

Carl David McAfee, Ph.D. McAfee Consulting LLC

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Education:

1990 Ph.D. Analytical Chemistry -> Texas A&M University
1985 B.S. Chemistry -> Harding University

Background:

Fundamental Knowledge of Chemistry, Physics, Math, Polymer Science, & Design of Expts.
Applications Knowledge in Plastics, Rubber, Elastomers, Polymers & Nanotechnology

Work Experience:

1996- Present Founded McAfee Consulting LLC, Kennedale, TX
Independent consulting firm focusing on the Chemical & Polymer industries

1994- 1996 Chase Elastomer Corporation, Kennedale, TX
Technical Director -> lab management, project development, problem analysis
Application areas: Rubber Rolls, Photopolymer Printing plates, Analytical, etc.

1989-1994 The Dow Chemical Company, Freeport, TX
Project Leader -> Polyurethane's Applications Development Labs
Application areas: Polyurethane Chemistry, Polymer Science, Foams, etc.

1985-1989 Texas A&M University, College Station, TX
Graduate Studies -> Analytical Chemistry, Teaching, Analytical Techniques
Application areas: Analytical Techniques (all), Nuclear Chemistry, Mass Spec.

1987-1987 Fritz-Haber Institute der Max Planck Gessellschaft, Berlin, West Germany
Studies Abroad -> work and interact in foreign lab
Application areas: Field Ion Microscopy and Time-of-Flight Mass Spectrometry

1981-1985 Harding University, Searcy, AR
Undergraduate Studies -> Chemistry, Physics, Math, & French
Application areas: Sciences, Computers, Literature, Languages, & Commun.

1983-1983 U.S. Borax Research Corporation, Anaheim, CA
American Chemical Society Summer Internship
Application areas: Atomic Absorption Analyses of Precious Metals

Specific Areas of Expertise:

Analytical Chemistry -> Concepts, Techniques, Applications, Separations, Development
Polymer Science -> Plastics, Rubber, Elastomers, Testing, Dynamic Properties, Development
Nanotechnology -> Extensive mixing, product development, and material characterization
Photochemistry -> Photopolymers, water soluble systems, environmentally friendly systems
Designed Experiments -> Designed Experiments for Product & Application Development

Patents:

5,851,731 Composition for the Manufacture of Flexographic Printing Plates
Assigned to Chase Elastomer Corporation, Issued 22 Dec. 1998.

5,373,028 Polyurethane Foams Having Reduced Visible Emissions During Curing
Assigned to The Dow Chemical Company, Issued 13 Dec. 1994.

Awards

Texas A&M University, College of Science, Academy of Distinguished Former Students, April 2022.

Publications:

McAfee Consulting LLC -> Numerous Papers on Elastomers & Designed Experiments
Dow Chemical Comp. -> Numerous Articles on Polyurethanes and Foams
Texas A&M University -> Numerous Articles on Time-of-Flight Mass Spectrometry

Other:

Energy Rubber Group – Board of Directors – Academic Liaison – 1996 to 2004
Application Development & Commercialization of Nanomaterials in Elastomers – 2006-2016
Adjunct Professor – Univ. of Texas in Arlington – Dept. of Chem. & Material Science – 1997 to 2003
PolymersNet (A Technology Gateway) – Board of Directors – Seoul, S. Korea – 2004 to 2006
Distinct Capital Group – Advisory Board – Austin, Texas – 2015 to present