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APPENDIX

APPENDIX 1: ZARROUK MEDIUM (Zarrouk, 1966)

contained the following components in gram per liter.

NaHCO ₃	16.80
NaNO ₃	2.50
K ₂ HPO ₄	0.50
NaCl	1.00
MgSO ₄ ·7H ₂ O	0.20
FeSO ₄ ·7H ₂ O	0.01
K ₂ SO ₄	1.00
CaCl ₂ ·2H ₂ O	0.04
EDTA	0.08
A ₅ Solution	1 ml/l
B ₆ Solution	1 ml/l
pH	8-9

The A₅ solution contained the following in g/l:

H₃BO₄ : 2.86 ; MnCl₂·4H₂O : 1.81 ; ZnSO₄·7H₂O : 0.22 ;
 MoO₃ : 0.01 ; and CuSO₄·5H₂O : 0.08.

The B₆ solution contained the following in mg/l:

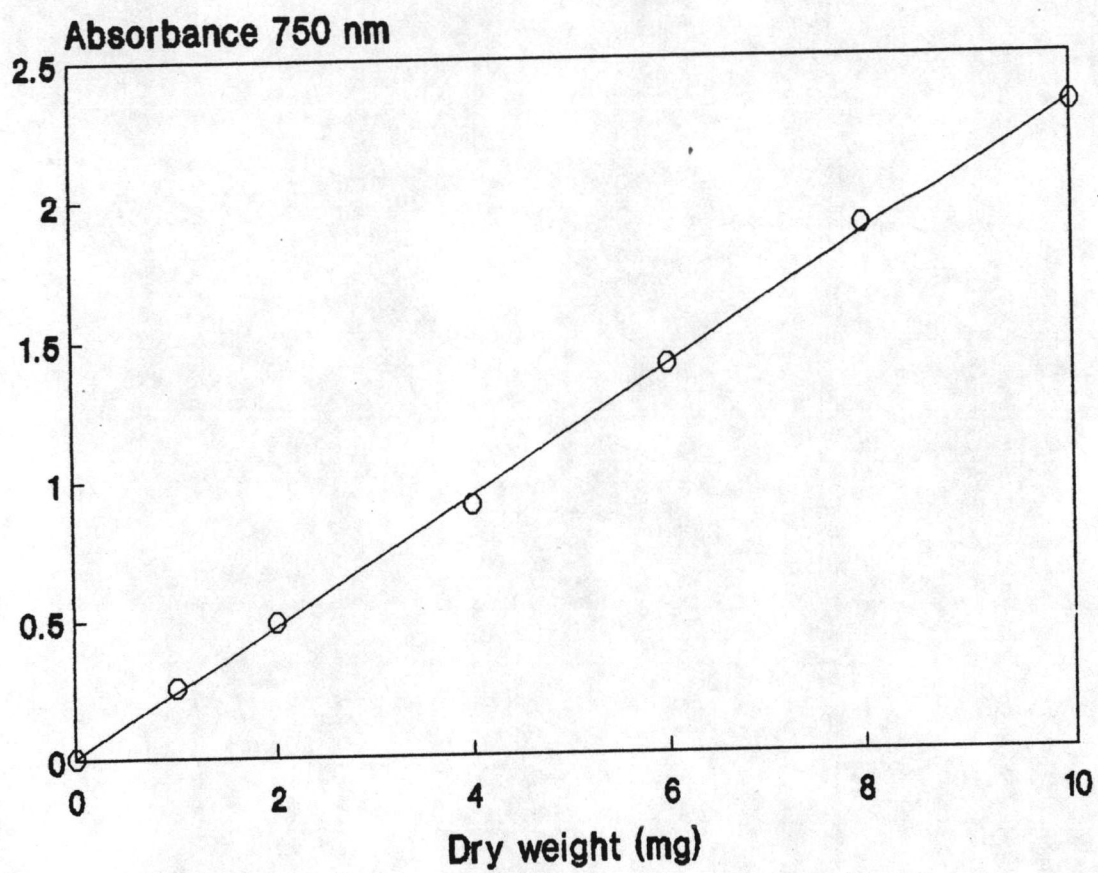
NH₄VO₃ : 22.9 ; NiSO₃·7H₂O : 47.8 ; Na₂WO₄ : 17.9 ;
 Ti(SO₄) : 40.0 ; and Co(NO₃)₂·6H₂O : 4.4.

In order to prevent the reactions of some components causing the precipitation of the medium, NaHCO₃ and K₂HPO₄ were autoclaved separately. The medium was sterilized by autoclaving at 15 lb/in² for 15 minutes and the solutions were mixed together.

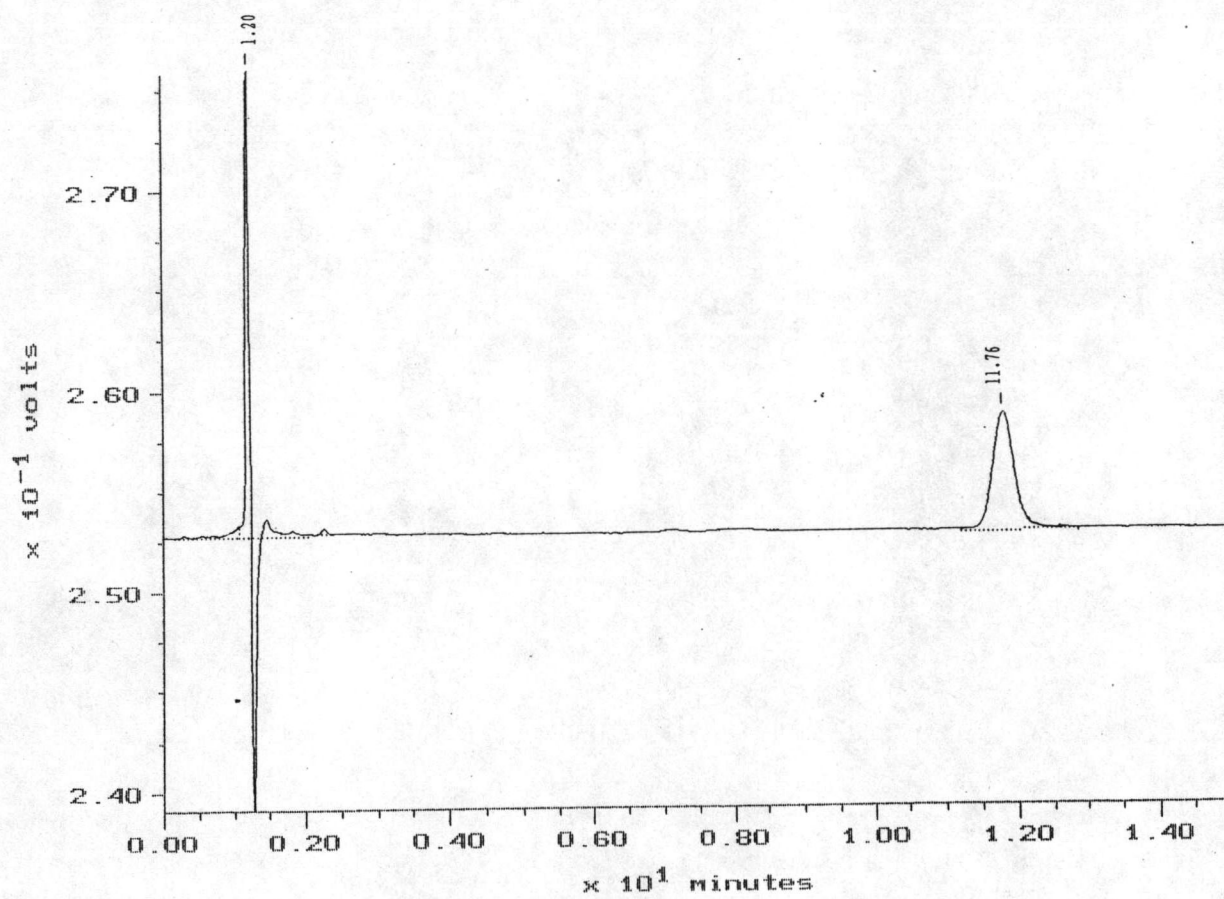
APPENDIX 2 : DETERMINATION OF DRY WEIGHT

A 10 ml culture was filtered through a Whatman GF/C by means of a suction pump. Prior to filtration the paper was dried in an oven at 60°C until the constant weight was obtained. The algal residue on the paper was dried in an oven at 60°C until no further change in the weight occurred. The dry weight of Spirulina was then determined by the difference between the weight of the paper before and after filtration.

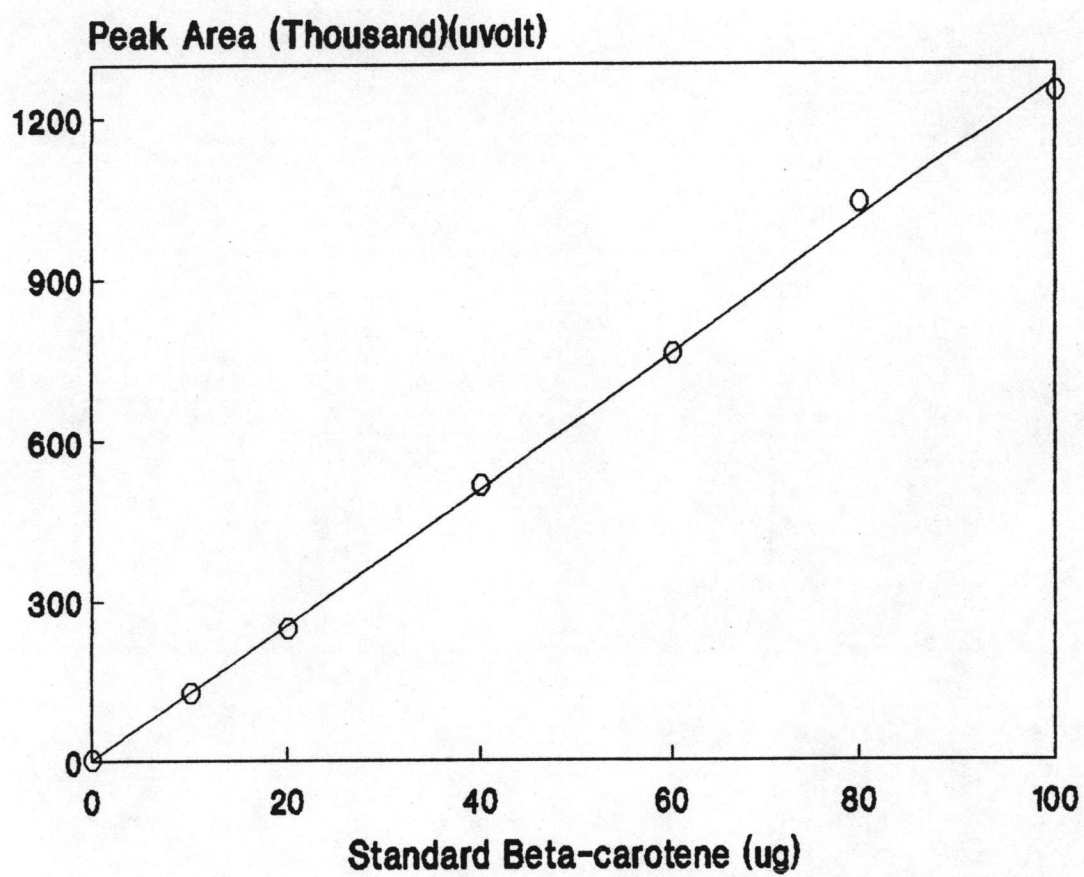
APPENDIX 3 : CORRELATION BETWEEN ABSORBANCE 750 AND
DRY WEIGHT OF Spirulina



APPENDIX 4 : HPLC CHROMATOGRAM OF STANDARD BETA-CAROTENE
TYPE IV



APPENDIX 5 : CORRELATION BETWEEN STANDARD BETA-CAROTENE
CONCENTRATIONS AND PEAK AREA





BIOGRAPHY

Miss Saranya Phunpruch was born on November 21, 1969 in Bangkok, Thailand. She graduated with a Bachelor of Science degree in Biochemistry from Faculty of Science, Chulalongkorn University in 1990 and continued study for a Master degree in Biotechnology programme.