

## **EDUCATION**

- 1988                    **Bachelor of Science, Mechanical Engineering (with Honors)**  
University of California at Santa Barbara, Santa Barbara, California
- 1990                    **Masters of Science, Mechanical Engineering**  
University of California at Santa Barbara, Santa Barbara, California
- 1993                    **Doctorate of Philosophy, Mechanical Engineering**  
University of California at Santa Barbara, Santa Barbara, California

## **EXPERIENCE**

- 2000  
to Present            **Engineering Design & Testing Corp.**  
**Santa Rosa, California**  
*Consulting Engineer*  
University of California at Santa Barbara, Santa Barbara, California
- 1994  
to 2000                **DBZahl, Ph.D.**  
**Santa Rosa, California**  
*Consulting Engineer*  
Investigation into the sequence of events and cause of vehicle accidents, pedestrian accidents, and product/component failures.
- 1988  
to 1992                **JKS Associates**  
**Santa Rosa, California**  
*Associate Engineer*  
Accident site surveys, literature searches, velocity change calculations, stress-strain calculations as related to product/component failure, photography, and construction of exemplar models.
- 1988  
to 1992                **R.S. Hickman**  
**Santa Rosa, California**  
*Engineering Technician*  
Accident site surveys, literature searches, velocity change calculations, stress-strain calculations as related to product/component failure, photography, and construction of exemplar models.
- 1995  
to 2000                **Optical Engineering, Inc.**  
**Santa Rosa, California**  
*R&D Engineer*  
Research and development of high-power CO<sup>2</sup> lasers and laser systems. Mechanical, thermal, magnetic, and optical design and analysis of components operating under vacuum and in the presence of ionized gases. Management of manpower and other resources in cooperation with other engineering and production requirements.

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- 1994                      **Sonoma State University**  
                                 **Cotati, California**  
  
                                 *Instructor*  
                                 Organized and taught algebra and physics courses in the pre-college program.
- 1992                      **Max-Planck-Institute**  
to 1994                   **Stuttgart, Germany**  
  
                                 *Guest Scientist*  
                                 Numerical analyses on the mechanical behavior of advanced composite materials.  
                                 Publication and presentation of technical papers.

## **REGISTRATIONS and CERTIFICATIONS**

Registered Professional Engineer in Alaska (#AELM14790)

Registered Professional Engineer in California (#30339)

International Registry of Professional Engineers (Record IR159)

National Council of Examiners for Engineering and Surveying (Record #19714)

## **PROFESSIONAL ORGANIZATIONS**

American Society of Mechanical Engineers

## **PUBLICATIONS**

- D.B. Zahl and R.M. McMeeking, "*The Effect of Interfacial Properties on the Strength of Discontinuous Reinforced Metal Matrix Composites*", *Mechanics of Composite Materials and Structures*, V1 31 (1994)
- D.B. Zahl and R.M. McMeeking, "*Transverse Strength of Metal Matrix Composites Reinforced with Strongly Bonded Continuous Fibers in Regular Arrangements*", *Acta Metallurgica*, V42 N9:2983 (1994)
- D.B. Zahl, S. Schmauder, and R.M. McMeeking, "*Transverse Strength of Continuous Fiber Metal Matrix Composites*", *Computational Material Science*, V3 293 (1994)
- D.B. Zahl, S. Schmauder, and R.M. McMeeking, "*Elastic Behavior of Discontinuously Reinforced Metal Matrix Composites*", *Zeitschrift für Metallkunde*, V84 N11:802 (1993)
- D.B. Zahl, S. Schmauder, and R.M. McMeeking, "*Mechanical Behavior of Residually Stressed Composites with Ductile and Brittle Constituents*", *Modelling and Simulation in Material Science and Engineering*, V1 N3:249 (1993)
- D.B. Zahl, "*The Effect of Interfacial Sliding on the Strength of Metal Matrix Composites*", *Computational Material Science*, V1 N3:249 (1992)
- D.B. Zahl and R.M. McMeeking, "*The Influence of Residual Stress on the Yielding of Metal Matrix Composites*", *Acta Metallurgica*, V39 N6:1117 (1991)
- D.B. Zahl and R.M. McMeeking, "*Three Dimensional Strengthening of Short Fiber Reinforced Metal Matrix Composites*"
- G. Bao, J.W. Hutchinson, R.M. McMeeking, and D.B. Zahl "*Plastic Flow of Composite Materials*", *Topics in Plasticity*, anniversary volume in honor of E.H.Lee, (Ed. W.H. Yang), AM Press, Ann Arbor, pp123-136 (1991)

S.M. Pickard, S. Schmauder, D.B. Zahl, J. Yang, C. Cady and A.G. Evans, "*The Flow Strength of Quenched Al-SiC Composites*", *Acta Metallurgica*, 40 N11:3113 (1991)