

REFERENCE

- Abbaszadeh, J., Rahim, H. A., Rahim, R. A., & Sarafi, S. (2013). Frequency Adjustment in Ultrasonic Tomography System with a Metal Pipe Conveyor. *Sensors and Materials*, 25(6), 379–387. <https://doi.org/10.18494/sam.2013.871>
- Abd Rahman, N. A., Hong, L. E., Abdul Rahim, R. H., Abdul Rahim, H., Ahmad, N., Bunyamin, S., Abas, K. H., Nor Ayob, N. M., Mohd Yunos, F. R., & Mansor, M. S. B. (2015). A Review: Tomography Systems in Medical and Industrial Processes. In *Jurnal Teknologi* (Vol. 73, Issue 6, pp. 1–11). <https://doi.org/10.11113/jt.v73.4398>
- Abdul, R. (1996). A Tomographic Imaging System for Pneumatic Conveyors using Optical Fibres. In *ProQuest LLC (2017)*. Sheffield Hallam University.
- Abdul Rahim, R., & San, C. K. (2008). Optical Tomography Imaging in Pneumatic Conveyor. *Sensors & Transducer*, 95, 40–48.
- Abduriyim, A., & Kitawaki, H. (2006). Applications of Laser Ablation-Inductively Coupled Plasma-Mass Spectrometry (LA-ICP-MS) to gemology. *Gems and Gemology*, 42(2), 98–118. <https://doi.org/10.5741/GEMS.42.2.98>
- Afework, B., Hanania, J., Lloyd, E., Stenhouse, K., & Donev, J. (2018). *Neutron Moderator*. Energy Education. https://energyeducation.ca/encyclopedia/Neutron_moderator
- Asher, R. C. (1983). Ultrasonic Sensors in The Chemical and Process Industries. *Journal of Physics E: Scientific Instruments*, 16(10), 959–963. <https://doi.org/10.1088/0022-3735/16/10/004>
- Aspey, R. A., McDermid, I. S., Leblanc, T., Howe, J. W., & Walsh, T. D. (2008). LabVIEW for Everyone: Graphical Programming Made Easy and Fun. *Review of Scientific Instruments*, 79(9), 1–1032. <https://doi.org/10.1063/1.2976672>
- Banowski, M., Beyer, M., Szalinski, L., Lucas, D., & Hampel, U. (2017). Comparative Study of Ultrafast X-ray Tomography and Wire-Mesh Sensors for Vertical Gas–liquid Pipe Flows. *Flow Measurement and Instrumentation*, 53, 95–106. <https://doi.org/10.1016/j.flowmeasinst.2016.02.001>
- Bernatskyi, A., & Khaskin, V. (2021). The History of The Creation of Lasers and Analysis of The Impact of Their Application in The Material Processing on The Development of Certain Industries. *History of Science and Technology*, 11(1), 125–149. <https://doi.org/10.32703/2415-7422-2021-11-1-125-149>
- Bieberle, A., Nehring, H., Berger, R., Arlit, M., Härting, H. U., Schubert, M., & Hampel, U. (2013). Compact High-Resolution Gamma-ray Computed Tomography System for Multiphase Flow Studies. *Review of Scientific Instruments*, 84(3). <https://doi.org/10.1063/1.4795424>

- Boehm, E. (2021). Gemmological Tables for the Identification of Gemstones, Synthetic Stones, Artificial Products and Imitations/ Gemmologische Tabellen zur Bestimmung von Edelsteinen, Synthesen, künstlichen Produkten und Imitationen, 4th edn. *The Journal of Gemmology*, 37(8), 865–866. <https://doi.org/10.15506/jog.2021.37.8.865>
- Boone, K. G., & Holder, D. S. (1996). Current Approaches to Analogue Instrumentation Design in Electrical Impedance Tomography. *Physiological Measurement*, 17(4), 229–247. <https://doi.org/10.1088/0967-3334/17/4/001>
- Bouma, B. E., de Boer, J. F., Huang, D., Jang, I. K., Yonetsu, T., Leggett, C. L., Leitgeb, R., Sampson, D. D., Suter, M., Vakoc, B. J., Villiger, M., & Wojtkowski, M. (2022). Optical Coherence Tomography. *Nature Reviews Methods Primers*, 2(1). <https://doi.org/10.1038/s43586-022-00162-2>
- Breeding, C. M., Wang, W., Shen, A. H., McClure, S. F., Shigley, J. E., & DeGhionno, D. (2006). High Energy Ultraviolet Luminescence Imaging: Applications of the DTC DiamondView for Gem Identification. *Gems & Gemology*, 42(3), 88.
- Cailly, W., Walaszek, H., Brzuchacz, S., Zhang, F., & Lasaygues, P. (2020). Pipe Two-phase Flow Non-invasive Imaging using Ultrasound Computed Tomography: A two-Dimensional Numerical and Experimental Performance Assessment. *Flow Measurement and Instrumentation*, 74, 101784. <https://doi.org/10.1016/j.flowmeasinst.2020.101784>
- Clark, D. (2022). *Recommended Gemology Tools and Instruments*. International Gem Society. <https://www.gemsociety.org/article/tools-for-gemology/>
- Cui, Z., Wang, H., & Yin, W. (2015). Electrical Capacitance Tomography with Differential Sensor. *IEEE Sensors Journal*, 15(9), 5087–5094. <https://doi.org/10.1109/JSEN.2015.2446982>
- Del Re, N. (2006). Imaging Spectroscopy: A Developing Frontier for Gem Analysis. *Proceedings of the 4th International Gemological Symposium & GIA Gemological Research Conference*, 42(August), 88.
- Dharnidharka, M., Chadha, U., Dasari, L. M., Paliwal, A., Surya, Y., & Selvaraj, S. K. (2021). Optical Tomography in Additive Manufacturing: A Review, Processes, Open Problems, and New Opportunities. *European Physical Journal Plus*, 136(11), 1–28. <https://doi.org/10.1140/epjp/s13360-021-02108-1>
- Diamond Council of America. (2014). Beginning Jewelry Sales. In *Gemstones*.
- Dieterle, F. J. (2003). *Multianalyte Quantifications by Means of Integration of Artificial Neural Networks, Genetic Algorithms and Chemometrics for Time-Resolved Analytical Data*. der Eberhard-Karls-Universität Tübingen.
- Duduković, M. P., Larachi, F., & Mills, P. L. (2002). Multiphase Catalytic Reactors: A

- Perspective on Current Knowledge and Future Trends. *Catalysis Reviews - Science and Engineering*, 44(1), 123–246. <https://doi.org/10.1081/CR-120001460>
- Faia, P., Silva, R., Rasteiro, M. G., & Garcia, F. (2020). Electrical Tomography: A Review of Configurations, and Application to Fibre Flow Suspensions Characterisation. *Applied Sciences*, 10(7). <https://doi.org/10.3390/app10072355>
- Ferns Icon. (n.d.). *Ruby Gemstone - Facts on Rubies, Colours, Benefits & More*. Melorra. <https://www.melorra.com/jewellery-guide-education/gemstone/types/about-rubies/>
- Fok, D. C. C., Chang, C.-J., Su, Y.-L., Chang, S.-Y., Hsiao, Y.-C., Ting, K., Lin, W.-S., Chen, K.-T., & Chen, S.-F. (2017). Thermal Distribution And Response In Q-Switched Ruby Laser Treatment For Oculodermal Melanosis (Nevus Of Ota). *Plastic and Aesthetic Research*, 4(1), 1. <https://doi.org/10.20517/2347-9264.2016.85>
- Fuller, M., Smigel, B. W., Koivula, J. I., Grumitt, P., & Tenhagen, J. W. (2014). *Gemmology Software Tools*.
- Geva, T. (2006). Magnetic resonance imaging: Historical perspective. *Journal of Cardiovascular Magnetic Resonance*, 8(4), 573–580. <https://doi.org/10.1080/10976640600755302>
- Ghosh, S., Pratihar, D. K., Maiti, B., & Das, P. K. (2012). Identification of Flow Regimes using Conductivity Probe Signals and Neural Networks for Counter-current Gas-liquid Two-phase Flow. *Chemical Engineering Science*, 84, 417–436. <https://doi.org/10.1016/j.ces.2012.08.042>
- Glen, S. (2022). *Independent Samples T Test: Definition, Excel & SPSS Steps*. StatisticsHowTo.Com: Elementary Statistics for the Rest of Us! <https://www.statisticshowto.com/probability-and-statistics/t-distribution/independent-samples-t-test/>
- Goh, C. L., Rahim, R. A., & Rahiman, M. H. F. (2016). Process Tomography of Gas-liquid Flow in a Vessel: A Review. In *Sensor Review* (Vol. 36, Issue 3, pp. 287–302). Emerald Group Publishing Ltd. <https://doi.org/10.1108/SR-08-2015-0134>
- Grande, L., & Augustyn, A. (2010). Gems and Gemstones: Timeless Natural Beauty of The Mineral World. *Choice Reviews Online*, 47(09), 47-5029-47–5029. <https://doi.org/10.5860/choice.47-5029>
- Haneberg, W. C. (2004). Digital Signal and Image Processing. In *Computational Geosciences with Mathematica* (pp. 307–347). https://doi.org/10.1007/978-3-642-18554-0_8
- Holden, P. J., Wang, M., Mann, R., Dickin, F. J., & Edwards, R. B. (1998). Imaging Stirred-Vessel Macromixing Using Electrical Resistance Tomography. *AIChE*

Journal, 44(4), 780–790. <https://doi.org/10.1002/aic.690440403>

- Hoyle, B. S., Jia, X., Podd, F. J. W., Schlaberg, H. I., Tan, H. S., Wang, M., West, R. M., Williams, R. A., & York, T. A. (2001). Design and Application of a Multi-modal Process Tomography System. *Measurement Science and Technology*, 12(8), 1157–1165. <https://doi.org/10.1088/0957-0233/12/8/324>
- Hu, H. L., Dong, J., Zhang, J., Cheng, Y. J., & Xu, T. M. (2011). Identification of Gas/Solid Two-phase Flow Regimes using Electrostatic Sensors and Neural-network Techniques. *Flow Measurement and Instrumentation*, 22(5), 482–487. <https://doi.org/10.1016/j.flowmeasinst.2011.07.004>
- Hung, O. N., Chan, C. K., Yuen, C. W. M., & Kan, C. W. (2019). Application of Laser Technology. In *Sustainable Technologies for Fashion and Textiles* (pp. 163–187). Elsevier Ltd. <https://doi.org/10.1016/B978-0-08-102867-4.00008-6>
- Ibrahim, S., Green, R. G., Dutton, K., Evans, K., Abdul Rahim, R., & Goude, A. (1999). Optical Sensor Configurations for Process Tomography. *Measurement Science and Technology*, 10(11), 1079–1086. <https://doi.org/10.1088/0957-0233/10/11/318>
- Ibrahim, S., Yunus, M. A. M., Green, R. G., & Dutton, K. (2012). Concentration Measurements of Bubbles in a Water Column using An Optical Tomography System. *ISA Transactions*, 51(6), 821–826. <https://doi.org/10.1016/j.isatra.2012.04.010>
- Ibrahim, Sallehuddin, Md Yunus, M. A., Md Khairi, M. T., & Faramarzi, M. (2014). A Review on Ultrasonic Process Tomography System. *Jurnal Teknologi*, 3, 1–5. <https://doi.org/10.11113/jt.v70.3452>
- Ibrahim, Sallhuddin. (2000). *Measurement of Gas Bubbles in A Vertical Water Column using Optical Tomography*. Sheffield Hallam University (United Kingdom).
- Idroas, M. (2004). *A Charge Coupled Device Based Optical Tomographic Instrumentation System for Particle Sizing*. Sheffield Hallam University.
- IEEE Signal Processing Society. (2018). *IEEE Transactions on Computational Imaging*, 4(3), C2–C2.
- Isaksen, Ø. (1996). A Review of Reconstruction Techniques for Capacitance Tomography. *Measurement Science and Technology*, 7(3), 325–337. <https://doi.org/10.1088/0957-0233/7/3/013>
- Issa, A., & Brabazon, D. (2021). Laser Micro- and Nano-Scale Processing: Fundamentals and Applications. *Laser Micro- and Nano-Scale Process*.
- Jamaludin, J. (2013a). *Charge-Coupled Device : Optical Tomography System for Air Bubbles Detection* (Issue January). USIM PRESS.

- Jamaludin, J. (2013b). *Optical Tomography System for Bubbles Detection in Liquid* (Issue January). Universiti Teknologi Malaysia.
- Jamaludin, J. (2016). *Optical Tomography System Using Charge-Coupled Device* (Vol. 16). Universiti Taknologi Mara.
- Jamaludin, J., & Abdul Rahim, R. (2016). Online Optical Tomography System for Detecting and Measuring The Diameters of Solid and Transparent Objects. *IEEE Sensors Journal*, 16(16), 6175–6183. <https://doi.org/10.1109/JSEN.2016.2580167>
- Jamaludin, J., Abdul Rahim, R., Abdul Rahim, H., Rahiman, M. H. F., Mohd Muji, S. Z., & Mohd Rohani, J. (2016). Online Optical Tomography System Application of Charge-Coupled Device (CCD) for Object Detection in Crystal Clear Water. *Journal of Independent Studies and Research - Computing*, 14(1), 37–42. [https://doi.org/10.31645/jisrc/\(2016\).14.1.0006](https://doi.org/10.31645/jisrc/(2016).14.1.0006)
- Jamaludin, J., Abdul Rahim, R., Rahiman, M. H. F., & Mohd Rohani, J. (2018). Analysis on the Effect of Sensor Views in Image Reconstruction Produced by Optical Tomography System Using Charge-Coupled Device. *IEEE Transactions on Image Processing*, 27(4), 1689–1696. <https://doi.org/10.1109/TIP.2017.2783620>
- Jamaludin, J., Abdul Rahim, R., Rahiman, M. H. F., & Rohani, J. M. (2020). CCD Optical Tomography System to Detect Solid Contamination in Crystal-Clear Water. *IEEE Transactions on Industrial Electronics*, 67(4), 3248–3256. <https://doi.org/10.1109/TIE.2019.2908589>
- Jamaludin, J., Rahim, R. A., Rahim, H. A., Fadzil, N. S. M., Rahiman, M. H. F., Jumaah, M. F., Muji, S. Z. M., & Yunus, M. A. M. (2014). A Review of the Optical Tomography System. *Jurnal Teknologi (Sciences and Engineering)*, 69(8), 1–6. <https://doi.org/10.11113/jt.v69.3287>
- Jamaludin, J., Rahim, R. A., Rahim, H. A., Fazalul Rahiman, M. H., Mohd Muji, S. Z., & Rohani, J. M. (2016). Charge Coupled Device Based on Optical Tomography System in Detecting Air Bubbles in Crystal Clear Water. *Flow Measurement and Instrumentation*, 50, 13–25. <https://doi.org/10.1016/j.flowmeasinst.2016.06.001>
- Jamaludin, J., Rahim, R. A., Rahim, H. A., Rahiman, H. F., Muji, S. Z. M., Fadzil, N. S. M., Ling, L. P., Jumaah, F., Ahmad, A., Ayob, N. M. N., & Hong, L. E. (2015). Introducing An Application of A Charged Coupled Device (CCD) in An Optical Tomography System. *Jurnal Teknologi*, 73(3), 97–102. <https://doi.org/10.11113/jt.v73.4253>
- Jamaludin, J., Rahim, R. A., Rahim, H. B. A., Rahiman, M. H. F., Rohani, J. M., & Muji, S. Z. B. M. (2017). Charge-Coupled Device Based on Optical Tomography System in Detecting Solid and Transparent Objects in Non-flowing Crystal Clear Water. *Optik*, 131, 813–825. <https://doi.org/10.1016/j.ijleo.2016.11.196>

- Jamaludin, J., Rahim, R. A., Rahiman, M. H. F., Muji, S. Z. M., Rohani, J. M., & Wahab, Y. A. (2017). Charge-Coupled Device Based On Optical Tomography System For Monitoring Two-Phase Flow. *International Journal of Integrated Engineering*, 9(3), 44–48.
- Jamaludin, J., Rahim, R. A., Rahiman, M. H. F., Wahab, Y. A., Rohani, J. M., Sahrim, M., Wan Ismail, W. Z., Ismail, I., & Balakrishnan, S. R. (2018). Optical Tomography System using Charge-Coupled Device for Transparent Object Detection. *International Journal of Integrated Engineering*, 10(4), 105–108. <https://doi.org/10.30880/ijie.2018.10.04.017>
- Katti, G., Arshiya Ara, S., & Shireen, A. (2011). Magnetic Resonance Imaging (MRI) – A Review. *International Journal of Dental Clinics*, 3(1), 65–70.
- Kim, S., Nkaya, A. N., & Dyakowski, T. (2006). Measurement of Mixing of Two Miscible Liquids in A Stirred Vessel with Electrical Resistance Tomography. *International Communications in Heat and Mass Transfer*, 33(9), 1088–1095. <https://doi.org/10.1016/j.icheatmasstransfer.2006.06.010>
- Larsen, L. E., & Jacobi, J. H. (1979). Microwave Scattering Parameter Imagery of An Isolated Canine Kidney. *Medical Physics*, 6(5), 394–403.
- Leelawatanasuk, B. T., Atichat, W., Pisutha-arnond, V., & Wathanakul, P. (2014). Ruby And Sapphire Grading Tools. *Gemology*, 46–51.
- Lei, J., Liu, Q. B., Wang, X. Y., & Liu, S. (2018). Combination Regularization Reconstruction Method for Electrical Capacitance Tomography. *Flow Measurement and Instrumentation*, 59, 135–146. <https://doi.org/10.1016/j.flowmeasinst.2017.12.010>
- Li, B., Wang, J. ming, Wang, Q., Li, X. yan, & Duan, X. (2020). A Novel Gas/Liquid Two-phase Flow Imaging Method Through Electrical Resistance Tomography with DDELM-AE Sparse Dictionary. *Sensor Review*, 40(4), 407–420. <https://doi.org/10.1108/SR-01-2019-0018>
- Liao, K. W., Luo, R. C., & Yeh, J. A. (2017). Portable Multispectra Tunable Forensic Lens for Jadeite Analysis. *International Conference on Optical MEMS and Nanophotonics*, 1–2. <https://doi.org/10.1109/OMN.2017.8051467>
- Liu, Y., Kiss, A. M., Larsson, D. H., Yang, F., & Pianetta, P. (2016). To Get The Most Out of High Resolution X-ray Tomography: A Review of The Post-Reconstruction Analysis. In *Spectrochimica Acta - Part B Atomic Spectroscopy* (Vol. 117, pp. 29–41). Elsevier B.V. <https://doi.org/10.1016/j.sab.2016.01.002>
- Mat-Shayuti, M. S., Zulkifli, H., Yahya, E., Othman, N. H., & Hassan, Z. (2019). Development of Low-Cost , Non-Obtrusive Electrical Impedance Tomography Device for Liquid-Gas Flow Visualization. *International Journal of Electrical and Electronic Engineering and Telecommunications*, 8(2), 119–126.

- Maurice, B. S. (2012). *Process Tomography: Principles, Techniques and Applications*. Butterworth-Heinemann.
- Mi, Y., Ishii, M., & Tsoukalas, L. H. (2001). Flow Regime Identification Methodology with Neural Networks and Two-phase Flow Models. *Nuclear Engineering and Design*, 204(1–3), 87–100. [https://doi.org/10.1016/S0029-5493\(00\)00325-3](https://doi.org/10.1016/S0029-5493(00)00325-3)
- Mohd Rahalim, F., Jamaludin, J., Raisin, S. N., Ismail, I., & Abdul Wahab, Y. (2021). Analysis on Clarity of Rubies Gemstones Using Charge-Coupled Device (CCD). *Journal of Tomography System & Sensors Application*, 4(1), 80–84.
- Mohd Rahalim, F., Jamaludin, J., Raisin, S. N., Wan Ismail, W. Z., Ismail, I., Abdul Rahim, R., & Abdul Wahab, Y. (2022). An Application of Charge-Coupled Device (CCD) Tomography System for Gemological Industry - A Review. *Lecture Notes in Electrical Engineering*, 900(Ccd), 31–41. https://doi.org/10.1007/978-981-19-2095-0_4
- Muji, S. Z. M., Sari, S., Rahim, R. A., & Rahiman, M. H. F. (2012). Optical tomography: A new filter technique for post processing image. *Proceedings - 2012 IEEE International Conference on Control System, Computing and Engineering, ICCSCE 2012*, 473–476. <https://doi.org/10.1109/ICCSCE.2012.6487192>
- Mukherjee, S. (2012). *Applied Mineralogy: Applications in Industry and Environment* (Vol. 7). Springer Science & Business Media. <http://books.google.com/books?id=ml1vP7ZmWqkC&pgis=1>
- Naas, R. (2013, July). *Understanding The Use of Rubies*. World Tempus. <https://en.worldtempus.com/article/watches/innovation-and-technology/watch-education-understanding-the-use-of-rubies-13737.html>
- Nassau, K. (2003). The Physics and Chemistry of Color: The 15 Mechanisms. In *The Science of Color: Second Edition* (pp. 247–280). Elsevier B.V. <https://doi.org/10.1016/B978-044451251-2/50008-8>
- Pan, X., Guo, Y., Liu, Z., Zhang, Z., & Shi, Y. (2019). Application of Cluster Analysis and Discriminant Analysis in Quality Grading of Jadeite Red. *Journal of Physics: Conference Series*, 1324(1). <https://doi.org/10.1088/1742-6596/1324/1/012101>
- Peronnet, G., Pichot, C., Bolomey, J. C., Jofre, L., Izadnegahdar, A., Szeles, C., Michel, Y., Gerquin-Kern, J. L., & Gautherie, M. (1983). Microwave Diffraction Tomography for Biomedical Applications. *Conference Proceedings - European Microwave Conference*, 30(11), 529–533. <https://doi.org/10.1109/euma.1983.333285>
- Qorbani, O., & Aghdam, E. N. (2020). Two-Phase Flow Measuring with Ultrasonic Tomography. *Archives of Acoustics*, 45(3), 459–465. <https://doi.org/10.24425/aoa.2020.134062>

- Raisin, S. N., Jamaludin, J., Ismail, I., Wahab, Y. A., & Rahim, R. A. (2021). Simulation Study on CCD Tomography System for Ruby Stone Optical Properties. *Journal of Tomography System & Sensors Application*, 4(1), 34–40.
- Raymond, A. (2016). *Rubies Have A Long History and A Variety of Uses*. <https://www.bellevuerarecoins.com/rubies-long-history-variety/>
- Renfro, N. D., Koivula, J. I., Moyal, J., McClure, S. F., Schumacher, K., & Shigley, J. E. (2018). Inclusions in Natural, Synthetic, and Treated Ruby. *Gems and Gemology*, 54(4).
- Rosa, E. S., Salgado, R. M., Ohishi, T., & Mastelari, N. (2010). Performance Comparison of Artificial Neural Networks and Expert Systems Applied to Flow Pattern Identification in Vertical Ascendant Gas-liquid Flows. *International Journal of Multiphase Flow*, 36(9), 738–754. <https://doi.org/10.1016/j.ijmultiphaseflow.2010.05.001>
- Shaban, H., & Tavoularis, S. (2017). Performance Evaluation of Conductivity Wire-mesh Sensors in Vertical Channels. *Flow Measurement and Instrumentation*, 54(February), 185–196. <https://doi.org/10.1016/j.flowmeasinst.2017.02.003>
- Shaipanich, T., Pahlevaninezhad, H., & Lam, S. (2017). Optical Coherence Tomography: A Review. In *Interventions in Pulmonary Medicine* (Vol. 5, Issue 4, pp. 267–279). https://doi.org/10.1007/978-3-319-58036-4_16
- Sher, F., Sajid, Z., Tokay, B., Khzouz, M., & Sadiq, H. (2016). Study Of Gas – Liquid Mixing In Stirred Vessel Using Electrical Resistance Tomography. *Asia-Pacific Journal of Chemical Engineering*, 11(6), 855–865.
- Sinkevicius, S., Lipnickas, A., & Rimkus, K. (2013). Multiclass Amber Gemstones Classification with Various Segmentation and Committee Strategies. *Proceedings of the 2013 IEEE 7th International Conference on Intelligent Data Acquisition and Advanced Computing Systems, IDAACS 2013*, 1, 304–308. <https://doi.org/10.1109/IDAACS.2013.6662694>
- Sony Corporation. (n.d.). *ILX551A Datasheet*. Electronic Components Datasheet Search. <https://www.alldatasheet.com/datasheet-pdf/pdf/47512/SONY/ILX551A.html>
- Stuart, M., & Ross, S. M. (1988). Introduction to Probability and Statistics for Engineers and Scientists. *Journal of the Royal Statistical Society. Series A (Statistics in Society)*, 151(2), 381. <https://doi.org/10.2307/2982792>
- Sun, B., Yue, S., Cui, Z., & Wang, H. (2015). A New Linear Back Projection Algorithm To Electrical Tomography Based On Measuring Data Decomposition. *Measurement Science and Technology*, 26(12). <https://doi.org/10.1088/0957-0233/26/12/125402>

- Sun, K., & Li, Y. (2020). An HDTV-SB Imaging Algorithm for Wire-mesh Tomography. *Measurement Science and Technology*, 31(4).
- Sutherland, F. L., Zaw, K., Meffre, S., Thompson, J., Goemann, K., Thu, K., Nu, T. T., Zin, M. M., & Harris, S. J. (2019). Diversity in Ruby Geochemistry and its Inclusions: Intra-and inter-continental Comparisons from Myanmar and Eastern Australia. *Minerals*, 9(1), 28. <https://doi.org/10.3390/min9010028>
- Tang, S. M., Tang, S. H., Tay, T. S., & Retty, A. T. (1988). Analysis of Burmese and Thai Rubies By PIXE. *Applied Spectroscopy*, 42(1), 44–48. <https://doi.org/10.1366/0003702884428752>
- Tapp, H. S., Peyton, A. J., Kemsley, E. K., & Wilson, R. H. (2003). Chemical Engineering Applications of Electrical Process Tomography. *Sensors and Actuators, B: Chemical*, 92(1–2), 17–24. [https://doi.org/10.1016/S0925-4005\(03\)00126-6](https://doi.org/10.1016/S0925-4005(03)00126-6)
- Tengattini, A., Lenoir, N., Andò, E., & Viggiani, G. (2021). Neutron Imaging for Geomechanics: A Review. *Geomechanics for Energy and the Environment*, 27, 100–206. <https://doi.org/10.1016/j.gete.2020.100206>
- Tudisco, E., Hall, S. A., Charalampidou, E. M., Kardjilov, N., Hilger, A., & Sone, H. (2015). Full-field Measurements of Strain Localisation in Sandstone by Neutron Tomography and 3D-Volumetric Digital Image Correlation. *Physics Procedia*, 69, 509–515. <https://doi.org/10.1016/j.phpro.2015.07.072>
- Wahab, Y. A., Rahim, R. A., Hafiz Fazlul Rahiman, M., Rahim, H. A., Aw, S. R., Jamaludin, J., & Shima Mohd Fadzil, N. (2014). A Review of Process Tomography Application in Inspection System. *Jurnal Teknologi*, 70(3), 35–39. <https://doi.org/10.11113/jt.v70.3459>
- Wahab, Y. A., Rahim, R. A., Rahiman, M. H. F., Ling, L. P., Aw, S. R., Puspanathan, M. J., Abd Shaib, M. F., Rahim, H. A., & Mohamad, E. J. (2017). Image Reconstruction For Solid Profile Measurement In ERT Using Non-Invasive Approach. *Telkomnika (Telecommunication Computing Electronics and Control)*, 15(4), 1554–1564. <https://doi.org/10.12928/TELKOMNIKA.v15i4.7234>
- Walter, S. (2021). *The 4Cs of Ruby Quality*. The Natural Ruby Company. <https://thenaturalrubycompany.com/education/ruby-characteristics/judging-ruby-quality/>
- Whitney, L. (2011). *What Are Rubies Used for Today?* <https://www.leaf.tv/articles/what-are-rubies-used-for-today/>
- Wise, M. (2021). Gemstones and Gem Minerals. In *Encyclopedia of Geology* (2nd ed., pp. 523–537). Elsevier Inc. <https://doi.org/10.1016/b978-0-08-102908-4.00083-7>

- Xie, T., Ghiaasiaan, S. M., & Karrila, S. (2004). Artificial Neural Network Approach for Flow Regime Classification in Gas-liquid-fiber Flows Based on Frequency Domain Analysis of Pressure Signals. *Chemical Engineering Science*, 59(11), 2241–2251. <https://doi.org/10.1016/j.ces.2004.02.017>
- Yang, W. Q., Chondronasios, A., Natrass, S., Nguyen, V. T., Betting, M., Ismail, I., & McCann, H. (2004). Adaptive Calibration of A Capacitance Tomography System for Imaging Water Droplet Distribution. *Proceedings of the 7th Biennial Conference on Engineering Systems Design and Analysis, ESDA 2004*, 1(5–6), 497–503. <https://doi.org/10.1115/esda2004-58538>
- Yu, J., He, X., & Lu, Z. (2019). Cause Analysis of Chatoyancy of Sapphires from Shandong, China. *RSC Advances*, 9(42), 24420–24427. <https://doi.org/10.1039/c9ra03585k>
- Zeng, G. L. (2001). Image Reconstruction - A Tutorial. *Computerized Medical Imaging and Graphics*, 25(2), 97–103. [https://doi.org/10.1016/S0895-6111\(00\)00059-8](https://doi.org/10.1016/S0895-6111(00)00059-8)
- Zhang, Z., Zhang, W., Zhai, Z. J., & Chen, Q. Y. (2007). Evaluation of Various Turbulence Models in Predicting Airflow and Turbulence in Enclosed Environments by CFD: Part 2— Comparison with Experimental Data from Literature. *HVAC and R Research*, 13(6), 871–886. <https://doi.org/10.1080/10789669.2007.10391460>