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APPENDIX

Appendix A Calibration of Gas Products

The relationship between the peak area from GC analysis and the gas concentration was conducted for the possible gas products such as hydrogen, carbon monoxide, and carbon dioxide.

Hydrogen

Peak Area	Amount (%)
0	0
16815	17.36
28863.25	26.94
51200.25	37.60
70724.75	44.72

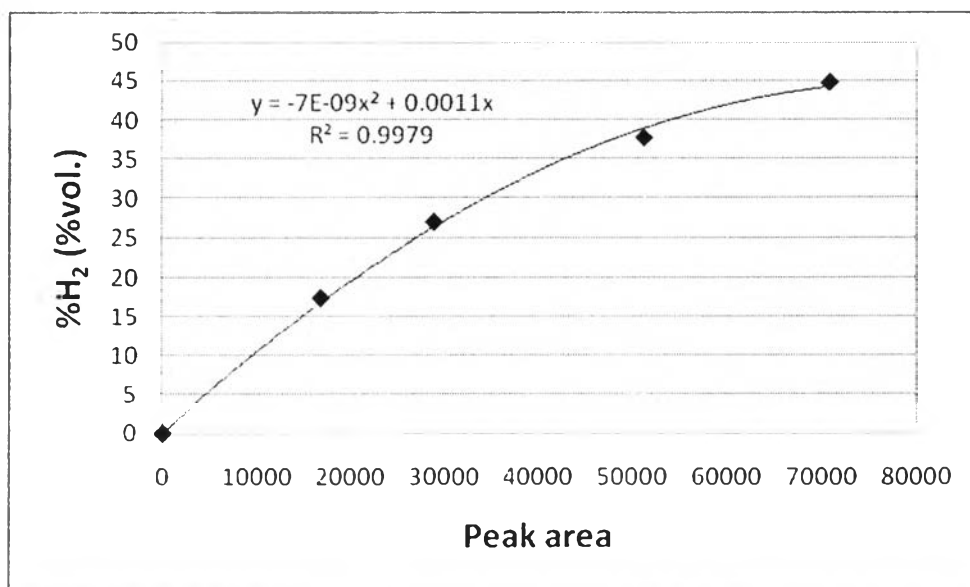


Figure A1 Calibration curve of hydrogen gas.

Where x is peak area from GC analysis

y is concentration (%)

Carbon dioxide

Peak Area	Amount (%)
0	0
615952.5	6.37
928586.5	9.73
1055156.25	11.24
1191626.25	12.4

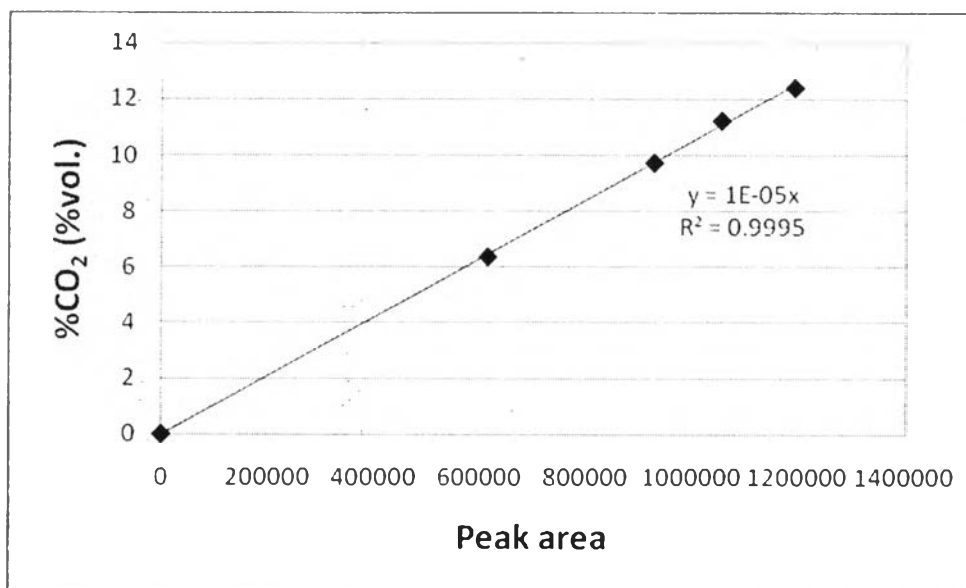


Figure A2 Calibration curve of carbon dioxide gas.

Where x is peak area from GC analysis

y is concentration (%)

Carbon monoxide

Peak Area	Amount (%)
0	0
219949	3.02
289850	3.42
332555	3.87
363762	4.38

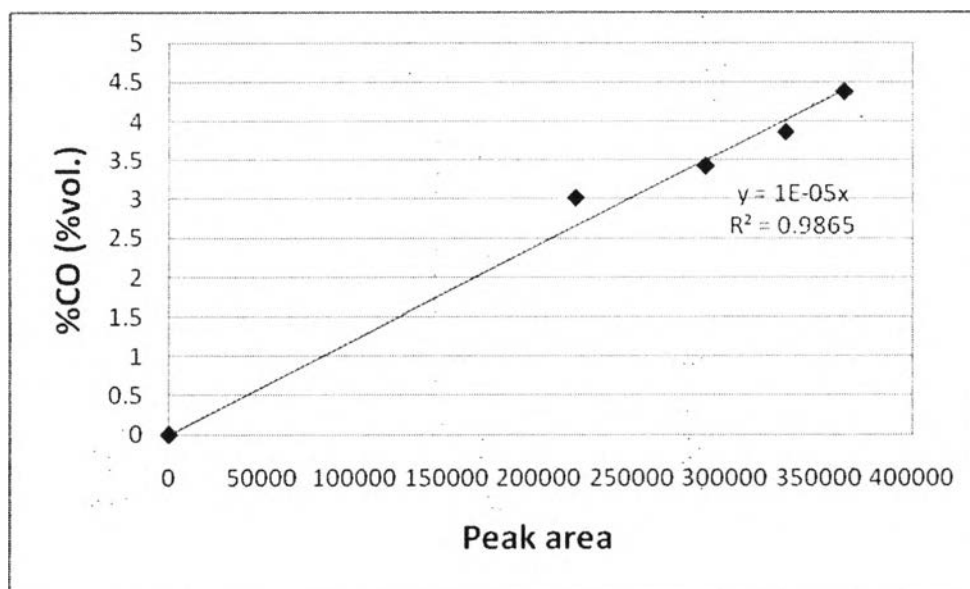


Figure A3 Calibration curve of carbon monoxide gas.

Where x is peak area from GC analysis

y is concentration (%)

Methane

Peak Area	Amount (%)
0	15.05
1627523	15.05
1627523	25.09
2349792	33.56
2759228	39.82

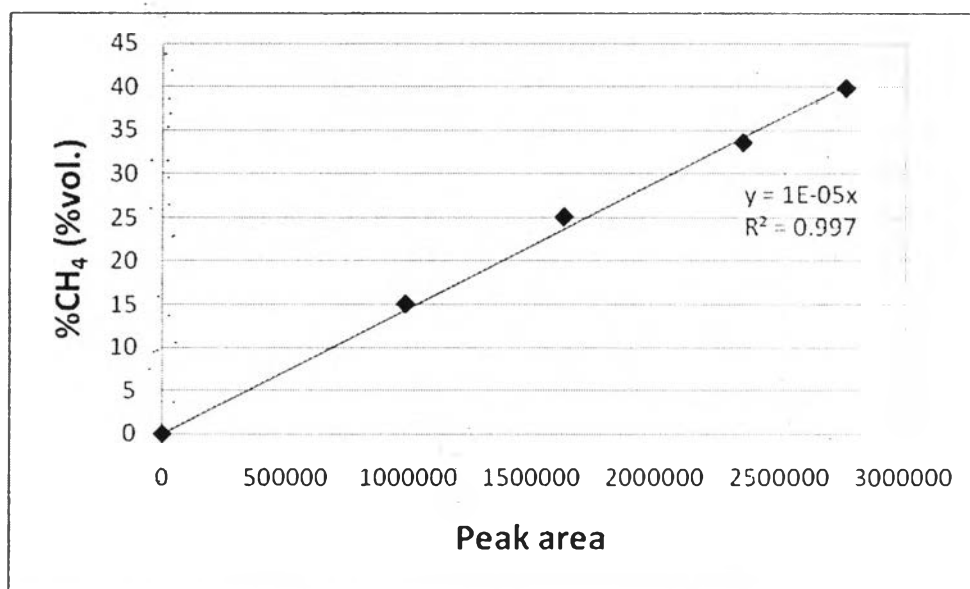


Figure A4 Calibration curve of methane gas.

Where x is peak area from GC analysis

y is concentration (%)

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