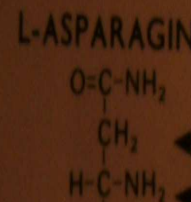
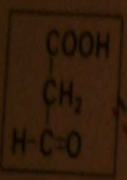
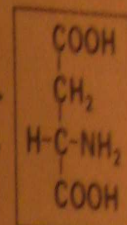


**MALONATE SEMIALDEHYDE**

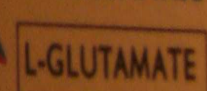
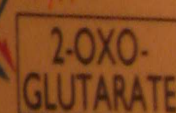
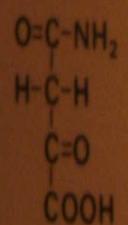


**L-ASPARTATE**

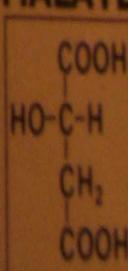


**Anaplerotic reactions**

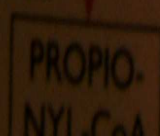
**L-OXO-SUCCINAMATE**



**S(=L)-MALATE**

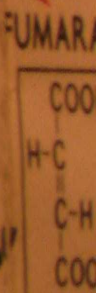


**METHYLMALONYL-CoA CARBOXYLTRANSFERASE**



**MALATE DEHYDROGENASE**

**FUMARATE HYDRATASE (FUMARASE)**



**2Cy b-Fe<sup>2+</sup> 2H<sup>+</sup> FOR D**