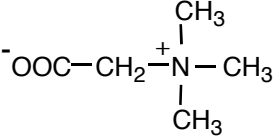
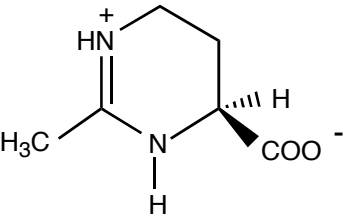
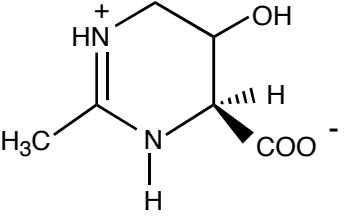
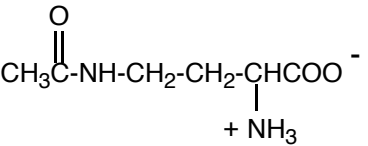
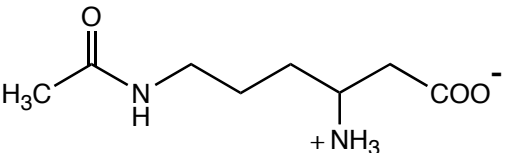
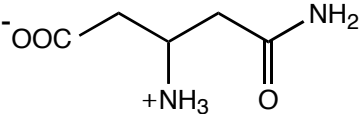


Zwitterionic solutes:	Occurrence:
betaine  <chem>CN(C)CC(=O)[O-]</chem>	<u>Halotolerant:</u> <i>Thioalkalivibrio versutus</i> ; <i>Actinopolyspora</i> sp. <u>Halophilic:</u> <i>Actinopolyspora halophila</i> ; <i>Halorhodospira halochloris</i> <i>Methanohalophilus portulcalensis</i> FDF1; <i>Methanosarcina thermophila</i> ; <i>Synechococcus</i> sp. DUN 52
ectoine  <chem>CN1C=CC(C1)C(=O)[O-]</chem>	<u>Halotolerant:</u> <i>Sporosarcina pasteurii.</i> ; <i>Brevibacterium epidermidis</i> ; <i>Thioalkalimicrobium aerophilum</i> ; <i>Vibrio cholerae</i> and <i>V. costociola</i> <u>Halophilic:</u> <i>Chromohalobacter israelensis</i> ; <i>Chromohalobacter salexigens</i> ; <i>Halorhodospira halochloris</i> ; <i>Halomonas elongata</i> , <i>H. variabilis</i> and phylogenetically related organisms; <i>Methylophaga marina</i> and <i>M. terricola</i> ; <i>Methylophaga alcalica</i> and <i>Methylophaga natronic</i> ; aerobic, halophilic isolates from Mono Lake
hydroxyectoine  <chem>CN1C=CC(O)C1C(=O)[O-]</chem>	<u>Halophilic:</u> <i>Halomonas elongata</i> ; <i>Nocardiopsis halophila</i>
N[ε]-acetyldiaminobutyrate  <chem>CC(=O)NCCC[NH3+]</chem>	<u>Halotolerant:</u> <i>Halomonas elongata</i> CHR63
N[ε]-acetyl-γ-llysine  <chem>CC(=O)NCCCCC(N)CC(=O)[O-]</chem>	<u>Halotolerant:</u> <i>Methanosarcina thermophila</i> ; <i>Methanothermococcus thermolithotrophicus</i> ; <i>Methanosarcina mazei</i> Gö1 <u>Halophilic:</u> <i>Methanohalophilus portulcalensis</i> FDF1; <i>Methanohalophilus</i> Z7302
γ-glutamine  <chem>NC(=O)CCC(N)C(=O)[O-]</chem>	<u>Halophilic:</u> <i>Methanohalophilus portulcalensis</i> FDF1