

MICHAEL MURPHY

RESEARCH SCIENTIST

PROFILE



ABOUT

Mike is a Research Scientist with more than 30 years of research experience in the pharmaceuticals and chemicals industries. He specializes in metals analysis and polynuclear aromatic and PCB compound remediation.

TECHNICAL SKILLS

Published and presented work on extractable and leachable metals from pharmaceutical containers and pre-filled syringes as well as trace metals in oligonucleotides.

EXPERIENCE

Chief Scientist • Intertek Pharmaceutical Services • 2020 – Present

Develops the strategy and vision to lead the company from inception through completion into new service offerings. Publishes industry articles. Presents at conferences. Recognized expert in field of specialty. Manages a diverse technical team to accomplish large scale client projects.

Manager, Laboratory Operations • Intertek Pharmaceutical Services • 2017 – 2020

Directed and coordinated activities of all departmental laboratory operations to maximize quality, customer satisfaction, regulatory compliance, project timelines, productivity, and profitability. Supported development of proposals, protocols and reports for projects and cGMP compliance activities such as timely calibration of equipment and personnel trainings. Performed review of analytical data and trainings. Participated in tactical and strategic teams to meet corporate objectives. Business development responsibilities.

Research Scientist • Intertek Pharmaceutical Services d/b/a QTI • 2007 – 2017

Expert in a specific technical application. Published industry articles and presented at conferences. Designed and executed instrument and equipment validation/qualification requirements (IQ/OQ/PQ). Assisted with the development and expansion of new service offerings for a defined technology. Lead and directed the work of others.

Quantitative Technologies, Inc. (QTI) • 1994 – 2007

Research Scientist (2006-2007): Same as description above.

Group Leader, Inorganic Analysis (2004-2006): Organized, coordinated, and supervised daily workload of department staff. Mentored supervisors in daily operations and staff development. Oversaw all investigations and project management for technical objects, regulatory compliance, and financial results. Provided technical support to clients and business developers. Developed long range goals and objectives for the department. Developed objectives and monitored performance of the team.

Research Scientist I (2001-2004) and Research Chemist II (1997-2001):

Responsible for interdisciplinary project planning and execution. Supervised metals analyses by Flame AA, GFAA and ICP. Trained staff. Performed equipment maintenance. Wrote project reports.

Chemist I (1994-1997): Managed Inorganic Analytical Chemistry program work, including metals analysis of samples by flame AA and Graphite Furnace AA, analysis of samples for phosphorous and boron. Trained staff, managed paperwork and supplies, and performed equipment maintenance. Liaison Officer for health and safety.



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EDUCATION

Research Associate • 1990 • Virginia Polytechnic Institute & State University • Blacksburg, VA, USA

Synthesized textile finishing agents containing diisocyanates and phenols. Analyzed textile finishing agents using color measurement, TLC, mass spectrometry, NMR and FT-IR spectroscopies.

Graduate Studies, Inorganic Chemistry • 1989 • Virginia Polytechnic Institute & State University • Blacksburg, VA, USA

Study Focus:

Synthesized and characterized novel phosphazene ring compounds containing carbon and sulfur atoms. Investigated ring systems via ring-opening polymerization reactions and studies of the resultant polymers, as well as by reaction with organometallic reagents to yield alkyl substituted rings, and subsequent polymerization of these alkyl substituted species.

Bachelor of Science, Chemistry • 1982 • Philadelphia University • Philadelphia, PA, USA

Process Chemist • Environmental Strategies, Inc. • 1992 – 1994

Site supervisor for a 5-month field study at Allied Signal plant in Ohio. Supervised bench and pilot scale bio-remediation projects and worked directly with engineers for field projects and full-scale remediation projects. Established sampling protocols for in-house laboratory and QA/QC program for analytical testing. Set up the protocols and assured regulatory compliance for conducting hazardous waste treatability studies.

Associate Chemist • Olver, Inc. • 1990 – 1992

Designed and conducted a series of critical experiments. Wrote protocols for and performed non-routine analyses for in-house treatability studies for a delisting petition of Chemically Stabilized Electric Arc Furnace Dust. Analyzed water, soil, sludge, and solid samples for metal content using Leeman Labs PS100 ICP and Perkin Elmer 1100 AA with graphite furnace accessory. Scheduled metals analyses, determined required sample preparation methods, adhered to EPA protocols, developed analytical methods and performed instrument maintenance.

PRESENTATIONS

"Diisocyanates as Durable Press Finishing Agents," M.P. Murphy and J.E. Cardamone, Biobased Materials Center Conference, Blacksburg, Virginia, November 1989.

"Phosphazene - Carbon Copolymers," M.P. Murphy and P.J. Harris, U.S.D.A. Agricultural Research Station, Philadelphia, Pennsylvania, June 1987.

"Synthesis of PN Alkyl Block Copolymers," M.P. Murphy and P.J. Harris, ACS Southeastern Regional Meeting, Memphis, Tennessee, October 1985.

"A comprehensive Approach for the Determination of Extractable and Leachable Metals I Pharmaceutical Products by Inductively-Coupled Plasma," Daniel J. Zuccarello, Michael P. Murphy, Richard F. Meyer, and Paul A. Winslow, PDA Journal of Pharmaceutical Science and Technology, Vol. 63, No. 3, 2009.

Murphy, M.P. (2011), "Analysis of Metals in Oligonucleotides," In Jose V. Bonilla, G. Susan Srivatsa (Eds.), Handbook of Analysis of Oligonucleotides and Related Products (pp. 453 - 464). Boca Raton: CRC Press.

Webinar, "Extractables/Leachables Changes to USP <661>," Michael Murphy, November 21, 2013.

E&L Europe, London UK, "Elemental Impurities Analytical Review and Impact on Drug Products," Michael Murphy, December 11, 2013.

"Detection and Quantification of As, Cd, Hg and Pb in API and FDP Using Procedure 2 of Updated USP <233>," Eastern Analytical Symposium, Michael Murphy, Philip Costello and Diana Buro Intertek Pharmaceutical Services, Whitehouse, New Jersey, USA, November 2014.

Webinar, "Intertek Pharmaceutical Services Elemental impurities USP <233> / USP <232> 2015," Mike Murphy, February 26, 2015.

Webinar, "Elemental impurities - An Update on USP 232 Implementation – Are you ready?," Mike Murphy, May 28, 2015.

"Moving on to Implementation for Elemental Impurities Testing." Interview with Intertek's Mike Murphy. <http://bit.ly/PharmTech-Elemental>, Aug 01, 2015, By Pharmaceutical Technology Editors Pharmaceutical Technology Volume 39, Issue 17.

