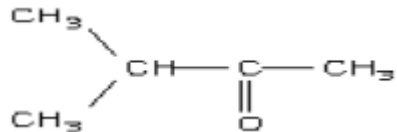


# SPECTRES RMN ET INFRAROUGE

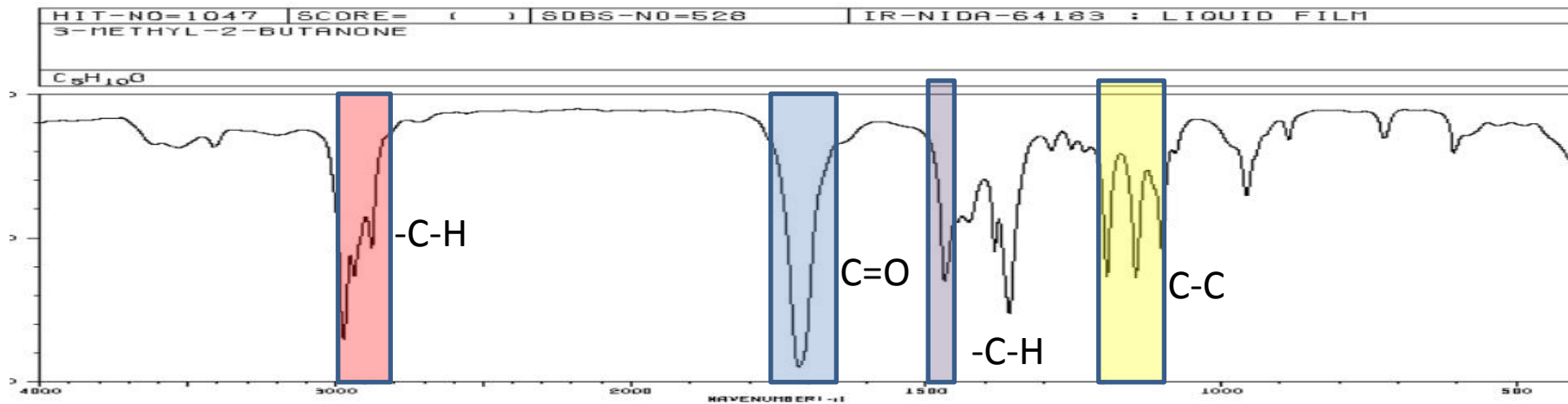
## A. SPECTRES IR



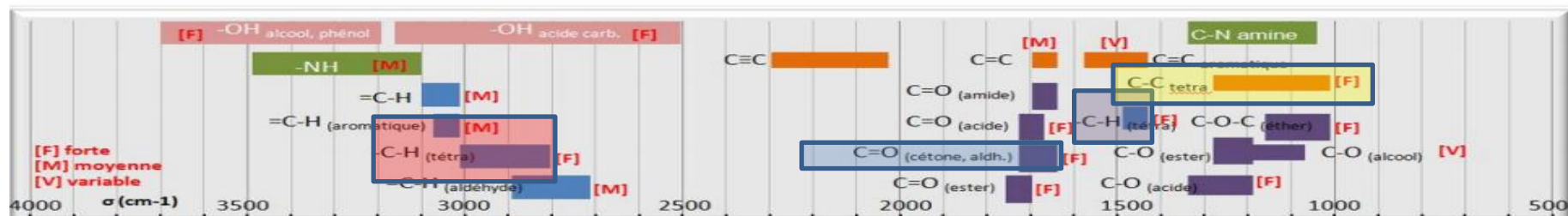
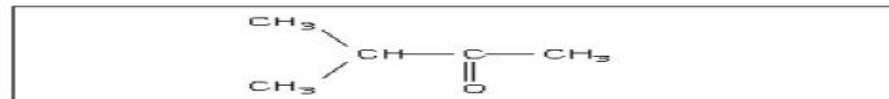
1- Compléter le tableau suivant concernant la molécule du document 1

Nom de la molécule	Fonction chimique	Nom du groupement
3-methylbutan-2-one	cétone	carbonyle

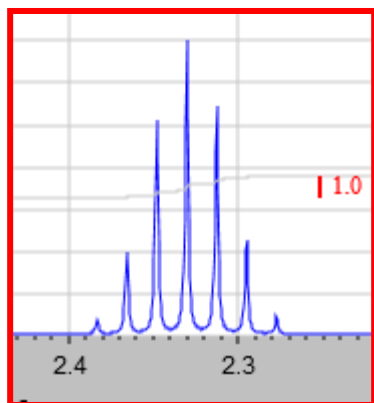
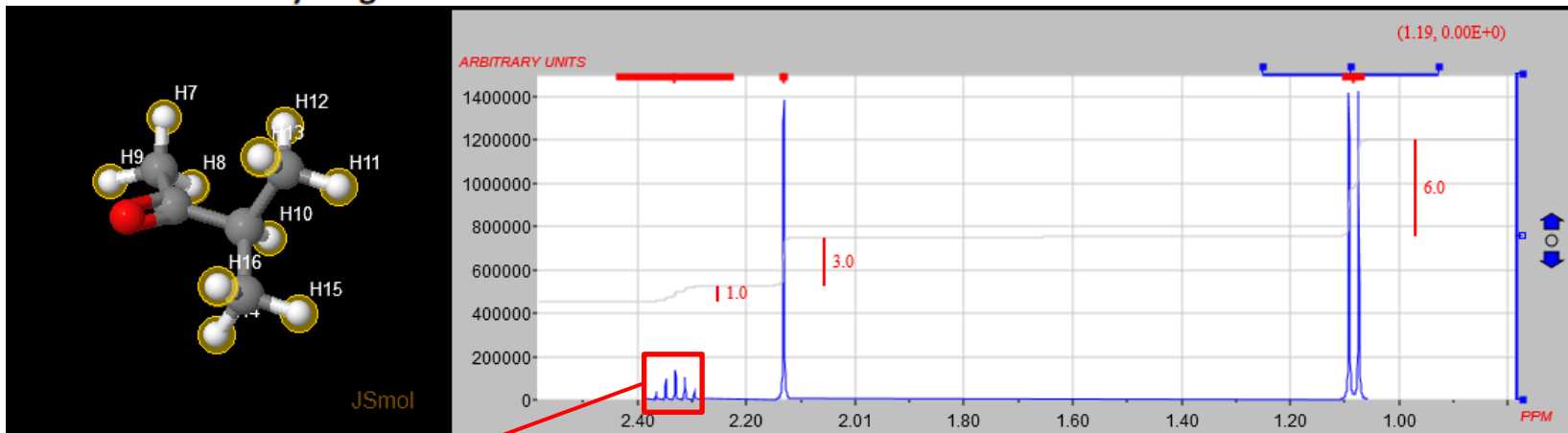
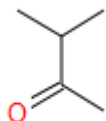
2- Identifier en le notant sur le spectre IR, 4 raies caractéristiques de cette molécule.



3631	79	1428	69	1146	34	601	79
3412	79	1384	49	1101	44	590	81
2975	13	1359	22	1070	77		
2937	35	1288	77	957	62		
2878	44	1254	77	886	81		
1716	4	1232	77	724	81		
1470	33	1194	36	607	77		



- 1- Ouvrir <http://www.jf-noblet.fr/jsmol.htm> puis spectres H-RMN/créer des spectres. Dessiner la molécule du document 1 puis passer en 3D. Demander son spectre H-RMN.
- 2- Faire numéroter les atomes d'H sur le modèle 3D puis faire correspondre en justifiant les massifs de pics avec des numéros d'atomes d'hydrogène.



7 pics : 6 voisins

Concerne l'atome H 10

1 pic : 0 voisin

Concerne les 3 atomes H: 7,8 et 9

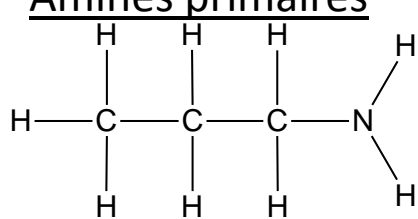
2 pics : 1 voisin

Concerne les 6 atomes H: 11,12,13 et 14,15,16

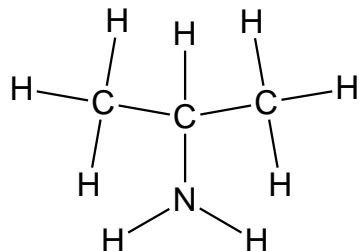
## C- des exemples d'amine

- Ouvrir le logiciel CHEMSKETCH
- Dessiner les 14 amines possédant 3 atomes de carbones avec leur nom et les importer dans un fichier Word ou Powerpoint en les classant par amines primaires, secondaires et tertiaire.

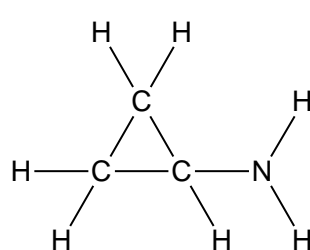
### Amines primaires



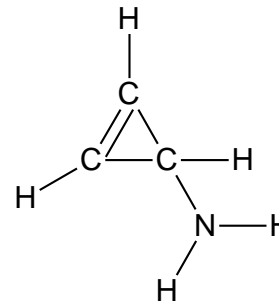
propan-1-amine



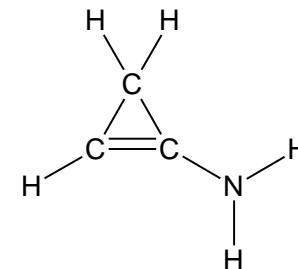
propan-2-amine



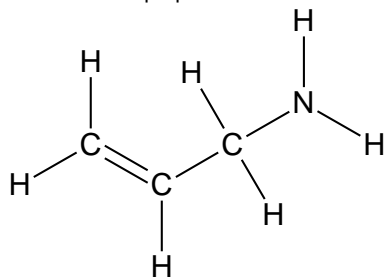
cyclopropanamine



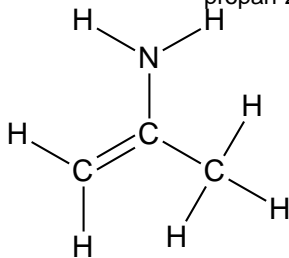
cycloprop-2-en-1-amine



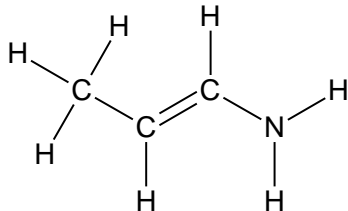
cycloprop-1-en-1-amine



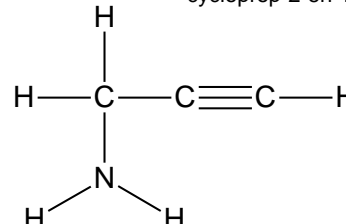
prop-2-en-1-amine



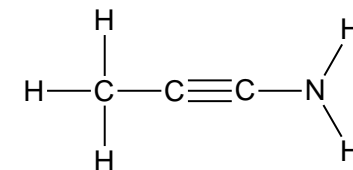
prop-1-en-2-amine



(1E)-prop-1-en-1-amine

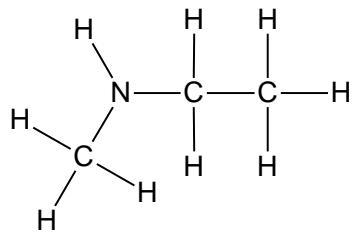


prop-2-yn-1-amine

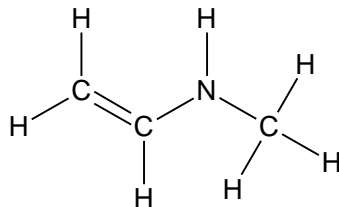


prop-1-yn-1-amine

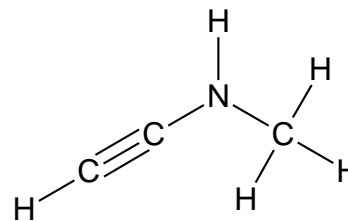
### Amines secondaires



N-methylethanamine

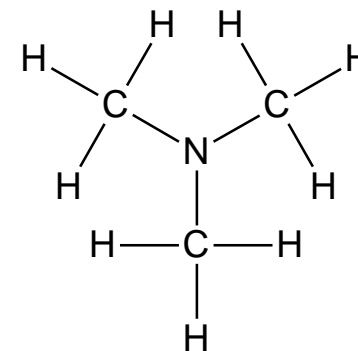


N-methylethenamine



N-methylethyamine

### Amines tertiaires



N,N-dimethylmethanamine