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APPENDIX

#### APPENDIX

### GAS CHROMATOGRAPH

## A1 Operating condition

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Flame ionization detector gas chromatograph model 9A and Thermal conductivity detector gas chromatograph model 8A were used to analyze the amount of pyrrole and carbondioxide adsorption, respectively.

The operating conditions for gas chromatograph are described below:

GC model	Shimadzu GC-9A	Shimadzu GC-8A	
Detector	FID	TCD	-
Nitrogen flow rate	30 ml/min	-	
Helium flow rate	-	30 ml/min	
Column temperature	70°C	70°C	
Injection temperature	140°C	90°C	
Detector temperature	140°C	90°C	

### A2 Calibration curve

The calibration curves of pyrrole and carbondioxide are presented in the following figures.

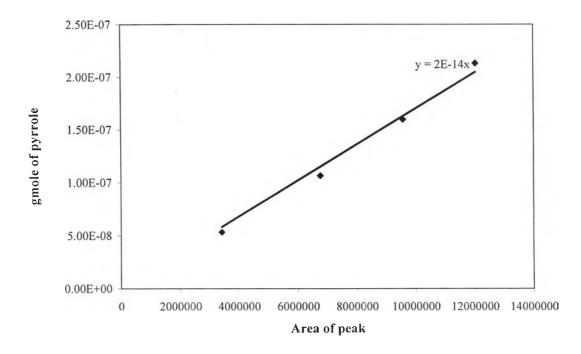


Figure A1 The calibration curve of pyrrole

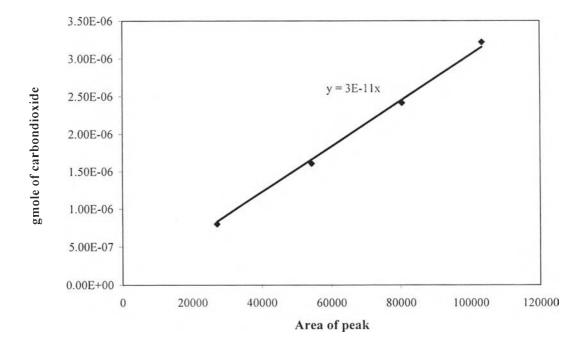


Figure A2 The calibration curve of carbondioxide

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