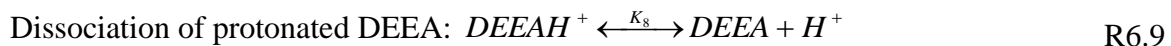
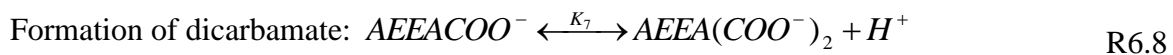
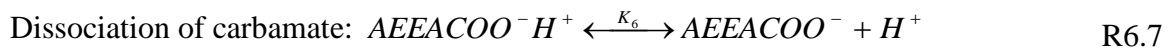
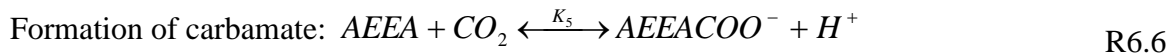
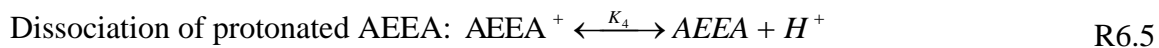
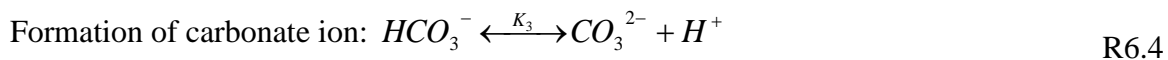
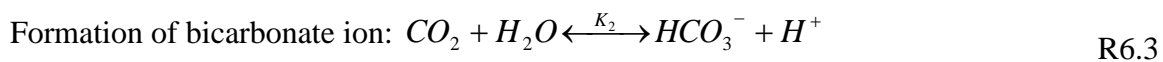
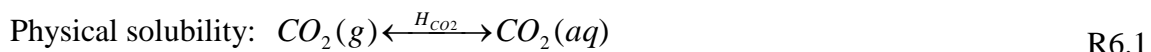


APPENDIX B

B.1 Reaction chemistry of CO₂-DEEA-AEEA system

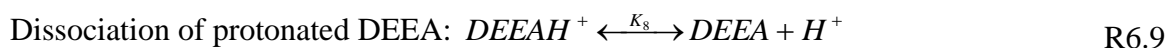
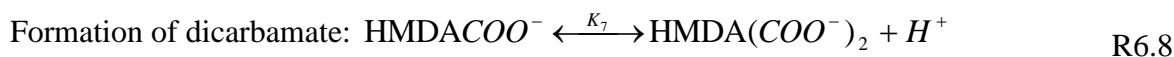
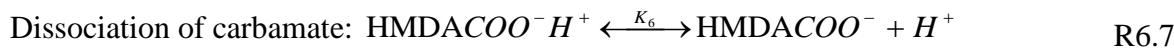
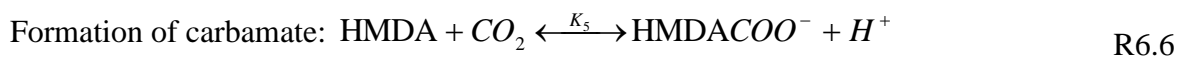
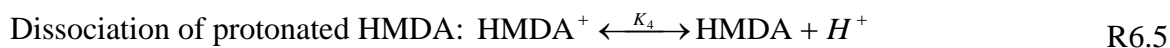
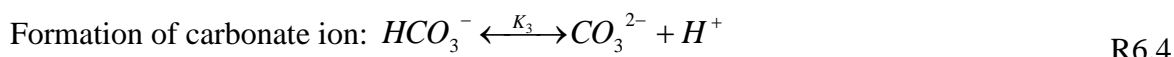
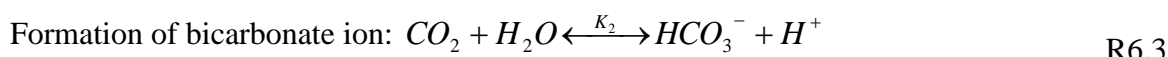
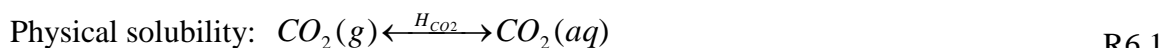
When CO₂ absorbed in an aqueous DEEA+AEEA solution, the following set of chemical reactions occur in the liquid phase and chemical equilibrium is represented by the equilibrium constants. The reaction mechanisms are also described in details by the authors (Luo et al., 2016b; Wezland and Trass 1971).



Where, H_{CO_2} , K_1 - K_8 , R6.1-R6.9 represent the Henry's law constant, equilibrium constants and equations of respective chemical reactions.

B.2 Reaction chemistry of CO₂-DEEA-HMDA system

When CO₂ absorbed in an aqueous mixture of DEEA and HMDA solution, the following set of chemical reactions occur in the liquid phase and chemical equilibrium is represented by the equilibrium constants and main reaction mechanisms are also described in details by the authors (Luo et al., 2016b; Vaidya and Kenig, 2007).



Where, H_{CO_2} , K_1 - K_8 , R6.1-R6.9 represent the Henry's law constant, equilibrium constants and equations of respective chemical reactions.