國立成功大學

113學年度碩士班招生考試試題

編　號：83

系　所：資源工程學系

科　目：資源循環工程

日　期：0201

節　次：第 3 節

備　註：可使用計算機

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※ 考生請注意：本試題可使用計算機。　請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

1. The definition of terms: (a) Locking Factor (b) Natural floatability (c) Ratio of concentration (d) Cylindrical mills (e) Ferromagnetism. (20%)

2. Describe three main controlling factor of shaking table in detail. (10 %)

3. In flotation operations, please list five major modifiers, and give one example of chemical to describe their usage in five categories? (15%)

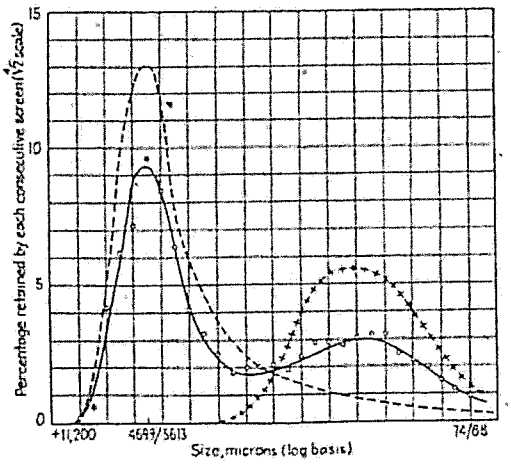
4. Please describe the contact angle and explain it by Young– Dupré equation. (10%)

Young equation: γ_{SG}-γ_{SL}-$\gamma_{LG}\cos\theta_C = 0$

Dupré equation: $\gamma(1+\cos\theta_C)$=ΔW_{SLV}

5. Please explain the differences between Free Settling and Hindered Settling? (10%)

6. Describe the case in this size distribution diagram. (10 %)



7. Define the comminution theories in detail: Rittinger's laws, Kick's laws, Bond's laws. (10 %)

8. What is the mechanism of eddy current separation? What kind of function of material is related to the magnitude of current? Please give three examples of material. (15%)