

DR. ALEX SACHER
Engineer / Scientist

*Nationally-recognized as a leading authority with respect to walking missteps/mishaps
Honored by Industry, Engineering/Scientific Societies and Academia
1995 Chairman, **International Symposium on Slip Resistance: The Interaction of Man, Footwear, and Walking Surfaces**
(please review Publications, Committee activities and Testimony before Government agencies)*

AREA OF SPECIALIZATION

Limited **Exclusively** to “**Falling**” Accidents – *Forensic Biomechanics/Analysis/Reconstruction of:*
Slips • Trips • Stumbles

Stemming from:

- Insufficient Traction (*floors, shoes*) • Defective Construction (*Code violations*) • Locomotor Dysfunction (*disease/surgery*)
- Indoors/outdoors** • on standard/exemplar or defective **walkways**, i.e., **floors**: resilient (vinyl, rubber); mineral (concrete, marble, granite, terrazzo, ceramic); wood and carpeted; **sidewalks, ramps or stairs** • on “neat”, coated or **contaminated** (ice, water, sand, oil) surfaces • **at home** (kitchen, bathroom), **at work** (walking/working surfaces), **at play** (recreational facilities—dance floors, swimming pools, bowling alleys), **at commercial** establishments (stores, banks, hotels, etc.)

25 years “Hands-On” Experience in re:

- **Litigation Consultant/Expert Witness** (*Nationwide*)
- **Deposition/Trial Testimony:** Plaintiff • Defendant
- **Laboratory/In Situ Measurement of Slip Resistance:** Floor Polishes • Floors • Footwear
- **Evaluation of Floor Care/Maintenance Procedures** vis-à-vis Traditional, Standard, Trade-Practices
- **Publications** in *Peer-Reviewed Engineering/Scientific Journals/Books*

EDUCATION

Ph.D., Engineering/Science, Polytechnic Institute of Brooklyn (now Polytechnic University), Brooklyn, NY
Post-Doctorate “L.A. Dreyfus” Research Fellow, Polytechnic University
Post-Doctorate “U.S. Rubber Reserve” Research Fellow, Mellon Institute (now Carnegie Mellon)

M.S., Polytechnic Institute of Brooklyn, Brooklyn, NY
Graduate Teaching Assistant

B.S., City College of New York, New York, NY

PROFESSIONAL RECORD

UPI – Universal Petrochemicals, Inc., President; Janitorial/Maintenance Consulting and Testing Services; specializing in state-of-the-art floor care/maintenance – chemicals, – equipment and – safety procedures; identifying and suggesting remedies for potentially hazardous or dangerous floor/ground conditions.

Prior positions include: adjunct Professor, New York Institute of Technology, Vice President NYSE Corp., et al

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PROFESSIONAL SOCIETIES

American Society for Testing and Materials, International (ASTM), Committees:

D-21 on Polishes; Subcommittee **D-21.06** on Slip Resistance

- Chairman, **International Symposium on Slip Resistance**, October 1995
- Chairman, Task Force on Revision of ASTM D2047 “**Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine**”
- Representative; to provide testimony at Public Hearing, Occupational Safety and Health Administration (**OSHA**), U.S. Dept. Labor, Washington, D.C., September 10, 1990, on **Slip Resistance**, Compliance Guidelines, Walking and Working Surfaces

F-13 on Safety and Traction for Footwear; Subcommittee **F-13.10** on Traction

F-06 on Resilient Floor Coverings; Subcommittee **F-06.43** on Coefficient of Friction

Chemical Specialties Manufacturers Association, CSMA, (now Consumer Specialty Products Association, CSPA), Polishes and Floor Maintenance Division, Scientific Committee, **Walkway Safety** Subcommittee

- Chairman, Task Force on Calibration of James Machine (coefficient of friction measurement)
- Chairman, Task Force on Revision of Falls on Floors, **National Safety Council** publication
- Representative; to provide testimony at Public Hearing, U.S. Access Board, **Americans with Disabilities Act** Accessibility Guidelines (ADAAG) Subcommittee, April, 1995; on Slip Resistance

Underwriters Laboratories Inc. (UL)

- Member, Standards Technical Panel, UL 410, **Slip Resistance** of Floor Surface Materials

American Society of Biomechanics

- Engineering/Applied Physics

American Academy of Forensic Sciences

- Engineering Sciences Section

Society of Plastics Engineers (Fellow)

- Engineering Properties and Structure Division

American Association for the Advancement of Science (Fellow)

New York Academy of Science (Fellow)

American Institute of Chemists (Fellow)

PUBLICATIONS/SYMPOSIA*

“A Case History: Refutation of Alleged Floor Maintenance Malpractice by the Application of Forensic Biomechanics,” *Technology of Floor Maintenance and Current Trends, ASTM STP 1448*, ASTM International, West Conshohocken, PA, September 2004.

A. Sacher, Ph.D., H. Lieberman, M.D.*, F.L. Buczek, Ph.D.**, **“Causation – Syncope? Seizure? or Slip and Fall? Part I: Forensics, Part II: Neurology, Part III: Biomechanics,”** *Biomechanical and Medical Aspects of a Slip and Fall Accident (session co-chairman)*, Proc. 21st South. Biomed. Eng. Conf., Biomed Research Foundation, Bethesda, MD, September 2002, pp. 307 - 312.

*Elizabeth Neurosurgical Group, Elizabeth, NJ.

**Director, Motion Analysis Laboratory, Shriners Hospitals for Children, Erie, PA.

“Ramblings, Rumbblings, Grumbblings & Stumbblings of a Forensic Scientist / Engineer in The World of Litigation: from Frye to Daubert & Ethics to Saxophone,” Mini-symposium, Polishes & Floor Maintenance Division, Consumer Specialty Products Association (CSPA), Special Session, December 2001.

“International Symposium on Slip Resistance: The Interaction of Man, Footwear, and Walking Surfaces”, *Introduction*, Journal of Testing and Evaluation (ASTM), Vol. 25, No. 1, January 1997, p. 114; Vol. 24, No. 6, November 1996, p. 352.

“The Application of Forensic Biomechanics to the Resolution of Unwitnessed Falling Accidents”, Journal of Forensic Sciences, Vol. 41, No. 5, September 1996, pp. 776-781.

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“Use, Misuse, and Abuse of the James Machine 0.5 Static Coefficient of Friction – Epilogue: Americans With Disabilities Act Accessibility Guidelines”, ASTM Symposium on Slip Resistance: The Interaction of Man, Footwear, and Walking Surfaces, Chairman, National Institute of Standards and Technology (NIST), Gaithersburg, MD, October 31, 1995.

“Biomechanics of Human Locomotion in re Slip-, Trip-, Stumble and Fall Accidents”, Symposium on Walkway Safety, Polish and Floor Maintenance Division, Chemical Specialties Manufacturers Association (CSMA), Chicago, IL, May 2, 1995.

“Forensic Biomechanics – The Analysis and Reconstruction of “Walking/Falling” Accidents on Level Surfaces,” Proc. Of American Academy of Forensic Sciences, Annual Meeting, Vol. 1, Seattle, WA, February 1995, pp. 60-61.

“Slip Resistance,” The Construction Specifier, Vol. 47, No. 9, September 1994, pp. 90-96, 159.

“Don’t Slip on Floor Safety,” Maintenance Executive, Vol. 7, No. 6, July/August 1994, pp. 26-28. *Written about me, not by me.*

“Disabilities [ADA] Bulletin Benefits from Polish Division Review,” Chemical Times & Trends, Vol. 17, No. 2, April 1994. *Written about me, not by me.*

“Retrospective Identification of Misstep Type by Analysis of Falling, Landing and Injury Details,” *Biomechanics of Slip and Fall (session chairman)*, Proc. 13th South. Biomed. Eng. Conf., Univ. D.C., Washington, D.C., April 1994, pp. 571-574.

“Slip Resistance and the James Machine 0.5 Static Coefficient – Sine Qua Non,”** ASTM Standardization News, August 1993, pp. 52-59.

“Is the 0.5 Static Coefficient of Friction Value a Bench Mark or a Watershed?,” American Ceramic Society Symposium, “Ceramic Tile Coefficient of Slipping,” Ceram. Eng. Sci. Proc., Vol. 13 (1-2), 1992, pp. 29-45.

“Floor Polishes,” Encyclopedia of Polymer Science & Technology, Vol. 7, 1967, pp. 97-100.

“Falls on Floors,” National Safety Council, Data Sheet 1-495 (*Revision in Preparation*).

**Additional publications and patents (not germane).*

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HONORS*

“Service Award”, In recognition of...outstanding service...and accomplishments; Committee F06 on Resilient Floor Coverings, ASTM International.

“Award of Recognition” For...Distinguished Service as Chairman (D21/D21.06 Committees on Polish/Slip Resistance), International Symposium on Slip Resistance: The Interaction of Man, Footwear and Walking Surfaces", ASTM.

“Distinguished Service Award”, For Outstanding Leadership, Sincere Dedication and Immeasurable Contributions to his Division, his Peers and this Industry; Polish and Floor Maintenance Division, Chemical Specialties Manufacturers Association (CSMA).

“Special Award”, in Recognition of Outstanding Leadership and Service, Society of Plastics Engineers (SPE).

“Who’s Who in Science and Engineering”

“Who’s Who in the East”

**Additional Honors (not germane).*