|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **PHOSPHATE** |  |  |  | POLAR  ACIDIC; HYDROPHILIC  IMPORTANT IN   ENERGY TRANSFER  Found in: NUCLEOTIDES, ATP  PHOSPHOLIPIDS, | ATP |
| **CARBOXYL** |  |  |  | POLAR HYDROPHILIC WEAK ACID Found in:  CARBOXYLIC ACIDS  FATTY ACIDS,  AMINO ACID | Acetic acid Amino acids |
| **SULFHYDRYL** |  |  |  | FORM DISULFIDE BRIDGES  HELP STABILIZE TERTIARY  STRUCTURE OF PROTEINS | Cysteine |
| **CARBONYL (Ketone)** |  |  |  | C=O IN MIDDLE OF   CARBON CHAIN  POLAR  HYDROPHILIC |  |
| **CARBONYL (Aldehyde)** |  |  |  | C = O AT END OF   CARBON CHAIN  POLAR  HYDROPHILIC |  |
| **HYDROXYL** |  |  |  | POLAR HYDROPHILIC Found in :  SUGARS/ ALCOHOLS,   FEW AMINO ACIDS | Ethanol Glycerol |
| **AMINO** |  |  |  | POLAR  WEAK BASE  HYDROPHILIC Found in:  AMINO ACIDS | Amino acid Urea |
| **METHYL** |  |  |  | NON-POLAR  HYDROPHOBIC  METHYLATION OF DNA TURNS “TURNS GENES OFF” |  |

·  Each functional group behaves consistently from one organic molecule to another.  
·  Number and arrangement of functional groups help give molecules their unique properties