

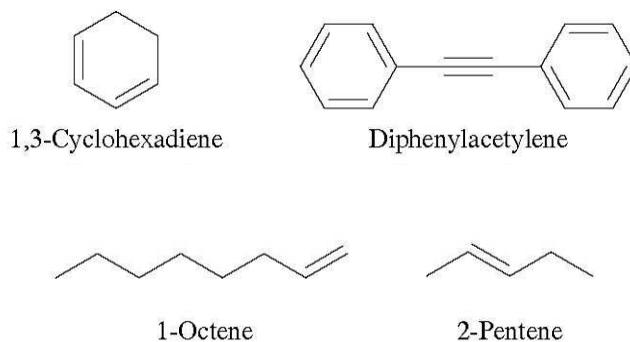
# Übungen zum IR Kurs

## Aufgaben 1-10:

Ordnen sie die wichtigsten Banden in den IR Spektren zu. Die Spektren gehören zu den gleichen Verbindungen wie im NMR-Kurs (Aufgaben 1-10).

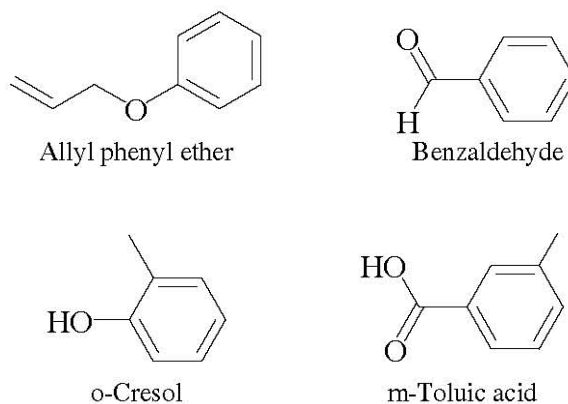
## Aufgabe 11:

Ordnen sie die folgenden Verbindungen den Spektren A-D zu. Benennen sie die wichtigsten Banden.



## Aufgabe 12:

Ordnen sie die folgenden Verbindungen den Spektren A-D zu. Benennen sie die wichtigsten Banden.



## Aufgabe 13:

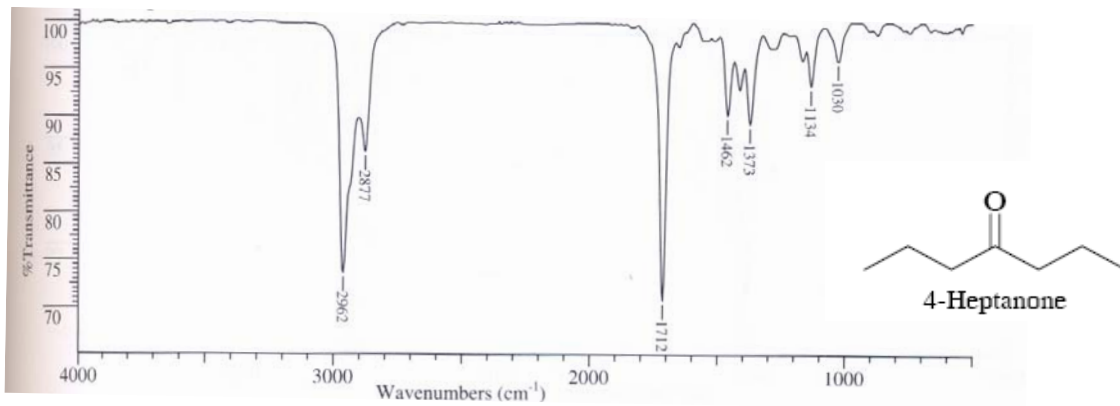
Wählen sie je eine Verbindung, die am Besten zu den folgenden IR-Banden passt (es sind nur die wichtigsten Banden angegeben).

Benzoessäure Isobutylamin Ameisensäure Biphenyl

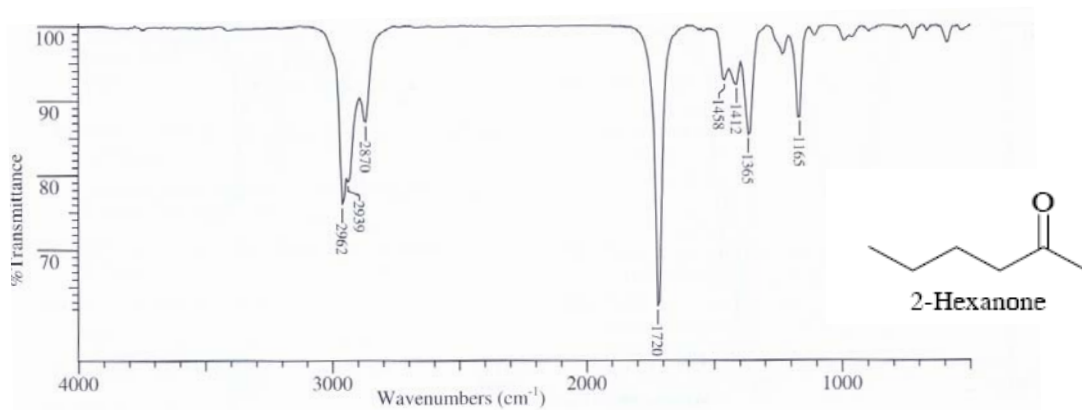
- a) 3380 (m), 3300 (m), nichts 3200-3000, 2980 (s), 2870 (m), 1610 (m), ~900-700 (b)
- b) 3030 (m), 730 (s), 690 (s)
- c) 2900 (b,s), 1720 (b,s)
- d) 3200-2400 (s), 1685 (b,s), 705 (s)

s=stark, m=mittel, w=schwach (weak), b=breit

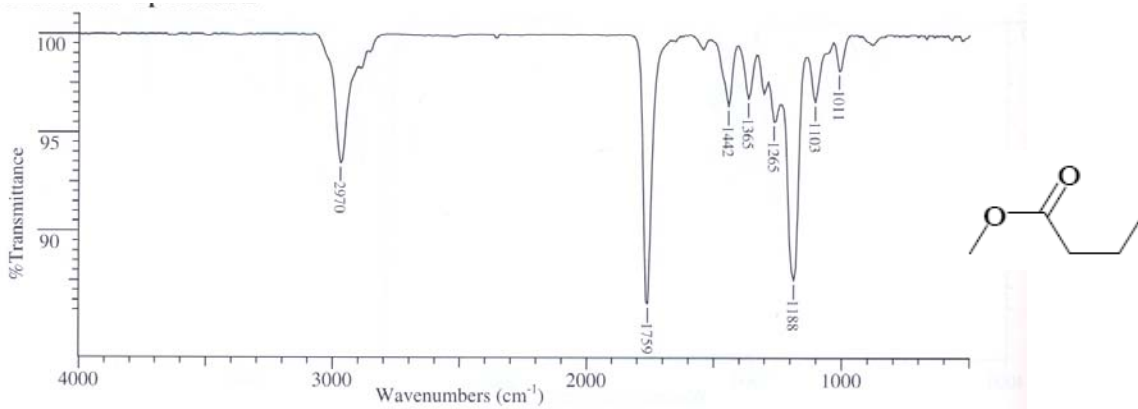
### Aufgabe 1



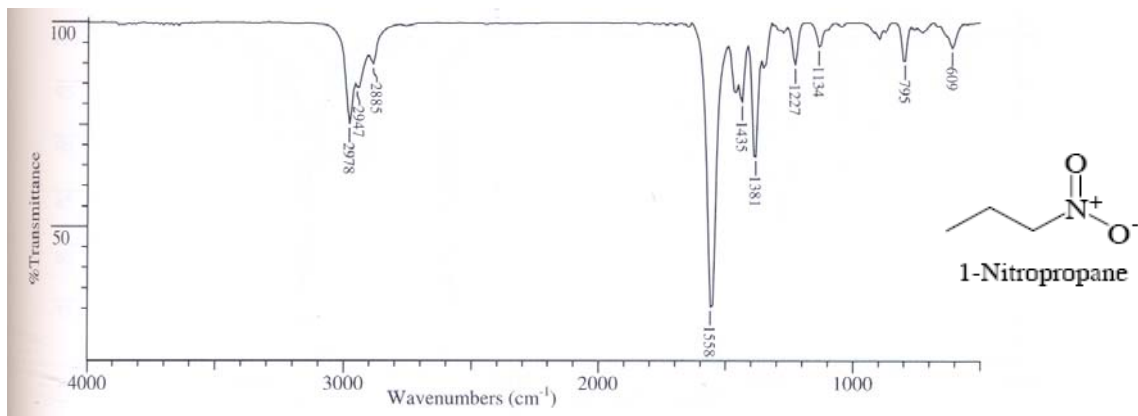
### Aufgabe 2



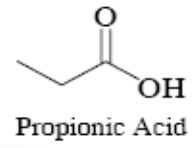
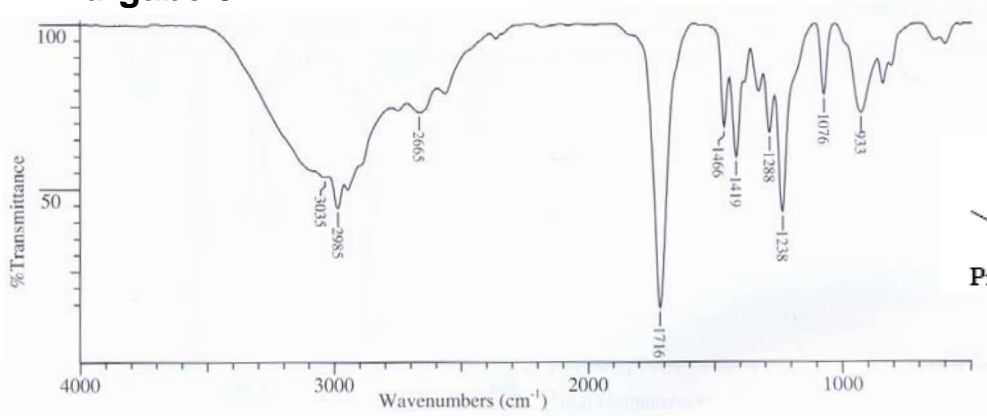
### Aufgabe 3



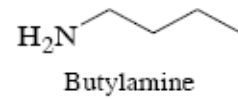
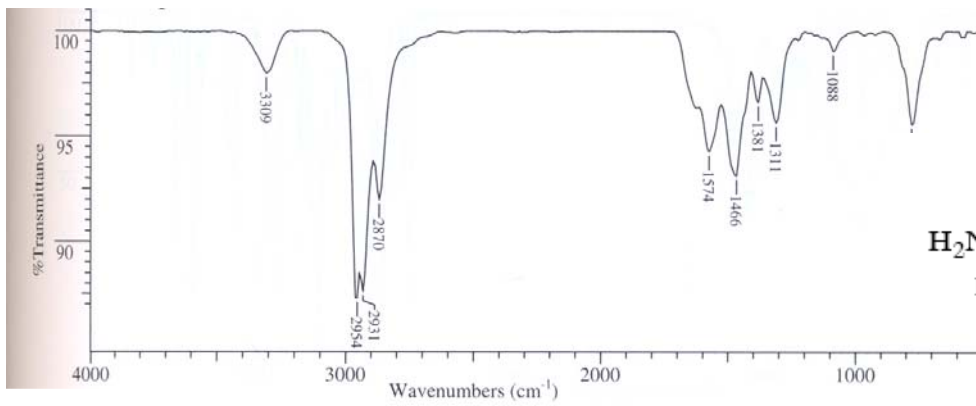
### Aufgabe 4



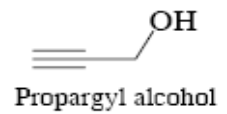
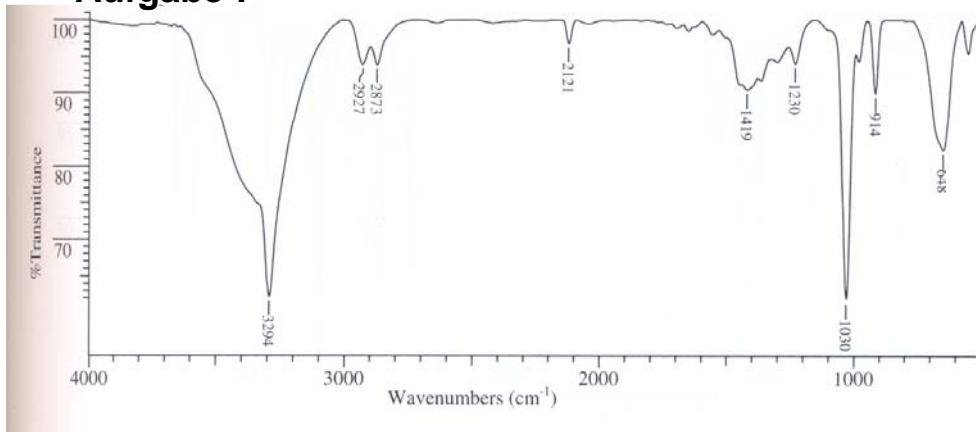
### Aufgabe 5



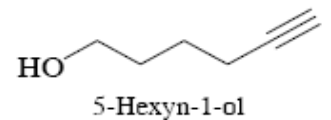
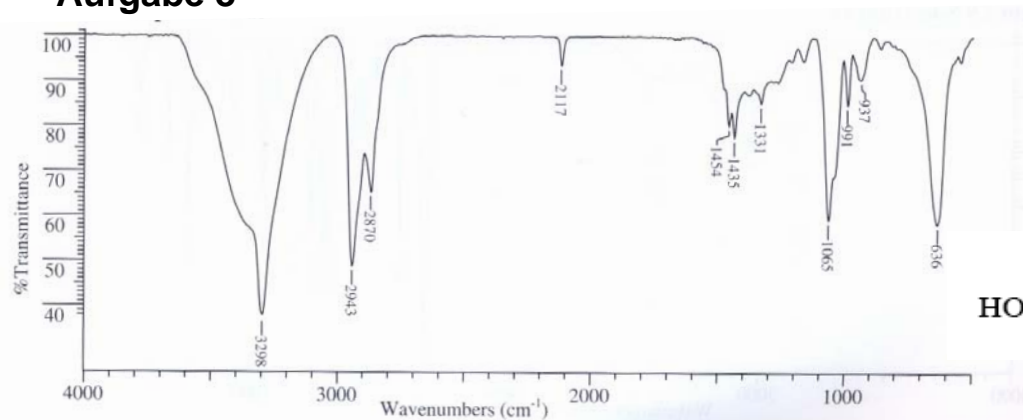
### Aufgabe 6



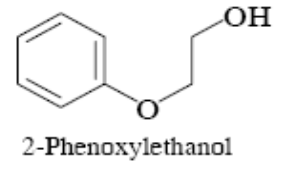
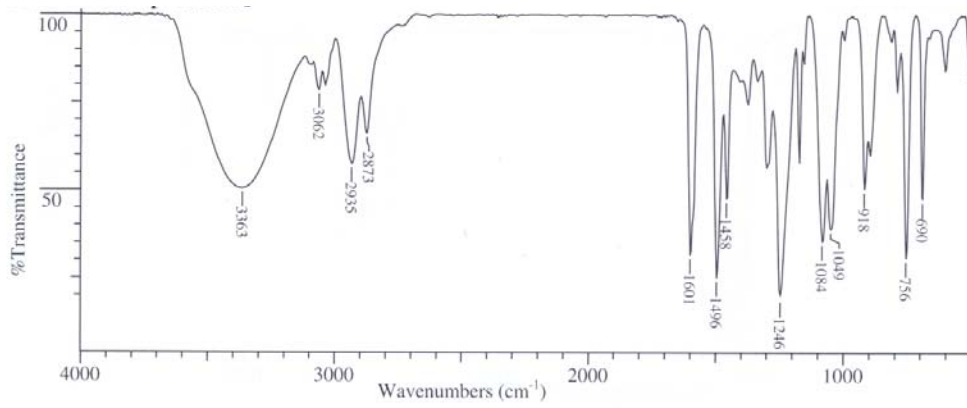
### Aufgabe 7



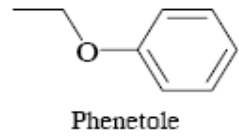
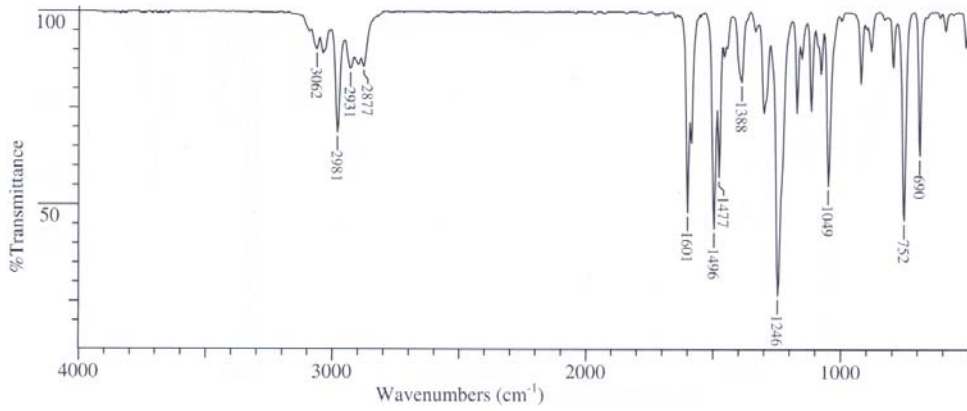
### Aufgabe 8



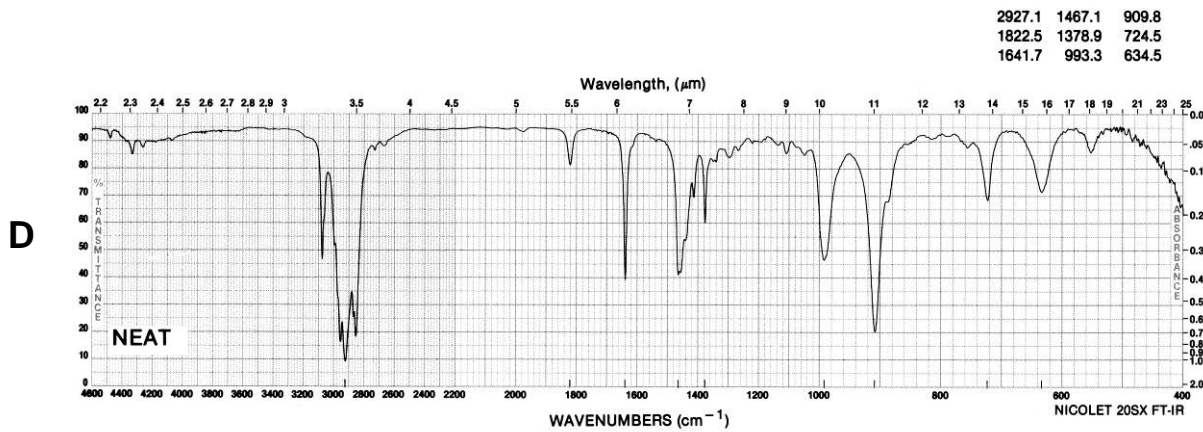
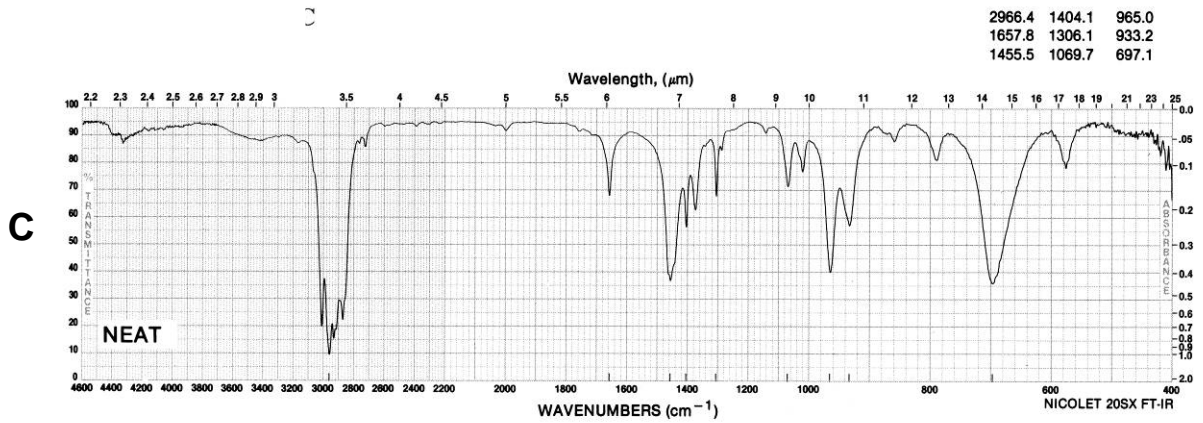
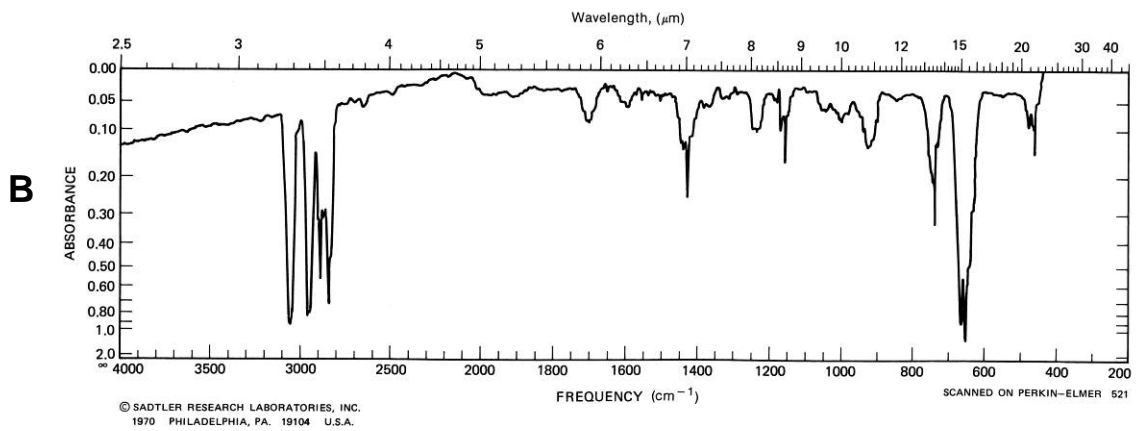
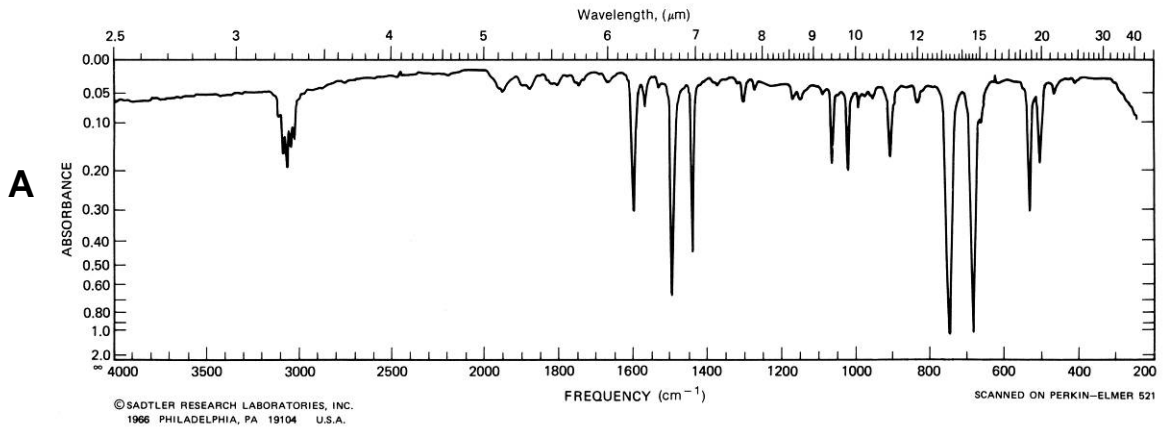
### Aufgabe 9



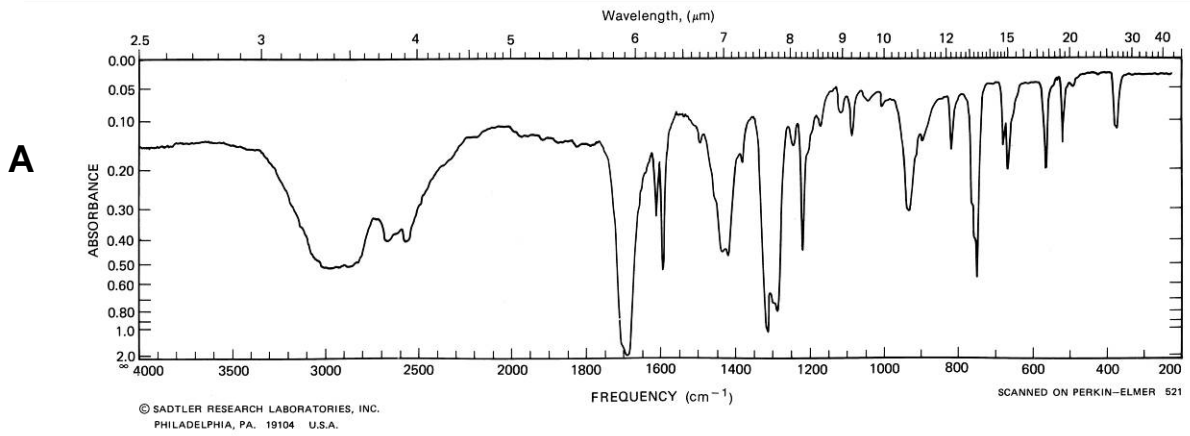
### Aufgabe 10



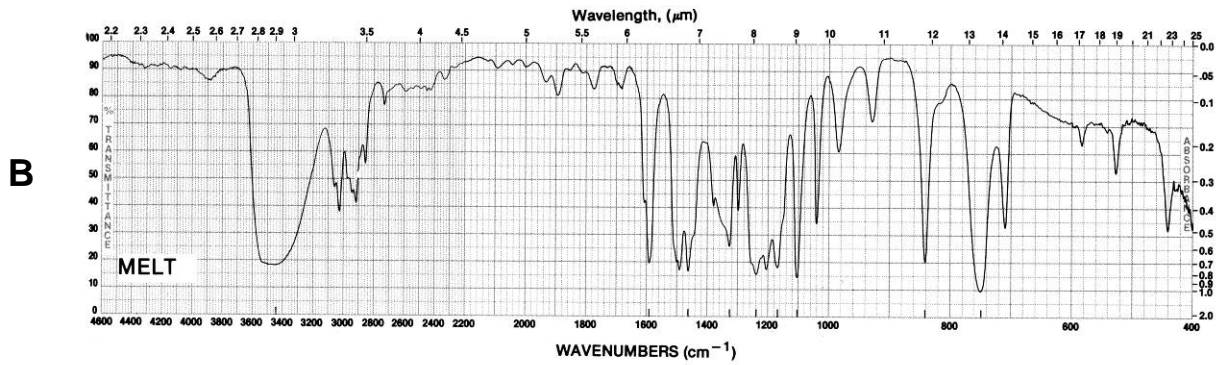
# Aufgabe 11



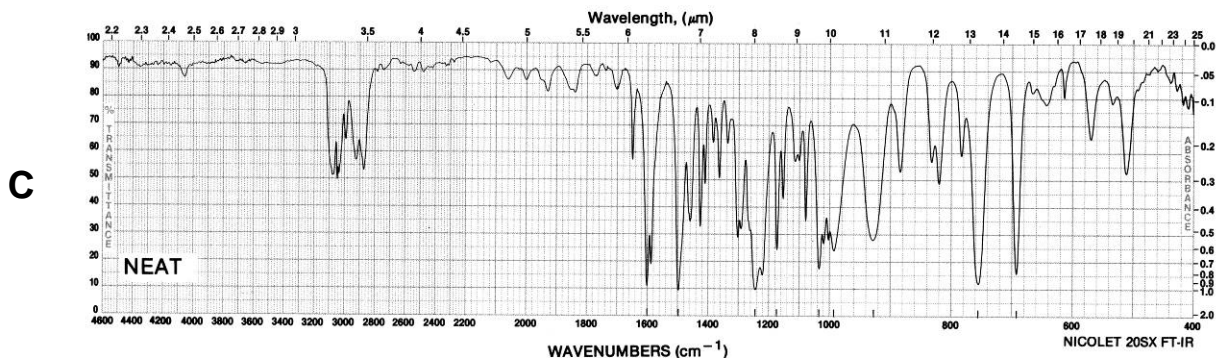
# Aufgabe 12



|        |        |        |
|--------|--------|--------|
| 3447.7 | 1327.7 | 1106.2 |
| 1592.6 | 1239.7 | 843.1  |
| 1464.2 | 1170.0 | 751.3  |



|        |        |       |
|--------|--------|-------|
| 1599.2 | 1173.0 | 926.6 |
| 1495.8 | 1033.3 | 753.8 |
| 1242.5 | 991.7  | 691.3 |



|        |        |       |
|--------|--------|-------|
| 1702.5 | 1310.7 | 745.4 |
| 1596.9 | 1203.7 | 688.3 |
| 1455.7 | 827.9  | 650.0 |

