

## DAFTAR PUSTAKA

- A.L. Ahmad, Sumathi.S & Hameed.B.H, 2005, Adsorption of residue oil from palm oil mill effluent using powder and flake chitosan: Equilibrium and kinetic studies, *Water Research*, 39: 2483-2494
- A.Gurses, Dogar.C, Yalcin.M, Acikyildiz.M, Bayrak.R & Karaca.S, 2006, The adsorption kinetics of the cationic dye, methylene blue onto clay, *J.of Hazardous Materials* B131: 217-228
- A. S. Buchanan & Oppenheim. R. C, 1968, The Surface chemistry of kaolinite I. Surface leaching, , *Aust. J. Chem*:21, 2367-71
- D.Fischer, Caseri. W. R & Hahner. G, 1998, Orientation and Electronic Structure of Ion Exchanged Dye Molecules on Mica: An X-Ray Absorption Study, *Journal of Colloid and Interface Science* 198: 337–346
- D.L.Guerra & Airoldi.C, 2008, Anchored thiol smectite clay, kinetic and thermodynamic studies of divalent copper and cobalt adsorption, *Journal of Solid State Chemistry* 181: 2507– 2515
- D.M.Manohar., Noeline.B.F & Anirudhan.T.S, 2006, Adsorption performance of Al-pillared bentonite clay for the removal of cobalt(II) from aqueous phase, *Applied Clay Science*, 31:194-206
- G. Ekosse, 2001, Resource Note: Provenance of the Kgwakgwe kaolin deposit in Southeastern Botswana and its possible utilization, *Applied Clay Science*, 20: 137-152
- F.J.Alguacil., Alonso.M & Lozano.L.J, 2004, Chromium(III) recovery from waste acid solution by ion exchange processing using Amberlite IR-120 resin: batch and continuous ion exchange modelling, *Chemosphere*, 57: 789-793
- G. Crini., Peindy.H.N, Gimbert.F & Robert.C, 2007, Removal of C.I Basic Green 4 (malachite Green) from aqueous solutions by adsorption using cyclodextrin-based adsorbent: Kinetic and equilibrium studies, *Separation and Purification Technology*, 53: 97-110

- H. Bekkum, Flanigen. E. M, Jacobs. P. A &. Jansen. J. C, editor, 2001, *Introduction to Zeolite Science and Practice: 8. Techniques of zeolite characterization*, 2nd Edition, Elsevier, Amsterdam
- H.H.Murray, 2000, Traditional and new applications for kaolin, smectite, and palygorskite: a general overview, *Applied Clay Science* 17: 207-221
- J.C. Miranda-Trevino & Coles.C.A, 2003, Kaolinite properties, structure and influence of metal retention on pH, *Applied Clay Science* 23 : 133– 139
- J-Q.Jiang, Cooper.C & Ouki.S, 2002, Comparison of modified montmorillonite adsorbents Part I: preparation, characterization and phenol adsorption, *Chemosphere* 47: 711-716
- J-Q.Jiang & Zeng.Z, 2003, Comparison of modified montmorillonite adsorbents Part II: The effect of the type of raw clays and modification conditions on the adsorption performance, *Chemosphere* 53: 53-62
- K. Bellir, Bencheikh-Lehocine.M, Meniai.A-H & Gherbi.N, 2005, Study of retention of heavy metals by natural material used as liner in landfills, *Desalination*, 185: 111-119
- K.G.Bhattacharyya & Gupta.S.S, 2006, Kaolinite, montmorillonite, and their modified derivatives as adsorbents for removal of Cu(II) from aqueous solution, *Separation and Purification Technology* 50: 388-397
- K.G.Bhattacharyya & Gupta.S.S, 2008, Kaolinite and montmorillonite as adsorbents for Fe(III),Co(II) and Ni(II) in aqueous medium, *Applied Clay Science* 41 : 1- 9
- L.Zhou, Wang.Y, Liu.Z & Huang.Q, 2009, Characteristics of equilibrium, kinetics studies for adsorption of Hg(II), Cu(II),and Ni(II) ions by thiourea-modified magnetic chitosan microspheres, *Journal of Hazardous Materials* 161: 995–1002
- M.Hajjaji, Kacim.S, Alami.A, El Bouadili.A & El Mountassir.M, 2001, Chemical and mineralogical characterization of a clay taken from the Moroccan Meseta and a study of the interaction between its fine fraction and methylene blue, *Applied Clay Science* 20: 1–12
- M. Majdana, Kowalska-Ternesa. M, Pikusa.S, Staszczuka.P, Skrzypek. H & Ziebab. E, 2003, Vibrational and scanning electron microscopy study of the mordenite modified by Mn, Co, Ni, Cu, Zn and Cd, *J.Mol.Struct.*, 649:279-285

- M. Rozic, Cerjan-Stefanovi.S, Kurajica.S, Maeefat.M.R, Margeta. K & Farkas.A, 2005, Decationization and dealumination of clinoptilolite tuff and ammonium exchange on acid-modified tuff, *Journal of Colloid and Interface*, 284: 48-56
- M. Sathishkumar, Binupriya. A.R, Kavitha. D & Yun. S.E, 2007, Kinetic and isothermal studies on liquid-phase adsorption of 2,4-dichlorophenol by palm pith carbon, *Bioresource Technology*, 98 : 866–873
- M. Sprynskyy<sup>(1)</sup>, Lebedynets.M, Terzyk.A.P, Kowalczyk.P, Namiesnik.J & Buszewski.B, 2005, Ammonium sorption from aqueous solutions by natural zeolite Transcarpathian clinoptilolite studied under dynamic conditions, *Journal of Colloid And Interface Science*, 284: 408-415
- M.Sprynskyy<sup>(2)</sup>., Lebedynets.M, Zbytniewski.R, Namiesnik.J & Buszewski.B, 2005, Ammonium removal from aqueous solutions by natural zeolite, Transcarpathian mordenite, kinetics, equilibrium and column tests, *Journal of Colloid And Interface Science*, 46: 155-160
- M.Sprynskyy, 2009, Solid–liquid–solid extraction of heavy metals (Cr, Cu, Cd, Ni and Pb) in aqueous systems of zeolite–sewage sludge, *Journal of Hazardous Materials* 161: 1377–1383
- Muhdarina & Erman, 1999, Modifikasi struktur dan karakter lempung alam, disajikan pada Seminar Hasil Penelitian Universitas Riau
- Muhdarina, Liggawati.A, Verawaty dan Mardanus, 2000, Jarak kisi, rasio Si/Al dan kation-kation penukar padatan lempung alumina terpilar, *Jurnal Natur Indonesia* III (1): 27-31
- N.C. Brady, 1990, *The nature and properties of soil*, 3<sup>th</sup> ed, Maxmillan International Edition, New York, 177-211
- O.Yavuz, Altunkaynak .Y & Guzel. F, 2003, Removal of copper, cobalt and manganese from aqueous solution by kaolinite, *Water Research*. 37: 948–952
- P. Baskaralingam., Pulikesi.M, Ramamurthi.V & Sivanesan.S, 2006, Short communication: Equilibrium studies for the adsorption of Acid dye onto modified hectorite, *Journal of Hazardous Materials*, B136 : 989–992

- P .Castaldi, Santona. L, Cozza.C, Giuliano.V, Abbruzzese.C, Nastro.V & Melis.P, 2005, Thermal and spectroscopic studies of zeolites exchanged with metal cations, *J.Mol.Struct*, 734: 99-105
- R.E. Grims, 1968, *Clay Mineralogy*, 2<sup>nd</sup> ed, McGraw-Hill Book Company, New York
- R. H. Worden, Needham.S.J & Cuadros.J, 2006, The worm gut; a natural clay mineral factory and a possible cause of diagenetic grain coats in sandstones *Journal of Geochemical Exploration* 89: 428-431
- S.M.Dal Bosco, Jimenez.R.S & Carvalho.W.A, 2005, Removal of toxic metals from wastewater by Brazilian natural scolecite, *Journal of Colloid And Interface Science*, 281: 424-431
- S.S.Gupta. & Bhattacharyya, 2005, Interaction of metal ions with clays: I. A case study with Pb(II), *Applied Clay Science*, 30:199-208
- S.S. Taher. & Naseem.R, 2007, Removal of Cr(III) from tannery wastewater by adsorption onto bentonite clay, *Separation and Purification Technology*, 53: 312–321
- T. Missana & Garcia-Gurtierrez.M, 2006, Adsorption of bivalent ions (Ca(II), Sr(II) and Co(II)) onto FEBEX bentonite, *Physics and Chemistry of the Earth* xxx: xxx–xxx (article in press)
- T.S. Anirudhan & Radhakrishnan.P.G, 2007, Thermodynamics and kinetics of adsorption of Cu(II) from aqueous solutions onto a new cation exchanger derived from tamarind fruit shell, *J. Chem. Thermodynamics*, xxxxxx (article in press)
- T.Shahwan., Erten.H.N & Unugur.S, 2006, Priority communication: A characterization study of some aspect of the adsorption of aqueous Co<sup>2+</sup> ions on natural bentonite clay , *Journal of Colloid And Interface Science*, 300: 447-452
- W.S. Wan Ngah & Hanafiah.M.A.K.M, 2008, Adsorption of copper on rubber (*Hevea brasiliensis*) leaf powder: Kinetic, equilibrium and thermodynamic studies, *Biochemical Engineering Journal* 39: 521–530
- [www.mindat.org](http://www.mindat.org)

- Y. Anbri, Tijani.N, Coronas.J, Mateo.E, Menéndez.M & Bentama.J, 2008, Clay plane membranes: development and characterization, *Desalination* 221: 419–424
- X.Xiong, Stagnitti.F, Allinson.G, Turoczy.N, Li.P, LeBlanc.M, Cann.M.A, Doerr.S.H, Steenhuis.T.S, Parlange.J-Y, de Rooij.G, Ritsema.C.J & Dekker.L.W, 2005, Short Communication. Effects of clay amendment on adsorption and desorption of copper in water repellent soil, *Australian Journal of Soil Research* 43: 397-402

No	Alat	Fungsi	Lokasi	Kelompok
1.	Grinder	Menghaluskan sampel	Lab kimia	Reaksi
2.	Wiyakan	Mengambil sampel	Lab Kimia	
3.	Oven	Mengeringkan sampel	Lab Kimia	Analisis
4.	Waterbath shaker	Mengalihkan sifat-sifat unsur dalam sistem batch	ada	
5.	Digital pH meter	Mengukur pH	ada	
6.	Magnete Stirrer	Mengaduk campuran	Lab Kimia Analisis FMIPA UNRI	
7.	AAS	Analisis keda logam	Lab DISPERP-DAG Pekanbaru	
8.	Spectra Analisis	Menentukan	Lab Kimia Analisis FMIPA UNRI	
9.	Alat Difrasii	Menyeprlaskan zat-zat	ada	
10.	XRD	Analisis mineral	Geologi PSL UKM	Jiliran
11.	XRF	Analisis komposisi oksidia logam	ada	
12.	FTIR	Analisis gajus fungsi	Makmal Inovasi Inovasi set fuel UKM	
13.	SEM	Analisis morfologi permukaan	Makmal - Hainan Lab Kimia PSL UKM	