

TOM J. MARICICH, Ph.D.
CHEMICAL CONSULTANT / EXPERT WITNESS

Chem Consulting, Inc.
1665 Catalina Avenue, Seal Beach, CA 90740

Phone: (562) 209-4306
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AREAS OF EXPERTISE

General and Organic Synthetic Chemistry; Chemical Safety; Consultant to Cal OSHA; Chemical Intellectual Property Disputes; Synthetic Urine; Corrosive Acids and Bases; Sulfuric Acid Burns; Chemical Burns from Wet Concrete; Cosmetics, Hair Bleach Burns; Peroxides; Chlorine and Bleach; Surfactants and Detergents; Degradation of Plastics; Spontaneous Combustion; Fires and Explosions; Sulfur-Nitrogen Compounds: Sulfamides, Sulfonamides, Sulfinamides, Sulfur Azides, Sulfonimides; Fumigants; Decomposition of Chemicals; Metal and Chemical Explosions; Pyrotechnics; Chloropicrin Fumigant; Isocyanates, TDI Exposure; Polyurethane Foams; Structures and Properties of Psychoactive Drugs; Propane and Flammable Propellants; Airbag Detonators; Solvents; Hydrogen Sulfide Gas Release; Matching Formulations; Dry Ice Burns.

Effective in clearly explaining chemical materials and concepts to attorneys / juries.

EDUCATION

- Ph.D.** Organic Chemistry, Yale University, New Haven, CT
- M.S.** Organic Chemistry, Yale University, New Haven, CT
- B.S.** Chemistry, University of Washington, Seattle, WA

ACADEMIC EXPERIENCE

1975-2020 Professor of Chemistry, California State University, Long Beach, CA
Taught general, organic and physical organic chemistry. Served as chair of the College of Natural Sciences and Chemistry Dept. safety committees for 20+ years. Now active as emeritus research professor. Directs research on chemistry of **SNAAP®** sulfonimide alkylating agents.

2010 Grand Marshal at Commencement, College of Natural Sciences

1988-1992 Acting Associate Dean, College of Natural Sciences, California State University, Long Beach, Long Beach, CA

Other: Assistant / Associate Professor of Chemistry, North Dakota State University, Fargo, ND; NIH Predoctoral Fellow, Graduate Teaching Assistant, Yale University, New Haven, CT. Conducted graduate research on azides, sulfonylurethanes and nitrenes.
Undergraduate Research Assistant, University of Washington
Created: Maricich Ethylation Reagent [SNAAP®]. From Sigma Aldrich.

CHEMICAL CONSULTANT AND EXPERT WITNESS CASES

TYPICAL EXAMPLES OF CASES AS A CHEMICAL EXPERT WITNESS:

- Intellectual Property Litigation for Phenol/Formaldehyde Resin Formulas
- Intellectual Property Litigation for Art Canvas Coatings
- Litigation Regarding Possible Patent Infringement of Inkjet Printer Ink Formulations and Physical Properties
- Arbitrator between Opposing Parties Regarding Intellectual Property of Surfactant Formulations for Automotive Products
- Fatal Release of Hydrogen Sulfide Gas from Sulfides at Waste Facility
- Scalp Burns from Hazardous Hair Bleaching Products
- Sulfuric Acid Drain Cleaner Produced Deadly Hydrogen Sulfide Gas
- Child Suffered Severe Burns from Sulfuric Acid Drain Cleaner
- Release of Toxic Chlorine Gas Cloud from Swimming-Pool Chemical Fire
- Corrosive Properties of Ready-Mix Cement
- Chemical Ingredients and Their Properties in Synthetic Urine
- Explosion of Dry Ice Water Mixture
- Spontaneous Combustion Fire
- Formulation and Properties of a Disinfectant Cleaner
- Cosmetic Formulations
- 55-Gallon Drum Explosion
- Properties of Hazardous Chemicals in Creosote
- Properties of Phenol and Chemical Safety
- Properties of Roundup Herbicide
- Explosive Materials: Ammonium Nitrate, Azides, Lye & Water, Metals, Pyrotechnics, Propane
- Laboratory Fire and Safety
- Evaluation of Residues from Sulfuryl Fluoride Termite Fumigation
- Lava Lamp Surfactant Formulation
- Release of Fumes from Incompatible Chemicals Mixed in Tanker Truck
- Chlorine gas from chlorine bleach and acids
- Exposure to Toluene Diisocyanate
- Analysis of Defective Liquid Crystal Products
- Methods for Analysis/Disposal of Waste Gases/Organic Liquid Wastes
- Acid Damage to Automotive Body Paint
- Explosion of Zirconium Potassium Perchlorate Airbag Detonator Chemical
- Flammable Hydrocarbon Propellant Gas Explosion
- Propane Gas Asphyxiation Studies
- Diesel Fuel Tank Explosion
- Dithiocarbamate / Carbon Disulfide Explosion
- Structures and Properties of Psychoactive Drugs
- Photo, Thermal, and Chemical Degradation of Plastics
- Burns by Lye and Hot Liquid Detergents
- Formaldehyde-Releasing Preservatives in Cosmetics
- Polymerization of Methyl Methacrylate in Acrylic Nail Formulations

SELECTIVE LIST OF ATTORNEYS AND LAW FIRMS

	^D Testified in Deposition [14]	^T Testified in Trial [12]
2020		Josh Dowell of Carpenter, Zuckerman & Rowley, LLP, Ojai, CA
2019-20	^D	Shahran Kangavari of Law Office of Omid Nosrati, Los Angeles, CA
2019		Shehzad Ahmad of California Law Associates, Inc., Santa Ana, CA
2019		David Taran of Clark Hill LLP, Los Angeles, CA
2018-20		James Wright of McKay, De Lorimier & Acain, Los Angeles, CA
2018-20	^D	Alyson Marchiondo of Ellis Law, El Segundo, CA
2018		Perry Doran II of Vorys, Slater, Seymour and Pease LLP, Columbus, Ohio
2017		Robert Dickerson of Zuber Lawler & Del Duca LLP, Los Angeles, CA
2017		Chris Richardson of Olson Cannon Gormley Angulo & Stoberski, Las Vegas
2016-17	^D	Agnew Brusavich of Agnew Brusavich, Serious Injury Lawyers, Torrance, CA
2016		T. Larry Watts of Seyfarth Shaw LLP, Los Angeles, CA
2015		Steven H. Haney of Haney & Young LLP, Los Angeles, CA
2015-16		Marc Shea of Shea & McIntyre PC, San Jose, CA
2012-15	^D	Karen Larson of Century Law Group LLP, Los Angeles, CA
2015	^{D T}	Eric Strongin of Smith Hall Strongin LLP, San Juan Capistrano, CA
2015		Jenna Fischer-Reyes of the Law Office of Melissa Ballard, The Hartford, Brea, CA
2015		Sabrina Wibicki of the Law Offices of Alverson, Taylor, Mortenson & Sanders, Las Vegas, NV
2015		Allen Thomas of the Thomas Law Firm, Inc., Long Beach, CA
2014		Robert Tucker of the Law Offices of Robert M. Tucker, Los Angeles, CA
2014		Pamela Tahim of Tredway, Lumsdaine & Doyle LLP, Downey, CA
2013		Muhammad Aziz of Abraham, Watkins, Nichols, Sorrels & Friend, Houston, TX
2013		Michael Akopyan of Brown Gitt Law Group, Pasadena, CA
2012	^D	Thomas Clark of Ropers Majeski Kohn Bentley Lawyers, Los Angeles, CA
2012		Andrea Oxman of Klinedinst PC, Los Angeles, CA
2012		Brandon Smith of Law Offices of Brandon M. Smith, San Diego, CA
2012		Matthew Proudfoot of Gates O'Doherty Gonter & Guy LLP, Irvine, CA
2011-12		Rebecca Thompson of Gaines & Stacey, LLP, Encino, CA
2011	^D	Keith Simpson from the Law Offices of Keith F. Simpson PC, Manhattan Beach, CA
2011	^{D T}	Marc Shea of Shea & McIntyre, PC, San Jose, CA
2011		Tom Nagashima of Watson Law Group, Los Angeles, CA
2010-11		Patrick Taylor of Brady, Vorwerck, Ryder & Caspino, Concord, CA
2010-11		Ryan Kohler of Collins, Collins, Muir & Stewart, LLP, South Pasadena, CA
2006-11		Gregory Moreno of Moreno, Becerra and Casillas, Montebello, CA
2010		Robert Amador of Amador Kelly, LLP, Long Beach, CA
2010		Crosby Lyman of Lyman Law Firm, LLC, Baton Rouge, LA
2010		FredRico McCurry, Attorney-at-Law, Van Nuys, CA
2009-10		Sean D. Allen of Lorber, Greenfield & Polito, LLP, Poway, CA
2009-10		Kelly Ryan of the Ryan Law Firm, Pasadena, CA
2008-10		Jay M. Borgeson of Henderson & Borgeson, Santa Barbara, CA
2009	^D	James Hamilton of Jones, Hamilton & Lay, Dyersburg, TN

2007-8 ^D William L. Buus of Buus Kim Kuo & Tran LLP, Irvine, CA
2007 Stephen F O'Neill of Tarkington O'Neill Barrack & Chong, Santa Rosa, CA
2006-7 Arnaldo Casillas of Moreno, Becerra and Casillas, Montebello, CA
2006-7 ^T Thomas A. Goeltz of Goeltz & Frederick, PC, Escondido, CA
2005-7 ^T Ernest Price of Ropers Majeski Kohn Bentley, Los Angeles, CA
2006 Rinat Erlich of Manning and Marder, Los Angeles, CA
2006 FredRicco McCurry, Attorney-at-Law, Santa Barbara, CA
2005 ^T Brian White Law Office, San Diego, CA
2005 Kim Taylor of Trutanich Michel, LLP, San Diego, CA
2005 Stephen L. Dahm of Cesari, Werner and Moriarty, San Francisco, CA
2004-5 Paul Potter of Potter, Cohn and Samulon, Pasadena, CA
2004 Kenneth Spencer of Baker, Keener & Nahra LLP, Los Angeles, CA
2004 Albert Liou of Musick Peeler & Garrett LLP, Los Angeles, CA
2004 Michael J. Treman Law Office, Santa Barbara, CA
2003 ^T Robert Klein, Law Offices of Robert Klein, Los Angeles, CA
2003 Scott Carr of Greene, Broillet, Panish & Wheeler, LLP, Santa Monica, CA
2003 Maryann Gallagher of Grassini & Wrinkle, Woodland Hills, CA
2002 Thomas McNamara of McClaugherty & Associates, Arcadia, CA
2002 Damon Ribakoff of Roxborough, Pomerance & Nye, Los Angeles, CA
2001 Kevin McNaughton of Schaffer, Lax, McNaughton & Chen, Los Angeles, CA
2001 A. Gina Hogtanian of Acker, Kowalick & Whipple, Los Angeles, CA
1999 ^D Kristen Bingham of Steven L. Zelig & Associates, Los Angeles, CA
1999 Jennifer Nutter of Fink & Feldman, LLP, Los Angeles, CA
1999 Derek Classen of the Law Offices of Prindle, Decker & Amaro, Long Beach, CA
1998 ^D Adam Shea of Greene, Broillet, Taylor, Wheeler & Panish, Santa Monica, CA
1998 Terrence Butler, Law Offices of Butler & Dodge, Beverly Hills, CA
1998 Patrick Madden of Cameron, Madden, Pearlson & Gale, Long Beach, CA.
1997 James McKanna of Borton, Petrini & Conron, San Luis Obispo, CA
1997 Steven Fabiano of Taylor, Fabiano, Gilmore & Sullivan, Calabasas, CA
1997 Herbert Papenfuss, Attorney, Canoga Park, CA
1997 William Marquis, Attorney, Tustin, CA
1997 Dale Ortmann of Hunt, Ortmann, Blasco, Palffy & Rossell, Pasadena, CA
1997 Carol Janssen of Borton, Petrini & Conron, San Luis Obispo, CA
1996 John Amoroso of Amoroso Law Corp., Los Angeles, CA
1996 ^D Jason Rund of Norton, Reino & Ainbinder, Lakewood, CA
1995 John West and Michael Maroko of Allred, Maroko & Goldberg, Los Angeles
1994 Peter Cathcart, Attorney, Los Angeles, CA
1994 ^T William Kopeny, Attorney, Santa Ana, CA
1993 ^T Charles T. Spagnola, Attorney, Santa Ana, CA
1992 Benjamin Barnes of Mallory, Brown-Curtis & Mallory, Los Angeles, CA
1991 James E. Ballidis of Allen and Flatt, Inc., Newport Beach, CA
1990 Milton C. Grimes, Attorney, Santa Ana Heights, CA
1987 ^T J. W. Biddle, Attorney, Beverly Hills, CA
1986 ^T N. DeWitt of Paul, Hastings, Janofsky & Walker, Los Angeles, C**
 Additional References Available on Request

INDUSTRIAL EMPLOYMENT AND CONSULTING EXPERIENCE

- **2018 Consultant to The Master's University, Biological and Physical Science, Santa Clarita, CA**
Safety Review of Organic Chemistry lab syllabus and chemical list.
- **2007 Consultant to Intelligent Energy, Inc., Long Beach, CA**
Properties of organic sulfur contaminants in hydrocarbon fuels.
- **2005 Consultant to Lava Louie, Long Beach, CA**
Surfactants used in lava lamps.
- **1999 Consultant to Air Products and Chemical, Inc.**
Methods for synthesis of epoxy-resin curing agents from isocyanates.
- **'82-99 Consultant to Niklor Chemical Company, Inc.**
Developed an alternative process for the production of the soil fumigant chloropicrin. Researched the chemistry of soil fumigants with thiosulfates.
- **1998 Consultant to Cal OSHA**
Evaluated compatibilities of waste chemicals.
- **1998 Consultant to Anchor Reinforcement, Inc.**
Investigated urea polymer curing agents.
- **'86-90 Consultant to Impex Company**
Deformulation study to identify the composition of a polymer curing agent.
- **1986 Consultant to Southwest Photo Chem, Inc.**
Researched sulfur-nitrogen-containing polymer curing agents.
- **1981 Assistant Visiting Professor, Univ. of Southern California Cancer Center**
Conducted research on syntheses of potential anti-tumor agents.
- **Additional**
 - Chemical Consultant, Forensic Engineers, Ltd., Fargo, ND**
Conducted chemical investigations and testified as an expert witness.
 - Collaborator on Project "River," Fargo, North Dakota**
Participated in an environmental study of the Red River of North Dakota/Minnesota.
 - Research Chemist, Shell Development Company, Emeryville, CA**
Worked in exploratory organosulfur-nitrogen chemistry.
 - Refinery Quality Control Tester, Shell Oil Company, Anacortes, WA**
Performed all standard laboratory tests, including flash points, pour points, cloud points, vapor pressures, colors, specific gravities, distillation ranges, titrations, and pH determinations.

MEMBERSHIPS

- American Chemical Society
- Phi Lambda Upsilon and Sigma Xi Science Honorary Societies
- Listed in American Men and Women of Science
- Listed in International Directory of Research and Development Scientists

PUBLICATIONS AND PRESENTATIONS

1. Hiep Nguyen, Tom Maricich, Faraz Hussain, Lori Digal. "Alkylation of acids, alcohols and phenols using *N*-1-adamantyl-*O*-isopropyl-4-nitrobenzenesulfonimide," 251st ACS National Meeting & Exposition (San Diego), Paper No. 753, March 2016.
 2. Lori Digal, Hiep Nguyen, Julian Yano, Tom Maricich. "Alkylation of Acids, Alcohols and Phenols Using *N*-1-Adamantyl-*O*-Isopropyl-4-Nitrobenzenesulfonimide," 2015 UC Irvine Undergraduate Chemistry Symposium (Irvine), August 2015.
 3. Tom Maricich (Presenter). "Hazards of Bleach," Energizing Summit presented by The American Board of Certified Haircolorists. June 28, 2015; June 10, 2013.
 4. Maricich, T. J.; Allan, M. J.; Kislin, B. S.; Chen, A. I-T.; Meng, F-C.; Bradford, C.; Kuan, N-C.; Wood, J.; Aisagbonhi, O.; Poste, A.; Wride, D.; Kim, S.; Santos, T.; Fimbres, M.; Choi, D.; Elia, H.; Kaladijan, J.; Abou-Zahr, A.; Mejia, A., "SNAAP Sulfonimide Alkylating Agent for Acids, Alcohols, and Phenols," *Synthesis* **2013**, 45 (24), 3361-3368.
 4. Tom J. Maricich (presenter), Jessica Burton, Christine Bradford, Brian Kammourieh and Andrew Sykahua. "SNAAP™ Isopropyl Sulfonimide Alkylating Agents for Acids, Alcohols and Phenols," 243rd National Meeting of The American Chemical Society (San Diego), March 2012.
 5. Tom J. Maricich (presenter), Matthew J. Allan, Brett S. Kislin, Andrea I-T. Chen, Fan-Chun Meng, Christine Bradford, Nai-Chia Kuan, Jeremy Wood, Nguyen-Phuong Pham, Omonigho Aisagbonhi, Alethia Poste, Dustin Wride, Sylvia Kim, Hai Nguyen and Igor Izotov. "Facile SNAAP™ Sulfonimide Alkylating Agents for Acids, Alcohols and Phenols," 43rd Western Regional Meeting of The American Chemical Society (Pasadena), November 2011.
 6. Christine Bradford (presenter), Nai-Chia Kuan, Jeremy Wood, and Tom J. Maricich, "Facile, One-Step Alkylation of Alcohols and Phenols by *N*-t-Butyl-*O*-ethyl-*p*-nitrobenzene-sulfonimide," 41st Western Regional Meeting of The American Chemical Society (San Diego), October 2007. [Award-Winning Poster]
 7. Andrea I. Chen (presenter), Tom J. Maricich, Dustin Wride, Matthew J. Allan, Brett Kislin, and Nguyen-Phuong Pham, "Alkylation Reactions of *O*-Alkyl Sulfonimides," 40th Western Regional Meeting of The American Chemical Society (Anaheim), Paper No. 127, January 2006.
 8. With C. N. Angeletakis, "Reaction of Benzenesulfinyl Azide with Thiols and Amines. Preparation of Thiosulfinates and Sulfinamides," *J. Org. Chem.*, 1984, 49, 1931.
 9. With C. N. Angeletakis and R. Mjanger, "Kinetics of the Thermal Decomposition of Benzenesulfinyl Azide," *J. Org. Chem.*, 1984, 49, 1928.
 10. With F. Freeman and C. N. Angeletakis, " α -Disulfoxide and Sulfinic Anhydride in the Peroxyacid Oxidation of 2-Methyl-2-propyl 2-Propanethiolsulfinate," *J. Am. Chem. Soc.*, 1981, 103, 6232 and 1981, 103, 7797 (Correction).
- ** An Additional 34 Publications Available on Request.

TRADEMARK

SNAAP® Reg. No. 4,973,340. June 7, 2016 For: Chemical Preparations, Namely, Sulfonimide Alkylation Agents.