

DAFTAR PUSTAKA

- Ainsworth, Shaaron. (2006). DeFT: A Conceptual Framework for Considering Learning with Multiple Representations. *School of Psychology and Learning Sciences Research Institute, University of Nottingham, 16(3)*, 183- 198.
- Amry, Urwatil W., Rahayu, Sri & Yahmin. (2017). Analisis Miskonsepsi Asam basa Pada Pembelajaran Konvensional dan Dual Situated Learning Model (DSLM). *Jurnal Pendidikan: Teori, Penelitian dan Pengembangan, Vol. 2, No. 3*, 385- 391.
- Artdej, R., Ratanaroutai, T., Coll, R. K., dan Thongpanchang, T. (2010). Thai Grade 11 students' alternative conceptions for acid- base chemistry. *Research in Science & Technological Education, 28(2)*, 167-183.
- Artemov, V. G., Volkov, A. A., Sysoev, N. N. & Volkov, A. A. (2016). Autoionization of water: does it really occur? *A.M. Prokhorov General Physics Institute, Russian Academy of Sciences, 119991 Moscow, Russia*.
- Barke, H.-D., Buchter, J. (2018). Laboratory Jargon of Lectures and Misconceptions of Students. *African Journal of Chemical Education- AJCE, 8(1)*, 28- 38.
- Barke, H.-D. et al. (2019). Acid- Base and Redox Reactions on Submicro level: Misconceptions And Challenge. *African Journal of Chemical Education- AJCE, 9(1)*, 2- 17.
- Barke, H.-D., Hazari, Al, Sileshi, Y. (2009). *Misconceptions in Chemistry*. New York: Heidelberg
- Barke, H.-D. & Harsch, N. (2014). Broensted acids and bases: they are not substances but molecules or ions”, *African Journal of Chemistry Education, 4(1)*, 82-94.

- Barke, H.-D. & Harsch, N. (2016). Donor- Acceptor Reactions: Good Bye to The Laboratory Jargon. *African Journal of Chemistry Education*, 6(1), 17- 30.
- Best, J. W., & Kahn, J. V. (2006). *Research in Education (10 ed.)*. New York: Pearson education Inc.
- Bowen, C. W. & Bunce, D. M. (1997). Testing for Conceptual Understanding in General Chemistry. *The Chemical Educator*, 2(2),
- Bradley, J. D. & Mosimege, M. D. (1998). Misconceptions in acids and bases: a comparative study of student teachers with different chemistry backgrounds. *South African Journal of Chemistry*, 51(3), 137- 145.
- Brady, James. E., Jespersen, Neil D., & Hyslop, Alison. (2012). *Chemistry The Molecular Nature of Matter*. New York: John Wiley & Sons, Inc.
- Carr, M. (1984). Model confusion in chemistry. *Research in Science Education*, 14: 97 - 103
- Cetingül, P.I. & Geban, O. (2011). Understanding of Acid-Base Concept by Using Conceptual Change Approach. *Hacettepe Üniversitesi Journal of Education*, 29(1), 69-74.
- Chandrasegaran, A. L., Treagust, D. F., & Mocerino, M. (2007). The development of a two-tier multiple-choice diagnostic instrument for evaluating secondary school students' ability to describe and explain chemical reactions using multiple levels of representation. *Journal Chemistry Education Research and Practice*, 8(3), 293-307.
- Chandrasegaran, A. L., Treagust, D. F., & Mocerino, M. (2008). An evaluation of teaching intervention to promote students' ability to use multiple levels of representation when describe and explaining chemical reactions. *Research in Science Education*, 38(2), 237- 248.
- Chang, Raymond. (2003). *Kimia Dasar Konsep-Konsep Inti Edisi 3*. Jakarta: Erlangga.
- Chang, Raymond. (2010). *Chemistry 10th Edition*. New York: McGraw- Hill

- Cohen, L., Manion, L., & Morrison, K. (2007). *Research Methods In Education (6 ed.)*. New York: Routledge.
- Cokelez, A., & Dumon, A. (2005). Atom and Molecule: Upper Secondary School French Students' Representations in Longterm Memory. *Chemistry Education Research and Practice*, 6(3), 119-135.
- Cooper, Melanie M., Kouyoumdjian, Hovig & Underwood, Sonia M. (2016). Investigating Students' Reasoning about Acid- Base Reactions. *Journal of Chemical Education*, 93, 1703- 1712.
- Creswell, J.W. (2014). *Research Design (4 ed.)*. California: SAGE Publication Inc.
- Crys, F. P., Sari, L. P., & Purtadi, S. (2009). Efektivitas Penerapan Metode Pembelajaran Kooperatif Tipe Stad pada Mata Pelajaran Kimia di SMA. *Prosiding Seminar Nasional, Pendidikan dan Penerapan MIPA*, 1(1), 333-338.
- Dahsah, C. & Coll, Richard K. (2007). Thai Grade 10 and 11 students' conceptual understanding and ability to solve stoichiometry problems. *Research in Science & Technological Education*, Vol. 25, No. 2, 227- 241.
- Davetak, I. (2005). Explaining the latent structure of understanding submicropresentations in sciences. *University of Ljubljana*.
- Duit R. & Treagust D.F. (1995). *Students' conceptions and constructivist teaching approaches*. Chicago: The National Society for the Study of Education, 46-49.
- Demircioglu, G., et al. (2005). Conceptual Change Achieved Through a New Teaching Program on Acid and Base. *Journal of Chemistry Education Research and Practice*, 6 (1): 36-51.
- Demircioglu, G. (2009). Compaison of the effects of conceptual change texts implementated after and before instruction on secondary school students' understanding of acid base concepts. *Journal of Asia-Pasific Forum on Science Learning and Teaching*, Volume 10, Issue 2, Article 5, p.1

- Effendy. (2012). *A-Level Chemistry for Senior High School Volume 2A*. Malang: Bayumedia Publishing.
- Erlina. (2011). Deskripsi Kemampuan Berpikir Formal Mahasiswa Pendidikan Kimia Universitas Tanjungpura. *Jurnal Visi Ilmu Pendidikan*, 631- 640.
- Furió, Mas et al. (2005). How Are The Concepts And Theories of Acid-Base Reactions Presented? Chemistry In Textbooks And As Presented By Teachers. *International Journal of Science Education*, 27, 1337-1358.
- Gabel D. (1999). Improving teaching and learning through chemistry education research: A look to the future. *Journal of Chemical Education*, 76, 548-554.
- Gkitzia, V., K. Salta, & C. Tzougraki. (2011). Development and application of suitable criteria for the evaluation of chemical representations in school textbooks. *Chemistry Education Research and Practice*, 12(1), 5-14.
- Hinton, M. E. & Nakhleh, M. B. (1999). Students' Microscopic, Macroscopic, and Symbolic Representations of Chemical Reactions. *Chem. Educator*, 4(5), 158- 167.
- Ilyas, Anam & Saeed, Muhammad. (2018). Exploring Teachers' Understanding about Misconceptions of Secondary Grade Chemistry Students. *International Journal of Cross-Disciplinary Subject in Education (IJCDSE)*, Vol. 9, 3323- 3328.
- Indrayani, P. (2013). Analisis Pemahaman Makroskopik, Mikroskopik dan Simbolik Titrasi Asam basa Siswa Kelas XI IPA SMA serta Upaya Perbaikan dengan Pendekatan Mikroskopik. *Jurnal Pendidikan Sains, Volume 1, No. 2*, 109- 120.
- Jansoon, N., Coll, R., Somsook, E., (2009). Understanding Mental Models of Dilution in Thai Students. *International Journal of Environmental & Science Education*. 4(2), 147-168.

- Kala, N., Yaman, F. & Ayas, A. (2012). The Effectiveness of Predict-Observe- Explain Technique in Probing Students' Understanding About Acid- Base Chemistry: A Case for The Concepts of pH, pOH, and Strength. *International Journal of Sciences and Mathematics Education*, 11, 555- 574
- Kean, E. & Middlecamp, C. (1985). *Panduan Belajar Kimia Dasar*. Jakarta: Gramedia.
- Keenan, C. W. & Wood, J. H. (1966). *General College Chemistry 3rd editions*. New York: Harper & Row Inc.
- Kelly, R. M., Barrera, J. H. & Mohamed, S. C. (2010). An Analysis of Undergraduate General Chemistry Students' Misconceptions of the Submicroscopic Level of Precipitation Reactions. *Journal of Chemical Education*, 87(1), 113-118.
- Khairunnisa & Prodjosantoso, A. K. (2020). Analysis of Students Misconception in Chemical Equilibrium Material Using Three Tier Test. *JTK: Jurnal Tadris Kimiya*, 5(1), 71- 79.
- Khalid, T. (2003). Pre-service high school teachers' perceptions of three environmental phenomena. *Environmental Education Research*, 9, 35-50.
- Koppal, M., & Caldwell, A. (2004). Meeting the challenge of science literacy: Project 2061 efforts to improve science education. *Cell Biology Education*, 3, 28-30.
- Kousathana, M., Demerouti, M., & Tsaparlis, G. (2005). Instructional Misconception in Acid- Base Equilibria: An Analysis from a History and Philosophy of Science Perspective. *Science & Education*, 14, 173- 193.
- Lathifa, Ulya. (2018). Correcting Students' Misconception In Acid Base Concept Using PDEODE Instruction Strategy. *Unnes Science Education Journal*, 7(2), 170- 177.
- Metin, M. (2011). Effect of Teaching Material Based on 5E Model Removed Preservice Teachers' Misconceptions About Acid- Bases.

Bulgarian Journal of Science and Education Policy (BJSEP), Vol. 5, No. 2,

- Mubarokah, F. D., Mulyani, Sri & Indriyanti, N. Y. (2018). Identifying Students' Misconceptions of Acid-Base Concepts Using a Three-Tier Diagnostic Test: A Case of Indonesia and Thailand. *Journal of Turkish Science Education, Volume 15 (Special Issue)*, 51- 58.
- Muchtar, Z. & Harizal. (2012). Analyzing of students' misconception on acid-base chemistry at senior high schools in medan. *Journal of Education and Practiceer*, 3(15), 65-74.
- Mukhlisin, H. (2011). Miskonsepsi siswa Kelas X SMK Al Madani Pontianak pada materi atom, ion, dan molekul. *Jurnal Universitas Tanjung Pura*, 1(1).
- Muksin, M., Lukum, A., & Mohamad, E. (2015). Identifikasi miskonsepsi siswa pada materi asam basa menggunakan CRI pada siswa kelas XI IPA 2 di SMA Negeri 1 Bonepantai. *Jurnal FMIPA Universitas Negeri Gorontalo*
- Nugroho, D. M., Utomo, S. B. & Hastuti, B. (2019). Identifikasi Miskonsepsi pada Materi Asam Basa Menggunakan Tes Diagnostik Two- Tier Dengan Model Mental Pada Siswa Kelas XII MIPA SMA N 1 Sragen Tahun Ajaran 2018/ 2019. *Jurnal Pendidikan Kimia, Prodi Pendidikan Kimia, Universitas Sebelas Maret*, Vol. 8, No. 2, hlm. 244- 250.
- Nurbaity. (2004). *Evaluasi Pengajaran*. Jakarta: Universitas Negeri Jakarta.
- Nyachwaya, James M. & Wood, Nathan B. (2014). Evaluation of Chemical Representation in Physical Chemistry Textbooks. *Chemistry Education Research and Practice*, 15, 720-728.
- Osborne R.J., Bell B.F. and Gilbert J.K. (1983). Science teaching and children's view of the world. *European Journal of Science Education*, 2, 311-321.
- Oxtoby, Gillis, & Nachtrieb. (1999). *Principles of Modern Chemistry, Fourth Edition*. Florida: Saunders College Publishing.

- Ozmen, Haluk. (2004). Some Student Misconceptions in Chemistry: A Literature Review of Chemical Bonding. *Journal of Science Education and Technology*, 13(2), 147-159.
- Pane, A. & Dasopang, M. D. (2017). Belajar dan Pembelajaran. *Jurnal Kajian Ilmu- Ilmu Keislaman*. 3(2), 335- 352
- Papageorgiou, G., Markos, A., & Zarkadis, N. (2016). Understanding the atom and relevant misconceptions: Students' profiles in relation to three cognitive variables. *Science Education International*, Vol. 27, Issue 4, 464- 488.
- Perez, J. R. Ballester et al. (2017). Student's Misconceptions on Chemical Bonding: A Comparative Study between High School and First Year University Students. *Asian Journal of Education and e-Learning*, Volume 05, Issue 01, 1- 15.
- Petrucci, R. H., Harwood, W. S., Herring, F. G., & Madura, J. D. (2006). *General Chemistry Student Lecture Notebook: Principles and Modern Applications*. London: Pearson Education.
- Pinarbasi, T. (2007). Turkish undergraduate students misconceptions on acids and bases." *Journal of Baltic Science Education*. 16(1), 23-34.
- Rahmawati et al. (2018). Chemistry Pre- Service Teachers' Misconceptions in The "Laboratory Jargon" Indonesia Case Study. *Jakarta*
- Rahmawati, Y., Widhiyanti, T. & Mardiah, A. (2019). Analisis Miskonsepsi Mahasiswa Calon Guru Kimia Pada Konsep *Paticulate of Matter*. *JTK: Jurnal Tadris Kimia* 4(2), 121-135.
- Sari, Irwanto, Amelia, Nugraheni & Astuti. (2015). Potensi Miskonsepsi Istilah Kimia pada Buku Ajar Kimia SMA Materi Kesetimbangan Kimia Ditinjau dari Aspek Kebahasaan. *Prosiding Seminar Nasional Kebijakan Nasional Kebahasaan*, 88- 98.
- Setiawan, I., Indriyanti, N. Y., & Mulyani, S. (2018). Profil Pembelajaran Kimia Berbasis Kurikulum 2013 di Kota Gorontalo dan Kota Surakarta Kelas X Tahun Ajaran 2016/ 2017. *Jurnal Inovasi Pendidikan Kimia*, 12(1), 2039- 2054.

- Sheppard, K. (2006). High school students' understanding of titration and related acid-base phenomena. *Journal of Chemistry Education Research and Practice*, 7(1), 32-45.
- Sheskin, David J .(2003). *Parametric and Nonparametric Statistical Procedures*. New York : A CRC Press Company.
- Silberberg. (2010). *Principle of General Chemistry 2nd Edition*. McGraw-Hill: New York
- Sirhan, G. (2007). Learning Difficult in Chemistry: An Overview. *The Journal of Turkish Science Education*, 4(2), 2-20.
- Siswaningsih W., Nahadi & Chandratika V. (2019). Profil Miskonsepsi Siswa SMA tentang Konsep Kekuatan Asam basa. *Jurnal Pendidikan Kimia, FPMIPA UPI*
- Taber, K. (2002). *Chemical Misconception – Prevention, Diagnosis and Cure (Volume I: Theoretical Background)*. London: Royal Society of Chemistry.
- Tumay, H. (2016). Emergence, Learning Difficulties, and ,misconception in chemistry undergraduate students' conceptualization of acid strength. *Science and Aduation*, 25(1), 21-46.
- Üce, Musa & Ceyhan, Ilknur. (2019). Misconception in Chemistry Education and Practice to Eliminate Them: Literature Analysis. *Journal of Education and Training Studies*, Vol. 7, No. 3, 202- 208.
- Yalcin, A. (2011). Investigation of the change of science teacher candidates' misconception of acids-bases with respect to grade level. *Journal of Turkish Science Education*, 8(3), 173-175.
- Yastophi, Arif & Ritonga, P. S. (2017). Miskonsepsi Mahasiswa Mengenai Ikatan Ion Dalam Senyawa NaCl. *Konfigurasi Jurnal Pendidikan Kimia dan Terapan*, Vol. 1, No. 2, 195- 202.
- Zahia, Belgys et al. (2018). Analisis *Laboratory Jargon* dan Miskonsepsi dalam Materi Asam basa Pada Siswa SMA Kelas XI di Kecamatan Pulo Gadung. *Jurnal Riset Pendidikan Kimia*, Vol. X, No. X, hlm 1-14