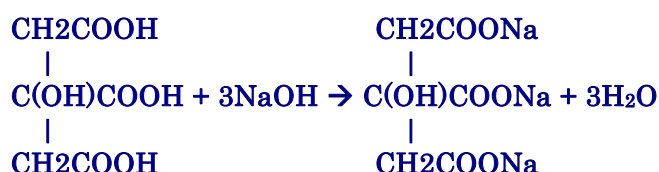


<b>AQUACOUNTER Application Sheet</b>	<b>COM series</b>	<b>DATA No. A3</b>	<b>1st edition</b>
<b>Food and Beverage</b>	<b>Titration of citric acid in plum (Japanese apricot) juice</b>		

## 1. Measurement outline

Citric acid contained in plum (Japanese apricot) juice in high concentration with salt is quantified by acid/base titration with sodium hydroxide. The salt contained in sample does not interfere. Grind the sample prior to titration if the pulp is contained in the sample.



## 2. Reagents and Electrodes

(1) Reagents	Titrant	0.1mol/L Sodium hydroxide
(2) Electrodes  *standard accessories	Indicator electrode	*Glass electrode GE-101B to IE jack
	Reference electrode	*Reference electrode RE-201 to RE jack

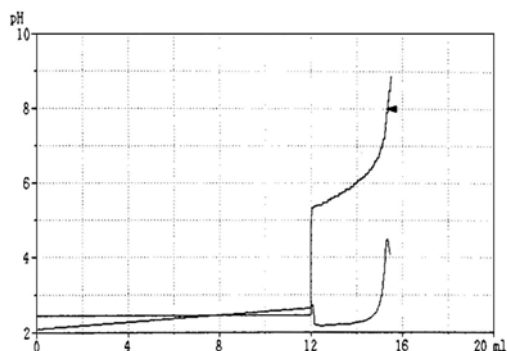
## 3. Measurement conditions example (for COM-1600S)

<b>Master File No.1</b>	
<b>Condition file: 1</b>	
<b>Parameters for Condition file 1</b>	
Method	AUTO
Buret No.	1
Meas Unit	pH
S-Timer	10 sec
CP,DP Unit	mL
CP	12 mL
DP	0 mL
Direction	N/A
End Sens	300
Over mL	0 mL
Max Vol	20 mL
Mode No.	2
Unit	%
Formula	(D-B)×K×F×M/(S×10) (To be set automatically)
Blank	0
Molarity	0.1
Factor	Titre of the titrant
K	64.00 (As Citric acid)

#### 4. Measurement Procedure

Take ca. 0.5g of sample. Weigh accurately. Add 50mL of deionized water and titrate with 0.1mol/L sodium hydroxide.

#### 5. Measurement example



Sample No.	Sample size (g)	Titration value (mL)	Concentration (%)
1	0.5306	15.314	18.56
2	0.6796	19.619	18.57
3	0.5083	14.678	18.57
Avg.			18.57 %
Std. Dev.			0.01 %
C.V.			0.03 %

#### 6. Notes

Since the citric acid concentration in plum juice is high, the titration time may become long. Setting the “CP mL” parameter adds the specified volume of the titrant at a fast speed to shorten the titration time. After the titrant addition by “CP mL” is completed, the titration is performed in normal way to detect the precise end point.

#### Key words

Neutralization titration, Plum (Japanese apricot) juice, citric acid,

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