

## APPENDIX

### The optimized conditions of FAAS

Optimized conditions of FAAS for lead(II) as follow:

Wavelength = 283.3 nm

Lamp current = 10 mA

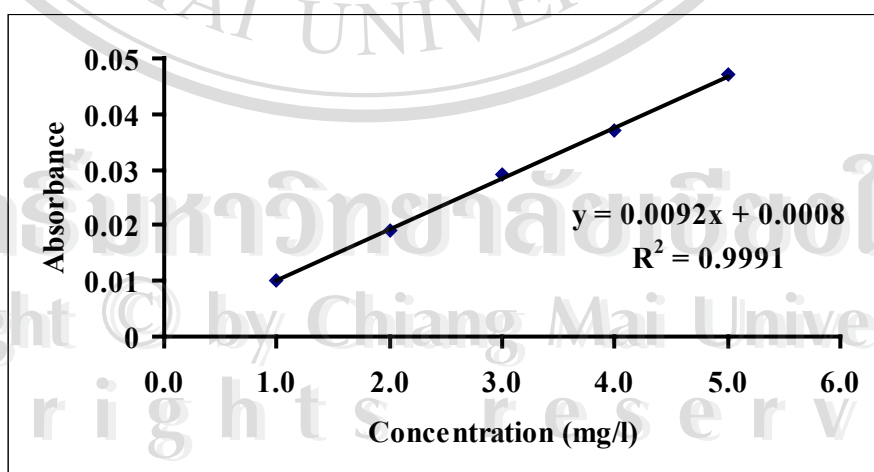
Slit width = 0.7 nm

Burner = 10 cm

Fuel flow rate = 8.0/1.7 l/min (air/acetylene)

**Table A-1** Absorbance of Pb(II) standard solution

Concentration of Pb(II) standard solution (mg/l)	Absorbance
1.0	0.010
2.0	0.019
3.0	0.029
4.0	0.037
5.0	0.047



**Figure A-1** Calibration line for Pb(II) standard solution

Optimized conditions of FAAS for copper(II) as follow:

Wavelength = 324.8 nm

Lamp current = 15 mA

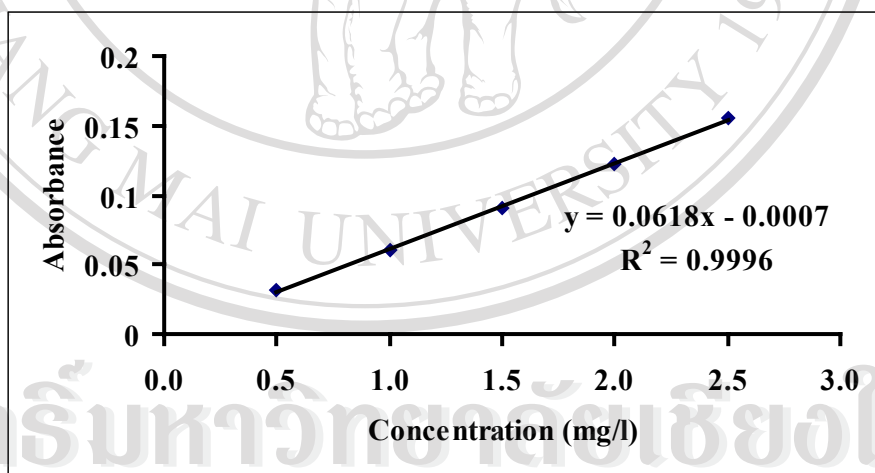
Slit width = 0.7 nm

Burner = 10 cm

Fuel flow rate = 8.0/1.8 l/min (air/acetylene)

**Table A-2** Absorbance of Cu(II) standard solution

Concentration of Cu(II) standard solution (mg/l)	Absorbance
0.5	0.031
1.0	0.061
1.5	0.091
2.0	0.122
2.5	0.155



**Figure A-2** Calibration line for Cu(II) standard solution

Optimized conditions of FAAS for cadmium(II) as follow:

Wavelength = 228.8 nm

Lamp current = 10 mA

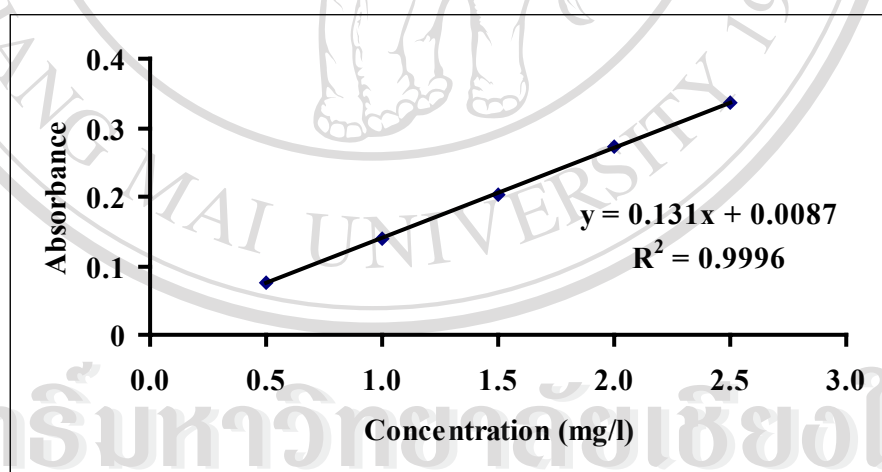
Slit width = 0.7 nm

Burner = 10 cm

Fuel flow rate = 8.0/1.8 l/min (air/acetylene)

**Table A-3** Absorbance of Cd(II) standard solution

Concentration of Cd(II) standard solution (mg/l)	Absorbance
0.5	0.075
1.0	0.140
1.5	0.202
2.0	0.273
2.5	0.336



**Figure A-3** Calibration line for Cd(II) standard solution

Optimized conditions of FAAS for chromium(III) as follow:

Wavelength = 357.9 nm

Lamp current = 10 mA

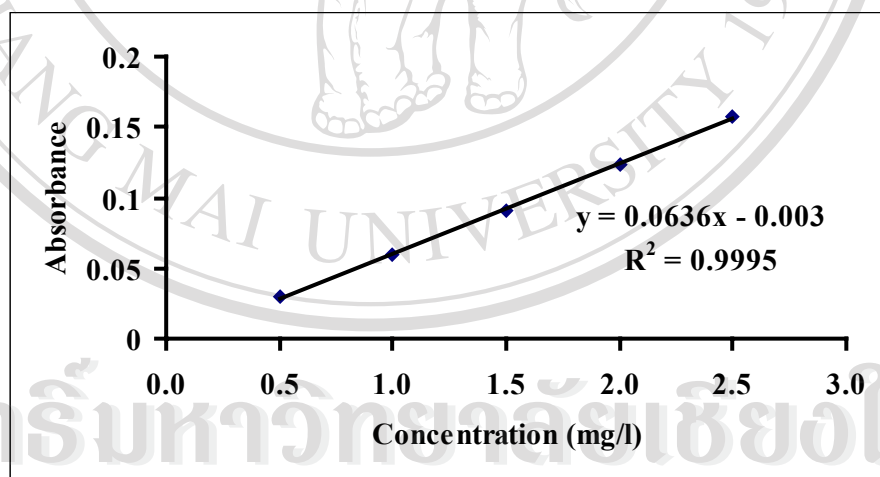
Slit width = 0.7 nm

Burner = 10 cm

Fuel flow rate = 8.0/2.6 l/min (air/acetylene)

**Table A-4** Absorbance of Cr(III) standard solution

Concentration of Cr(III) standard solution (mg/l)	Absorbance
0.5	0.030
1.0	0.060
1.5	0.091
2.0	0.124
2.5	0.157



**Figure A-4** Calibration line for Cr(III) standard solution

## CURRICULUM VITAE

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1. S. Imerbrath, B. Liawrunagrath and S. Liawrunagrath, “Development of Flow Injection Analysis for Thermometric Determination of Acetic acid”, poster presentation 27<sup>th</sup> Congress on Science and Technology of Thailand, Hatyai, 2001.
2. S. Imerbrath, S. Wangkarn and C. Dongoluen, “A Study of the Optimum Conditions for the Adsorption of Some Heavy Metals”, poster presentation 29<sup>th</sup> Congress on Science and Technology of Thailand, Khon Kean , 2003.