

## DAFTAR PUSTAKA

- [1] IAEA. *Research Reactor Database*. Diakses dari <https://www.iaea.org/worldatom/rrdb/>, 19 Juli 2017.
- [2] Amanda J. Youker, Pei-Lun Chung, Elizabeth Krahn, George F. Vandegrift. "Column Optimization Studies". *Argonne National Laboratory*, 2012.
- [3] R. Byron Bird, Warren E. Steward, Edwin N. Lightfoot. "*Transport Phenomena*", John Wiley & Sons, Inc, New York, 2002.
- [4] Marta Ferreira Gonzalez, Caferino Carrera, Ana Ruiz-Rodriguez, Gerardo F. Barbero, Jesus Ayuso, Miguel Palma, Carmelo G. Barroso. "A New Solid Phase Extraction for the Determination of Anthocyanins in Grapes". *Molecules*, 19:21398-21410, 2014.
- [5] P.R. Souza, G.L. Dotto, N.P.G. Salau. "Detailed Numerical Solution of Pore Volume and Surface Diffusion Model in Adsorption Model in Adsorption Systems". *Chemical Engineering Research and Design*, 122:298-307, 2017.
- [6] Rohadi Awaludin. "Radioisotop Teknisium-99m dan Kegunaannya". *Iptek Ilmiah Populer, Buletin Alara*, 13:61, 2011.
- [7] Ulrich Abram, Roger Alberto. "Technetium and Rhenium – Coordination Chemistry and Nuclear Medical Applications". *Journal Of The Brazilian Chemical Society*, 17:1486-1500, 2006. (13)
- [8] IAEA. *Chain Fission Yield*. Diakses dari <https://www-nds.iaea.org/sgnucdat/c1.htm>, 14 Juli 2017.
- [9] National Research Council (US) Committee. *Medical Isotope Production Without Highly Enriched Uranium*. National Academies Press (US), Washington (DC), 2009.
- [10] Edi Trijono Budisantoso, Syarip. "Studi Produksi Radioisotop <sup>99</sup>Mo Dengan Bahan Target Larutan Uranil Nitrat Pada Reaktor Kartini". *Ganendra*, V:2, 2002.
- [11] Nan Xu, Washington Braida, Christos Christodoulatos, Jianping Chen. "A Review of Molybdenum Adsorption in Soils/Bed Sediments: Speciation, Mechanism, and Model Applications". *Soil and Sediment Contamination: An International Journal*, 912-924, 2013.
- [12] International Molybdenum Association (IMOA). *Species in Aqueous Solution*. Diakses dari [http://www.imoa.info/HSE/environmental\\_data/chemistry/species\\_in\\_aqueous\\_solutions.php](http://www.imoa.info/HSE/environmental_data/chemistry/species_in_aqueous_solutions.php), 20 Juli 2017.

- [13] Seader, J.D., Henley, E.J. “*Separation Process Principles*”, New York, John Wiley & Sons, Inc. 1998.
- [14] Jochen Winkler, Stefan Marme. “Titania As a Sorbent in Normal-Phase Liquid Chromatography”. *Journal of Chromatography A*, 888: 51 – 62, 2000.
- [15]. Weast, R.C. (ed.). *Handbook of Chemistry and Physics 69th ed.* CRC Press Inc., Florida, 1989.
- [16] O’Neil, M.J. (ed.). *The Merck Index - An Encyclopedia of Chemicals, Drugs, and Biologicals*. Royal Society of Chemistry, Cambridge UK, 2013.
- [17] N. D. Betenekov, E. I. Denisov, T. A. Nedobukh, L. M. Sharygin. *Inorganic Sorbent for Molybdenum-99 extraction from Irradiated Uranium Solutions and Its Method of Use*. US Patent, 6,337,055, TCI Incorporated, US, 2002.
- [18] E. L. Cussler. *Diffusion Mass Transfer in Fluid System*. Cambridge University Press, New York, 2007.
- [19] C. R. Girish, V. Ramachandra Murty. “Mass Transfer Studies on Adsorption of Phenol from Wastewater Using Lantana camara, Forest Waste”. *International Journal of Chemical Engineering*, 1-11, 2016.
- [20] Barry Crittenden, W. John Thomas. *Adsorption Technology Design*. Butterworth Heinemann, UK, 1998.
- [21] Valerie Camel. <sup>99</sup>Mo separation/SPE review: Review Solid Phase Extraction of Trace Elements.
- [22] Eckhard Worch. *Adsorption Technology in Water Treatment Fundamentals, Processes, and Modelling*. De Gruyter, Germany, 2012.
- [23] McCabe, Warren, Jullian J Smith, Petter Harriot. *Unit Operation of Chemical Engineering, 5<sup>th</sup> edition*. Mac Graw Hill Inc., Singapore, 1993.
- [24] Chermisinoff, Paul N., Fred Ellerbusch, *Carbon Adsorption Handbook*. Ann Arbor Science Publishers Inc., Michigan, 1978.
- [25] Seader, J.D., Henley, E.J, *Separation Process Principles*. John Wiley & Sons, Inc., New York, 1998.
- [26] Tedi Hudaya, I Gede Pandega Wiratama. *Perancangan Kolom Adsorpsi Karbon Aktif untuk Pengolahan Limbah Kromium Heksavalen*, Lembaga Penelitian dan Pengabdian kepada Masyarakat Universitas Katolik Parahyangan, Bandung, 2016.
- [27] Fletcher, Asleigh. *Porosity and Sorption Behaviour*. Diakses dari <https://www.staff.ncl.ac.uk/a.j.fletcher/adsorption.htm>, 15 Juli 2017.

- [28] Foss, S, Alan. "A Laboratory Fixed Bed Reactor for all Occasons", *IECR*, 30,1991.
- [29] A.J. Youker, D.C. Stepinski, L. Ling, N-H.L. Wang, G.F. Vandegrift. "Column Optimazation for Mo Separation and Recovery". *Topical Meeting On Molybdenum-99 Technological Development*, Washington D.C., 24-27 Juni 2014.
- [30] Zhe Xu, Jian-guo Cai, Bang-cai Pan. "Mathematically Modeling Fixed-Bed Adsorption in Aqueous Systems". *Journal of Zhejiang University-SCIENCE A (Applied Physics & Engineering)*, 14: 155-176, 2013.
- [31] E. M. Thurman, M. S. Mills. *Solid-Phase Extraction Principles and Practice*. John Wiley & Sons, Inc., New York, 1998.
- [32] Tjatoer Welasih. "Penentuan Koefisien Perpindahan Massa Liquid Solid dalam Kolom Packed Bed dengan Metode Adsorpsi". *Jurnal Teknik Kimia*, 1: 15-21, 2006.
- [33] J. M. Coulson, J. F. Richardson. *Chemical Engineering Design*. Elsevier Butterworth-Heinemann, Massachusetts, 2005.
- [34] Yuan Jia, Yan Li, David Hlavka. "Flow Through packed Beds". 2009.
- [35] Nian-Sheng Cheng. "Wall Effect on Pressure Drop in Packed Beds".
- [36] Ergun S. "Fluid Flow Through Packed Column". *Chemical Engineering Progress*, 48: 9-94, 1952.
- [37] Triatmodjo, B. *Metode Numerik*. Beta Offset, Yogyakarta, 2002.
- [38] Steven C. Chapra, Raymond P. Canale. *Metode Numerik untuk Teknik dengan Penerapan pada Komputer Pribadi*. Universitas Indonesia UI-Press, Jakarta, 1991.
- [39] Steven C. Chapra. *Applied Numerical Methods with MATLAB for Engineers and Scientists*. McGraw-Hill Higher Education, US, 2006.
- [40] Ro Satriyantara, Tyas Husadaningsih. *Metode Beda Hingga*. Diktat, Jurusan Matematika, Universitas Bawijaya, 2016.
- [41] Richard Bronson, Gabriel B. Costa. *Schaum's Outline: Persamaan Differensial Edisi Ketiga*. Erlangga, Jakarta, 2007.
- [42] Ling-Chuan Peng, Tsen Long Peng. *Pipe Stress Engineering*. ASME Press, USA, 2009.
- [43] ASME Boiler and Pressure Vessel Code Section VIII Rules for Construction of Pressure Vessel Division 1. New York, 2015.

- [44] Klaus Gebauer. *Packing System and Method for Chromatography Columns*. US Patent, 2013/0062267, GE Healthcare Bio-Sciences, Swedia, 2013.
- [45] Dominique C. Stepinski, Elizabeth O Krahn, Pei-Lun Chung, George F. Vandegrift. Design of Column Separation Process for recovery of Molybdenum from Dissolved High Density LEU Target. Chemical Science and Engineering, Argonne National Laboratory.
- [46] H. N. Nigg, M. J. Kaplanis, J. A. Svoboda, W.E. Robbins. "High Pressure Liquid Solid Chromatography of The Ecdysones Insect Molting Hormone". *STEROIDS*, 23: 507-516, 1974.
- [47] Russel M. Ball-Lynchburg. *Medical Isotope production Reactor*. US Patent, 339,264, The Babcock & Wilcox Company, Virginia, 1997.
- [48] Aalco Metals Ltd. *Stainless Steel: Alloying in Elements Stainless Steel*.
- [49] Science Clarified. *Survey of the Transition Metals*. Diakses dari <http://www.scienceclarified.com/everyday/Real-Life-Chemistry-Vol-1/Transition-Metals-Real-life-applications.html#ixzz4oLQZ1RK8>, 1 Agustus 2017.
- [50] M. Ehrlich, S. M. Seltzer, M. J. Bielefield, J. I. Trombka. "Spectrometry of a  $^{60}\text{Co}$  Gamma-Ray Beam Used for Instrument Calibration". *Metrologia*, 12: 169-179, 1976.
- [51] Andrew Backhouse. *Selection of Stainless Steels for Nuclear Applications*. Outokumpu Stainless.
- [52] Allegheny Ludlum. *Technical Data Blue Sheet Stainless Steels Types 321, 347, and 348*. Allegheny Ludlum Corporation, Pittsburgh.
- [53] Dominique C. Stepinski, Amanda J. Youker, Elizabeth O. Krahn, George F. Vandegrift, Pei Lun Chung, Nien Hwa Linda Wang. "Design of a Fission  $^{99}\text{Mo}$  Recovery Process and Implications toward Mo Adsorption Mechanism on Titania and Alumina Sorbents". *Industrial & Engineering Chemistry Research*, 56: 2815-2823, 2017.
- [54] M. Conde Engineering. *Thermophysical Properties of  $\text{NH}_4\text{OH}$  Solutions for the Industrial Design of Absorption Refrigeration Equipment*. Zurich, 2004.
- [55] Wikipedia. *Uranyl Nitrate*. Diakses dari [https://en.wikipedia.org/wiki/Uranyl\\_nitrate](https://en.wikipedia.org/wiki/Uranyl_nitrate), 22 Juni 2017.