

## Intermolecular Forces and Polarity by Functional Group

Functional Group	Intermolecular Forces	Polarity	Increasing Polarity ↓
alkane	van der Waal	non-polar	
alkene			
alkyne			
ether	dipole	slightly polar	
amine*			
aldehyde			
ketone			
ester			
amide*			
alcohol (amine*)	hydrogen bond	very polar	
carboxylic acid (amide*)		very very polar	

\* amines and amides may become significantly more polar if a hydrogen is attached directly to the nitrogen (makes possible a hydrogen bond)