

**Name: Jeffrey T. Glass**

**A. Professional Preparation**

Degree	Institution	Major	Year
BSE	Johns Hopkins University	Materials Science and Engineering	1981
MSE	Johns Hopkins University	Materials Science and Engineering	1983
Ph.D.	University of Virginia	Materials Science	1986
MBA	Duke University	Fuqua School of Business	1999

PhD Advisor: Glenn Stoner (Retired). Institution: University of Virginia

**B. Appointments**

1. Hogg Family Director of Eng. Management and Entrepreneurship, Professor of Electrical and Computer Engineering, Duke University, Pratt School of Engineering, from July 2003 to present.
2. Joseph F. Toot, Jr. Professor of Engineering & Co-Director of the Institute for the Integration of Management and Engineering, Case Western Reserve University, January 2000 to June 2003.
3. Vice President of Research and Development, Kobe Steel USA Inc., April 1996 to January 2000.
4. Director of R&D, Kobe Steel USA Inc., Electronic Materials Center, January 1994 to March 1996
5. Associate Professor (with tenure), North Carolina State University, August 1991 to December 1993.
6. Assistant Professor, North Carolina State University, August 1988 to August 1991.
7. Research Scientist, Kobe Development Corporation, December 1985 to August 1988.

**C. Publications**

*a) Publications Related to Proposed Project*

1. J. Liu, V. V. Zhirnov, A. F. Myers, G. J. Wojak, W. B. Choi, J. J. Hren, S. D. Wolter, M. T. McClure, B. R. Stoner, and J. T. Glass, "Field Emission Characteristics of Diamond Coated Silicon Field Emitters," *Journal of Vacuum Science and Technology B*, 13, (2), Mar/Apr (1995).
2. K. Kobashi, A. Nakae, J.T. Glass, and I. M. Buckley-Golder, "Microfabrication of Diamond Films: Selective Deposition and Etching," *New Diamond Science and Technology*, Materials Research Society International Conference Proceedings (1991)
3. K. Das, V. Venkatesan, K. Miyata, D. L. Dreifus, and J. T. Glass, "A Review of the Electrical Characteristics of Metal Contacts to Diamond," *Thin Solid Films*, 212, p.19-24, (1992).
4. S. P. Bozeman, D. A. Tucker, B. R. Stoner, W. M. Hooke, and J. T. Glass, "Diamond Deposition Using a Planar Radio Frequency Inductively Coupled Plasma," *Applied Physics Letters*, 66 (26), June (1995).
5. T. Tachibana, B. E. Williams, and J. T. Glass, "Correlation of the Electrical Properties of Metal Contacts on Diamond Films with the Chemical Nature of the Metal-Diamond Interface: Part I: Gold Contacts – a Non-Carbide Forming Metal and the Effects of Various Pretreatments," *Physical Review B*, 45 (20), May (1992).

*b) Significant Publications*

1. B. R. Stoner and J. T. Glass, Textured Diamond Growth on (100)  $\square$ -SiC Via Microwave Plasma Chemical Vapor Deposition, *Applied Physics Letters* 60, 698 (1992).
2. B. R. Stoner, G. H. M. Ma, S. D. Wolter, and J. T. Glass, Characterization of Bias-Enhanced Nucleation of Diamond on Silicon by In-vacuo Surface Analysis and Transmission Electron Microscopy, *Physical Review B* 45, 11067 (1992).
3. W. Zhu, X. H. Wang, B. R. Stoner, G. H. M. Ma, H. S. Kong, M. W. H. Braun, and J. T. Glass, Diamond and  $\square$ -SiC Heteroepitaxial Interfaces - A Theoretical and Experimental-Study, *Physical Review B* 47, 6529 (1993).
4. H. S. Kong, J. T. Glass, and R. F. Davis, Chemical Vapor-Deposition and Characterization of 6h-SiC Thin Films on Off-Axis 6H-SiC Substrates, *Journal of Applied Physics* 64, 2672 (1988).

5. H. S. Kong, J. T. Glass, and R. F. Davis, Epitaxial Growth of Beta SiC Thin Films on 6H  $\alpha$ -SiC Substrates Via Chemical Vapor Deposition, Applied Physics Letters **49**, 1074 (1986).

#### **D. Synergistic Activities**

1. Commitment to dissemination of research results to the widest possible audience, resulting in
  - 122 Publications (103 Refereed, 19 Other)
  - 52 Invited Presentations in 12 countries
  - 43 Contributed Presentations
  - 11 Patents
  - 6 Books (co-editor)
  - 5 Book Chapters
2. Established joint engineering and management program with CoDirector from Weatherhead School of Management to train engineers in business concepts – first fully integrated program of its kind.
3. Taught technology transfer through an Engineering Entrepreneurship Practicum.
4. Developed business launch component for support of technology transfer from corporate lab to commercial products.
5. Established high school summer program to introduce disadvantaged students to university-level science technologies.

#### **E. Collaborators in Past 48 Months and Other Affiliations**

##### **(I) Collaborators**

1. Gary Doll and Ryan Evans (Timken Company)
2. Brian Stoner (Microelectronics Center of North Carolina)
3. Robert Nemanich (North Carolina State University)
4. James Bentley and Karren More (Oak Ridge National Laboratory)
5. Raj Israel (General Electric Corporation)
6. William Hooke (UNC Chapel Hill)
7. Gerardine DeSanctis (Duke University)

##### **(II) Graduate or Postdoctoral Advisors**

1. Glenn Stoner (University of Virginia)
2. George Cahen (University of Virginia)
3. Robert Green (Johns Hopkins University)
4. Robert Pond (Johns Hopkins University)

##### **(III) Thesis Advisor and Postgraduate-Scholar Sponsor**

Gwang-Ha (Mike) Ma, Brian Stoner, Brad Williams, Denise Tucker, Wei Zhu, Michael McClure, Steve Bozeman, Philip Morrison, Jesko von Windhiem, Hua Shuang Kong, and Vasudev Vankatesan