**Abstract**

Electroplating industry effluent exposure (1%) for 48 h increased the AlAT and AAT contents in the brain, gill, liver and muscle of *Mystus punctata*. Both protein and carbohydrate metabolism was affected. Alanine aminotransferase (AAT E.C. 2.6.1.2) and aspartate aminotransferase (AAT E.C. 2.6.1.1) play a crucial role in transamination reactions and can be used as potential biomarkers to indicate hepatotoxicity and cellular damage