|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **PHOSPHATE** |  |  |  | POLARACIDIC; HYDROPHILICIMPORTANT IN  ENERGY TRANSFERFound in: NUCLEOTIDES, ATPPHOSPHOLIPIDS, |  ATP |
| **CARBOXYL**  |  |  |  | POLAR HYDROPHILICWEAK ACIDFound in: CARBOXYLIC ACIDS FATTY ACIDS, AMINO ACID |  Acetic acid Amino acids |
| **SULFHYDRYL** |  |  |  | FORM DISULFIDE BRIDGESHELP STABILIZE TERTIARY STRUCTURE OF PROTEINS |  Cysteine |
| **CARBONYL(Ketone)** |  |  |  | C=O IN MIDDLE OF  CARBON CHAINPOLARHYDROPHILIC |  |
| **CARBONYL(Aldehyde)** |  |  |  | C = O AT END OF  CARBON CHAINPOLARHYDROPHILIC |  |
|  **HYDROXYL** |  |  |  | POLARHYDROPHILICFound in : SUGARS/ ALCOHOLS,  FEW AMINO ACIDS |  Ethanol Glycerol |
| **AMINO** |  |  |  | POLARWEAK BASEHYDROPHILICFound in: AMINO ACIDS |   Amino acid Urea |
| **METHYL** |  |  |  | NON-POLAR HYDROPHOBICMETHYLATION OF DNATURNS “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