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APPENDICES

Appendix A The Amount of Methane Adsorbed on Surface of Activated Carbon Sample.

Table A1 The amount of methane adsorbed on surface of activated carbon from Norit

No.	AC sample	Amount of methane adsorbed (mmol/g)	Amount of methane adsorbed (g/g)
1	Norit	26.34 at 628 psi	0.43 at 628 psi
2	Norit-KOH	25.59 at 635 psi	0.39 at 635 psi
3	Norit-HCl	23.24 at 654 psi	0.36 at 654 psi
4	Norit-H ₂ SO ₄	18.02 at 606 psi	0.30 at 606 psi
5	Norit-HNO ₃	16.45 at 623 psi	0.30 at 623 psi

Table A2 The amount of methane adsorbed on surface of activated carbon from Calgon

No.	AC sample	Amount of methane adsorbed (mmol/g)	Amount of methane adsorbed (g/g)
1	Calgon	24.45 at 606 psi	0.38 at 606 psi
2	Calgon-KOH	25.03 at 623 psi	0.40 at 623 psi
3	Calgon-HCl	22.35 at 654 psi	0.35 at 654 psi
4	Calgon-H ₂ SO ₄	23.86 at 636 psi	0.36 at 636 psi
5	Calgon-HNO ₃	25.73 at 610 psi	0.37 at 610 psi

Table A3 The amount of methane adsorbed on surface of activated carbon derived from Coconut shell (20-40 mesh)

No.	AC sample	Amount of methane adsorbed (mmol/g)	Amount of methane adsorbed (g/g)
1	Coconut shell (20-40 mesh)	23.86 at 636 psi	0.38 at 636 psi
2	Coconut shell (20-40 mesh)-KOH	25.73 at 610 psi	0.42 at 610 psi
3	Coconut shell ^a -HCl	25.10 at 621 psi	0.40 at 621 psi
4	Coconut shell ^a -H ₂ SO ₄	19.24 at 656 psi	0.36 at 656 psi
5	Coconut shell ^a -HNO ₃	20.99 at 645 psi	0.36 at 645 psi

Table A4 The amount of methane adsorbed on surface of activated carbon derived from Coconut shell (powder)

No.	AC sample	Amount of methane adsorbed (mmol/g)	Amount of methane adsorbed (g/g)
1	Coconut shell (powder)	19.24 at 656 psi	0.31 at 656 psi
2	Coconut shell (powder)-KOH	20.99 at 645 psi	0.34 at 645 psi
3	Coconut shell (powder)-HCl	20.35 at 647 psi	0.33 at 647 psi
4	Coconut shell (powder)-H ₂ SO ₄	21.69 at 631 psi	0.32 at 631 psi
5	Coconut shell (powder)-HNO ₃	23.31 at 623 psi	0.33 at 623 psi

Table A5 The amount of methane adsorbed on surface of activated carbon derived from Eucalyptus

No.	AC sample	Amount of methane adsorbed (mmol/g)	Amount of methane adsorbed (g/g)
1	Eucalyptus ^c	21.69 at 631 psi	0.34 at 631 psi
2	Eucalyptus ^c -KOH	23.31 at 623 psi	0.37 at 623 psi
3	Eucalyptus ^c -HCl	22.11 at 654 psi	0.35 at 654 psi
4	Eucalyptus ^c - H ₂ SO ₄	22.50 at 660 psi	0.36 at 660 psi
5	Eucalyptus ^c - HNO ₃	22.76 at 625 psi	0.36 at 625 psi

Appendix B Methane Adsorption Isotherm of Activated Carbon

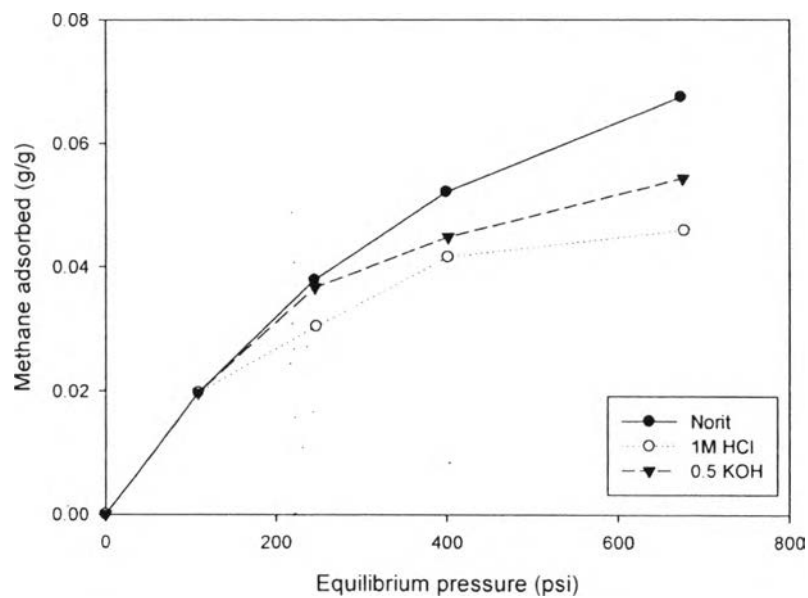


Figure B1 Adsorption isotherm of untreated and chemical treated activated carbon from Norit.

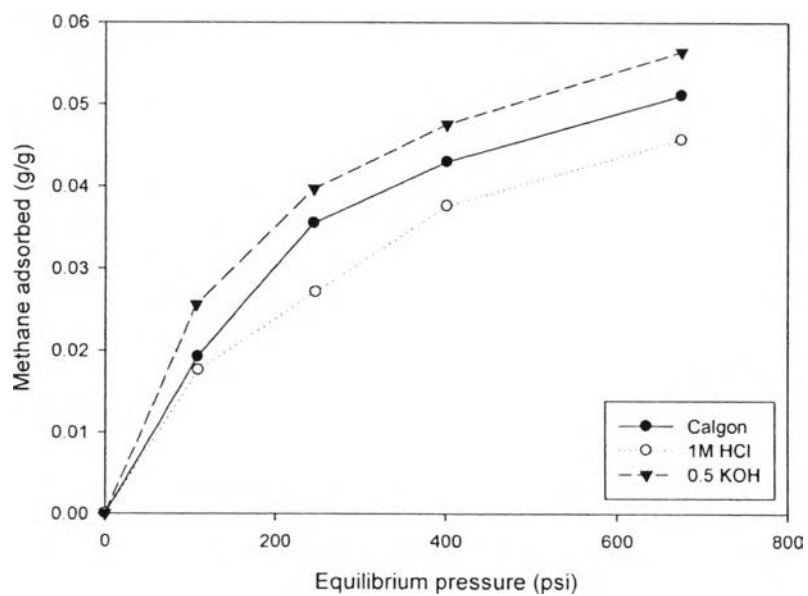


Figure B2 Adsorption isotherm of untreated and chemical treated activated carbon from Calgon.

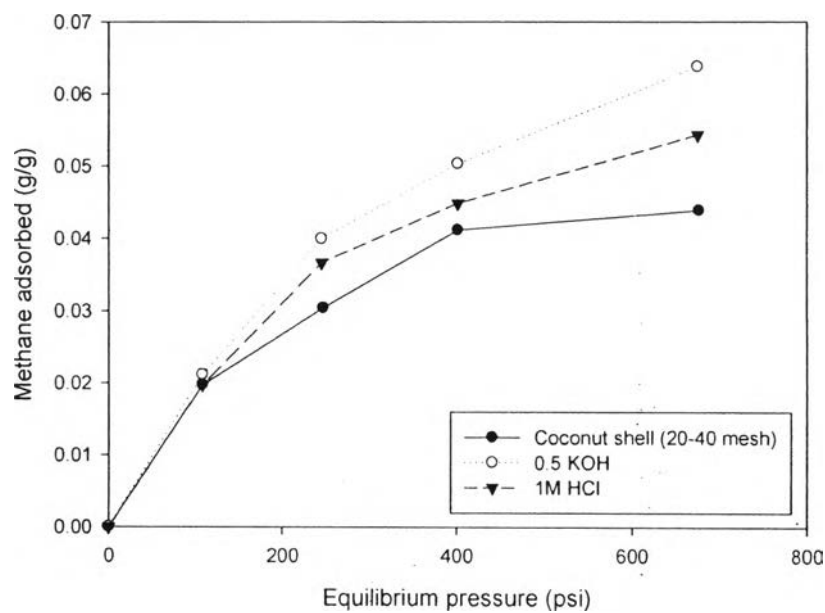


Figure B3 Adsorption isotherm of untreated and chemical treated activated carbon derived from coconut shell (20-40 mesh).

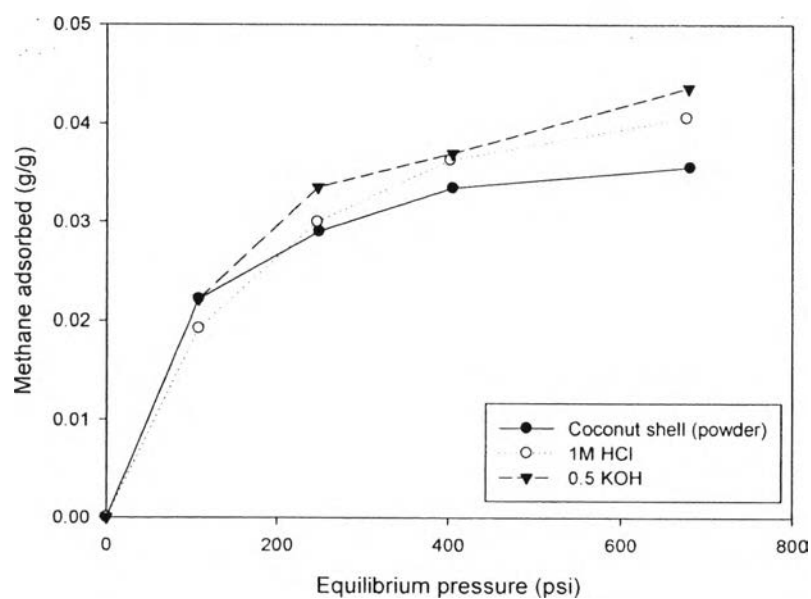


Figure B4 Adsorption isotherm of untreated and chemical treated activated carbon derived from coconut shell (powder).

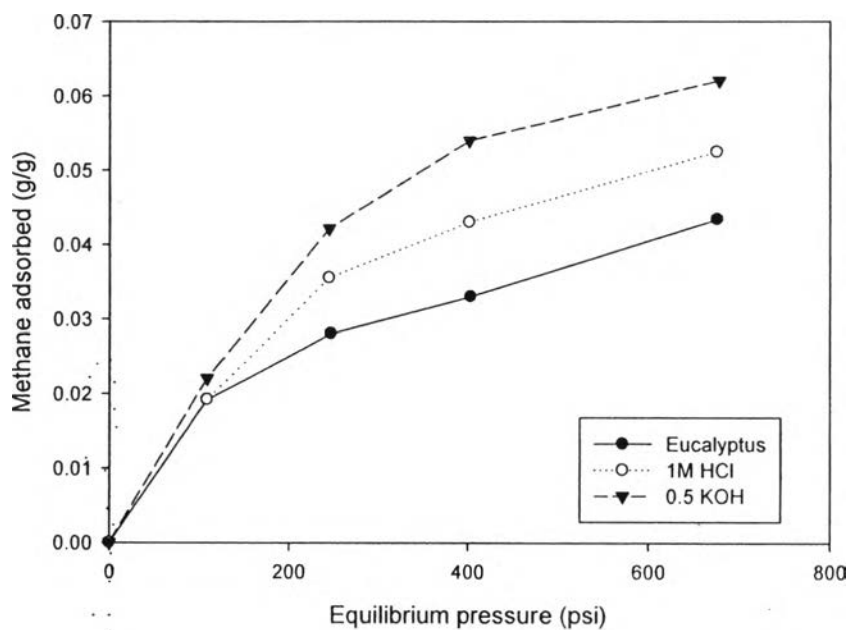


Figure B5 Adsorption isotherm of untreated and chemical treated activated carbon derived from eucalyptus (powder).

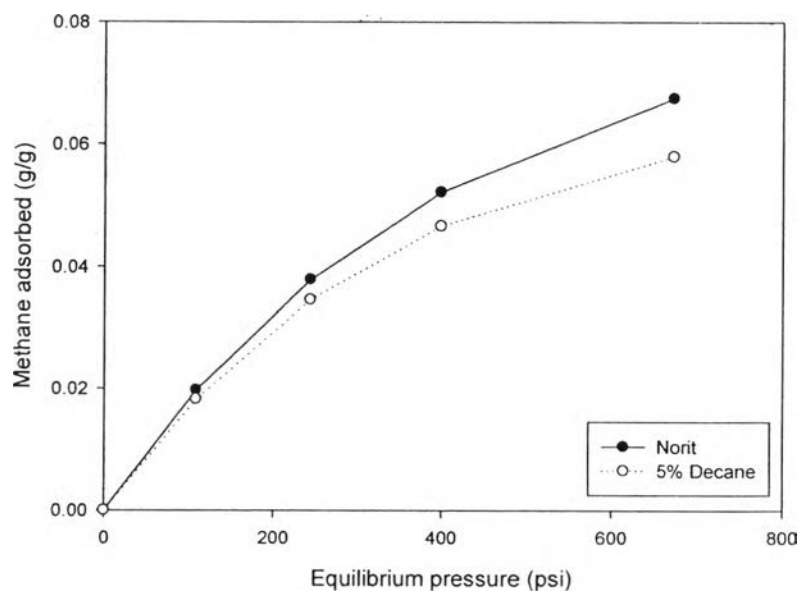


Figure B6 Adsorption isotherm of untreated and decane treated activated carbon from Norit.

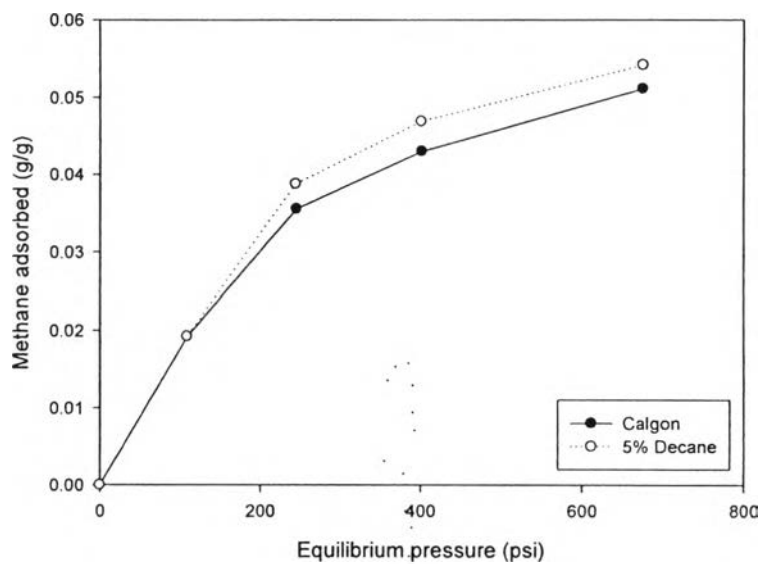


Figure B7 Adsorption isotherm of untreated and chemical treated activated carbon from Calgon.

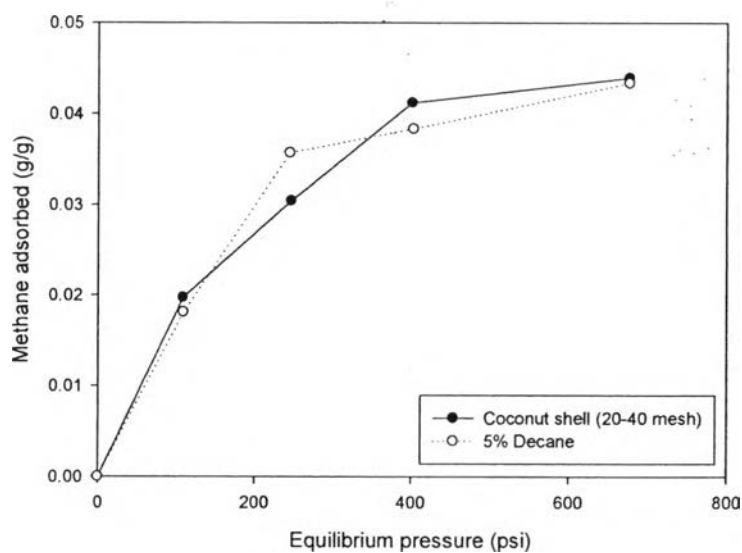


Figure B8 Adsorption isotherm of untreated and chemical treated activated carbon derived from coconut shell (20-40 mesh).

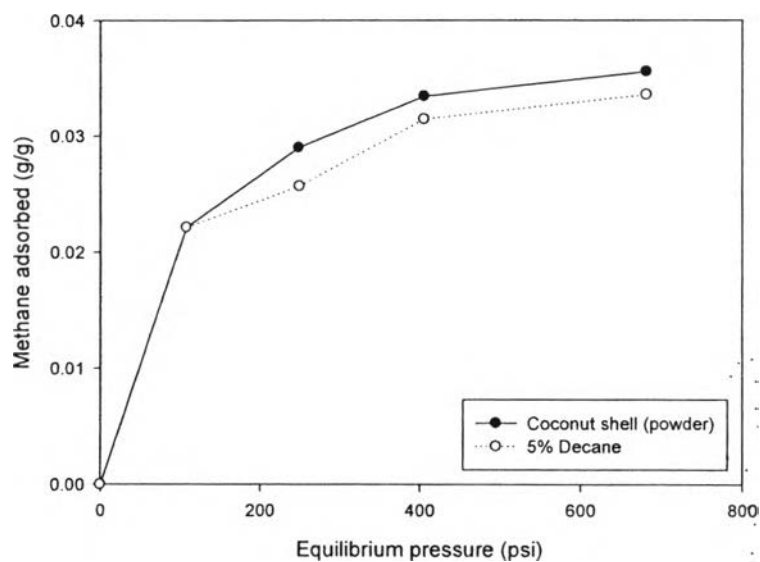


Figure B9 Adsorption isotherm of untreated and chemical treated activated carbon derived from coconut shell (powder).

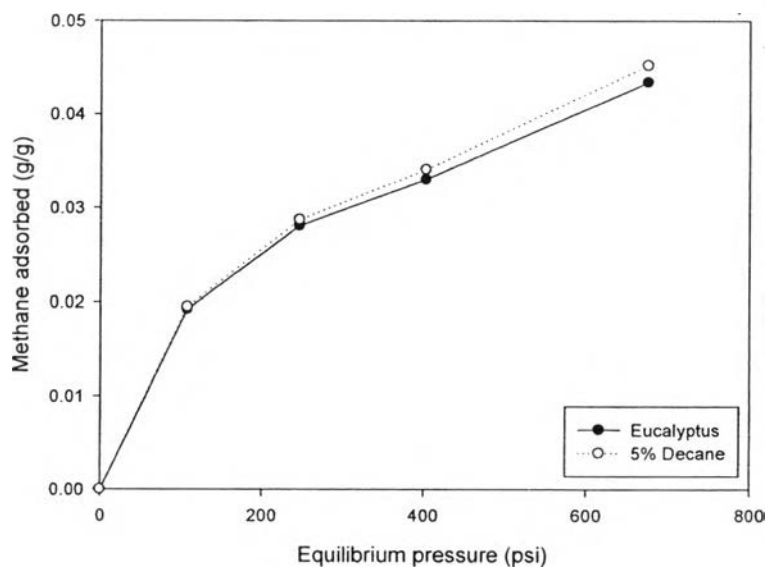


Figure B10 Adsorption isotherm of untreated and chemical treated activated carbon derived from eucalyptus (powder).

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