DAFTAR PUSTAKA

Afifah, N., & Saleh, R. (2017). The Effect of Different Graphene Surface Area on Photocatalytic Activity Of LaFeO3 Nanoparticles. *AIP Conference Proceedings*, *1788*(June 2011). https://doi.org/10.1063/1.4968333.

Ahmiatri, S., & Priyambodo. (2013). Rekayasa Material Absorber Gelombang Mikro Berbasis Lantanum Manganat. *Laporan Penelitian Kolektif*, 1–99.

Alaih, A. F. F., Triyono, D., Dwiputra, M. A., & Nugroho, F. A. A. (2024). Ultrafast and Low-Hysteresis Humidity Sensors Based on Mesoporous LaFe0.925Ti0.075O3 Perovskite. *Sensors and Actuators B: Chemical*, *412*, 135810. https://doi.org/10.1016/j.snb.2024.135810.

Alwis, L., Sun, T., & Grattan, K. T. V. (2013). Optical Fibre-Based Sensor Technology for Humidity and Moisture Measurement: Review of Recent Progress. *Measurement: Journal of the International Measurement Confederation*, *46*(10), 4052–4074. https://doi.org/10.1016/j.measurement.2013.07.030.

Ardani, A. (2020). Analisis Peningkatan Substitusi Unsur Nikel Terhadap Struktur Kristal dan Sifat Magnet Material Lantanum Barium Manganat (Bachelor's thesis, Fakultas Sains dan Teknologi UIN Syarif Hidayatullah Jakarta).

Ardiansyah, A., & Wahyuni, S. (2015). Sintesis Nanosilika dengan Metode Sol-Gel dan Uji Hidrofobisitasnya Pada Cat Akrilik. *Indonesian Journal of Chemical Science*, *4*(3), 83–90.

Arief, J., & Hakim, R. (2005). *KONTROL KELEMBAPAN DAN DATA LOGGER PADA INSTALASI UJI METER AIR Reza Maliki Akbar , A . Md Departmen Teknik Fisika , Fakultas Teknologi Industri (FTI), Institut Teknologi Sepuluh Nopember (ITS)*.

Arman, M. M. (2025). The influence of rare earth doping on the structure, magnetic properties, and application of LaFeO3 nanoparticles. *European Physical Journal Plus*, *140*(3). https://doi.org/10.1140/epjp/s13360-025-06092-8.

Azouzi, W., Sigle, W., Labrim, H., & Benaissa, M. (2019). Sol-gel synthesis of nanoporous LaFeO3 powders for solar applications. *Materials Science in Semiconductor Processing*, *104*(August), 104682. https://doi.org/10.1016/j.mssp.2019.104682.

Belguenoune, A., Ouldhamadouche, N., Bassaid, S., Dehbi, A., & Ben Rhaiem, A. (2025). Impact of bismuth substitution on the structural and optical properties of lanthanum orthoferrite synthesized via sol-gel method. *Optical Materials*, *163*(January), 117010. https://doi.org/10.1016/j.optmat.2025.117010

Bhat, I., Husain, S., Khan, W., & Patil, S. I. (2013). Effect of Zn doping on structural, magnetic and dielectric properties of LaFeO3 synthesized through

sol-gel auto-combustion process. *Materials Research Bulletin*, *48*(11), 4506–4512. https://doi.org/10.1016/j.materresbull.2013.07.028

Bokov, D. (2021). *Nanomaterial dengan Metode Sol-Gel_ Sintesis dan Aplikasi.pdf*.

Borowski, M. (2010). *Perovskites Sctructure, Properties and Uses* (Vol. 1, Issue c). Nova Science Publisher.

Brundle, R., Evans, C. A., Brundle, C. R., Holloway, P. H., Chou, J., Kowalczyk, S. P., Strausser, Y., Moore, T. M., Mckenna, R. G., Evans, C. K., Vaidyanathan, S. W., Sard, R., & Tong, H.-M. (1992). *Series Titles Encyclopedia of Materiah Characterization Characterization in Silicon Processing, Yale Strausser Characterization in Compound Semiconductor Processing, Characterization of Organic Thin Films, Abraham Ulman*. 1–779.

Budiharti, G., Arifin Imam Supardi, D., & Si, M. (2015). Sintesis Nanopartikel Silika Menggunakan Metode Sol-Gel Synthesis Of Silica Nanoparticles With Sol-Gel Method. *Jurnal Inovasi Fisika Indonesia*, *04*, 22–25.

Cammarata, A., & Rondinelli, J. M. (2014). Covalent dependence of octahedral rotations in orthorhombic perovskite oxides. *Journal of Chemical Physics*, *141*(11). https://doi.org/10.1063/1.4895967.

Chen, Z., & Lu, C. (2005). Humidity sensors: A Review of Materials and Mechanisms. *Sensor Letters*, *3*(4), 274–295. https://doi.org/10.1166/sl.2005.045.

Cheng, C., Gao, S., Zhu, J., Wang, G., Wang, L., & Xia, X. (2020). Enhanced performance of LaFeO3 perovskite for peroxymonosulfate activation through strontium doping towards 2,4-D degradation. *Chemical Engineering Journal*, *384*, 123377. https://doi.org/10.1016/j.cej.2019.123377.

Ciambelli, P., Cimino, S., De Rossi, S., Lisi, L., Minelli, G., Porta, P., & Russo, G. (2001). AFeO3 (A = La, Nd, Sm) and LaFe1-xMgxO3 perovskites as methane combustion and CO oxidation catalysts: Structural, redox and catalytic properties. In *Applied Catalysis B: Environmental* (Vol. 29, Issue 4, pp. 239–250). https://doi.org/10.1016/S0926-3373(00)00215-0.

Croffie, M. E. T., Williams, P. N., Fenton, O., Fenelon, A., Metzger, K., & Daly, K. (2020). Optimising sample preparation and calibrations in EDXRF for quantitative soil analysis. *Agronomy*, *10*(9), 1–16. https://doi.org/10.3390/agronomy10091309.

El shater, R. E., Awad, A. W., Abdel-Khalek, E. K., El-Bahnasawy, H. H., Meaz, T. M., & Okba, E. A. (2023). Influence of sintering temperature on structural and optical properties of Cd0.5Cu0.5CrxFe2−xO4 ferrites. *Scientific Reports*, *13*(1), 1–28. https://doi.org/10.1038/s41598-023-41214-1.

Farahani, H., Wagiran, R., & Hamidon, M. N. (2014). Humidity Sensors Principle, Mechanism, and Fabrication Technologies: A Comprehensive

Review. In *Sensors (Switzerland)* (Vol. 14, Issue 5). https://doi.org/10.3390/s140507881.

Fraden, J. (2010). Handbook of Modern Sensors. *Handbook of Modern Sensors*. https://doi.org/10.1007/978-1-4419-6466-3.

Fujii, T., Matsusue, I., Nakatsuka, D., Nakanishi, M., & Takada, J. (2011). Synthesis and Anomalous Magnetic Properties of LaFeO3 Nanoparticles by Hot Soap Method. *Materials Chemistry and Physics*, *129*(3), 805–809. https://doi.org/10.1016/j.matchemphys.2011.05.015.

Fayzullayev, N. I., Kurbonov, J. M., Uktamov, L. U., Kurbonova, R. J., & Kurbonov, J. J. (2023). The effect of reagents on the production of highly nanocomposite bentonite sorbents using zol-gel technology. *E3S Web of Conferences*, *402*. https://doi.org/10.1051/e3sconf/202340214027.

Gaber, A., Abdel- Rahim, M. A., Abdel-Latief, A. Y., & Abdel-Salam, M. N. (2014). Influence of calcination temperature on the structure and porosity of nanocrystalline SnO2 synthesized by a conventional precipitation method. *International Journal of Electrochemical Science*, *9*(1), 81–95. https://doi.org/10.1016/s1452-3981(23)07699-x.

Grabowska, E. (2016). Selected perovskite oxides: Characterization, preparation and photocatalytic properties-A review. *Applied Catalysis B: Environmental*, *186*, 97–126. https://doi.org/10.1016/j.apcatb.2015.12.035.

H Pinto, A. (2018). Portable X-Ray Fluorescence Spectrometry: Principles and Applications for Analysis of Mineralogical and Environmental Materials. *Aspects in Mining & Mineral Science*, *1*(2), 42–47. https://doi.org/10.31031/amms.2018.01.000506.

Himabindu, B., Latha Devi, N. S. M. P., & Rajini Kanth, B. (2021). Microstructural parameters from X-ray peak profile analysis by Williamson-Hall models; A review. *Materials Today: Proceedings*, *47*(xxxx), 4891–4896. https://doi.org/10.1016/j.matpr.2021.06.256.

Hussain, M., Hasnain, S., Khan, N. A., Bano, S., Zuhra, F., Ali, M., Khan, M., Abbas, N., & Ali, A. (2021). Design and fabrication of a fast response resistive-type humidity sensor using polypyrrole (Ppy) polymer thin film structures. *Polymers*, *13*(18), 1–17. https://doi.org/10.3390/polym13183019.

Ibrohim, M. (2023). Analisis Pengaruh Lapisan RgO Pada LaFeO3 yang di Doping Gd Sebagai Material Sensor Gas Etanol Menggunakan *Density Functional Theory* (Doctoral dissertation, Universitas Pendidikan Indonesia).

Ihsan, Asrul, & Patandean, A. J. (2016). Analisis Kelembapan Udara dan Temperatur Permukaan Dangkal dengan Menggunakan Hygrometer dan Thermocouple Di. *Jurnal Sains Dan Pendidikan Fisika*, *12*(2), 204–208.

Idrees, M., Nadeem, M., Siddiqi, S. A., Ahmad, R., Hussnain, A., & Mehmood, M. (2015). The organic residue and synthesis of LaFeO3 by combustion of citrate and nitrate precursors. *Materials Chemistry and Physics*, *162*, 652–658. https://doi.org/10.1016/j.matchemphys.2015.06.039.

Jain, P., & Subohi, O. (2022). Structure and Temperature Dependent Magnetic Properties of Mg Modified LaFeO3. *Journal of Superconductivity and Novel Magnetism*, *35*(1), 291–301. https://doi.org/10.1007/s10948-021-06065-9.

Karolina, R., Indra, Balyan, M., & Husna, I. (2022). Scanning Electron Microscope (SEM) TM 3000: Teori dan Aplikasinya. https://www.researchgate.net/publication/370953162.

Kolassa, N., Punzengruber, C., Suko, J., & Makinose, M. (1979). Mechanism of calcium-independent phosphorylation of sarcoplasmic reticulum ATPase by orthophosphate. Evidence of magnesium-phosphoprotein formation. In *FEBS Letters* (Vol. 108, Issue 2). https://doi.org/10.1016/0014-5793(79)80596-7.

Kour, R., Arya, S., Verma, S., Gupta, J., Bandhoria, P., Bharti, V., Datt, R., & Gupta, V. (2019). Potential Substitutes for Replacement of Lead in Perovskite Solar Cells: A Review. *Global Challenges*, *3*(11). https://doi.org/10.1002/gch2.201900050.

Kumar, A., Yadav, N., Bhatt, M., Mishra, N. K., Chaudhary, P., & Singh, R. (2015). Sol-gel derived nanomaterials and it's applications: a review. *Research Journal of Chemical Sciences*, *5*(12), 98–105. www.isca.me.

Kusaba, H., Shibata, Y., Sasaki, K., & Teraoka, Y. (2006). Surface effect on oxygen permeation through dense membrane of mixed-conductive LSCF perovskite-type oxide. *Solid State Ionics*, *177*(26-32 SPEC. ISS.), 2249–2253. https://doi.org/10.1016/j.ssi.2006.05.038.

Li, J., Kou, X., Qin, Y., & He, H. (2002). *Microstructure and magnetic properties of La1-xSrxFeO3 nanopowders Microstructure and Magnetic Properties of La 1-x Sr x FeO 3 Nanoparticles*. *May 2014*, 255–259. https://www.researchgate.net/publication/234066805.

Lin, Q., Yang, X., Lin, J., Guo, Z., & He, Y. (2018). The structure and magnetic properties of magnesium-substituted LaFeO3 perovskite negative electrode material by citrate sol-gel. *International Journal of Hydrogen Energy*, *43*(28), 12720–12729. https://doi.org/10.1016/j.ijhydene.2018.03.156.

Liu, Q., You, Z., Zeng, S. J., & Guo, H. (2016). Infrared properties of Mg-doped LaFeO3 prepared by sol–gel method. *Journal of Sol-Gel Science and Technology*, *80*(3), 860–866. https://doi.org/10.1007/s10971-016-4141-x.

Liu, X., Cheng, B., Qin, H., Song, P., Huang, S., Zhang, R., Hu, J., & Jiang, M. (2007). Preparation, electrical and gas-sensing properties of perovskite-type La1-xMgxFeO3 semiconductor materials. *Journal of Physics and Chemistry of Solids*, *68*(4), 511–515. https://doi.org/10.1016/j.jpcs.2007.01.009.

Liza, Y. M., Yasin, R. C., Maidani, S. S., & Zainul, R. (2018). Sol Gel: Principle and Technique. *INA-Rxiv Papers*, 1–19.

Lvovich, V. F. (2014). Encyclopedia of Applied Electrochemistry. In *Encyclopedia of Applied Electrochemistry*. https://doi.org/10.1007/978-1-4419-6996-5.

Lyal'ko, I. S., Kaplichnyi, V. N., Shulyak, E. A., Gurin, V. S., Shapovalov, E. A., Savukov, V. T., & Stoyanov, P. A. (1981). Em-125 Transmission Electron Microscope. *Bulletin of the Academy of Sciences of the U.S.S.R. Physical Series*, *47*(6), 13–15.

Macdonald, J. R., & Wiley, a J. (2005). Impedance Spectroscopy Theory, Experiment, and Applications. Canada: John Wiley and Sons.

Maddu, A., Modjahidin, K., Sardy, S., & Zain, H. (2010). Pengembangan *Probe* Sensor Kelembapan Serat Optik dengan *Cladding* Gelatin. *MAKARA of Technology Series*, *10*(1), 45–50. https://doi.org/10.7454/mst.v10i1.412.

Mahboub, M. S., Ali, O. Ben, Zeroual, S., Rihia, G., Mimouni, M., Hamadneh, I., Bayou, S., Boulahbel, H., Benarfa, A., & Rehouma, F. (2024). Influence of Bi substitution on structural and optical properties of LaFeO3 perovskite. *Journal of Metals, Materials and Minerals*, *34*(4). https://doi.org/10.55713/JMMM.V34I4.1837.

Mahendra, A., & Supardi, Z. A. I. (2021). Sebuah Review: Spektroskopi Impedansi Elektrokimia Dan Aplikasinya Dalam Baterai Lithium-Ion. *Inovasi Fisika Indonesia*, *10*(2), 59–67. https://doi.org/10.26740/ifi.v10n2.p59-67.

Mallick, S., Ahmad, Z., Qadir, K. W., Rehman, A., Shakoor, R. A., Touati, F., & Al-Muhtaseb, S. A. (2020). Effect of BaTiO3 on the sensing properties of PVDF composite-based capacitive humidity sensors. *Ceramics International*, *46*(3), 2949–2953. https://doi.org/10.1016/j.ceramint.2019.09.29.

Maveyraud, L., & Mourey, L. (2020). *Protein X-ray Crystallography and Drug Discovery*.

Moraes, L. G. P., Rocha, R. S. F., Menegazzo, L. M., De Araújo, E. B., Yukimitu, K., & Moraes, J. C. S. (2008). Infrared spectroscopy: A tool for determination of the degree of conversion in dental composites. *Journal of Applied Oral Science*, *16*(2), 145–149. https://doi.org/10.1590/S1678-77572008000200012.

Mukminin, A. (2019). Analisis Kuantitatif Fasa Dan Parameter Kristal Abu Cangkang Keong Mas (Pomacea canaliculata L) Hasil Kalsinasi Suhu Tinggi Menggunakan Metode Rietveld. *Jurnal Chemurgy*, *2*(2), 15. https://doi.org/10.30872/cmg.v2i2.2233.

Munro, J. M., Latimer, K., Horton, M. K., Dwaraknath, S., & Persson, K. A. (2020). An Improved Symmetry-Based Approach to Reciprocal Space

Path Selection in Band Structure Calculations. *Npj Computational Materials*, *6*(1). https://doi.org/10.1038/s41524-020-00383-7.

Navas, D., Fuentes, S., Castro-Alvarez, A., & Chavez-Angel, E. (2021). Review on Sol-Gel Synthesis of Perovskite and Oxide Nanomaterials. *Gels*, *7*(4). https://doi.org/10.3390/gels7040275.

Nguyen, T. T., Zahedi-Niaki, M. H., Alamdari, H., & Kaliaguine, S. (2007). Co-Cu metal alloys from LaCo1-xCuxO3 perovskites as catalysts for higher alcohol synthesis from syngas. *International Journal of Chemical Reactor Engineering*, *5*(January). https://doi.org/10.2202/1542-6580.1583

Phokha, S., Hunpratup, S., Pinitsoontorn, S., Putasaeng, B., Rujirawat, S., & Maensiri, S. (2015). Structure, magnetic, and dielectric properties of Ti-doped LaFeO3 ceramics synthesized by polymer pyrolysis method. *Materials Research Bulletin*, *67*, 118–125. https://doi.org/10.1016/j.materresbull.2015.03.008.

Phumying, S., Labuayai, S., Thomas, C., Amornkitbamrung, V., Swatsitang, E., & Maensiri, S. (2013). Aloe Vera Plant-Extracted Solution Hydrothermal Synthesis and Magnetic Properties Of Magnetite (Fe3O4) Nanoparticles. *Applied Physics A: Materials Science and Processing*, *111*(4), 1187–1193. https://doi.org/10.1007/s00339-012-7340-5.

Porta, P., Cimino, S., De Rossi, S., Faticanti, M., Minelli, G., & Pettiti, I. (2001). AFeO3 (A = La, Nd, Sm) and LaFe1-xMgxO3 perovskites: Structural and redox properties. *Materials Chemistry and Physics*, *71*(2), 165–173. https://doi.org/10.1016/S0254-0584(01)00273-5.

Prasad, P., & Prasad, A. S. (2025). Surface elemental composition, chemical state, optical properties and room temperature ferromagnetic behaviour of Sr-substituted LaFeO3 prepared using -D-fructose assisted solution combustion technique. *Materials Science and Engineering: B*, *320*(March), 118394. https://doi.org/10.1016/j.mseb.2025.118394.

Priyahita, N. S. dan H. A. (2016). Analisis Taman Alat Cuaca Kota Bandung Dan Sumedang Menggunakan Satelit Terra Berbasis Python. *ALHAZEN Journal of Physics*, *469*(3), 319–323. https://doi.org/10.7868/s0869565216210155.

Qin, J., Cui, Z., Yang, X., Zhu, S., Li, Z., & Liang, Y. (2015). Three-dimensionally ordered macroporous La1-xMgxFeO3 as high performance gas sensor to methanol. *Journal of Alloys and Compounds*, *635*, 194–202. https://doi.org/10.1016/j.jallcom.2015.01.226.

Ramírez-González, J., Sinclair, D. C., & West, A. R. (2023). Impedance and Dielectric Spectroscopy of Functional Materials: A Critical Evaluation of the Two Techniques. *Journal of The Electrochemical Society*, *170*(11), 116504. https://doi.org/10.1149/1945-7111/ad09fa.

Rekha, K., Nirmala, M., Nair, M. G., & Anukaliani, A. (2010). Structural, optical, photocatalytic and antibacterial activity of zinco xide and manganese doped zinc oxide nanoparticles. *Physica B: Condensed Matter*, *405*(15), 3180–3185. https://doi.org/10.1016/j.physb.2010.04.042.

Rivas, I., Alvarez, J., Pietri, E., Pérez-Zurita, M. J., & Goldwasser, M. R. (2010). Perovskite-Type Oxides in Methane Dry Reforming: Effect of Their Incorporation Into a Mesoporous SBA-15 Silica-host. *Catalysis Today*, *149*(3– 4), 388–393. https://doi.org/10.1016/j.cattod.2009.05.028.

Saha, S., Maity, R., Sakhya, A. P., Chanda, S., Dutta, A., & Sinha, T. P. (2018). Ac Conductivity and Raman Spectroscopic Studies of PrMnO3 Nanostructure. *Materials Today: Proceedings*, *5*(3), 9981–9988. https://doi.org/10.1016/j.matpr.2017.10.196.

Sari, K. R. T. P., Indrawati, E. M., & Permatadeny, A. (2021). Analisis Perbedaan Suhu Dan Kelembapan Ruangan Pada Kamar Berdinding Keramik. *Jurnal Inkofar*, *1*(2), 5–11. https://doi.org/10.46846/jurnalinkofar.v1i2.156.

Schramm, R. (2021). X-Ray Fluorescence Analysis: Practical and Easy. In *Rainer Schramm*. FLUXANA.

Sechenykh, P. A. (2022). Mathematical modeling of the perovskite and double perovskite crystal structures. *Izvestiya Vysshikh Uchebnykh Zavedenii. Materialy Elektronnoi Tekhniki = Materials of Electronics Engineering*, *24*(4), 255–259. https://doi.org/10.17073/1609-3577-2021-4-255-259.

Setiabudi, A., Hardian, R., & Muzakir, A. (2012). Karakterisasi Material ; Rifan Hardian. In *UPI Press*.

She, S., Yu, J., Tang, W., Zhu, Y., Chen, Y., Sunarso, J., Zhou, W., & Shao, Z. (2018). Systematic Study of Oxygen Evolution Activity and Stability on La1-xSrxFeO3-δ Perovskite Electrocatalysts in Alkaline Media. *ACS Applied Materials and Interfaces*, *10*(14), 11715–11721. https://doi.org/10.1021/acsami.8b00682.

Shenoy, R. U. K., Rama, A., Govindan, I., & Naha, A. (2022). The purview of doped nanoparticles: Insights into their biomedical applications. *OpenNano*, *8*(April), 100070. https://doi.org/10.1016/j.onano.2022.100070.

Song, J., Zhu, S., Ning, D., & Bouwmeester, H. J. M. (2021). Defect chemistry and transport properties of perovskite-type oxides La1-xCaxFeO3- δ. *Journal of Materials Chemistry A*, *9*(2), 974–989. https://doi.org/10.1039/d0ta07508f.

Stoerzinger, K. A., Comes, R., Spurgeon, S. R., Thevuthasan, S., Ihm, K., Crumlin, E. J., & Chambers, S. A. (2017). Influence of LaFeO3 Surface Termination on Water Reactivity. *Journal of Physical Chemistry Letters*, *8*(5), 1038–1043. https://doi.org/10.1021/acs.jpclett.7b00195.

Sueta, N. (2008). Pembuatan dan Karakterisasi Lapisan Ba0.5Sr0. 5TiO3 (BST) yang di doping dengan Magnesium dengan Metode *Chemical Solution Deposition* (CSD). Jakarta: Universitas Indonesia.

Tien-Thao, N., Zahedi-Niaki, M. H., Alamdari, H., & Kaliaguine, S. (2007). Conversion of Syngas to Higher Alcohols Over Nanosized LaCo0.7Cu0.3O3 Perovskite Precursors. *Applied Catalysis A: General*, *326*(2), 152–163. https://doi.org/10.1016/j.apcata.2007.04.009.

Tijare, S. N., Joshi, M. V., Padole, P. S., Mangrulkar, P. A., Rayalu, S. S., & Labhsetwar, N. K. (2012). Photocatalytic Hydrogen Generation Through Water Splitting On Nano-Crystalline LaFeO3 Perovskite. *International Journal of Hydrogen Energy*, *37*(13), 10451–10456. https://doi.org/10.1016/j.ijhydene.2012.01.120.

Tilley, R. J. D. (2016). *Perovskites Structure-Property Relationships* (First). John Wiley amd Sons.

Tripathy, A., Pramanik, S., Cho, J., Santhosh, J., & Osman, N. A. A. (2014). Role of morphological structure, doping, and coating of different materials in the sensing characteristics of humidity sensors. *Sensors (Switzerland)*, *14*(9), 16343–16422. https://doi.org/10.3390/s140916343.

Triyono, D., Kafa, C. A., & Laysandra, H. (2018). Effect of Sr-substitution on the structural and dielectric properties of LaFeO3 perovskite materials. *Journal of Advanced Dielectrics*, *8*(5), 0–9. https://doi.org/10.1142/S2010135X18500364.

Triyono, D., Laysandra, H., & Liu, H. L. (2019). Structural, optical, and dielectric studies of LaFe 1−x Mo x O 3 (x = 0.0, 0.5) perovskite materials. In *Journal of Materials Science: Materials in Electronics* (Vol. 30, Issue 3, pp. 2512–2522). https://doi.org/10.1007/s10854-018-0525-8.

Triyono, D., Purnamasari, I., & Rafsanjani, R. A. (2020). Effect of the zr-substitution on the structural and electrical properties of LaFeO3: XRD, raman scattering, SEM, and impedance spectroscopy study. *Crystals*, *10*(5). https://doi.org/10.3390/cryst10050399.

Triyono, D., Utami, R. W., Laysandra, H., & Susilo, R. A. (2022a). Structural, magnetic and electrical properties of La1-xMgxFeO3 perovskites. *Ceramics International*, *48*(4), 4595–4603. https://doi.org/10.1016/j.ceramint.2021.10.246.

Triyono, D., Utami, R. W., Laysandra, H., & Susilo, R. A. (2022b). Structural, magnetic and electrical properties of La1-xMgxFeO3 perovskites. *Ceramics International*, *48*(4), 4595–4603. https://doi.org/10.1016/j.ceramint.2021.10.246.

Vadhva, P., Hu, J., Johnson, M. J., Stocker, R., Braglia, M., Brett, D. J. L., & Rettie, A. J. E. (2021). Electrochemical Impedance Spectroscopy for All-

Solid-State Batteries: Theory, Methods and Future Outlook. *ChemElectroChem*, *8*(11), 1930–1947. https://doi.org/10.1002/celc.202100108.

Yang, F., Yang, X., Su, K., Lin, J., He, Y., & Lin, Q. (2023). Structural and Magnetic Properties of Perovskite Functional Nanomaterials La1−xRxFeO3 (R = Co, Al, Nd, Sm) Obtained Using Sol-Gel. *Molecules*, *28*(15), 1–17. https://doi.org/10.3390/molecules28155745.

Yilmaz, E., & Soylak, M. (2019). Functionalized nanomaterials for sample preparation methods. In *Handbook of Nanomaterials in Analytical Chemistry: Modern Trends in Analysis*. Elsevier Inc. https://doi.org/10.1016/B978-0-12-816699-4.00015-3.

Zhang, X., Li, H., Li, Y., & Shen, W. (2012). Structural properties and catalytic activity of Sr-substituted LaFeO3 perovskite. *Cuihua Xuebao/Chinese Journal of Catalysis*, *33*(7), 1109–1114. https://doi.org/10.1016/S1872-2067(11)60388-4.

Zhao Chenmin, Bing Wang, Shuncong Zhong, Md. Akhtaruzzaman, Wei Liang, and H. C. (2023). NDT Studies of Nanoscale Polymeric Coatings. *Polymer Based Nanoscale Materials for Surface Coatings*, 235–257.

Zhou, Z., Guo, L., Yang, H., Liu, Q., & Ye, F. (2014). Hydrothermal synthesis and magnetic properties of multiferroic rare-earth orthoferrites. *Journal of Alloys and Compounds*, *583*, 21–31. https://doi.org/10.1016/j.jallcom.2013.08.129.

Zhu, M., Lanier, J., Flores, J., da Cruz Pinha Barbosa, V., Russell, D., Haight, B., Woodward, P. M., Yang, F., & Hwang, J. (2024). Structural degeneracy and formation of crystallographic domains in epitaxial LaFeO3 films revealed by machine-learning assisted 4D-STEM. *Scientific Reports*, *14*(1), 1–11. https://doi.org/10.1038/s41598-024-54661-1.