

- Al-Duri, B., 1995, "A Review in Equilibrium in Single and Multicomponent Liquid Adsorption System", *Rev. Chem. Eng.* 11(1995) 101-143.
- Alkhatib, M., Samiaji, J., and Jennerjahn, T.C., 2007, "Biogeochemistry of the Dumai River Estuary, Sumatra, Indonesia, a Tropical Blackwater River", *Limnol. Oceanogr.*, 52(6), 2410-2417.
- Andersen, A., 2001, "Disposal and Recycling Routes for Sewage Sludge", *Scientific and Technical Report*, Part 3, European.
- Anonim, 2010, "Jaminan Mutu, Dokumen Level III, Subbidang Pengelolaan Limbah dan Keselamatan Lingkungan (PLKL) Bidang K2", PTAPB-BATAN.
- Ariyanto, D.P., 2006, "Ikatan Antara Asam Organik Tanah dengan Logam", Jurusan Ilmu Tanah Fak. Pertanian, UNS, Surakarta
- Audit Lingkungan P3TM Batan Yogyakarta, 2005, Yogyakarta.
- ASTM D 2974-87, 1916, "Standard Test Methods for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils", *Annual Book of ASTM Standards*, Philadelphia
- Brown, C.F., Serne, R.J., Schaef, H.T., Pierce, E.M., Lindberg, J., Wang, Z., Gassman, P., and Catalano, J., 2002, "300 Area Uranium Leach and Adsorption Project", Bechtel Hanford Company Inc., United States.
- Chatterjee, S., Dae, S., Lee, Min, W., Seung, H., and Woo, 2010, "Enhanced Molar Sorption Ratio for Naphthalene through the Impregnation of Surfactant into Chitosan Hydrogel Beads", *Bioresour. Technol.* 101 (2010) 4315-432.
- Do, D.D., 1998, "Adsorption Analysis: Equilibria and Kinetics", Imperial College Press, London.
- Fatimah, S., Indaryati, S., dan Haryati, I., 2009, "Pengaruh Thorium terhadap Analisis Uranium Menggunakan Spektrofotometer UV-Vis", Prosiding Seminar Pengelolaan Perangkat Nuklir, Serpong.
- Foo, K.Y., and Hameed, B.H., 2010, "Review Insights Into the Modeling of Adsorption Isotherm Systems", *Chem. Eng. J.* 156(2010) 2-10.
- Hinz, C., 2001, "Description of Sorption Data with Isotherm Equations", *Geoderma* 99 (2001) 225-243
- International Atomic Energy Agency (IAEA), 2001, "Generic Models for Use in Assessing the Impact of Discharges of Radioactive Substances to the Environment", IAEA, Vienna

- Kang, M.J., Han, B.E., and Hahn, P.S., 2002, "Precipitation and Adsorption of Uranium(VI) Under Various Aqueous Conditions", *Environ. Eng. Res.* Vol. 7, No. 3, pp 149-157.
- Kawaguchi, K., and Kyuma, K., 1974, "Paddy Soils in Tropical Asia", *Southeast Asian Studies*, Vol.12, No.1.
- Kementrian Riset dan Teknologi (KRT), "Agenda Riset Nasional 2010 – 2014", 2010, Jakarta.
- Kilic, O., and Cotuk, Y., 2011, "Radioactivity Concentrations in Sediment and Mussel of Bosphorus and Golden Horn", *J. Radioanal. Nucl. Chem.* (2011) 289: 627-635.
- Laksito, D., 2008, "Keseimbangan Fasa Amonia pada Air dan Sedimen di Sungai, Tesis diajukan pada Program Pasca Sarjana UGM, Yogyakarta
- Lukman, 2002, "Peranan Kecepatan Arus dan Bahan Organik Sedimen Terhadap Biomassa Oligo Chaeta di Inlet Waduk Cirata", *Limnotek*, Vol.IX, No.1., Bandung.
- Masel, J., and Richard, I., 1996, "Principles of Adsorption and Reaction on Solid Surface", John Wiley & Sons, Inc, Canada.
- Metcalf and Eddy, 2003, "Wastewater Engineering Treatment & Reuse", Fourth edition, Mc. Graw hill, New York.
- Nibou, D., Khemaissia, S., Amokrane, S., Barkat, M., Chegrouche, S., and Mellah, A., 2011, "Removal of  $UO_2^{2+}$  onto Synthetic NaA Zeolite, Characterization, Equilibrium and Kinetic Studies", *Chem. Eng. J.* 172(2011) 296 -305.
- Noll, K.E., Gounaris, V., and Wang, S.H., 1992, "Adsorption Technology for Air and Water Pollution Control", Lewis Publisher, Inc, USA.
- Palar, H., 1995, "Pencemaran dan Toksikologi Logam Berat", PT. Rineka Cipta, Jakarta.
- Peraturan Pemerintah Republik Indonesia Nomor 27 Tahun 2002 Tentang Pengelolaan Limbah Radioaktif
- Peraturan Presiden No. 5 Tahun 2006 tentang Kebijakan Energi Nasional.
- Prosiding Pertemuan & Presentasi Ilmiah Tahun 2010, 2009, 2008, Batan, Yogyakarta
- Ramli, A.T., Wahab, M.A., Hussein, and Wood K.A., 2005, "Environmental  $^{238}U$  and  $^{232}Th$  Concentration Measurements in an Area of High level Natural Background Radiation at Palong, Johor, Malaysia" *Envi. Radioact. J.* 80 (2005) 287-304.
- Rasito, Zulfakhri, Arianta, P.A., dan Suherman, A., 2007, "Konsentrasi Uranium, Thorium dan Kalium dalam Berbagai Produk Semen yang Dipasarkan di Indonesia, *Prosiding Seminar Nasional Sains dan Teknologi Nuklir*, p. 407-414.



- Stumm, Clair N., Mc Carty, Remy L., Parkin, and Gene, F., 2003, "Chemistry for enviromental engineering and science", 5th edition, Mc Graw Hill, Singapore.
- Schnoor, J.L., 1996, "Environmental Modeling : Fate and Transport of Pollutant in Water, Air, and Soil ", John Wiley & Sons Inc., Canada
- Shuib, X., Chun, Z., Xinghuo, Z., Jing, Y., Xiaojian, Z., and Jingsong, W., 2009, "Removal of Uranium(VI) from Aqueous Solution by Adsorption of Hematite", *J. Environ. Radioact.* 100 (2009) 162-166.
- Simon, C., 2006, "Lanthanide and Actinide Chemistry", John Wiley & Sons Ltd, England.
- Sprynkyy, M., Kowalkowski, T., Tutu, H., and Cukrowska, E.M., 2011, "Adsorption Performance of Talc for Uranium Removal from Aqueous Solution", *Chem. Eng. J.* 171 (2011) 1185 - 1193
- Stevenson, F.J., 1982, "Humus Chemistry: Genesis, Composition, and Reactions", John Willey and Sons, New York.
- Sukosrono, 2011, "Pengelolaan Saluran Air Buangan Terpadu, PTAPB – BATAN, Yogyakarta
- Thibodeau, L.J., 1996, "Environmental Chemodynamics: Movement of Chemicals in Air, Water, and Soil", Second edition, John Wiley & Sons, inc, Canada.
- Tzortzis, M., Tsertos, H., Cristofides, S., and Cristodoulides, G., 2002, " Gamma-Ray Measurements of Naturally Occuring Radioactive Samples from Cyprus Characteristic Geological Rocks", *papers UCY-PHY-02/02*
- Undang-undang (UU) No. 10 tahun 1997 tentang Ketenaganukliran
- Vandenhove, H., Hees, M.V., Wouters, K., and Wannijn, J., 2007, "Can We Predict Uranium Bioavailability Based on Soil Parameters? Part 1: Effect of Soil Parameters on Soil Solution Uranium Concentration" *Environmental Pollution* 145 (2007) 587-595.
- Wang, G., Liua, J., Wang, X., Xiea, Z., and Deng, N., 2009," Adsorption of Uranium (VI) from Aqueous Solution onto Cross-linked Chitosan" *Hazardous Materials J.* 168(2009) 1053 -1058
- Wang, Y.Q., Zhang, Z.B., Liu, Y.H., , Cao, X.H., Liu, Y.T., and Li, Q., 2012," Adsorption of U(VI) from Aqueous Solution by the Carboxyl-Mesoporous Carbon" *Chem. Eng. J.* 198-199 (2012) 246 - 253.
- Yusan, S., and Akyil, S., 2008, "Sorption of uranium (VI) from aqueous solution by akaganeite", *Hazardaous Material J.* 160(2008) 388 -395.
- Zänker, H., Ulrich, K., Opel, K., and Brendler, V., 2007, "The Role of Colloids in Uranium Transport: a Comparison of Nuclear Waste Repositories and Abandoned Uranium Mines", *Water Mining Envi., R.Cidu & F. Frau (Eds).*

<http://epa.gov/radiation/radionuclides/uranium.html> diakses 18 November 2011.

<http://web.ead.anl.gov/uranium> diakses tanggal 18 November 2011.

<http://www.world-nuclear.org/info/inf14.html> diakses tanggal 18 November 2011.

<http://www.nature.nps.gov/hazardssafety/toxic/uranium.pdf> diakses tanggal 18 November 2011.

[www.bt.cdc.gov/radiation](http://www.bt.cdc.gov/radiation) diakses tanggal 1 Desember 2011.

[www.epa.gov](http://www.epa.gov), "Technology transfer network air toxics web site", diakses tanggal 1 Desember 2011.

<http://en.wikipedia.org/wiki/Uranium> diakses tanggal 18 November 2011.

<http://www.frankenmuthcity.com/wastewater/faq.htm>, diakses tanggal 9 agustus 2012

[www.mass.gov/dep/water/drinking/unconvert.htm](http://www.mass.gov/dep/water/drinking/unconvert.htm) diakses tanggal 13 April 2012.

[http://www.warintek.ristek.go.id/nuklir/daur\\_bahan\\_bakar.pdf](http://www.warintek.ristek.go.id/nuklir/daur_bahan_bakar.pdf) diakses tanggal 28 Mei 2012

[www.batan.go.id](http://www.batan.go.id), diakses tanggal 28 Mei 2012

[http://www.akaction.org/Publications/Mining/Uranium\\_Mining.pdf](http://www.akaction.org/Publications/Mining/Uranium_Mining.pdf) diakses tanggal 28 Mei 2012.

<http://www.osti.gov> diakses tanggal 28 Juli 2012.

[http://www.pub.iaea.org/mtcd/meetings/PDFplus/2009/cn175/URAM2009/Session%205/01\\_10\\_Iles\\_Australia.pdf](http://www.pub.iaea.org/mtcd/meetings/PDFplus/2009/cn175/URAM2009/Session%205/01_10_Iles_Australia.pdf) diakses tanggal 09 Agustus 2012





UNIVERSITAS  
GADJAH MADA

**PREDIKSI KESETIMBANGAN ADSORPSI URANIUM PADA AIR DAN BERBAGAI JENIS SEDIMEN  
PADA BERBAGAI PH**

Jasmi Budi Utami, Prof. Ir. Wahyudi Budi Sediawan, S.U., Ph.D.

Universitas Gadjah Mada, 2013 | Diunduh dari <http://etd.repository.ugm.ac.id/>

