

Chlorophyll

Wintermans & De Mots (1965) Biochim Biophys Acta 109:
448-453

分析步驟

sample (水稻葉片 45~50 mg)

+

2 mL Sodium phosphate buffer (50 mM, pH 6.80)

研磨萃取

↓

取 40 μ L 萃取液於 1.5 mL 小離心管 (Eppendorf tube) 中

+

960 μ L 乙醇 (100%)

↓ 混合均勻

4°C, 黑暗下靜置 30 min

↓

4°C, 1000 g, 離心 15 min

↓

測定 A_{665} 、 A_{649} [空白組以乙醇 (95%) 代替]

計算：

$$\text{Chlorophyll a} = (13.7 \times A_{665}) - (5.76 \times A_{649}) [\mu\text{g Chl (40 } \mu\text{L)}^{-1}]$$

$$\text{Chlorophyll b} = (25.8 \times A_{649}) - (7.6 \times A_{665}) [\mu\text{g Chl (40 } \mu\text{L)}^{-1}]$$

$$\text{Total chlorophyll} = (6.1 \times A_{665}) + (20.04 \times A_{649}) [\mu\text{g Chl (40 } \mu\text{L)}^{-1}]$$

$$\text{Chlorophyll a content (mg g}^{-1} \text{ FW)}$$

$$= \text{Chlorophyll a} \times 50 (\text{稀釋倍數}) \div 1000 \div \text{FW (g)}$$

$$\text{Chlorophyll b content (mg g}^{-1} \text{ FW)}$$

$$= \text{Chlorophyll b} \times 50 (\text{稀釋倍數}) \div 1000 \div \text{FW (g)}$$

$$\text{Total chlorophyll content (mg g}^{-1} \text{ FW)}$$

$$= \text{Total chlorophyll} \times 50 (\text{稀釋倍數}) \div 1000 \div \text{FW (g)}$$