

Introduction

Times of various solvents concentrated to dryness on Smart Evaporator C1 were measured. Conditions expected to improve the drying time from the viewpoint of the container were also compared and examined.

Experiment

Evaporator : Smart Evaporator C1, made by BioChromato, Inc.
 Set temperature : 40°C
 Suction flow rate : 18L/min
 Solvent quantity : 5mL
 Container type : Round-bottom vial, 20mL



Results

5mL each of diethyl ether; chloroform; dichloromethane; methanol; 1-butanol were evaporated on Smart Evaporator C1 set at 40°C, and the speeds of concentration to dryness were achieved as shown on Fig.1. Also, more efficient concentration by using a round-bottom vial, in comparison with a flat-bottom vial, was achieved at evaporating methanol as shown on Fig. 2.

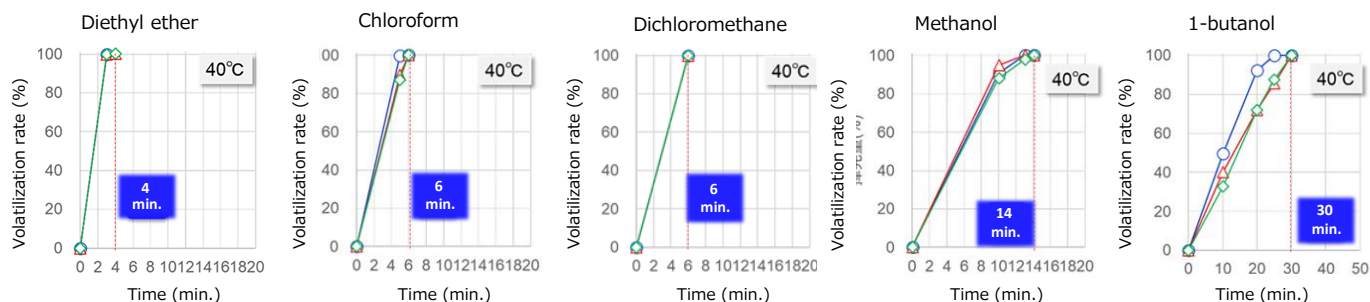


Fig.1. Evaporation speed of each solvent

Evaporation time (40°C)

Diethyl ether	: 4 min.
Chloroform	: 6 min.
Dichloromethane	: 6 min.
Methanol	: 14 min.
1-butanol	: 30 min.

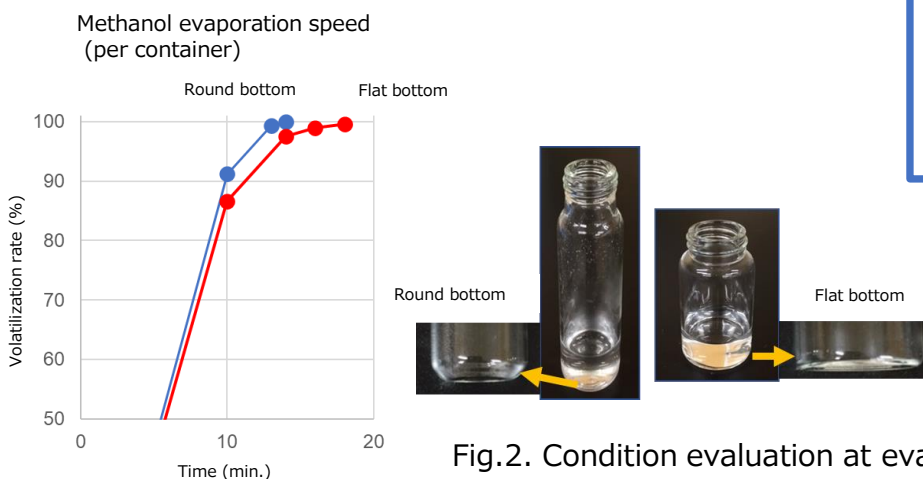


Fig.2. Condition evaluation at evaporation of methanol