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APPENDICES

Appendix A : Details of Equipment

TABLE A-1

The Information of Equipment

EQUIPMENT	MANUFACTURE	MODEL
Diaphragm pump	Pulsafeeder	Series 200
Air compressor	Jun-Air Compressor	Model 6-M
Sintered-glass diffuser	Vidhyasom Co., Ltd.	Buchnel filter 95 mm diameter Cat. No. 3710/02
Air flow meter	Gilmont Instruments, Inc.	Tube size 210 Float type : glass Serial No. 000701-000800
Feed flow meter	Gilmont Instruments, Inc.	Tube size 130 Float type : glass Serial No. 001101-001200

Appendix B : Result of foam fractionation on the effect of salt. (not control micelle formation)

The effects of micelle formation in the lamellae occur when the concentration of salt is higher than critical point. Because, more natural salt make more decreasing the CMC and more micelle formation. When the micelle form in the lamellae , it causes many effects on foam stability such as thickness of thin film, viscosity of liquid in lamellae, repulsion between two monolayers of the liquid film. Therefore, the effects of salt on foam fractionation parameters are complicate to explain as shown in Fig. B-1-Fig. B-4.

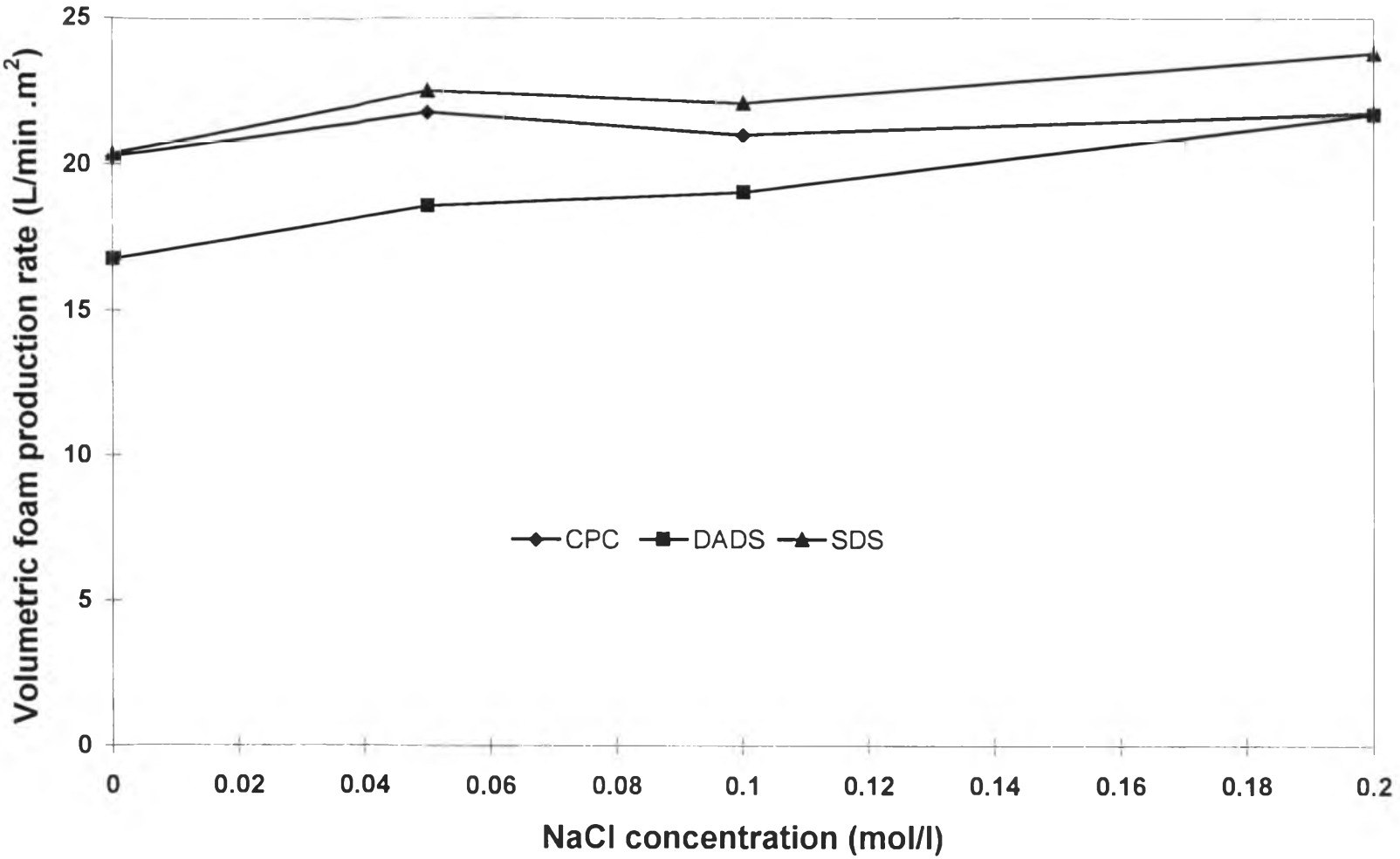


Fig. B-1 Effect of NaCl concentration on volumetric foam production rate.

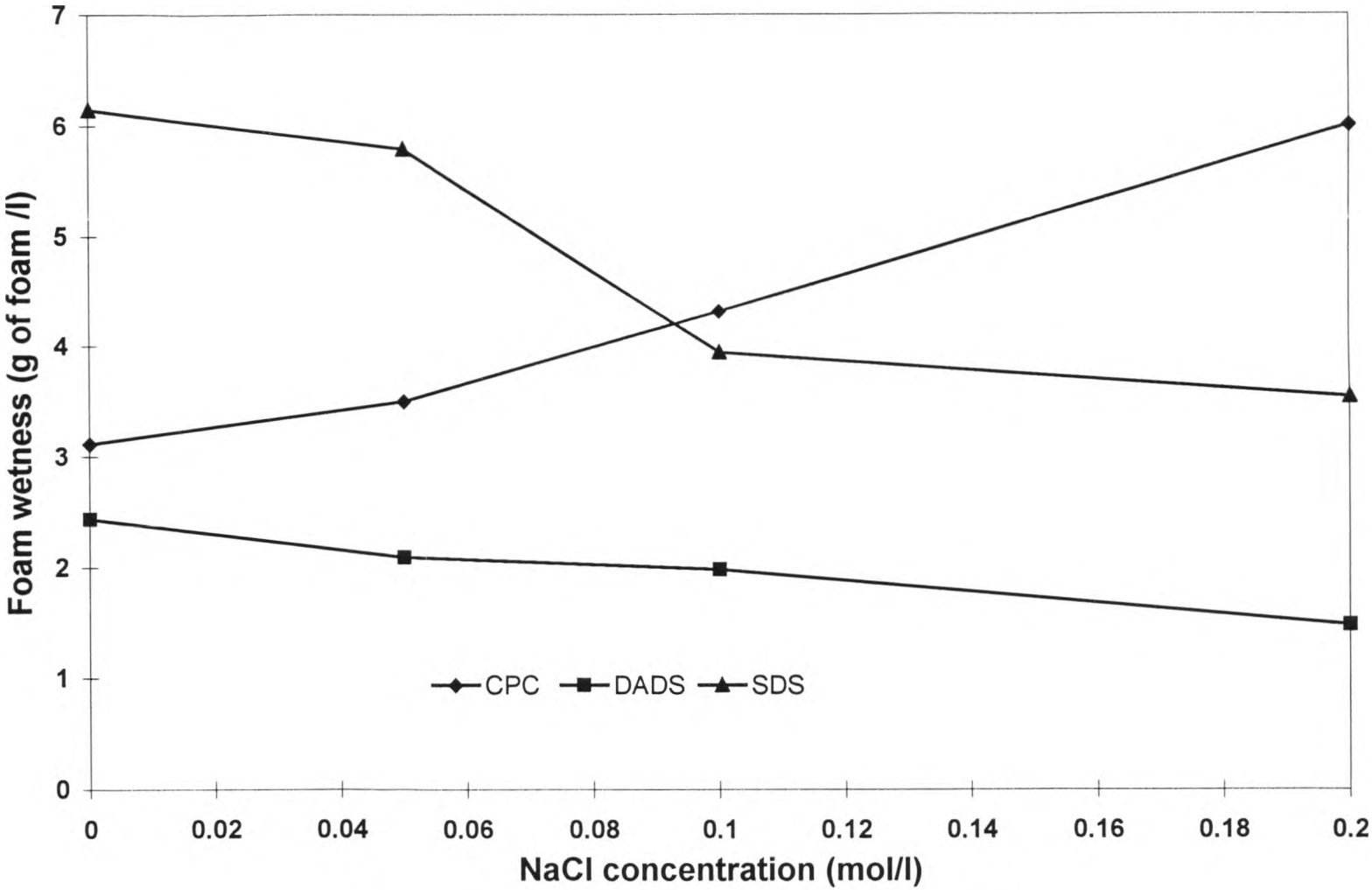


Fig. B-2 Effect of NaCl concentration on foam wetness.

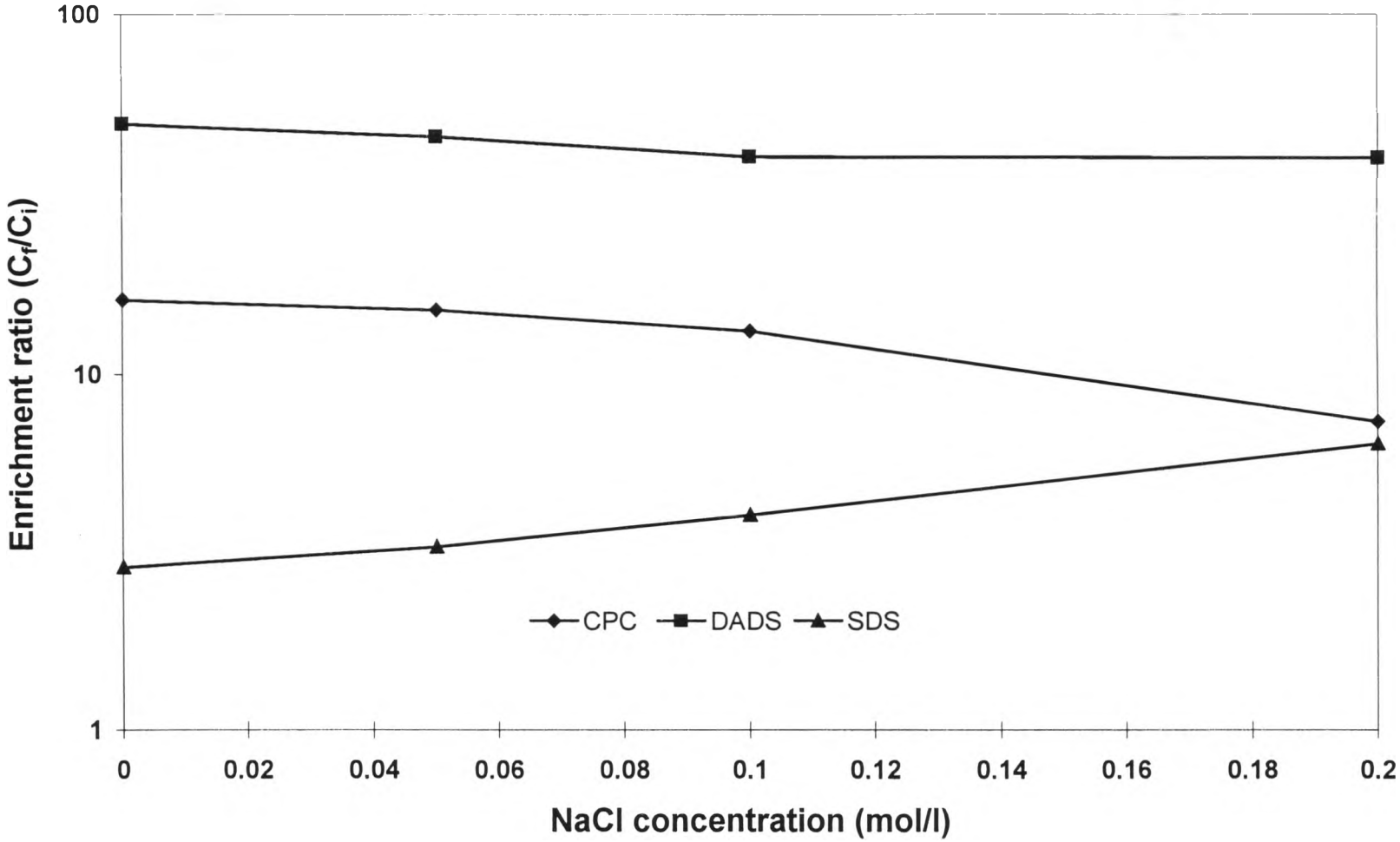


Fig. B-3 Effect of NaCl concentration on enrichment ratio.

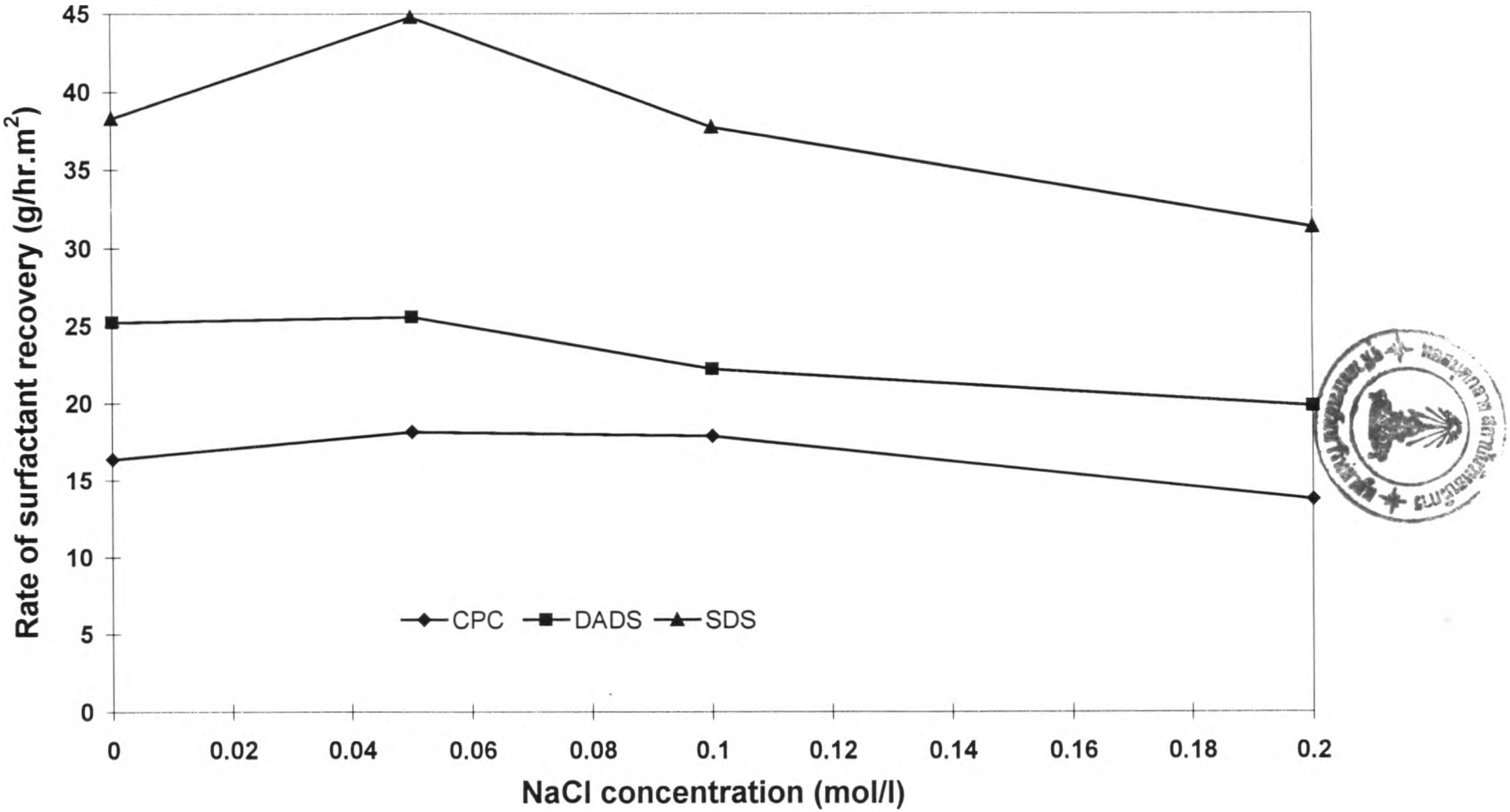


Fig. B-4 Effect of NaCl concentration on rate of surfactant recovery.

Appendix C : Effect of salt on the initial concentration.

This results show the reason why micelle formation can not occur in this experimental. When the salt was added from 0 mol/L up to 1 mol/L, the initial concentration of three surfactants increase from ~15 % to ~80 % (depend on types of surfactants). Therefore, the micelle formation can not occur in this system because the concentration of surfactants are not higher than 100 % CMC.

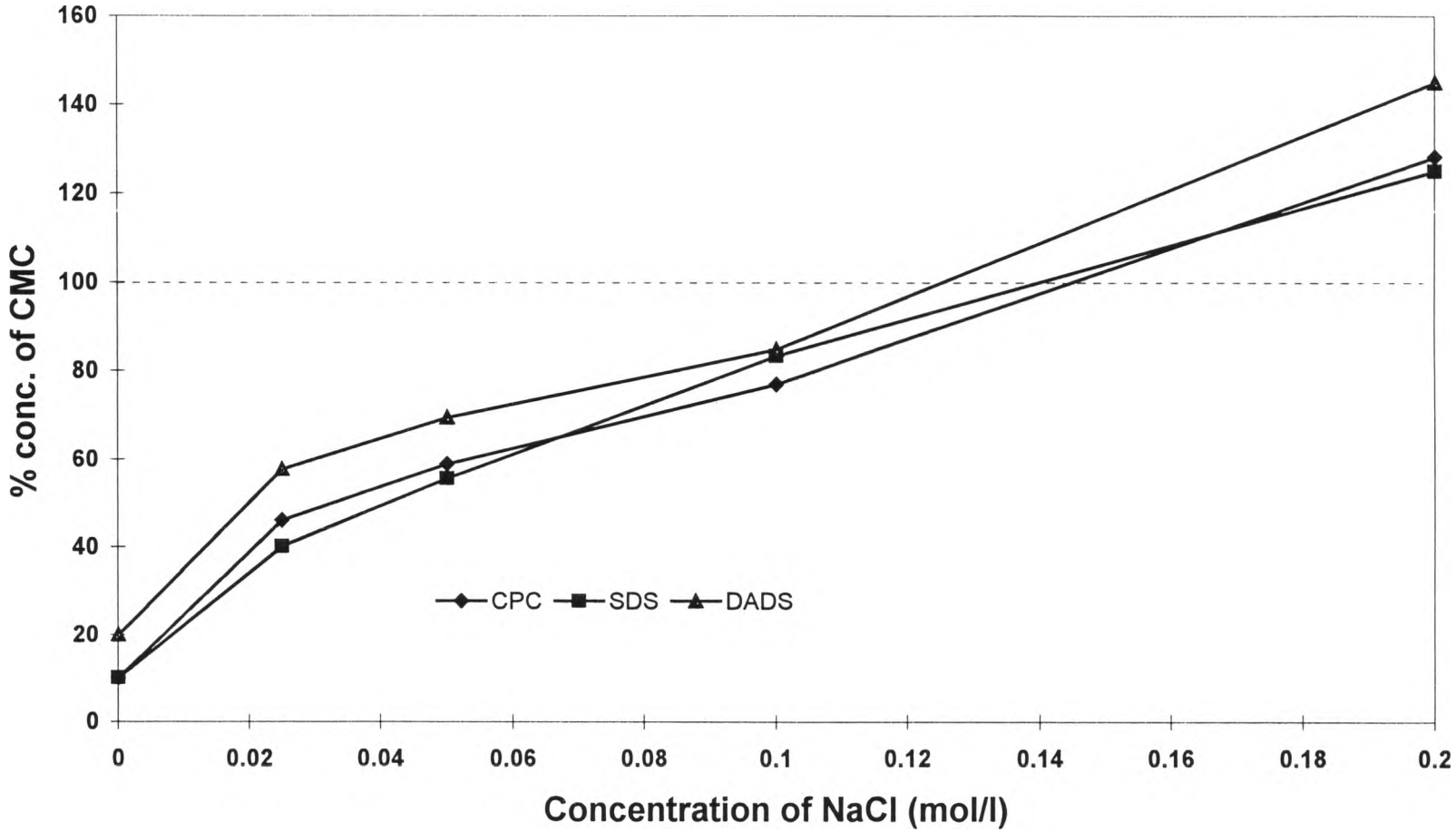
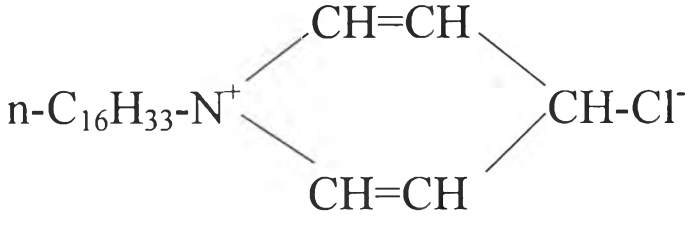


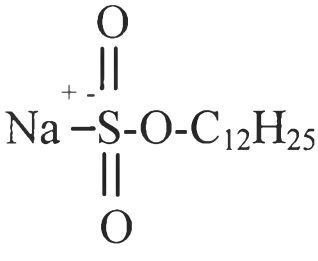
Fig. C-1 Effect of salt on the initial concentration of surfactants.

Appendix D : The structure of surfactants

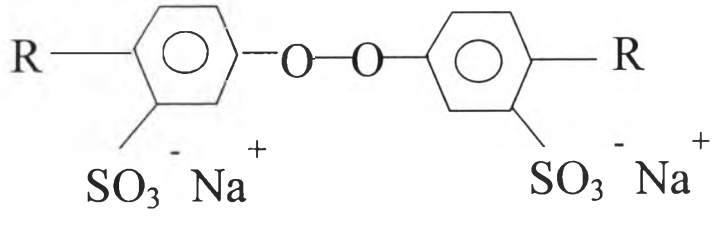
Cetylpyridinium chloride (CPC)



Sodium dodecyl sulfate (SDS)



Sodium n-hexadecyl diphenyloxide disulfonate (DADS)



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