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Professional Preparation:

1967	BS	University of Wisconsin at Madison in Physics
1967	BS	University of Wisconsin at Madison in Solid State Physics
1969	MS	University of Wisconsin at Madison in Physics
1973-1976	PhD	Cornell University, Materials Science & Engineering
1977		National Bureau of Standards, Electron Physics

Employment History

1986 - Present	Professor of Physics, University of Maine
8/87 - 9/90	Director, Laboratory for Surface Science and Technology, University of Maine. Acting Director, (9/81-9/84).
1981-1986	Associate Professor of Physics, University of Maine
1977-1981	Assistant Professor of Physics, University of Maine

- Sabbatical Leave at Surface Chemistry Section, Naval Research Laboratory, Washington DC (September 1, 1996-May 31, 1997)
- Sabbatical Leave, Fritz-Haber-Institute, Berlin, Germany (August 1982 - August 1983, and summer 1984).

Selected Recent Publications:

Physical Structure: Volume One of the Handbook of Surface Science, Ed. W. N. Unertl; Series editors: S. Holloway and N. V. Richardson (Elsevier Science Publishers, Amsterdam, 1996).

“Surface Crystallography,” W. N. Unertl. Chapter One in **Physical Structure: Volume One of the Handbook of Surface Science**, Ed. W. N. Unertl; Series editors: S. Holloway and N. V. Richardson (Elsevier Science Publishers, Amsterdam, 1996).

“Direct Imaging Methods,” M. E. Kordesch and W. N. Unertl. Chapter Eight in **Physical Structure: Volume One of the Handbook of Surface Science**, Ed. W. N. Unertl; Series editors: S. Holloway and N. V. Richardson (Elsevier Science Publishers, Amsterdam, 1996).

"Adhesion of Metals to Polyimide," W. N. Unertl and L. J. Matienzo in **Polyimides: Fundamental and Applications**, Edited by M. K. Ghosh and K. L. Mittal (Marcel Dekker, New York, 1996) p.629-696.

William N. Unertl (cont.)

Recent Publications (cont.):

“Proceedings of a Workshop on the Physical and Chemical Mechanisms of Tribology,” published as a special issue of the journal *Langmuir*. Editors: W. N. Unertl and M. Grunze. *Langmuir* **12**(19) 4481-4609 (1996).

“Wetting and Spreading of Individual Latex Particles, W. N. Unertl, Y. Luo, D. Woodland, A. B. El Bediwi, M. Kamal, and A. El Farrash, *Proceedings of the 19th Annual Adhesion Society Meeting* (Adhesion Society, Blacksburg, VA, 1996) pp. 335-337.

“Initial Wear in Nanometer-scale Contacts on Polystyrene,” D. D. Woodland and W. N. Unertl, *Wear* **203-204** (1997) 685-691.

“Viscoelastic effects in nanometer-scale contacts under shear,” K. J. Wahl, S. V. Stepnowski, and W. N. Unertl, *Tribology Lett.* **5** (1998) 103-107.

“Nanotribometer: a new instrument for nano-scale to micron-scale friction and wear measurements,” S. D. Dvorak, D. D. Woodland and W. N. Unertl, *Tribology Lett.* **4** (1997) 199-204.

“Wetting and Spreading of Styrene-Butadiene Latexes on Calcite,” W. N. Unertl, *Langmuir* **14** (1998) 2201-2207.

“Shear Modulation Studies of Nanometer-scale Contacts,” K. J. Wahl and W.N. Unertl, *Proc. 21st Annual Meeting of the Adhesion Society* (Adhesion Society, Blacksburg, 1998) p. 269-271.

“Formation of Nanometer-Scale Contacts to Viscoelastic Materials,” K.J. Wahl, **in Tribology Issues and Opportunities in MEMS**, ed. B. Bhushan (Kluwer Academic Publ., Dordrecht, 1998) p. 261-271.

“Microtribological Properties of Al-O-N Thin Films,” S. D. Dvorak, O. D. Greenwood, W. N. Unertl and R. J. Lad, *Mater. Res. Soc. Proc* (1998).

“Nanoscale Mechanical and Wear Properties of Boric Acid,” X. Ma, W. N. Unertl and A. Erdemir, *J. Mater. Res.* **14** (1999) 3455-3466.

“Extended Abstract: Contact Mechanics of Nanometer-scale Contacts to Viscoelastic Materials,” in **Tribology on the 300th Anniversary of Amonton’s Law**, editors: M.D. Drory and M.O. Robbins (Materials Research Society, Warrendale, PA, 1999) p.15-18.

“Creep Effects in Nanometer-scale Contacts to Viscoelastic Materials,” W.N. Unertl, *Proc. 22st Annual Meeting of the Adhesion Society* (Adhesion Society, Blacksburg, 1999) p. 17-19.

“Effects of Latex Acid Content on Particle Spreading,” D.D. Woodland, R. Marvel and W.N. Unertl, *Proc. 22st Annual Meeting of the Adhesion Society* (Adhesion Society, Blacksburg, 1999) p. 20-21.

“Implications of Contact Mechanics Models for Mechanical Properties Measurements Using Scanning Force Microscopy” *J. Vac. Sci. Technol. A* **17** (1999) 1779-1786.

William N. Unertl (cont.)

Recent Publications (cont.)

“Stress Intensity in Viscoelastic Contacts,” M. Giri, D. Bousfield and W. N. Unertl,
Tribology Lett. . **9** (2000) 33-39.

“Creep Effects in Nanometer-scale Contacts to Linear Viscoelastic Materials,” Chapter
4 in **Microstructure and Microtribology of Polymer Surfaces** ACS Symposium
Series 741, eds. V.V. Tsukruk and K.J. Wahl (ACS, Washington DC, 2000) pp. 66-82.

“Creep Effects in Nanometer-scale Contacts to Viscoelastic Materials: a Status Report,”
J. Adhesion **74** (2000) 195-226.

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“An International Conference on the Genome Nanostructure” funded by the Office of
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“Mechanical Properties of Viscoelastic Coatings” funded by the Paper Surface Science
Program of the University of Maine for \$40,000/year continuing.