



# Organic Acids in beer and wine with C4D detection



*A very fast analysis of 8 organic acids : 2.5 min*

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## INTRODUCTION

Fast determination of sulfate, phosphate anions and tartaric, malic, citric, succinic, gluconic and lactic acids in red wine and white beer samples using Wyn-CE capillary electrophoresis using Wyn-CE capillary electrophoresis system and a easy and sensitive contactless conductimetry detection (C4D).

## SEPARATION CONDITIONS

**Buffer :** MES + Histidine + CTAB, pH 6.1  
**Capillary :** bare-fused silica, L = 70 cm, l = 40 cm, ID = 50  $\mu$ m  
**Injection :** hydrodynamic, 50 mbar, 6 s  
**Voltage :** -30 kV  
**Detection :** C4D, frequency 250 kHz, A = 100%  
**Temperature :** 25  $^{\circ}$ C

### Standard sample :

1-sulfate ; 2-tartarate ; 3-malate ; 4- citrate ; 5-succinate;  
 6- lactate ; 7-phosphate ; 8-gluconate.

Concentration : 5 mg/L (except phosphate, succinate and citrate 10 mg/L and gluconate 20 mg/L).

IS : formate (5 mg/L)

### White beer sample :

(Dilution 1/10)

1-Sulfate (6 mg/L) ; 2-tartarate (trace)  
 3- malate (7 mg/L) ; 4- citrate (8 mg/L)  
 5-succinate (4 mg/L) ; 6- lactate (7 mg/L)  
 7- phosphate (21 mg/L) ; 8-gluconate (trace)  
 (IS = formate, 5 mg/L)

\* : unidentified compounds

### Red Wine sample :

(Dilution 1/50)

1-Sulfate (5 mg/L) ; 2-tartarate (28 mg/L)  
 3- malate (trace) ; 4- citrate (13 mg/L)  
 5-succinate (11 mg/L) ; 6- lactate (45 mg/L)  
 8-gluconate (10 mg/L)  
 (IS = formate, 5 mg/L)

