

DAFTAR PUSTAKA

- Abbas, N.A., Noorbakhsh, M., Shaygana, M., dan Mackenzie, K.J.D., 2011, The Effect of Nano Sized $\text{SrFe}_{12}\text{O}_{19}$ Sdditions on the Magnetic Properties of Chromium-Doped Strontium-Hexaferrite Ceramics, *Materials Sciences: Materials Electronic.*, **22**, 1297-1302.
- Ahmad, T., Triwikantoro, S.P., dan Darminto, 2008, Sintesis Partikel Nano $\text{Fe}_{3-x}\text{Mn}_x\text{O}_4$ Berbasis Pasir Besi dan Karakterisasi struktur serta Kemagnetannya, *Nanosains & Nanoteknologi*, **1**(2), 67-73.
- Angeles, A.G., Sua rez, G.M., Gruskova, A., Dosoudil, R., dan Ortega R.Z., 2004, Magnetic Studies of $\text{Sn}^{2+}/\text{Sn}^{4+}$ Substituted Barium Hexaferrites Synthesized by Mechanical Alloying, *Materials Letters*, **58**, 2906-2910.
- Ansori, C., Sudarsono, dan Saefudin., 2011, Distribusi Mineralogi Pasir Besi pada Jalur Pantai Selatan Kebumen-Kutoarjo, *Sumber Daya Geologi*, **6**(2), 81-96.
- Arifani, M., Malik, A.B., dan Darminto, 2012, Sintesis Multiferoik BiFeO_3 Berbasis Pasir Besi dengan Metode Sol Gel, *Sains Dan Seni.*, **1**, B11-B14.
- Babu, V., dan Padaikathan, P., 2002, Structure and Hard Magnetic Properties of Barium Hexaferrite with and without La_2O_3 Prepared by Ball Milling, *Magnetism and Magnetic Materials.*, **241**, 85-88.
- Bahadur, D., Rajakumar, S., dan Ankit, K., 2006, Influence of Fuel Ratios on Auto Combustion Synthesis of Barium Ferrite Nano Particles, *Chemical Sciences.*, **118**(1), 15-21.
- Balasubramanian. K., Kesavana, D., dan Balusamy, V., 2011, Studies on the Effect of Vibration on Hot Cracking and Grain Size in AA7075 Aluminum alloy Welding, *Engineering Science and Technology Inter.*, **3**, 681-686.
- Barsoum, M.W., 1997, *Fundamentals of Ceramics*, Mc Graw-Hill Book Co New York.
- Benecki, W.T., 2013, The Permanent Magnet Market 2015, *Magnetics 2013 Conference*, February 7- 8, Orlando, Florida. [online, diakses 23 Juli 2015].
- Bhuiyan, M.A., Sheikh, M.H., dan Shamima, C., 2010, Effects Of Sintering Temperature On Microstructure and Magnetic Properties of NiFe_2O_4 Prepared From Nano Size Powder of NiO and Fe_2O_3 . *Bangladesh Academy of Sciences.*, **34**(2), 189-195.
- Bogdanovich, M.P., 1995., Glass-Added Strontium Ferrite Of High Coercivity, *Glass and Ceramics.*, **52**(7), 29-31.
- Börger A., Supancic, P., dan Danzer, R., 2002, The Ball on three Balls Test for Strength Testing of Brittle Discs -Stress Distribution in the Disc, *the European Ceramic Society.*, **22**(8), 1425 1436.
- Bronto, S., 2007, Genesis Endapan Aluvium Dataran Purworejo Jawa Tengah; Implikasinya Terhadap Sumber Daya Geologi, *Geologi Indonesia*, **2**(4), 207-215.
- Buschow, K.H.J. dan De Boer, F.R., 2004, *Physics Of Magnetism and Magnetic Materials*, Kluwer Academic Publisher, New York.
- Callister, W.D.Jr., 2007, *Materials Science and Engineering An Introduction*, John Wiley & Sons.

- Chao, L.T., Wei, M., dan Driscoll, J.L., 2006., Synthesis And Characterisation Of Nanocrystalline Iron Oxides Via Ultrasonic Spray Assisted Chemical Vapour Deposition, *Physics: Conference Series.*, **26**, 304-307.
- Chirita, M., and Grozescu, I., 2009, Fe₂O₃ Nanoparticles, Physical Properties, and Their Photochemical and Photoelectrochemical Applications. *Chem. Bull. Politehnica Univ. Timisoara.*, **54**, 1-8.
- Chou, C.Y., Kuo, P.C., Yao, Y.D., Wu, T.H., Chen, S.C., Sun, A.C., Huang, C. H., dan Chen, J.W., 2004, Magnetoresistance and Microstructure of The Sintered Ferrite of The Mixture of Fe₃O₄ and Co-Ferrite Powder, *Physica Status Solid.*, **1**(12), 3410-3413.
- Cornell, R.M., dan Schwertmann, U., 2003., *The Iron Oxide Structure, Properties, Reaction, Occurences and Uses* 2nd, ed. Wiley-VCH Verlag GmbH & Co. KgaA Weinheim Germany.
- Daou, E.E., dan Al-Gotmeh, M., 2014, Zirconia Ceramic: A Versatile Restorative Material, *Dentistry.*, **4**(4), 2-6.
- Dearing, J.A., 1999, *Environmental Magnetic Susceptibility Using the Bartington MS2 System*, 2nd edition, British Library Cataloguing in Publication Data.
- Dimri, M. C., Subhash, C. K., dan Dube, D.C., 2004, Electrical and Magnetic Properties Of Barium Hexaferrite Nanoparticles Prepared By Citrate Precursor Method, *Ceramic International.*, **30**, 1623-1626.
- Dong, Q., Wang, D., Yao, J., Kumada, N., Kinomura, N., Takahiro. T., Yoshinori Y., dan Qiang C., 2009, Synthesis of Hematite Particles with Various Shapes By a Simple Hydrothermal Reaction *The Ceramic Society Of Japan.*, **117**(3), 245-248.
- Drbohlovova, J., Radim H., Vojtech A., Rene, K., Oldrich, S., dan Jaromir H., 2009, Preparation and Properties of Various Magnetic Nanoparticles, *Sensor.*, **9**, 2352-2362.
- Elshazly, E.S., El-Sayed A.M., dan El-Hout, S.M., 2008, Alumina Effect on the Phase Transformation of 3Y-TZP Ceramics, *Materials Sciences and Technology.*, **24**(6), 873-877.
- Fang, C.M., Kools, F., Metselaar, R., de With, G., dan de Groot, R.A., 2003, Magnetic and electronic properties of strontium hexaferrite SrFe₁₂O₁₉ from first principles calculations, *Physics: Condensed Matter.*, **15**, 6229-6237.
- Faraji, M., Yamini, Y., and Rezaee, M., 2010, Magnetic Nanoparticles: Synthesis, Stabilization, Functionalization, Characterization, and Applications, *Iran Chemical Sociaty.*, **7**(1), 1-37.
- Gignoux, D., dan Schlenker, M., 2005, *Magnetism Fundamentals*, Edited By Etienne Du Tremolet De Lacheisserie ©2005 Springer Science.
- Greenwood, N.N., dan Earnshaw, A., 1997, *Chemistry of the Elements*, 2nd, Pergamon Press.
- Haneda, K. dan Morrish, A.H., 1977, Magnetite to Maghemite Transformation in Ultrafine Particles, *Physic Colloque*, **4**, 321-323.
- Huang, Z., Peng, B., Tan, K., Zhang, W, X., dan Zhang, W, L., 2011, Effects of Sintering Temperature on the Barium Hexaferrite Thick Films Prepared by Screen Printing Method, *Materials Science Forum.*, **687**, 51-54.

- Idayanti, N., dan Dedi., 2007, Pembuatan Magnet Permanen Bonded Hybrid untuk Aplikasi Generator Putaran Rendah, *Sains Materi Indonesia*, 141-145.
- Iida, H., Kosuke T., Takuya N., dan Tetsuya O., 2007., Synthesis Of Fe_3O_4 Nanoparticles With Various Sizes and Magnetic Properties By Controlled Hydrolysis., *Colloid and Interface Science*, **314**, 274-280.
- Janasi, S.R., Emura, M., Landgraf, F.J.G., dan Rodrigues, D., 2002., The effects of Synthesis Variables on The Magnetic Properties of Coprecipitated Barium ferrite powders, *Magnetism and Magnetic Materials*., **238**, 168-172.
- Jeong, U., Teng, X., Wang, Y., Yang, H., and Xia, Y., 2007, Superparamagnetic Colloids: Controlled Synthesis and Niche Applications, *Advanced Materilas*., **19**, 33-60.
- Johan, Akmal., 2010, Analisis Bahan Magnet Nanokristalin Barium Heksaferit ($\text{BaO} \cdot 6\text{Fe}_2\text{O}_3$) dengan Menggunakan High-Energy Milling, *Jurnal Penelitian Sains*, **14**(1), 19-24.
- Kahani, S.A., dan Jafari, M., 2009, A New Method for Preparation of Magnetite From Iron Oxyhydroxide or Iron Oxide and Ferrous Salt in Aqueous Solution, *Magnetism and Magnetic Materials*., **321**, 1951-1954.
- Kanagesan, S., Jesurania, S., Sivakumara, M., Thirupathia, C., dan Kalaivania, T., 2011, Effect of Microwave Calcinations on Barium Hexaferrite Synthesized via Sol-Gel Combustion, *Scientific Research*, **3**(3), 451-466.
- Kimura, T. 2012, Magnetolectric Hexaferrites, *Annu. Rev. Condens.Matter Phys.*, **3**, 93-110.
- Koutzarova, T., Svetoslav K., Kornely G., Chavdar, G., Andrzej, Z., Robert E.V., Marcel, A., Catherine, H., Rudi, C., dan Ivan, N., 2010, Structural and Magnetic Properties of Nanosized Barium Hexaferrite Powders Obtained by Microemulsion Technique, *Solid State Phenomena*., **159**, 57-62.
- Kurnio, H., 2007, Review of Coastal Characteristics of Iron Sand Deposits in Cilacap Central Java, *The Marine Geology*., **22**(1), 35-50.
- Layek, S., Anjana P., Ashutosh P., and Verma, H.C., 2010, Synthesis of $\gamma\text{-Fe}_2\text{O}_3$ Nanoparticles with Crystallographic and Magnetic Texture, *Engineering, Science and Technology Inter.*, **2**(8), 33-39.
- Lisjak, D. 2006, Thermal instability of Co-substituted barium hexaferrites with U-type structure, *Materials Research Societ.*, **21**(2), 420-427.
- Marinis, A., 2011, Fracture Toughness of Yttrium Stabilized Zirconia Sintered in Conventional and Microwave Ovens, *Thesis*, University of Iowa.
- Mastuki., Baqiya, M, A., dan Darminto, 2012., Sintesis Dan Karakterisasi Kalsium Ferit Menggunakan Pasir Besi dan Batu Kapur, *Sains Dan Seni ITS*, **1**(1), B76-80.
- Mathias, G., 2008 “*Fundamentals Of Magnetism*” Springer Berlin Heidelberg New York Springer-Verlag Berlin Heidelberg.
- Mazaleyrat, F., Pasko, A., Bartok, A., dan LoBue, M., 2011, Giant Coercivity Of Dense Nanostructured Spark Plasma Sintered Barium Hexaferrite, *Applied Physics*., **109**, 1-3.
- Mizutani, N., Iwasaki, T., Watano, S., Yanagida, T., Tanaka, H., dan Kawai, T., 2008, Effect Of Ferrous/Ferric Ions Molar Ratio On Reaction Mechanism

- for Hydrothermal Synthesis of Magnetite Nanoparticles, *Materials Science.*, **31**(5), 713-717.
- MMPA Standard Specifications No. 0100-00 For *Permanent Magnet Materials*, 1964, Magnetic Materials Producers Association.
- Mufit, F., Fadhillah, Amir, H., dan Bijaksana, S., 2006, Kajian Tentang Sifat Magnetik Pasir Besi dari Pantai Sunur Pariaman Sumatra Barat, *Goefisika.*, **1**, 1-5.
- Nave, R., 2012, *Electricity and Magnetism*, <http://hydrogen.physik.uni-wuppertal.de/hyperphysics/hyperphysics/hbase/solids/hyst.html>.
- Nowosielski, R., Babilas, R., J. Wrona, 2007, Microstructure And Magnetic Properties Of Commercial Barium Ferrite Powders, *Achievements in Materials and Manufacturing Engineering*, **20**(1),307-310.
- Nowosielski, R., Babilas, R., Dercz, G., Paj, L. dan Wrona, J., 2007., Structure And Properties of Barium Ferrite Powders Prepared By Milling and Annealing, *Materials Science and Engineering*, **28**(12), 735-742.
- Okumura, K., Ishikura, T., Soda, M., Asaka, T., dan Nakamura, H., 2011, Magnetism And Magnetoelectricity Of A U-Type Hexaferrite $Sr_4Co_2Fe_{36}O_{60}$, *Applied Physics Letters* **98**, 1-3.
- Omura, N., Yuichiro, M., Li, M., Tamura, T., Miwa. K., Furukawa, H., Harada, M., dan Yokoi, M., 2009, Effects of Mechanical Vibration on Macrostructure and Mechanical Properties of AC4C Aluminum Alloy Castings, *Materials Transactions*, **50**(11), 2578-2583.
- Patnaik, P., 2003, *Handbook of inorganic chemicals*, The McGraw-Hill Co.
- Perdana, F. A., Malik, A. B., Mashuri, Triwikantoro, dan Darminto, 2011, Sintesis Nanopartikel Fe_3O_4 Dengan Template PEG-1000 Dan Karakterisasi Sifat Magnetiknya, *Material dan Energi Indonesia.*, **1**(1) 1-6.
- Praselia, D., Darminto, dan Malik, A. B., 2011, Efek Pengadukan dan Variasi pH Pada Sintesis Fe_3O_4 dari Pasir Besi dengan Metode Kopresipitasi, *Artikel Jurusan Fisika*, MIPA ITS Surabaya.
- Priyono, A. W., dan Nur, M., 2001, Preparasi Serbuk Barium Ferrite Untuk Menghasilkan Medan koersive Tinggi: Tinjauan Pada Proses Sintering, *Berkala Fisika.*, **4**(2), 45-48.
- Priyono. Y. A., Traningsih, H., dan Khuriati R.S., 2004, Efek Aditiv Al_2O_3 Terhadap Struktur dan Sifat Fisis Magnet Permanen $BaO.6(Fe_2O_3)$, *Berkala Fisika.*, **7**(2), 69-73.
- Pullar, R. C., 2012, Hexagonal Ferrites: A Review of The Synthesis, Properties and Applications of Hexaferrite Ceramics, *Progress in Materials Sciences* **57**, 1191-1334.
- Putra, H., Iman, S., dan Agus, B. W., 2008, Penggunaan Pasir Besi Dari Kulon Progo Dengan Berat Jenis 4,311 Untuk Mortar Perisai Radiasi Sinar Gamma, *Forum Teknik Sipil*, **18**(3), 909-920.
- Qazi, J., Adrian R. R, Jeremy, K., Cockcroft, dan Martin, V., 2009, Use of Wide-Angle X-Ray Diffraction to Measure Shape and Size of Dispersed Colloidal Particles, *Journal of Colloid and Interface Science.*, **338**,105-110.
- Rasche, S., Stefan, S., Meinhard, K., Raul, B., dan Tanja, L., 2014, Determination of Strength and Fracture Toughness of Small Ceramic Disc Using the Small

- Punch Test and the Ball-On-Three-Balls Test, 20th European Conference on Fracture (ECF20), *Procedia Materials Science.*, **3**, 961- 966.
- Rashad, M. M., dan Ibrahim, I. A., 2011., A Novel Approach for Synthesis of M-Type Hexaferrites Nanopowders Via The Co-Precipitation Method, *Mater Sci: Mater Electron.*, **22**, 1796-1803.
- Roebben, G., Basu, B., Vleugels, J., dan Van der Biest, O., 2003, Transformation-Induced Damping Behaviour of Y-TZP Zirconia Ceramics., *The European Ceramic Society.*, **23**, 481-489.
- Rusianto, T., Wildan, M. W., Abraha, K., dan Kusmono, 2012, The Potential of Iron Sand from the Coast South of Bantul Yogyakarta as Raw Ceramic Magnet Materials, *Teknologi.*, **5**(1), 62-69.
- Rusianto, T., Wildan, M. W., Abraha, K., dan Kusmono, 2012, Magnetic Ceramic Materials from Iron Sand of the South Coast Bantul Yogyakarta, *Proceeding Seminar Nasional Tahunan Teknik Mesin XI (SNTTM XI) & Thermofluid IV*, Universitas Gadjah Mada, Yogyakarta, pp. 1546-1550.
- Sardjono P., Kurniawan, C., Sebayang, P., dan Muljadi., 2012, Aplikasi Magnet Permanen di Indonesia: Data Pasar dan Pengembangan Material Magnet, *Proseding: Seminar Nasional Ilmu Pengetahuan Teknik.*, pp. 25-31.
- Samikannu, K., Jesurani S., Sivakumar M., Thirupathi C., dan Kalaivani T., 2011, Synthesis and Magnetic Properties of Conventional and Microwave Calcined Strontium Hexaferrite Powder, *Materials Sciences and Applications.*, **2**, 638-642.
- Shepherd, P., Kajal, Mallick, K., dan Roger, J., 2007, Green Magnetic and Structural Properties of M-Type Barium Hexaferrite Prepared by Co-Precipitation, *Magnetism and Magnetic Materials* **311**, 683-692.
- Sholihah, L.K., Darminto, dan Malik, A.B., 2010, Sintesis dan Karakteristik Partikel Nano Fe₃O₄ yang Berasal dari Pasir Besi dan Fe₃O₄ Bahan Komersial (Aldrich), *Artikel Jurusan Fisika, MIPA ITS Surabaya*, 1-15.
- Sivakumar, M., Gedanken, A., Zhong, W., Du, Y.W., Bhattacharya, D., Yeshurun, Y., dan Felner, I., 2004, Nanophase Formation of Strontium Hexaferrite Fine Powder by The Sonochemical Method Using Fe(CO)₅, *Magnetism and Magnetic Materials.*, **268**, 95-104.
- Skoog, D.A., West, D. M., dan Holler, F.J., 2004., *Fundamentals of Analytical Chemistry*, 8th ed. Philadelphia, Saunders Collage Publishing.
- tefan, I., Chiriac, R., Nicolicescu, C., dan Ciobanu, M.. 2011., Research on Synthesis of Barium Hexaferrite Powders Processed by Mechanical Alloying, *Optoelectronics And Advanced Materials.*, **13**, 883 – 886.
- Strobel, R., Sotiris, E., dan Pratsinis, 2009, Direct synthesis of maghemite, magnetite and wustite nanoparticles by flame spray pyrolysis, *Advanced Powder Technology.*, **20**, 190-194.
- Strobl, S., Rasche, S., Krautgassera, C., Sharovaa, E., dan Lube, T., 2014, Fracture Toughness Testing of Small Ceramic Discs and Plates, *The European Ceramic Society.*, **34**, 1637-1642.
- Suzuki, Y., Awano, M., Kondo, N., dan Ohji, T., 1999., Effect of Plastic Deformation on Microstruktur and magnetic Properties of 3Y-TZP/Ba-M

- Type Ferrite Composite, *The Japan Society of Powder and Powder Metallurgy.*, **46**(6), 604-609.
- Sufiandi, Deddy., 2011, Konsentrasi Pasir Besi Titan dari Pengotornya dengan Cara Magnetik, *Majalah Metalurgi*, **26**, 15-20.
- Tanei, H. dan Kondo, Y., 2016, Phase Transformation of Oxide Scale and Its Control, *Nippon Steel & Sumitomo Metal Technical Report*, **111**, 87-91.
- Tahir, C.B., 2014, Biaxial Strength Testing of Ceramics Using Square and Rectangular Specimens, *The Australian Ceramic Society.*, **50**(2), 126-134.
- Tang, X., B.Y., dan Hu, K.A., 2006, Preparation Of M-Ba-Ferrite Fine Powders By Sugar-Nitrates Process” *Materials Science*” **41**, 3867-3871.
- Tartaj, M.P.M., Verdaguer, S.V., Carreno T.G., dan Serna, C.J., 2003, The preparation of magnetic nanoparticles for applications in biomedicine Pedro, *Phys. D: Appl. Phys.*, **36**, 182-197.
- Tekmira, 2011, Potensi pasir besi, *Puslitbang Teknologi Mineral dan Batubara*, Badan litbang ESDM, Kementrian ESDM.
- Theerdhala, S., Alhat, D., Vitta, S., dan Bahadur, D., 2007. Synthesis of Shape Controlled Ferrite Nanoparticles by Sonochemical Technique, *Nanoscience and Nanotechnology.*, **8**, 1-5.
- Uestuener, K., Katter, M., dan Rodewald, W., 2006, Dependence of the Mean Grain Size and Coercivity of Sintered Nd-Fe-B Magnets on the Initial Powder Particle Size, *Magnetics*, IEEE Transactions., **42**(10), 2897 - 2899.
- Vogel, A.I., Jeffery, G.H., Assett, J., Mendham, J., dan Denney, R.C., 1989, *Textbook Of Quatitative Chemical Analysis*, John Wiley & son, New York.
- Weng, .Y.C., Rusakova, I.A., dan Baikalov, A., Chen, J.W., Wu, N.L., 2005., Microstructural Evolution Of Nanocrystalline Magnetite Synthesized by Electrocoagulation, *Material Research Society.*, **20**(1), 75-80.
- Widyastuti, F.Y.F.F., Rochman, R., dan Hariyati, P., 2011, Synthesis Of Nanoparticle Barium Hexaferrite By Sol Gel Auto Combution, *Teknik Industri.*, **12**(2), 156-161.
- Wohlfarth, E.P., 1980, *Handbook Of Magnetic Materials*, Volume 2 North-Holland Publishing Company.
- Wu, W., Xiao, X.H., Zhang, S.F., Peng, T.C., Zhou, J., Ren, F., dan Jiang, C.Z., 2010, Synthesis and Magnetic Properties of Maghemite (γ - Fe_2O_3) Short-nanotubes, *Nanoscale Res Lett.*, **5**, 1474-1479.
- Yin, M., Willis, A., Redl, F., Turro, N.J., dan O’Brien, S.P., 2004., Influence of capping groups on the synthesis of Fe_2O_3 nanocrystals, *Material Research Society.*, **19**(4), 1208-1215.
- Yulianto, A., Bijaksana, S., dan Loeksmanto, W., 2003., Comparative Study on Magnetic Characterization of Iron Sand from Several Locations in Central Java Indonesian, *Physics*, **14**(2), 63-66.
- Yulianto, A., 2007, Fasa Oksida Besi Untuk Sintesis Serbuk Magnet Ferit, *Jurnal Sains Materi Indonesia.*, **8**(3), 39 – 41.
- Yunianto, B., 2009, Kajian Permasalahan Lingkungan Dan Sosial Ekonomi Rencana Penambangan Dan Pengolahan Pasir Besi Di Pantai Selatan Kulonprogo, Yogyakarta. *Teknologi Mineral dan Batubara.*, **5**(13), 1-16.