

RESUME FOR DELBERT E. DAY

(June 2011)

CURRENT POSITION:

Curators' Professor Emeritus of Materials Science & Engineering and Senior Investigator, (formerly Director) Graduate Center for Materials Research Missouri University of Science and Technology Rolla, MO 65409-1170
Phone: (573) 341-4354
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PERSONAL DATA:

Born: Avon, IL
Married, two children
Home Address: 10675 Lakemont Dr.
Rolla, MO 65401
Home Phone: (573) 364-5569
E-mail: day@mst.edu

EDUCATION:

B.S., Ceramic Engineering, Missouri University of Science and Technology (formerly Missouri School of Mines and Metallurgy), valedictorian
M.S. and Ph.D., Ceramic Technology, Pennsylvania State University

Registered Engineer, E-25247, State of Missouri

EXPERIENCE:

Academic – Teaching Ceramic Engineering (glass, refractories, crystal chemistry) at Missouri University of Science and Technology (formerly University of Missouri-Rolla) since 1961. Visiting Chemistry Professor at Mississippi College (1963) and Eindhoven Technical University, The Netherlands (1971). Graduate Advisor to 74 students which completed 61 M.S. and 23 Ph.D. degrees.

Research – Mass transport, structural analysis, property relationships, and mechanical and electrical properties of vitreous solids, oxynitride glasses, biodegradable and optically transparent composites, materials processing in space, gaseous corrosion of refractories, solid (glasphalt) and nuclear waste disposal, and biomaterials. Member of technical staff, Sandia National Labs, Albuquerque, NM (Jan-Aug 1981 and Jan-Jul 1991), and Senior Visiting Faculty Scientist, Battelle Pacific Northwest National Labs, Richland, WA (Jul-Dec 1990), while on sabbatical leave from University of Missouri-Rolla.

Author or coauthor of 380 technical publications, editor of 3 technical books, and holder of 53 U.S. and foreign patents (7 U.S. patents pending).

Administrative –

- a. Director, Graduate Center for Materials Research, University of Missouri-Rolla (1983-1992). Overall budgetary and personnel administration of research program involving ~ 100 faculty, graduate students, and technicians. Organized and lead the effort that resulted in the Materials Engineering and Science program at UMR being designated an area of eminence.

EXPERIENCE (Cont'd):Administrative (cont'd)

- b. Assistant Dean of Graduate Studies, School of Mines and Metallurgy (1979-81). Responsible for administration of graduate program.
- c. Director, Industrial Research Center, University of Missouri-Rolla (1965-72). Directed permanent staff of 9-12 personnel associated with research center projects.
- d. Service on numerous UMR campus and University-wide committees. Chair (1978-79) of UMR Academic Council, Chair (1977-78, 93-94) and member (1972-84, 92-96) of Intercampus Faculty Council which is advisory to the University President, member (1977-78, 93-94) of the University Cabinet which is the policy making committee of the University (composed of President, Vice-Presidents, and Campus Chancellors), faculty representative on search committee for University Associate Vice President for Research (1979), and other special task forces and committees. UM Committee for Research and Creativity Award (1996-1998), Chair (1997-1998).
- e. President and Director of Rolla Community Development Corporation, Rolla, MO (1967-71, 1982-90). Organized and directed efforts of this not-for-profit organization in developing an industrial park with a current investment of over 20 million dollars providing employment for 1,150 persons. Presentations were made to top-level managers providing data on labor supply and skills, utility costs, state and local taxes, plant site selection, and financing procedures and policies.
- f. First Lt., U.S. Army Corps of Engineers, Technical Assistant to Director of Waterways Experiment Station (1962-64). Administrative responsibility for enlisted personnel and assisted director in supervising research projects on portland cement & concrete.

Other Professional –

- a. Department of Energy, Guidance & Evaluation Board, Industrial Materials of the Future (2002-2007); Advisory Panel, Solid State Sciences Committee (1972-78); Universities Space Research Association Committee on Production of Glasses in Space, NASA Marshall Space Flight Center (1972-88, Chairman 1985-88); Space Processing Ad Hoc Advisory Committee to the Applications Steering Committee, NASA Headquarters (1974-78); Space Station Laboratory Module Advisory Group, NASA Marshall Space Flight Center (1985-88); ASTM Committee E-38, Resource Recovery (1975-present); ASTM Committee D-30, High Modulus Fibers and Their Composites (1965-71)
- b. Member, National Research Council Committee, Idaho National Energy and Environmental Laboratory (INEEL) High Level Waste Alternative Treatments, 1998-1999.
- c. Consultant (1958-present) to numerous glass and refractories companies on new product development, production methods, and product behavior and use; expert witness for glass failure analysis, patent infringement and glass applications.

EXPERIENCE (Cont'd):

- d. Consultant to Los Alamos National Labs (1983-1994) on laser fusion targets, advanced armor, and ceramic superconductors.
- e. Consultant (1974-1988) to National Aeronautics and Space Administration on materials processing and glass melting in space experiments; Space Processing Applications – Rockets, Space Shuttle, and Space Station Programs.
- f. Technical program director of four conferences on glass-Relaxation Processes in Glasses, Baden-Baden, Germany (1973), Glass Surfaces, Rolla, MO (1975), XII International Glass Congress, Albuquerque, NM (1980), and International and Seventh University Conference on Glass Science, Clausthal-Zellerfeld, Germany (1983).

HONORS AND AWARDS:

Stookey Lecture of Discovery, American Ceramic Society Award (2011)

Phoenix Award, Glass Person of the Year (2010)

Presidential Citation for Alumni Service Award, University of Missouri (2009)

Toledo Glass & Ceramics Award for Achievements in Education & Industry (2009)

Distinguished Life Member, American Ceramic Society (2006)

Dominick Labino Lecture Award, Glass Art Soc. (2006)

Edmund Ward Bishop Award for Outstanding Service & Accomplishments, Rolla Area Chamber of Commerce (2005)

Fellow, Society of Glass Technology, United Kingdom (2004)

Honorary Doctor of Science, University of Missouri-Rolla, (Missouri S & T) (2004)

National Academy of Engineering (2004)

Fellow, National Institute of Ceramic Engineers (2004)

W. David Kingery Award for Achievement in Ceramics, American Ceramic Society (2004)

Chancellor Medal for Contributions to the University of Missouri-Rolla (Missouri S & T) (2003)

Hosler Alumni Scholar Medal for Scientific Achievement, Pennsylvania State University, (2003)

Harry E. Ebright Award for Outstanding Service, Southwestern Section American Ceramic Society, (2002)

John W. Claypool Award for Medical Research, UMR (2002)

Samuel Geijsbeek Award (for noteworthy contributions to ceramic industry) Pacific Coast Sections, American Ceramic Soc (2001)

G.W. Morey Award, (for research on glass) Glass and Optical Materials Division, American Ceramic Soc. (2001)

Arthur Frederick Greaves Walker Award, National Institute of Ceramic Engineers (2001)

Alumni Academy, School of Mines and Metallurgy, UMR (1999)

Arthur L. Friedberg Lecture, American Ceramic Society (1998)

Centennial Fellow College of Mineral Industries, Pennsylvania State University (1997)

Samuel B. Scholes Memorial Lecture, Alfred University (1997)

Presidential Award for Research and Creativity, University of Missouri (1996)

Orton Lecturer, American Ceramic Society (1995)

Outstanding Ceramic Educator Award, American Ceramic Society Educational Council (1991)

Curators' Distinguished Professor, University of Missouri-Rolla (1981)

HONORS AND AWARDS (Cont'd):

Mid-American State Universities Association (MASUA) Honor Lecturer (1981-82)
MSM/UMR Alumni Merit Award, University of Missouri-Rolla (Missouri S & T) (1980)
Keramos Outstanding Teacher Award, University of Missouri-Rolla
(1989,88,87,86,85,82,78,71,69)

Fellow, American Ceramic Society (1973)

Professional Achievement in Ceramic Engineering (PACE) Award,
National Institute of Ceramic Engineers (1971)
Community Builder Award, Fraternal Order of Eagles, Rolla, MO (1971)
Men of America Award (1970)
Outstanding Teacher Award, University of Missouri-Rolla (1969, 67)
Outstanding Young Man Award, Rolla, MO Jaycees (1968)
Scouter's Key, Boy Scouts of America (1967)
Outstanding Young Man Award, Clinton, MS Jaycees (1963)
W.A. Tarr Award, Outstanding Senior in Earth Sciences,
University of Missouri-Rolla (1958)
A.P. Green Refractories Co. Award, Outstanding Senior,
University of Missouri-Rolla (1958)
Chicago Tribune Award for Outstanding ROTC Cadet (1957)
Listed in American Men and Women of Science, Who's Who in America (60th Ed.), Who's Who
in American Education, Who's Who in Engineering Education, Who's Who in Science &
Engineering, Who's Who in Midwest (31st Ed.), Who's Who in Technology, International
Who's Who in Engineering, Dictionary of International Biography, Creative and Successful
Personalities of the World, Community Leaders of America, Engineers of Distinction,
Directory of World Researchers', Personalities of America, Men of Achievement

PROFESSIONAL SOCIETIES:

Member of the American Ceramic Society, National Institute of Ceramic Engineers, Society of
Glass Technology (Britain), Materials Research Society, Missouri Academy of Science, Tau
Beta Pi, Keramos, Phi Kappa Phi, Blue Key, Sigma Gamma Epsilon, Sigma Xi

Offices Held –

American Ceramic Society
Past-President (1996-97)
President (1995-96)
President Elect (1994-95)
Treasurer (1993-94)
Vice President – Publications (1992-93)
Executive Committee (1992-1997)
Finance Committee (1992-1996)
Publications Committee (1980-82, 1990-1995; Chair, 1992-93)
Vice President – Research (1990-91)
Nominating Committee (1987-88)
Board of Trustees (1986-1998)

PROFESSIONAL SOCIETIES (Cont'd):

Glass Division, Trustee (1986-89)
Glass Division, Chair (1982-83)
Glass Division, Chair-Elect (1981-82)
Glass Division, Vice-Chair (1980-81)
Glass Division, Research Committee, Chair (1968-69)
Glass Division, Fellows Committee (1974-76), Chair (1976)
Ceramic Educational Council, Curricula Committee (1968-69)
St. Louis Section, Secretary (1974), Vice-Chair (1975), Chair (1976)
Ross Coffin Purdy Award Committee (1975-79, 1983-89), Chair (1978, 88)
Topical Meetings Committee (1989-90)
Fellows Committee (1987-92), Chair (1989)
The Ceramic Foundation, Director (1999-2003)
President's Council of Industrial Advisors (2004-present)
Past President's Council (1996-present)
National Institute of Ceramic Engineers
PACE Award Committee, Chair (1974-75); Member (1973-74)
Friedberg Lecture Committee, Member (1998-2002); Chair (1999-2001)
International Commission on Glass; United States delegate (1986-89),
XII International Congress on Glass, Technical Program Chair (1980)
XVIII International Congress on Glass, Chair, Local Arrangements (1997-1998)
Gordon Research Conference on Glass; Chair (1992-94), Vice-Chair (1990-92)
Federation of Materials Science
Representative of American Ceramic Society on "Life Cycle of Materials"
Committee (1974-78)
American Society for Engineering Education
Chair, Mineral Engineering Division (1968-69)
Program Chair, Mineral Engineering Division (1967-68)
Society of the Sigma Xi, University of Missouri-Rolla Chapter, President (1969-70),
Vice-President (1968-69), Secretary (1967-68), Treasurer (1966-67)
Missouri Academy of Science; Corporate membership Committee (1989-90)
Advanced Ceramic Materials, Coordinating Editor (1985-89)

CIVIC AND OTHER ORGANIZATIONS:

Board Chairman, Wesley Foundation; Chairman, United Ministries of Higher Education Board of Directors (1969); Vice-President (1970), President (1971), Rolla Kiwanis Club; Lt. Gov. (1972) Division 10, Missouri-Ark District, Kiwanis International; President (1968-70), Vice-President (1983-89), Board of Directors (1977-80, 1982-90), Rolla Community Development Corporation; Advisor (1964-69), Explorer Scout Post 82; Board of Directors, Rolla Chamber of Commerce; Board of Directors, Rolla Community United Fund (1975-81); Board of Adjustment, City of Rolla (1973-79); First United Methodist Church Finance Chairman (1978-80), Finance Committee (1996-98), Board of Trustees (1999-2002); Chair, Staff-Parish Relations Cmtte (2002-2004); Board of Directors, Missouri Incutech Foundation (1984-87), Phelps County Airport Authority (1995-2001); State of Missouri Technology Corporation, appointed by Governor Mel Carnahan (1998-2004).

HOBBIES:

Flying (commercial pilot with multi-engine, instrument, and flight instructor ratings), canoeing, and travel.

U.S. AND SELECTED FOREIGN PATENTS: (53 total)**U.S.**

1. U.S. 7,651,966; 26 January 2010, "Alkaline Resistant Phosphate Glasses & Method of Preparation and Use Thereof." R.K. Brow, S.T. Reis, M. Velez & D. E. Day
2. U.S. 6,709,744; 23 March 2004, "Bioactive Materials", D.E. Day, E.M. Erbe, M. Richard & J.A. Wojcik
3. U.S. 6,379,648; 30 April 2002, "Biodegradable Glass Compositions & Methods for Radiation Therapy". D.E. Day & J.E.White
4. U.S. 6,358,531; 19 March 2002, "Method For Preparing Porous Shells or Gels From Glass Particles," D.E. Day & S.A. Conzone
5. U.S. 5,750,824; 12 May 1998, "Iron Phosphate Composition for Containment of Hazardous Metal Waste," D.E. Day
6. U.S. 5,693,580; 2 December 1997, "Titanium Sealing Glasses and Seals Formed There From," D.E. Day, R.K. Brow, H.L. McCollister and C.C. Phifer
7. U.S. 5,665,450; 9 September 1997, "An Optically Transparent Composite Materials and Process for Preparing Same," D.E. Day, J.O. Stoffer and J.B. Barr
8. U.S. 5,648,302; 15 July 1997, "Sealing Glasses for Titanium and Titanium Alloys," D.E. Day, R.K. Brow, H.L. McCollister and C.C. Phifer
9. U.S. 5,403,573; 4 April 1995, "Radiolabeled Protein Composition and Method for Radiation Synovectomy," D.E. Day, G.J. Ehrhardt and K.R. Zinn
10. U.S. 5,302,369; 12 April 1994, "Microspheres for Radiation Therapy," D.E. Day and G.J. Ehrhardt
11. U.S. 5,045,508; 3 September 1991, "Ammonia Treated Phosphate Glasses Useful for Sealing to Metals," D.E. Day and R.K. Brow
12. U.S. 5,039,566; 13 August 1991, "Transparent Composite Material," R.J. Skubic, J.C. Stoffer, D.E. Day and S.E. Baldini
13. U.S. 5,039,326; 13 August 1991, "Composition and Method for Radiation Synovectomy of Arthritic Joints," D.E. Day and G.J. Ehrhardt
14. U.S. 5,011,797; 30 April 1991, "Composition and Method for Radiation Synovectomy of Arthritic Joints," D.E. Day and G.J. Ehrhardt
15. U.S. 5,011,677; 30 April 1991, "Radioactive Glass Microspheres," D.E. Day and G.J. Ehrhardt
16. U.S. 4,889,707; 26 December 1989, "Composition and Method for Radiation Synovectomy of Arthritic Joints," D.E. Day and G.J. Ehrhardt
17. U.S. 4,793,809; 27 December 1988, "Fiber Filled Dental Porcelain," M.A. Sigler, T.J. Sigler and D.E. Day
18. U.S. 4,789,501; 6 December 1988, "Glass Microspheres," D.E. Day and G.J. Ehrhardt
19. U.S. 4,726,829; 23 February 1988, "Fabrication of Precision Glass Shells by Joining Glass Rods," F.D. Gac, R.D. Blake, D.E. Day and J.S. Haggerty
20. U.S. 4,455,384; 19 January 1984, "Chemically Durable Nitrogen Containing Phosphate Glasses Useful for Sealing to Metals," D.E. Day and J.A. Wilder, Jr.

U.S. AND SELECTED FOREIGN PATENTS (Cont'd):

21. U.S. 3,972,722; 3 August 1976, "Alumina Zircon Bond for Refractory Grains," J.P. Holt, T.P. Cash and D.E. Day.

Selected Foreign

1. Canada 2,161,573; 25 May 2010, "Biodegradable Glass Compositions and Methods for Radiation Therapy" D.E. Day & J.E White
2. Japan 4,397,531; 30 October 2009, "Biodegradable Glass Compositions and Methods for Radiation Therapy" D.E. Day & J.E White
3. Spain, Belgium, France, Italy, United Kingdom, Germany 1,149,057; 26 May 2004, "Biodegradable Glass Compositions and Methods for Radiation Therapy" D.E. Day
4. Australia 758560; 10 July 2003, Biodegradable Glass Compositions and Methods for Radiation Therapy, D.E. Day and J.E. White
5. Japan 2,026,007; 26 February 1996, "Glass Microspheres," D.E. Day and G.J. Ehrhardt
6. Japan 1,936,295; 26 May 1995, "Glass Microspheres," D.E. Day and G.J. Ehrhardt
7. European patent (16 countries) 0201601; 27 May 1992, "Glass Microspheres," D.E. Day and G.J. Ehrhardt
8. Israel 77079; 20 June 1990, "Radioactive Glass Microspheres," D. E. Day and G.J. Ehrhardt
9. Argentine 240,006; 30 April 1990, "Glass Microspheres," D.E. Day and G.J. Ehrhardt
10. Canada 1,264,664; 23 January 1990, "Glass Microspheres," D.E. Day and G.J. Ehrhardt
11. Australia 577921; 22 February 1989, "Radioactive Biologically Compatible Glass Microspheres," D.E. Day and G.J. Ehrhardt
12. South Africa 85/8510; 25 June 1986, "Glass Microspheres," D.E. Day and G.J. Ehrhardt

LIST OF PUBLICATIONS (380 total). The following are from 2005 to the present.

1. C.W. Kim, D. Zhu & D.E. Day, "Corrosion Resistance of Metal Electrodes in an Iron Phosphate Melt," *Ceramic Transactions* 168 59-68 (2005).
2. D. Zhu, C.W. Kim & D.E. Day, "Corrosion Behavior of Inconel 690 & 693 in an Iron Phosphate Melt," *J. Nuclear Matls.* 336 46-57 (2005).
3. W. Huang & D.E. Day, C.S. Ray, C.W. Kim & S.T. Reis, "Properties & Solubility of Chrome in Iron Alumina Phosphate Glasses Containing HLW," *Glass Science & Technology* 77 #5 203-210 (2005).
4. N.W. Marion, W. Liang, G. Reilly, D.E. Day, M.N. Rahaman & J.J. Mao, "Borate Glass Supports the In Vitro Osteogenic Differentiation of Human Mesenchymal Cells," *Mechanics of Advanced Materials & Structures* 21 1-8 (2005).
5. A. Mogus-Milankovic, A. Santic, S.T. Reis, K. Furic, & D.E. Day, "Studies of Lead-Iron-Phosphate Glass by Raman, Mossbauer & Impedance Spectroscopy," *J. Non. Cryst. Solids*, *J. Non. Cryst. Solids* 351 3246-58 (2005).

**Non Refereed

6. W. Huang, D.E. Day, C.S. Ray and C.W. Kim, "High Temperature Properties of an Iron Phosphate Melt Containing High Chrome Nuclear Waste," *J. Nuclear Materials* 346 (2-3) 298-305 (2005).
7. A. Mogus-Milankovic, A. Santic, V. Licina & D.E. Day, "Dielectric Behavior and Impedance Spectroscopy of Bismuth Iron Phosphate Glasses," *J. Non. Cryst. Solids*, 351 3235-45 (2005).
8. W. Huang, D.E. Day, K. Kittiratanapiboon & L. Rahaman, "Kinetics & Mechanisms of the Conversion of Silicate (4555), borate & borosilicate glasses to Hydroxyapatite in dilute phosphate solutions," *J. Materials Science: Materials & Medicine* 17 583-96 (2006).
9. Q. Wang, W. Huang, D. Wang, B.W. Darvell, D.E. Day & M.N. Rahaman, "Preparation of Hollow Hydroxyapatite Microspheres," *J. Materials Science, Materials & Medicine*, 17 641-46 (2006).
10. T. Fuss, C.S. Ray, C.E. Lesher & D.E. Day, "In-Situ Crystallization of Lithium Disilicate Glass: Effect of Pressure on Crystal Growth Rate," *J. Non Cryst. Solids* 352 2073-81 (2006).
11. T. Fuss, A. Mogus-Milankovic, C.S. Ray, C.E. Lesher, R. Youngman, & D.E. Day, "Ex-Situ XRD, TEM, IR, Raman and NMR Spectroscopy of Crystallization of lithium disilicate glass at high pressure," *J. Non-Cryst. Solids* 352 4101-4111 (2006).
12. D. Zhu, W. Zhou, C.S. Ray & D.E. Day, "Method for Estimating Continuous Cooling Transformation Curves of Glasses," *Phys. Chem. Glasses: Eur. J. Sci. Technol. B.* 47 (3) 271-77 (2006).
13. W. Huang, M.N. Rahaman, D.E. Day & Y. Li, "Mechanisms for Converting Bioactive Silicate, Borate & Borosilicate Glasses to Hydroxyapatite in Dilute Phosphate Solutions," *Phys & Chemistry of Glasses: Eur. J. Sci. Technol. B.* 47 (6) 1-12 (2006).
14. W. Huang, M.N. Rahaman & D.E. Day, "Conversion of Silicate (4555), Borate & Borosilicate Glasses to Hydroxyapatite in dilute Phosphate Solution," *Ceramic Eng. Sci. Proc.* 27 (6) 131-140 (2006).
15. M.N. Rahaman, R.F. Brown, B.S. Bal & D.E. Day, "Bioactive Glasses for Non-Bearing Applications in Total Joint Replacement," *Seminars in Arthroplasty*, 17 102-112 (2006).
16. D.E. Day, "Glass: from Outer Space, to Inner Space," Dominick Labino Lecture, *The Glass Art Society Journal*, 71-74 (2006).**
17. W. Liang, C. Russel, D.E. Day & G. Volksch, "Comparative Bioactivity of a Borate, Phosphate & Silicate Glass," *J. Materials Research* 21 (1) 125 (2006).

**Non Refereed

18. S.T. Reis, A. Mogus-Milankovic, V. Licina, J.B. Yang, M. Karabulut, D.E. Day & R.R. Brow, "Iron Redox Equilibrium Structure & Properties of Zinc Iron Phosphate Glasses," *J. Non Cryst. Solids* 353 151-58 (2007).
19. A. Santic, A. Mogus-Milankovic, K. Furic, V. Bermanec, C.W. Kim, & D.E. Day, "Structural Properties of $\text{Cr}_2\text{O}_3 - \text{Fe}_2\text{O}_3 - \text{P}_2\text{O}_5$ Glasses: Part I," *J. Non Cryst. Solids* 353 1070-77 (2007).
20. K.S. Ranasinghe, C.S. Ray, D.E. Day, J.R. Rogers, R.W. Hyers & T. Rathy, "Containerless Processing of Lithium Disilicate Glass," *J. Matls. Science* 42 4291-97 (2007).
21. A. Yao, D Wang, W. Huang, O, Fu, M Rahaman & D.E. Day, "In-Vitro Bioactive Characteristics of Borate Based Glasses with Controllable Degradation Behavior," *J. Amer. Ceram. Soc.* 90 (1) 303-06 (2007).
22. A. Mogus-Milankovic, V. Licina, S.T. Reis & D.E. Day, "Electronic Relaxation in Zinc Iron Phosphate Glasses," *J. Non Cryst. Solids* 353 2659-2666 (2007).
23. X. Han and D.E. Day, "Reaction of Sodium Calcium Borate Glasses to Form Hydroxyapatite," *J. of Matls. Science; Materials in Medicine* 1B 1837-47 (2007).
24. V. Licina, A. Mogus-Milankovic, S.T. Reis and D.E. Day, "Electronic Conductivity in Zinc Iron Phosphate Glasses," *J. Non Cryst. Solids* 353 4395-4399 (2007).
25. W. Liang, M. Wang, D.E. Day and C. Russel, "Sodium Silicate Bonded Borate Glass Scaffolds for Tissue Engineering," *Journal Materials Science* 42 10138-142 (2007).
26. W. Huang, D.E. Day & M.N. Rahaman, "Comparison of the Formation of Calcium & Barium Phosphates by the Conversion of Borate glasses in dilute phosphate solution at near room temperature," *J. Amer. Ceram. Soc.* 90 [3] 838-44 (2007).
27. Y. Li, M.N. Rahaman, B.S. Bal, Q. Fu, A. Yao & D.E. Day "Conversion of Bioactive Borosilicate Glass to Multilayered Hydroxyapatite in Dilute Phosphate solution," *J. Amer. Ceram. Soc.* 90 (12) 3804-10 (2007).
28. Q. Fu, M.N. Rahaman, W. Huang, D.E. Day & B.S. Bal, "Preparation and Bioactive Characteristics of Porous 13-93 Glass and Its Fabrication into the Articulating Surface of a Proximal Tibia," *J. Biomed. Res.* 82A [1] 222-29 (2007).
29. A.C. Wright, R.N. Sinclair, J.L. Shaw, R. Haworth, G.K. Marasinghe & D.E. Day, "A Neutron Diffraction Study of the Structure of Iron Phosphate Glasses," *Physics & Chemistry of Glasses: European Journal of Glass Science & Tech. Part B*, 49 (1) 1-7 (2008).

30. W. Huang, D.E. Day & M.N. Rahaman, "Conversion of Tetranary Borate Glasses to Phosphate Compounds in Aqueous Phosphate Solution," *J. Amer. Ceramic Soc.* 91 (6) 1898-1904 (2008).
31. R.F. Brown, D.E. Day, T.E. Day, S. Jung, M.N. Rahaman & Q. Fu, "Growth and Differentiation of Osteoblastic Cells on 13-93 Bioactive Glass Fibers and Scaffolds," *Acta Biomaterialia* 4 387-396 (2008).
32. M.N. Rahaman, D.E. Day & W. Huang, "Conversion of Borate Glass to Biocompatible Phosphates in Aqueous Phosphate Solution," *Ceram. Eng. Sci. Proc.* 28 [9] 171-181 (2008).
33. W. Huang, M.N. Rahaman, D.E. Day & X. Liu, "Preparation of Inorganic Compounds at Near Room Temperature by the Direct Conversion of Borate Glass in Solutions of the Corresponding Anions," *J. Am. Ceram. Soc.* 91 (7) 2105-2111 (2008).
34. X. Han, M. Du, Y. Ma & D.E. Day, "Evaluation of Hydroxyapatite Microspheres Made from Borate Glass to Separate Protein Mixtures," *J. Matl's Science* 43 5618-25 (2008).
35. Y. Li, M.N. Rahaman, B. S. Bal, D.E. Day & Q. Fu, "Early Stages of Calcium Phosphate Formation on Bioactive Borosilicate Glass in Aqueous Phosphate Solution," *J. Am. Ceram. Soc.* 91 [5] 1528-33 (2008).
36. W. Liang, M.N. Rahaman, D.E. Day, N.W. Marion, G.C. Riley & J.J. Mao, "Bioactive Borate Glass Scaffold for Bone Tissue Engineering," *J. Non Cryst. Solids* 354 (15) 1690-96 (2008).
37. M.N. Rahaman, D.E. Day, R.F. Brown, Q. Fu and S.B. Jung, "Nanostructured Bioactive Glass Scaffolds for Bone Repair," *Cer. Eng. Sci. Proc.* 29 [7] 211-225 (2008).
38. Q. Fu, M.N. Rahaman, R.F. Brown, B.S. Bal and D.E. Day, "Mechanical and In-Vitro Performance of 13-93 Bioactive Glass Scaffolds Prepared by a Polymer Foam Replication Technique," *Acta Biomaterialia* 4 1854-64 (2008).
39. A. Santic, A. Mogus-Milankovic, K. Furic, M. Rajic-Linarc, C.S. Ray & D.E. Day, "Structural Properties and Crystallization of Sodium Tellurite Glasses," *Croatia Chemica Acta* 81 (4) 559-567 (2008).
40. D. Zhu, C. S. Ray, F. Luo, W. Zhou and D.E. Day, "Melting and Phase Separation of Lead Borate Glasses in Low Gravity Drop Shaft," *Ceramics Intl.* 34 417-20 (2008).
41. R.F. Brown, M.N. Rahaman, A. Dwilewiz, W. Huang, D.E. Day, Y. Li & S. Bal, "Conversion of Borate Glass to Hydroxyapatite and its Effect on the Proliferation of MC3T3-E1 Cells," *J. Biomed. Mater. Res.* 88A [2] 392-400 (2009).

42. M. N. Rahaman, W. Huang, D.E. Day & B.A. Miller, "Strength of Hollow Hydroxyapatite Microspheres Prepared by a Glass Conversion Process," *J. of Matl's Sci.: Mater. Med.* 20 [1] 123-29 (2009).
43. S.D. Conzone & D.E. Day, "Preparation and Properties of Porous Microspheres made from a Borate Glass," *J. Biomedical Materials Research: Part A* 88A, 531-42 (2009).
44. D. Zhoa, W. Huang, M.N. Rahaman, D.E. Day and D. Wang, "Mechanism for Converting Al_2O_3 – Containing Borate Glass to Hydroxyapatite in Aqueous Phosphate Solution," *Acta Biomaterialia* 5 [4] 1265-73 (2009).
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