

**Thomas James Quick**  
Curriculum Vitae  
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**I. Contact Information:**

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**II. Professional History:**

2016 to present	Assistant Professor of Instruction, University of Akron
1983 to 2016	Research Associate, University of Akron
1980 to 1982	President of Quick Test Farm
1979 to 1980	Instructor, The University of Akron
1976 to 1981	Student Assistant, The University of Akron

**III. Education:**

M.S.	1983	The University of Akron (Coal Geology)
B.S.	1979	The University of Akron (Natural Science Geology)
A.S.	1976	The University of Akron (Chemistry)

**IV. Career Interests:**

- A.** One of my many interests is the design and construction of electronic and mechanical devices used in research and education. Two such devices early in my career were built in high school to measure water temperature at depth and the measurement of a speeding 22 caliber bullet using simple rotating discs. These devices were used in physics classes long after I graduated. Now I concentrate on custom designing and building electronic loggers and sensors. They include the detection of temperature, conductivity, light, barometric pressure and water level. I received a patent for a radon detector and recorder system that I designed. I also design interface circuits for these sensors thus making the sensor more versatile than what is commercially available. I use my metal working skills to design and build parts that are not commercially available such as X-ray sample holders, sediment samplers and cave surveying equipment. The challenge of computer programming and computer maintenance has long been an interest of mine. I both design circuits and write the code used to log the data measured by the sensors I have built. I am able to tear down a CPU often to find that I can replace inexpensive part whereas, another might have given up on the CPU.
- B.** I have a passion for the building of educational models used in inquiry based education. My first educational model was the Cuyahoga River.

This model used water and pumps and was displayed for the first Earth Day in 1970. Today I use my wood and metal working skills to build models for university-level education. A few of the models I have built include the Desktop Delta, earthquake apparatus, dead weight creep apparatus, accretionary prism (wedge) and Brunton Compass Trainer. These physical models give the students a hands-on approach to learning. The feedback I receive from faculty using these models has been very positive. Faculty report that the students using the educational models often suddenly grasp the complex ideas represented by the model and enjoy the hands-on learning. My passion extends to teaching students at all levels be it undergraduate or graduate. I have great satisfaction in being acknowledged in over 150 student theses for helping contribute to their educational success.

**V. Awards:**

The University of Akron  
The Chairs' Award Outstanding Achievement Staff Service 2001

The University of Akron – Buchtel College of Arts and Sciences Special Award for Outstanding Service, 1997

American Society of Patent Holders  
Distinguished Corporate Inventor 1995

The University of Akron - Academic Achievement Programs  
Certificate of Recognition 1988

**VI. Certificates and Licenses:**

The University of Akron  
Certificate of Completion (Designing and Developing Your Online Course) 2016

GeoGraphix University  
Certificate Basic and Intermediate program level 1997

Innov-X Systems  
Safety & operation of portable X-Ray fluorescence analyzer 2009

Transportation Management Group, Inc.  
Hazardous Materials Customer Training seminar 2013

Extra Class Amateur Radio License 2012

General Class Amateur Radio License 2012

Technician Class Amateur Radio License 2003

**VII. Memberships:**

The University of Akron  
National Academy of Inventors 2011

Northern Ohio Geological Society

**VIII. PATENTS:**

Chyi, L.L., **Quick, T.J.**, Yang, T.F. and Hong, C., 2013, Radon Monitoring System for Earthquake Prediction: Patent, U.S. Patent and Trademark Office, Patent No. 8,459,096.

Chyi, L.L. and **Quick, T.J.**, 1995, Gas Removal Apparatus: Patent, U.S. Patent and Trademark Office, Patent No. 5,438,324.

**Quick, T.J.**, 1989, Battery Powered Vacuum Unit: Patent, U.S. Patent and Trademark Office, Patent No. 4,863,593

**IX. PUBLICATIONS:**

Srivatsan, T.S., Manigandan, K., **Quick, T.**, Freborg, A.M. and Sastry, S. (2014). *The Microstructure and Mechanical Behavior of High Strength Alloy Steel X2M*, Advances in Materials Research, Vol. 3, No. 1, p. 283-295.

Srivatsan, T.S., Manigandan, K., Sastry, S., **Quick, T.** and Schmidt, M.L. (2014). *Mechanical Behavior of Two High Strength Alloy Steels under Conditions of Cyclic Tension*, Journal of Materials Engineering and Performance, DOI: 10.1007/s11665-013-0752-3, Vol. 23, Issue 1, p. 198-212.

Srivatsan, T.S., Manigandan, K., **Quick, T.**, Sastry, S. and Schmidt, M.L. (2014). *Influence of Microstructure and Load Ratio On Cyclic Fatigue and Final Fracture Behavior of Two High Strength Steels*, Materials & Design, Vol. 55, p. 727-739.

Srivatsan, T.S., Godbole, C., **Quick, T.**, Paramsothy, M. and Gupta, (2013). *M. Mechanical Behavior of a Magnesium Alloy Nanocomposite Under Conditions of Static Tension and Dynamic Fatigue*, Journal of Materials Engineering and Performance, Vol. 22, p. 439-453.

Srivatsan, T.S., Manigandan, K., Freborg, A. and **Quick, T.** (2013). *The Quasi Static Deformation and Fracture Behavior of a Novel High Strength Steel for Emerging Applications*, Emerging Materials Research, Vol. 2, p. 17-26.

Manigandan, K., Srivatsan, T.S., Freborg, A. and **Quick, T.** (March 2013). *Investigating and Understanding the Cyclic Fatigue, Deformation, and Fracture Behavior of a Novel High Strength Alloy Steel: Influence of Orientation* Steel Research International, Volume 84, Issue 3, p. 218–228.

Manigandan, K., Srivatsan, T.S., **Quick, T.** and Schmidt, M.L. (2013). *Mechanisms Governing the Cyclic Fracture Behavior of Two High Strength Steels: Role of Composition and Microstructure*, Emerging Materials Research, Volume 1, Issue 4, p. 1-15.

Srivatsan, T.S., Manigandan, K. and **Quick, T.** (2013). *Investigating and Understanding Bending Fatigue Response and Fracture Behavior of Two High Strength Steels*, Journal of Materials Performance and Characterization, DOI: 10:1520/MPC20130024), Volume 2, Issue 1

Bertel, D., Peck, J.A., **Quick, T.J.**, Senko, J.M. (2012). Iron transformations induced by acid-tolerant *Desulfosporosinus* species. *Applied and Environmental Microbiology*, no.78, p. 81-88.

Chyi, L.L., **Quick, T.J.**, Yang, T.F. and Chen, C.H. (2012). Radon and earthquake forecasting, in Handbook of Radon: Properties, Applications, and Health, ed. Li, Z., and Feng, C., Nova Science Publishers, Inc., p.179-209.

Srivatsan, T.S., Manigandan, K. and **Quick, T.** (2012). *Influence of Silicon Carbide Particulates on Tensile Fracture Behavior of an Aluminum Alloy*. Materials Science and Engineering, Vol. 534 A, 2012, p. 711-715.

Srivatsan, T.S., Godbole, C., **Quick, T.**, Paramsothy, M. and Gupta, M. (2012). *On the Influence of Nature of Reinforcement on Quasi-Static Deformation and Fracture Behavior of a Magnesium Alloy*. International Journal of Engineering Sciences and Management, Vol. II, Issue 1, p. 1-9.

Srivatsan, T.S., Manigandan, K., **Quick, T.** and Schmidt, M.L. (2012). *Investigating and Understanding the Cyclic Fatigue Fracture Behavior of Two High Strength Specialty Steels*. International Journal of Engineering Sciences and Management, Vol II. Issue 1, p. 10-17.

Srivatsan, T.S., Hurtuk, T., Menzemer, C.C., Patnaik, A., Manigandan, K. and **Quick, T.** (Nov. 2012). *The Quasi Static Deformation, Failure and Fracture Behavior of Titanium Alloy Gusset Plates Containing Bolt Holes*, Journal of Materials Engineering and Performance, Vol. 21, No. 11, p. 2363-2374.

Srivatsan, T.S., Manigandan, K., **Quick, T.** and Schmidt, M.L. (2012). *Mechanisms Governing the Fracture Behavior of Two High Strength Steels: Role of Composition and Microstructure*, Emerging Materials Research, Volume 1, Issue 4, p. 170-184.

Chyi, L.L., **Quick, T.J.**, Yang, T.F. and Chen, C.H. (2011). The origin and detection of spike-like anomalies in soil gas radon time series, *Geochemical Journal*, no.45, v. 6, p. 431-438.

Senko, J.M., Bertel, D., **Quick, T.J.** and Burgos, W.D. (2011). The influence of phototrophic biomass on Fe and S redox cycling in an acid mine drainage-impacted system, *Mine Water and the Environment*, v. 30, p. 38-46.

Srivatsan, T.S., Manigandan, K. and **Quick, T.** (2011). *The Impact Toughness and Fracture Behavior of Four High Strength Steels: Role of Processing*, International Journal of Engineering Sciences and Management, Vol. 1, Issue 2, p. 23-36.

Srivatsan, T.S., Manigandan, K. **Quick, T.** (2011). *The Tensile Deformation and Fracture Behavior of Four High Strength Steels*, Journal of Steel Research Institute, Vol. 82, Issue 12, p. 1385-1393.

Senko, J. M., Bertel, D., **Quick, T.J.** and Burgos, W.D. (2010). The Influence of Phototrophic Biomass on Fe and S Redox Cycling in an Acid Mine Drainage-Impacted System. *Mine Water and the Environment*. DOI: 10.1007/s10230-010-0123-3.

Chyi, L.L., **Quick, T.J.**, Yang, T.F. and Chen, C.H. (2010). The experimental investigation of soil gas radon migration mechanisms and its implication in earthquake forecast, *Geofluids*, p. 556-563.

Srivatsan, T.S., Bathini, U., Patnaik, A., and **Quick, T.** (2010). *A Study of the Tensile Deformation and Fracture of Commercially Pure Titanium and Titanium Alloy: Influence of Orientation and Microstructure*; Journal of Materials Engineering and Performance, Vol. 19, Issue 8, p. 1172-1182.

Srivatsan, T.S., Bathini, U., Patnaik, A., and **Quick, T.** (2010). *A Study of Cyclic Fatigue, Damage Initiation, Damage Propagation and Fracture of Welded Titanium Alloy Plates: Influence of Orientation*; Materials Science and Engineering, Vol. 527, Issue 24-25, p. 6649-6659.

Chyi, L.L., **Quick, T. J.**, Yang, T. F., and Chen, C. C. (2006). Soil radon time series and earthquake monitoring: *Proceedings of International Brainstorming Session on Geochemical Precursors for Earthquakes* (in print).

Chyi, L.L., **Quick, T.J.**, Yang, F.T. and Chen, C.H. (2005). Soil Gas radon spectra and earthquakes, *Terrestrial, Atmospheric, and Oceanic Sciences*, no. 16, v. 4, p.763-774.

Chyi, L.L., **Quick, T.J.**, Yang, T.F., and Chen, C.H., (2003), Soil gas radon spectra and earthquake Prediction: Proceedings of the 7th International Conference on Gas Geochemistry, p. 31-32.

Kunze, A.G., and **Quick, T.J.** (1994). Tidal Water Level Fluctuations in Water Wells on San Salvador Island, Bahamas. *Bulletin of the Association of Engineering Geologists*, 31(1), 75-89.

Kunze, A.W.G., **Quick, T.J.**, and Gross, G.D., (1991), Measurements of tidal water table fluctuations in well field north of Cockburn Town, San Salvador, Bahamas: in Bain, R.J., (ed) Proceedings of the Fifth Symposium on the Geology of the Bahamas, Bahamian Field Station, Ft. Lauderdale, FL, p. 151-161.

Teeter, J.W., and **Quick, T. J.** (1990). Magnesium-salinity relation in the saline lake ostracode *Cyprideis americana*. *Geology*, 18(3), 220-222.

Corbett, R.G., Manner, B.S. and **Quick, T.J.**, (1990). Reaching the best high-school sophomores and juniors with a three-week research-based summer program in geochemistry: *Journal of Geological Education*, v. 38, p. 207.

Foos, A. M., & **Quick, T. J.** (1988). Preparation of Oriented Clay Mounts with Uniform Thickness for XRD Analysis: RESEARCH METHOD PAPER. *Journal of Sedimentary Research*, 58(4).

Chyi, L.L., Barnett, R.G., Burford, A.E., **Quick, T.J.** and Gray, J. (1987). Coalification patterns of the Pittsburgh Coal: their origin and bearing on hydrocarbon maturation, *International Journal of Coal Geology*, v. 7, p. 69-83.

Corbett, R.G., and **Quick, T.J.** (1986). Battery-Powered Field Filtration Assembly Using an Inexpensive Mini-Compressor. *Journal of Geological Education*, 34(3), 196-97.

**Quick, T.J.**, Cardarelli, N.F., Ellin, R.J. and Sherman, L.R. (1981) Controlled Release Temephos: Laboratory and Field Evaluations. ed.

Lewis, D.H. *Controlled Release of Pesticides and Pharmaceuticals*. New York: Plenum Press, 1981 Print. ISBN 9781475707397.

**X. Abstracts of Papers Presented at Professional Meetings:**

Budahn, Kelsey E., Sasowsky, Ira D., **Quick, Thomas J.**, Gutiérrez, Francisco, Guerrero, Jesús, Gisbert, Mario, and Campbell, Hunter J. (2016). The role of condensation corrosion on speleogenesis in semi-arid environments: a morphological and meteorological investigation in the Iberian chain, Spain, Geological Society of America Abstracts with Programs. v. 48, no. 7.

Chyi, L.L., **Quick, T.J.**, Yang, T.F. and Chen, C.H. (2011). Radon migration in supra-layer soil and earthquake cycle, 11<sup>th</sup> International Conf. Gas Geochemistry, Abstract Volumes, La Jolla, CA, p. 26-27.

Chyi, L.L. and **Quick, T.J.** (2010). Evaluating household mineral products for radon release potential, North-Central & South-Central GSA Joint Meeting, Abstract and Programs, v. 42, no. 2, p. 94.

Chyi, L. L., **Quick, T. J.**, Yang, T. F., and Chen C.H. (2009). The experimental investigation of soil gas radon migration mechanisms and its implication in earthquake forecast, 10<sup>th</sup> International Conf. Gas Geochemistry, Volume of Abstracts, p. 20, Cluj-Napoca, Romania.

Chyi, L.L., **Quick, T.J.**, Yang, T.F. and Chen, C.H. (2007). Origin and detection of spike-like anomalies in soil gas radon time series, 9<sup>th</sup> International Conf. Gas Geochemistry, Program Proceeding, p. 39, Taipei, Taiwan.

Chyi, L.L., **Quick, T.J.**, Yang, T.F. and Chen, C.H. (2007). Soil radon time series and earthquake forecast, Proceedings of the International Brainstorming Session on Geochemical Precursors for Earthquakes, Saha Institute of Nuclear Physics, p. 38-51.

Chyi, L.L., **Quick, T.J.** and Ross, J. (2006). Thermal evolution of a shredded tire monofill: Geological Society of America Abstracts with Programs, v. 38, no. 4, p. 61.

Chyi, L.L., **Quick, T.J.**, Yang, T.F. and Chen, C.H. (2006). Soil radon time series and earthquake forecast, International Brainstorming Session on Geochemical Precursors for Earthquakes, Saha Institute of Nuclear Physics, Abstracts, p. 15 (invited), 2006.

Dzirasah, B.E., Foos, A., Szabo, J., and **Quick, T.** (2006). Hydrogeology and subsurface geology of a modified wetland, Liberty Park, Twinsburg, Ohio: Geological Society of America Abstracts with Programs, v. 38, no. 7, p. 290.

Check, D., Sasowsky, I.D., and **Quick, T.J.**, (2006), High-Resolution Monitoring of Accidental Drainage of a Carbonate Aquifer, Monroe County, West Virginia: in GSA Abstracts with programs, v. 38, no.7, p. 287, 2006 Annual Meeting, Philadelphia, Pennsylvania (Paper no. 115-2)

Foos, A., Shultz, K., and **Quick, T.**, (2005), Groundwater-surface water interactions of two wetlands in Liberty Park, Twinsburg, Ohio, Geological Society of America Abstracts with Program, v. 37, no. 7, p. 373.

Chyi, L.L., **Quick, T.J.** and Yang, T., (2003), Soil Gas radon spectra and earthquake prediction, Proceedings of the 7th Int.Conf. on Gas Geochemistry, p.31-32.

Chyi, L.L., **Quick, T.J.**, Tang, F.T. and Chen, C.H., (2002), Nature of soil gas radon release and earthquake prediction: Geological Society of America Abstracts with Program v. 34, no. 6, p. 262.

Peck, J.A., Foos, A., Park, L., Sasowsky, I., and **Quick, T.**, (2002). Fostering the Development of Scientific Thinking with Undergraduate Research Projects, 9th National Conference of the Council on Undergraduate Research, p. 35.

Talalas, T., Foos, A.M., and **Quick, T.J.**, (2001), Quantitative mineral analysis of Kauai Island beach sands by x-ray diffraction: Geological Society of America Abstracts with Program, v. 33, no. 6, p. A-231.

Brown, J., Chanda, A., Dutta, R., Foos, A., Nandi, A., **Quick, T.J.**, Visocky, S., and Waldo, S., (2000), Hydrogeochemistry of springs in the Sharon Sandstone, Cuyahoga Falls, Ohio: Geological Society of America Abstracts with Programs, v. 32, no. 4, p. A-6.

Friberg, L.M., Armstrong, M.E., and **Quick, T.J.**, (1997), Chemistry of chlorites from the dynamothermal metamorphic terrane of the Black Hills, South Dakota: Geological Society of America Abstracts with Programs, Annual Meeting, Salt Lake City, UT, v. 29, p. 9.



Zimmer, M.H., Park, L.E., **Quick, T.J.**, Dix, G.R., and Patterson, T., (1997), Paleoenvironmental analysis of a tropical lacustrine ostracode fauna, Lee Stocking Island, Bahamas: Geological Society of America Abstracts with Programs, North-Central Meeting, Madison, WI, v. 29, n. 4, p.81.

Corbett, R.G., Manner, B.M., and **Quick, T.J.**, (1993), Reconstruction of precursors to Liesegang-banded concretions in the Morrison Formation: Geological Society of America, Abstracts with Programs, v. 25, no. 6, p. A66.

Kunze, A.W.G., and **Quick, T.J.**, (1992), Tidal Water level fluctuations in fifteen wells near San Salvador airport, Bahamas: Abstracts and Program, 6th Symposium on the Geology of the Bahamas, p. 24-25.

McConnell, D.A., **Quick, T.J.**, and Dominic, J.B., (1992), Interaction of faulting and folding in clay models of basement-involved folds: Geological Society of America, Abstracts with Programs, v. 24, no. 6, p. 51.

Kunze, A.W.G., and **Quick, T.J.**, (1991), Tidal water table fluctuations in Cockburn Town well field, San Salvador, Bahamas: American Geophysical Union Transactions, v. 72, p. 126.

**Quick, T.J.**, Kunze, A.W.G., and Gross, G.D., (1990), Measurements of tidal water table fluctuations in well field north of Cockburn Town, San Salvador, Bahamas: Abstracts and Program for 5th Symposium on the Geology of the Bahamas, p. 26.

**Quick, T.J.**, and Teeter, J.W., (1990), An inexpensive interface for input of physical measurements into a computer using data stored on cassette or by direct means: Geological Society of America Annual Meeting, Abstracts with Program, v. 22, no. 7, p. A152.

Chyi, L.L. and **Quick, T.J.** (1984). The Calculation and the Geological Implications of a Multilinear Regressed Equation for Heat Content, North-Central and Southeast Sec., Geol. Soc. Am., Joint Ann. Meet., Lexington, KY, Abs. with Programs, 187.

Chyi, L.L., **Quick, T.J.** (1984). Calculate calorific values with proximate analysis parameters, Proceedings of the 4th Intern. Coal Testing Conference, 32-34.

Chyi, L.L., **Quick, T.J.** and Janiak, A.S. (1983). Observations on wet-weathering of coals from the Pittsburgh Seam, North-Central Sec., Geol. Soc. Am., Ann. Meet., Madison, WI, Abs. with Programs, 228.