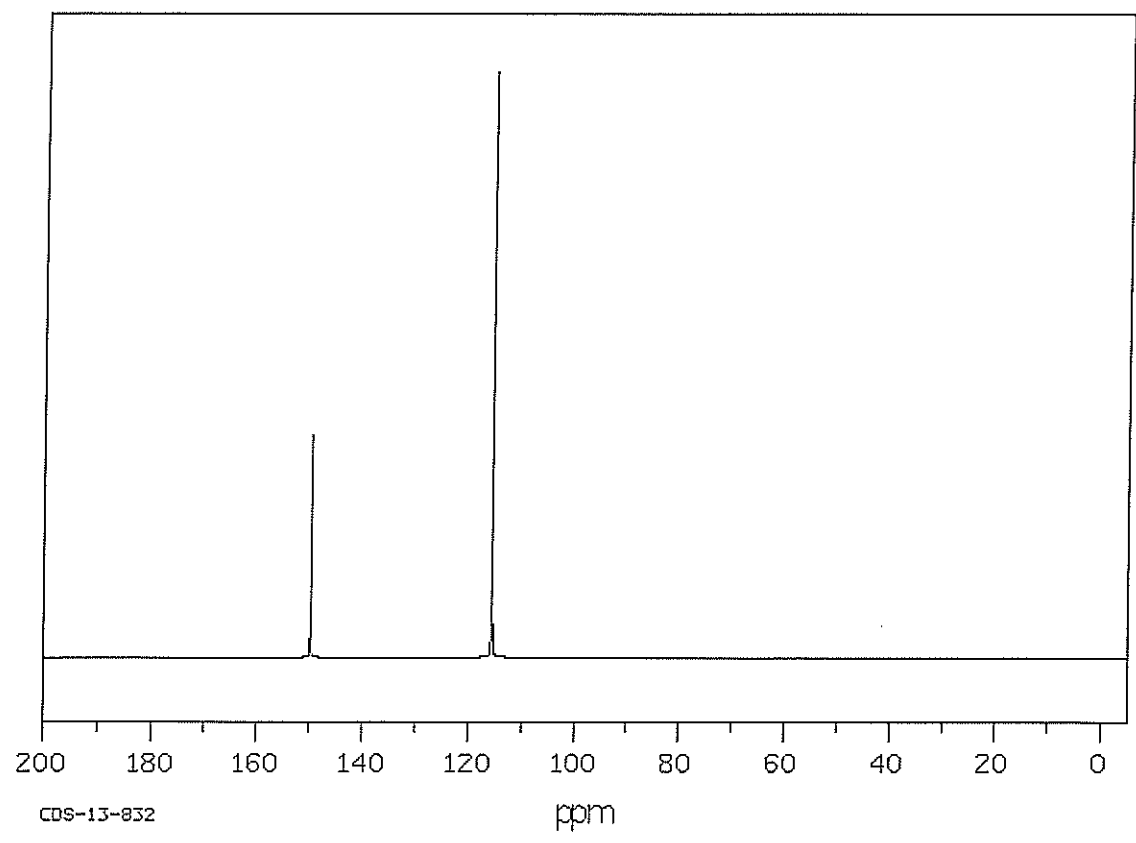


spettro <sup>1</sup>H NMR in DMSO

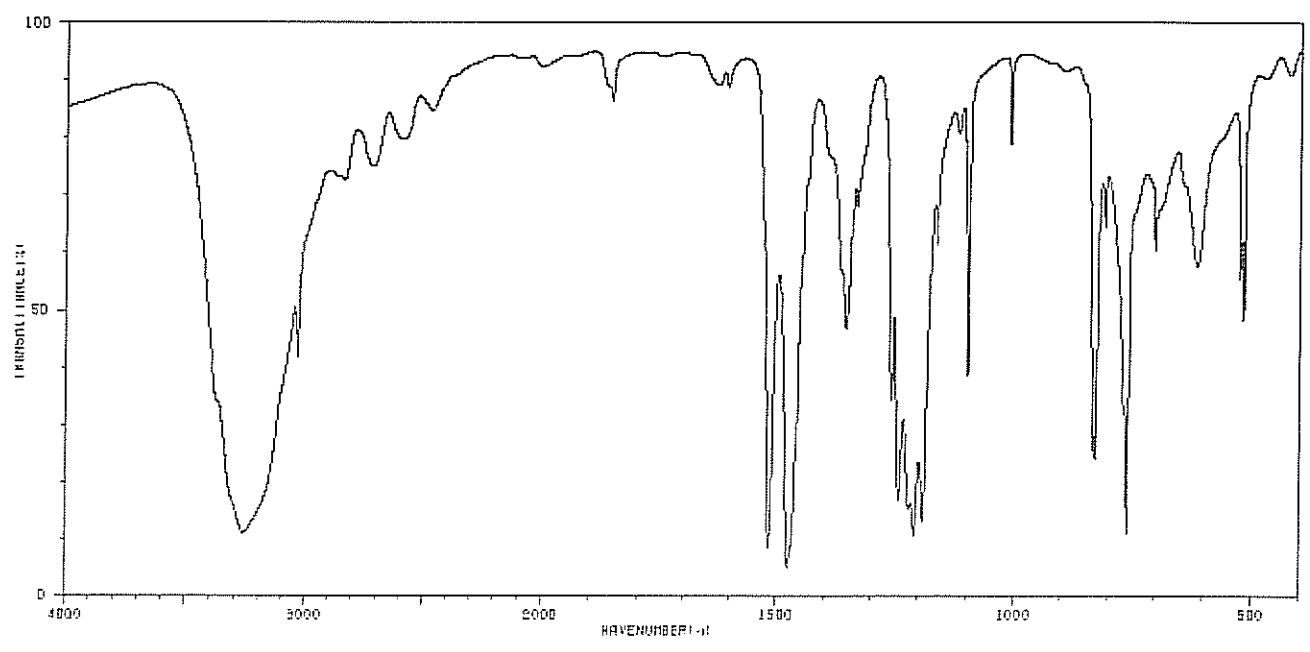


g HO  
Ch

Spettro 13 C NMR in DMSO



spettro FT IR in KBr

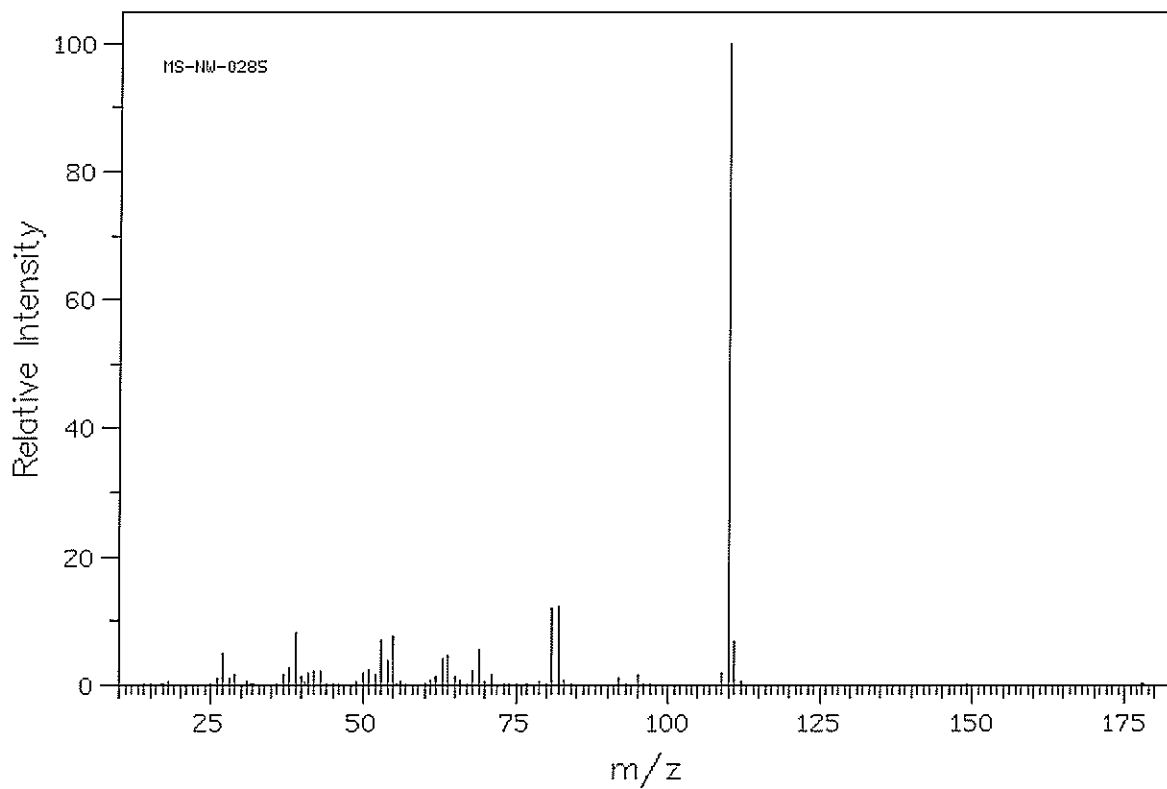




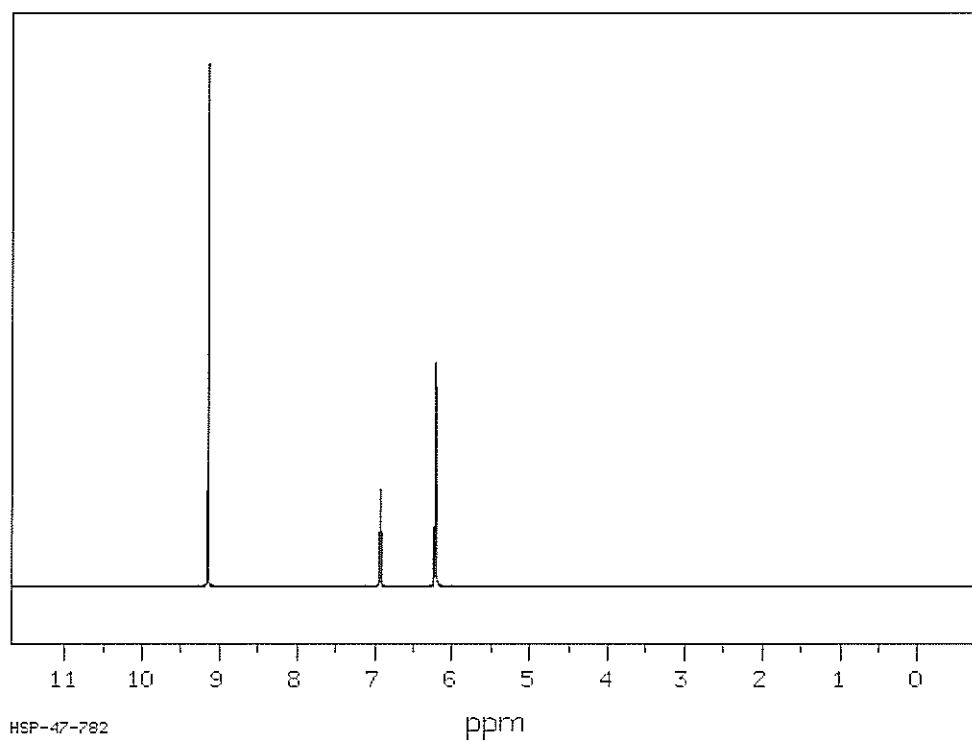
ISOMERO B

Spettro di massa

S  
Rb  
Cu

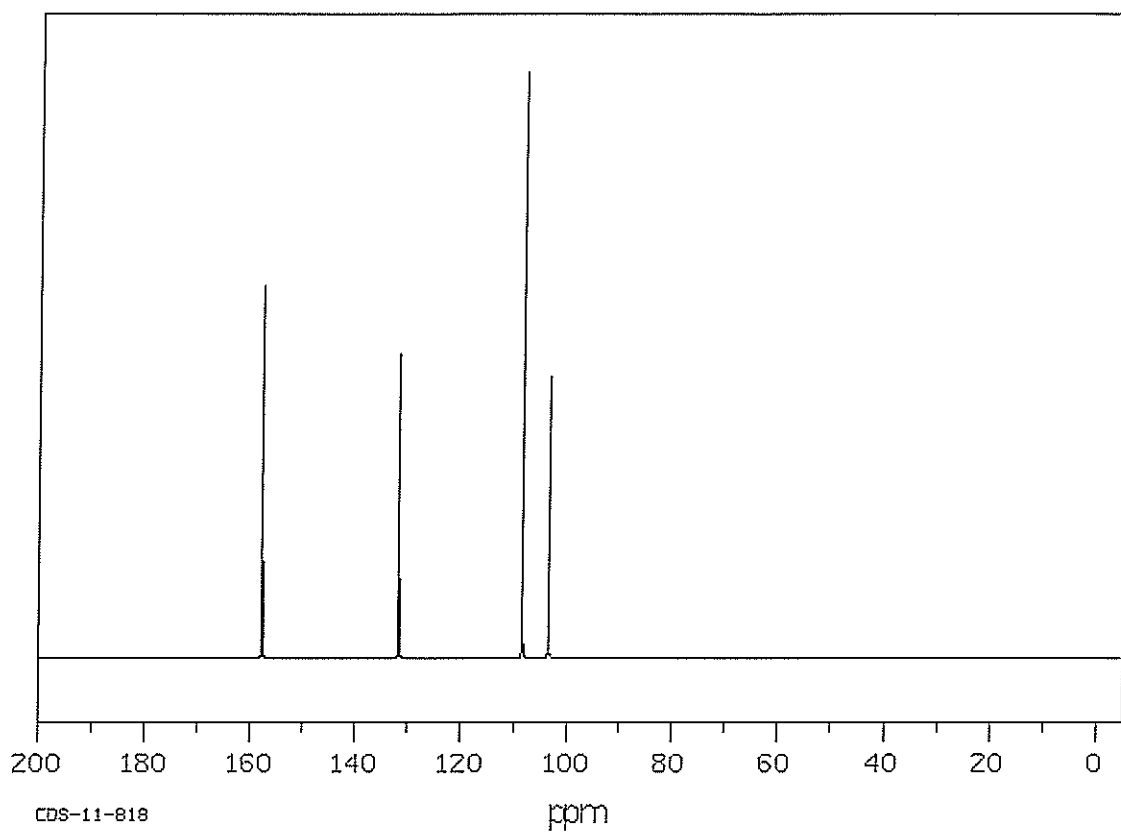


Spettro  $^1\text{H}$  NMR in DMSO



Gr  
R  
Ch

spettro  $^{13}\text{C}$  NMR



spettro FT IR in KBr

