

# Typical chemical structural formulae that react with electrochemical detectors (ECD)

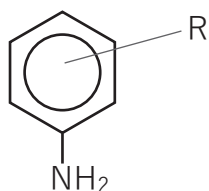
(For substances not listed, please contact us.)

## Aromatic Alcohols

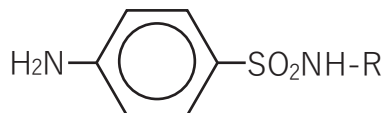
|                         |  |  |   |                                     |
|-------------------------|--|--|---|-------------------------------------|
| <b>Phenols</b>          |  | Tyrosine<br>Tyramine<br>Thyroxine<br>Thyronine   | Amino acid<br>Tyrosine Metabolites<br>Thyroid hormone | +800 mV<br>~ 900 mV<br>(vs Ag/AgCl) |
| <b>Catechols</b>        |  | Adrenaline<br>Noradrenaline<br>Dopamine<br>L-Dopa<br>Homogentisic Acid<br>Catechol estrogens | Neurotransmitter<br>Alkaptonuria<br>Estrogen          | +400 mV<br>~ 700 mV<br>(vs Ag/AgCl) |
| <b>Methoxyphenols</b>   |  | Homo vanilic Acid<br>Methanephrine<br>Normethanephrine<br>Vanilic Acid                       | Catecholamine Metabolites                             | +800 mV<br>~ 900 mV<br>(vs Ag/AgCl) |
| <b>Hydroxycoumarins</b> |  | Scopoletin   | Belladonna (eggplant)<br>Present in roots and leaves  | +800 mV<br>~ 900 mV<br>(vs Ag/AgCl) |
| <b>Quinones</b>         |  | Ubiquinones<br>Phylloquinone   | Present in the mitochondria<br>Vitamin K              | -400 mV<br>(vs Ag/AgCl)             |
| <b>Estrogens</b>        |  | Estron<br>Estradiol<br>Estriol   | Estrogen  | +900 mV<br>(vs Ag/AgCl)             |
| <b>Tocopherols</b>      |  | $\alpha$ -, $\beta$ -, $\gamma$ -, $\delta$ -<br>Tocopheroles                                | Vitamin E   | +700 mV<br>(vs Ag/AgCl)             |
| <b>Morphine</b>         |  | Morphine   | Anesthetic analgesic                                  | +800 mV<br>(vs Ag/AgCl)             |

# Aromatic Amines

## Anilines

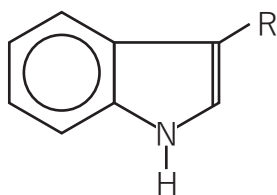


## Sulfonamides

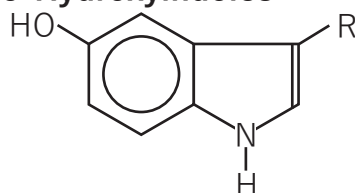


# Indoles

## Indoles-3-derivatives

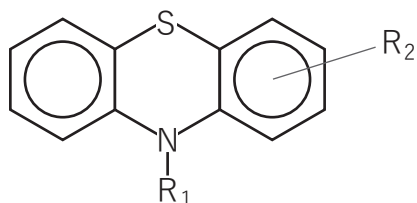


## 5-Hydroxyindoles



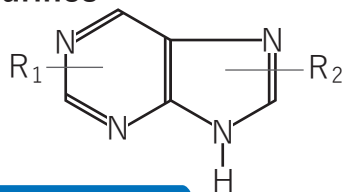
# Phenothiazine

## Phenothiazines



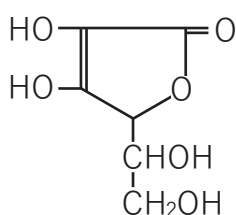
# Purines

## Purines

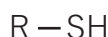


# Others

## Ascorbic acid



## Thiols



## Anions



|  |   |                                      |
|--|---|--------------------------------------|
| Chloroanilines<br>Bromoanilines<br>p-Phenylenediamine<br>Benzidine | Industrial raw materials,<br>pollutants                                   | +900 mV<br>~ 1000 mV<br>(vs Ag/AgCl) |
| Sulfonamide  | Sulfonamides  |                                      |
| Tryptophan<br>Indolyl-3-acetic acid<br>Tryptamine<br>Melatonin     | Amino acid<br>Tryptophan Metabolites                                      | +800 mV<br>~ 900 mV<br>(vs Ag/AgCl)  |
| Serotonin<br>5-Hydroxyindolacetic acid<br>5-Hydroxy tryptophan     | Tryptophan Metabolites  | +600 mV<br>~ 700 mV<br>(vs Ag/AgCl)  |
| Chlorpromazine<br>Promethazine<br>Perphenazine                     | Psychotropic drug   | +900 mV<br>(vs Ag/AgCl)              |
| Uric acid<br>Xanthine<br>Guanine<br>Theophylline                   | Uric acid<br>Nucleic acid<br>Asthma medication                            | +800 mV<br>~ 1100mV<br>(vs Ag/AgCl)  |
| Ascorbic acid  | Vitamin C   | +800 mV<br>(vs Ag/AgCl)              |
| Cysteine<br>Penicillamine<br>Glutathione                           | Amino acid<br>Neuralgia drug<br>Important substances for<br>redox in vivo | +800 mV<br>(vs Ag/AgCl)              |