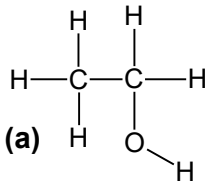
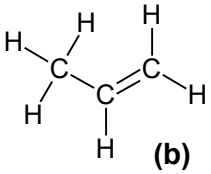
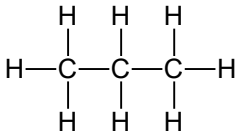
Fiche 12 : Analyse structurale de la matière par spectroscopie RMN

Exercice 1

Pour chaque molécule ci-dessous, dénombrer les groupes de protons équivalents


(a)


(b)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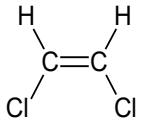
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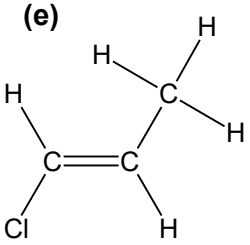
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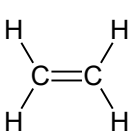
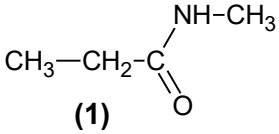
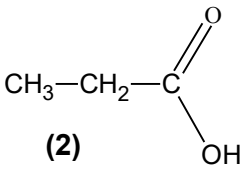

(f)

Exercice 2


(1)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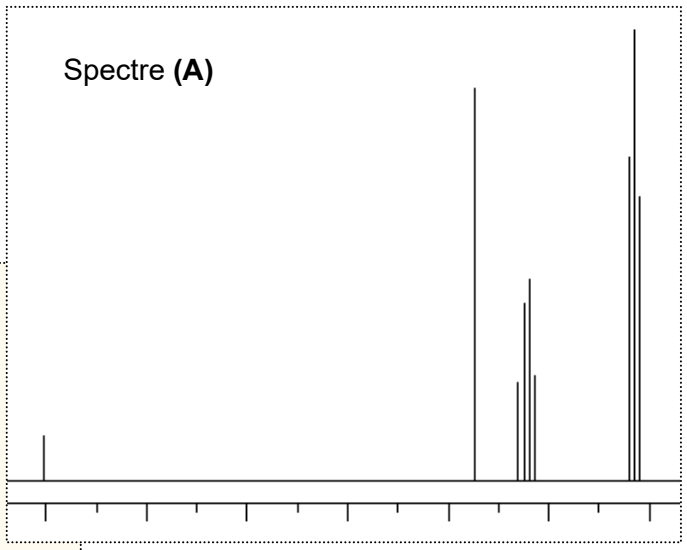
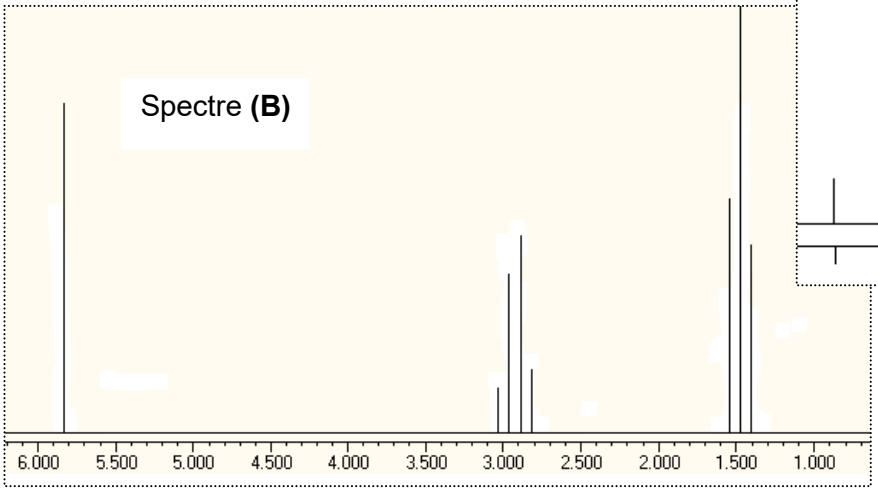
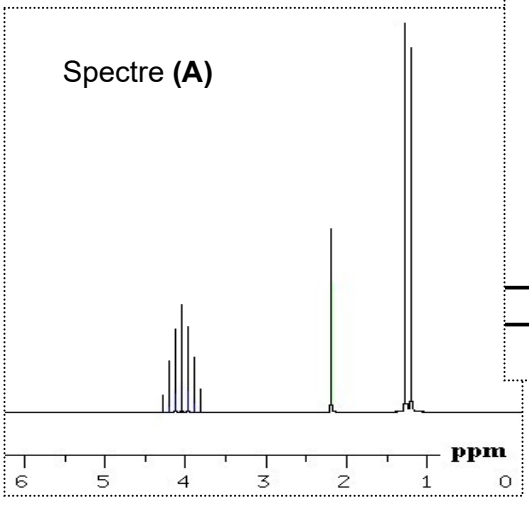
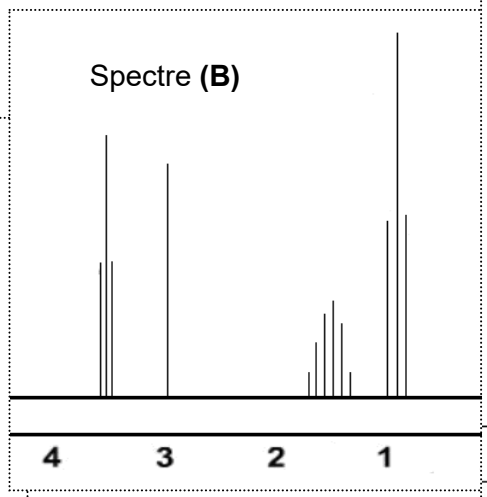
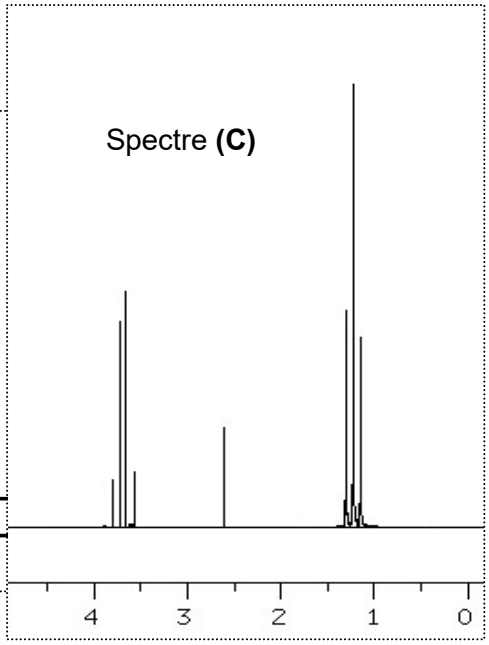




Exercice 3

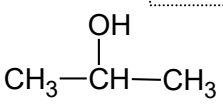






$CH_3—CH_2—OH$

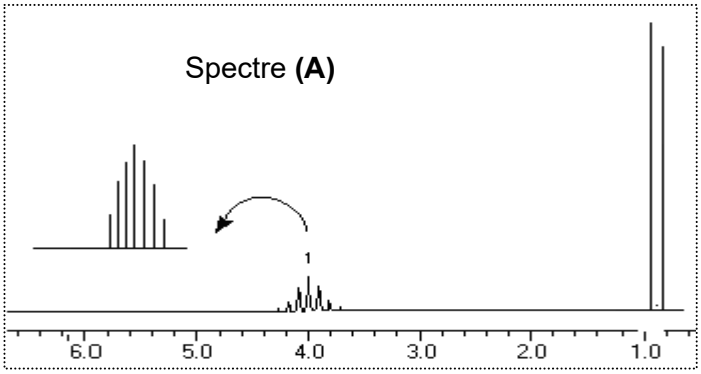
(1)

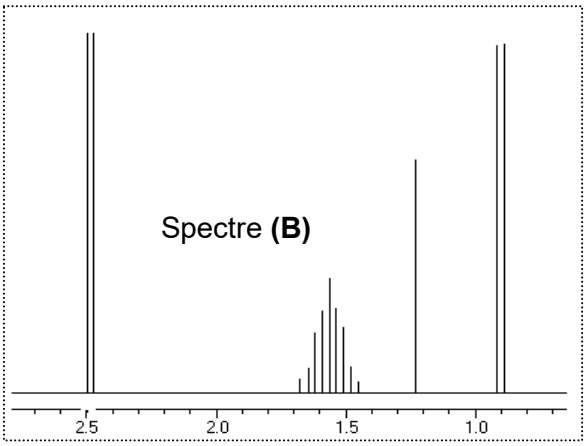

(2)

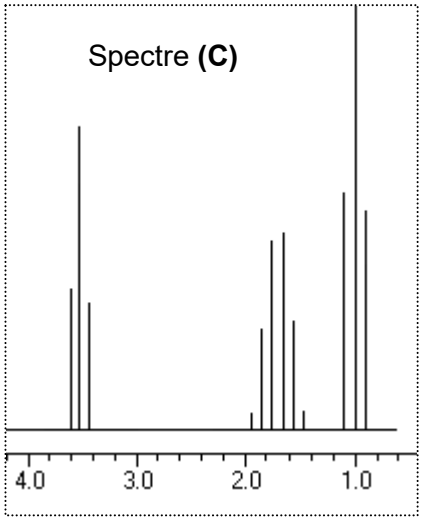
$CH_3—CH_2—CH_2—OH$

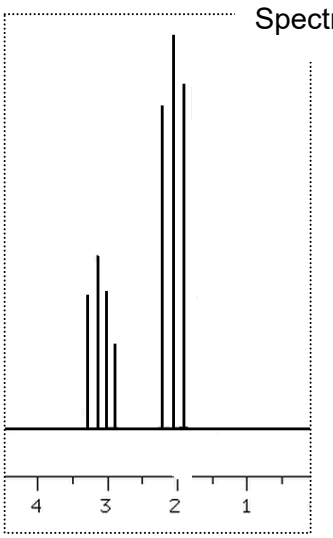
(3)

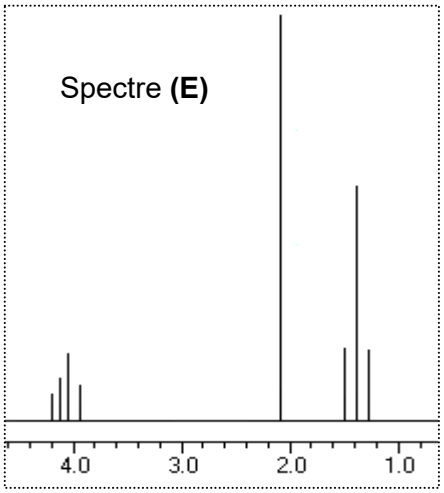
Exercice 4

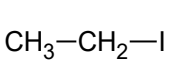




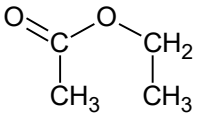








(1)



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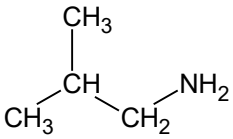

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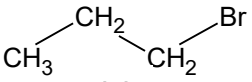

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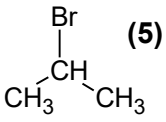
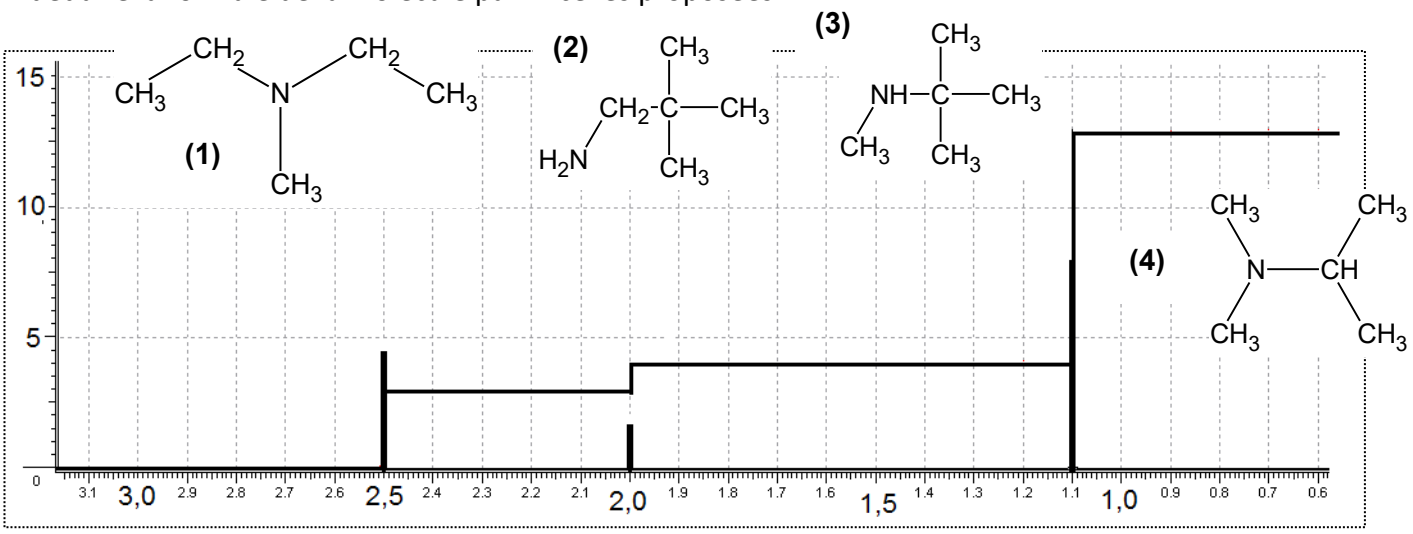


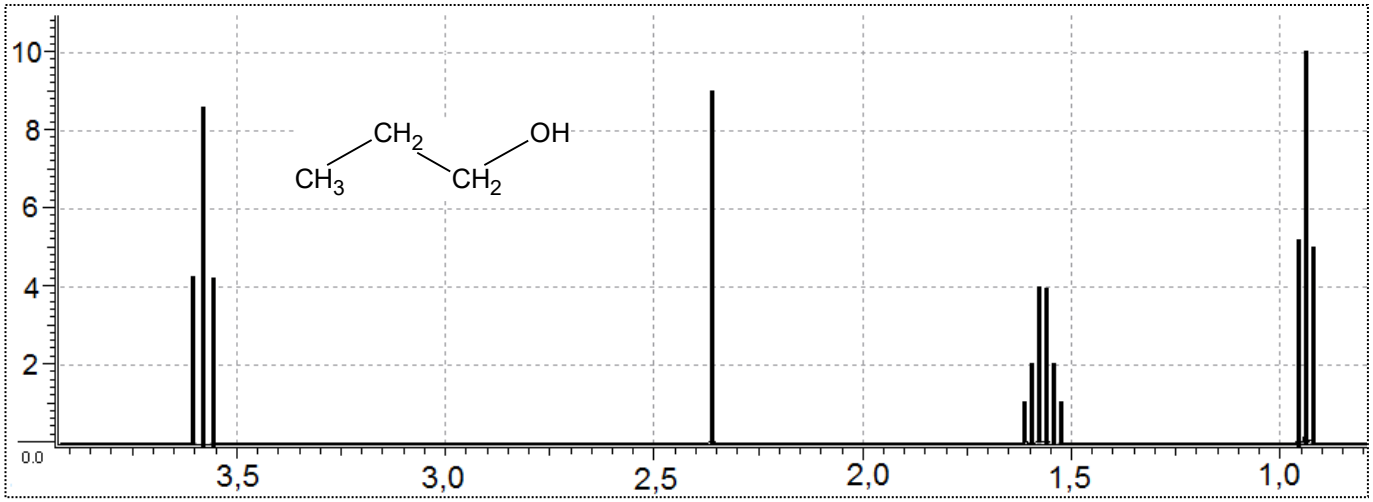
(5)

Exercice 5

Pour le spectre suivant, retrouver le nombre de protons équivalents associés à chaque signal, puis en déduire la formule de la molécule parmi celles proposées



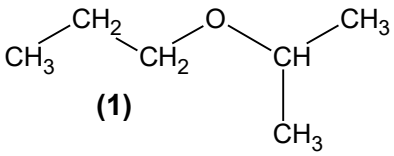
Exercice 6



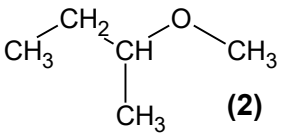
Associer à chaque groupe de protons équivalents, son signal ; dessiner sur le spectre la courbe d'intégration

Exercice 7

Associer à chaque groupe de protons équivalents, son signal



(1)



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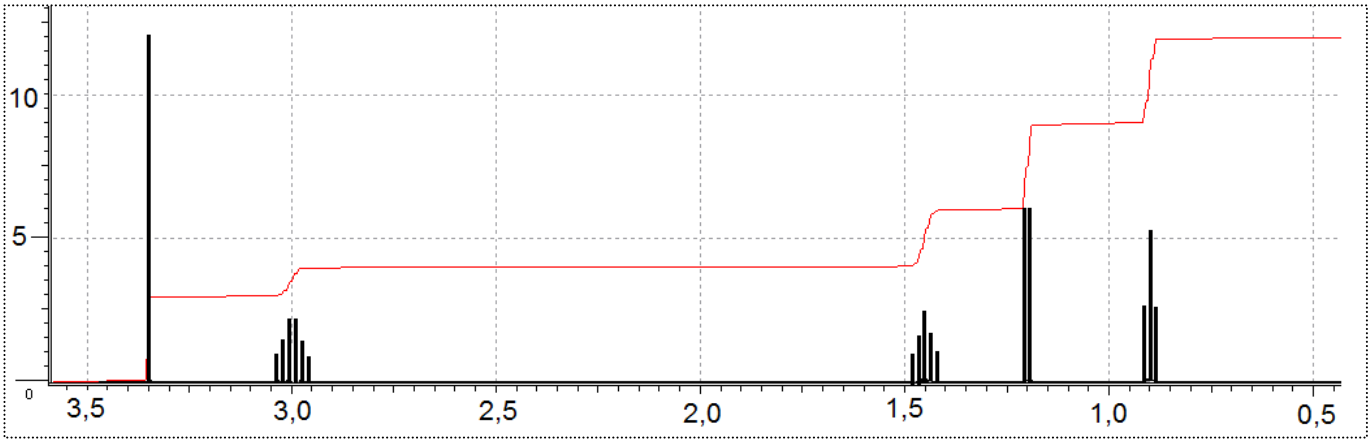
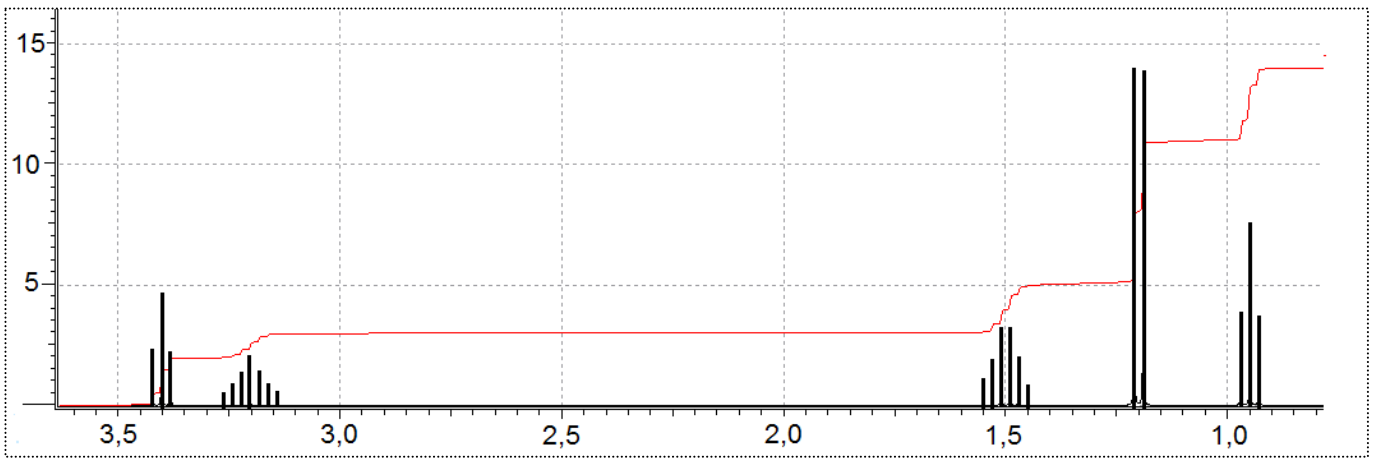
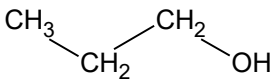




Exercice 8

(1)



(2)