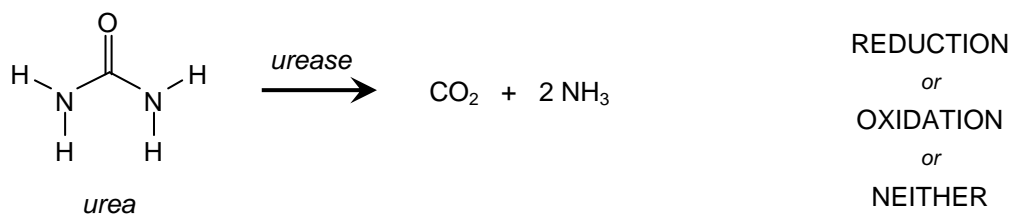
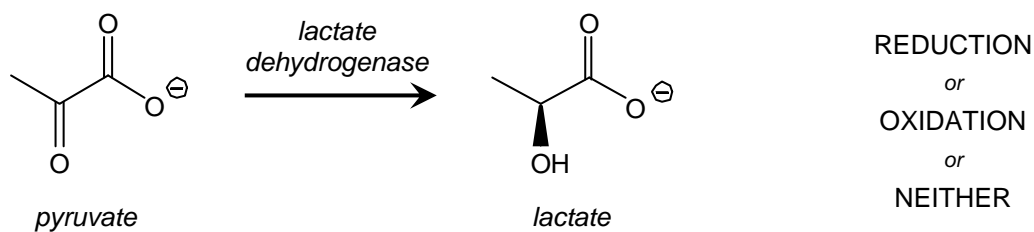
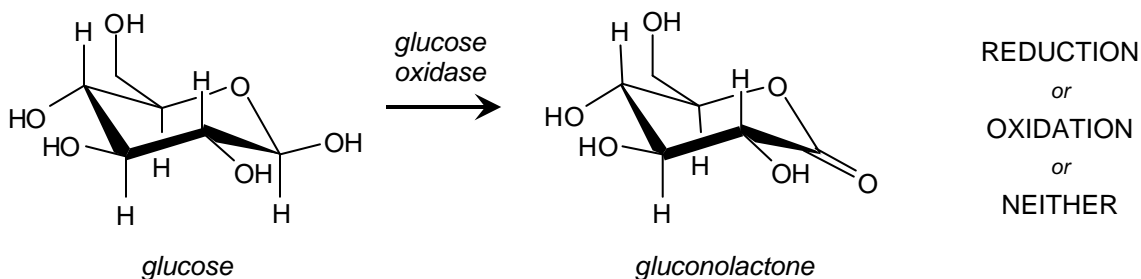
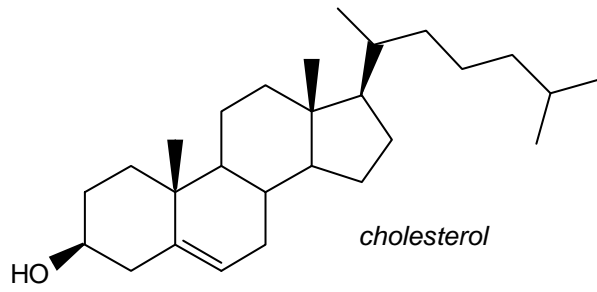


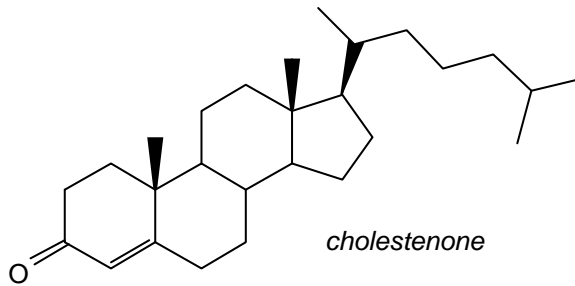
Workshop 24
Diagnostic Tests Based on Oxidation and Reduction

Biomedical diagnostic tests—used to detect the levels of specific molecules in bodily fluids such as blood or urine—are frequently based on detecting the specific reduction or oxidation of those molecules with enzymes. (In some cases, such as in glucose monitoring by diabetics, the redox reaction can be engineered to create an electrical potential that is detected by a handheld monitor.) Each of the reactions below is used in a common diagnostic test; define each one as a reduction, an oxidation, or neither. (Circle one.)

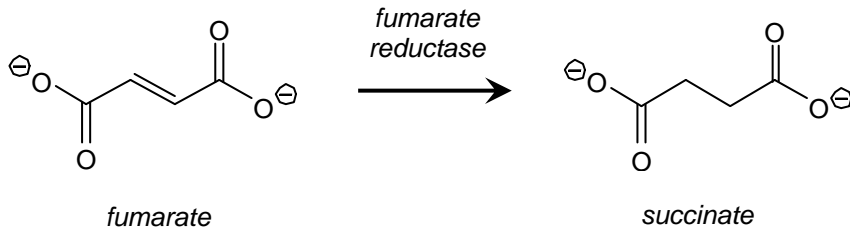




cholesterol oxidase

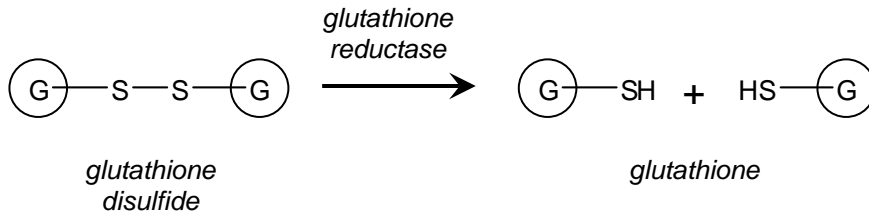


REDUCTION
or
OXIDATION
or
NEITHER



fumarate reductase

REDUCTION
or
OXIDATION
or
NEITHER



glutathione reductase

REDUCTION
or
OXIDATION
or
NEITHER

