

# Lecture 9 Problems

## Problem 1

(a) (i):  $M_0$

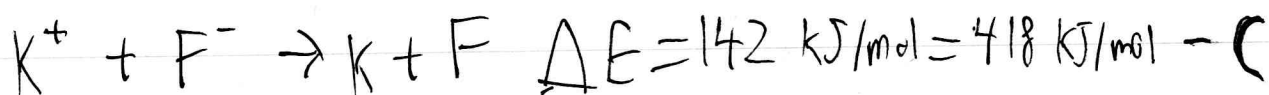
(ii):  $V$

(iii):  $C_a$

(b): As  $Z_{eff}$  increases,  $r$  decreases.

## Problem 2

$$(a): \frac{(-1)(1)e^2}{4\pi\epsilon_0 (2.17 \cdot 10^{-10} \text{ m})} = 640 \text{ kJ/mol}$$



$$C = 276 \text{ kJ/mol}$$

# Problem 3

Cal:

