

PUBLICATIONS

Neal has written over 125 publications and provided presentations covering the corrosion of steel in concrete, the physical properties of concrete, concrete applications, the corrosion of metal matrix composites and the effects of microstructure on corrosion, the corrosion of metallic-coated steel and the process of coating steel, and directional solidification of metal alloys. Recent publications include:

1. Neal S. Berke, Brooks E. Bucher, Kristin M. Ade, and Peter K. Denicola, "Organofunctional Silane Inhibitor Surface Treatment of Concrete for Corrosion, Transportation Research Record: Journal of the Transportation Research Board, No. 2550, Transportation Research Board, Washington, D.C., 2016, pp.115-122.
2. Neal S. Berke, Matthew A. Miltenberger, Lianfang Li, Brian Miller, and Ralf Carvajal, "Accelerated Mortar Test Method to Determine Chloride Threshold Values," in Chloride Thresholds and Limits for New Construction, ACI SP-308, editors: David Tepke, David Trejo, and O. Burkan Isgor, American Concrete Institute, Farmington Hills, MI, (2016), pp. 5.1-5.14.
3. Neal S. Berke, Brooks E. Bucher, Daryl Little, and Kurt F. Von Fay, "Test Protocol to Evaluate the Effectiveness of Embedded Sacrificial Anodes in Reinforced Concrete," Corrosion 2016 Paper Number 7524, NACE International, Houston, TX, 2016, 10 pp.
4. Neal S. Berke, Brooks E. Bucher, Kristin M. Ade, and Peter K. DeNicola, "Protective Surface Treatments for New and Existing Steel Reinforced Concrete to Mitigate Corrosion," 2015 Department of Defense—Allied Nations Technical Corrosion Conference, Paper Number 2015-6454, November 15-19, 2015 Pittsburgh, PA (2015), 14 pp.
5. Neal S. Berke and Antonio J. Aldykiewicz, Jr., "Novel Corrosion Inhibiting Pigment," 2015 Department of Defense—Allied Nations Technical Corrosion Conference, Paper Number 2015-6453, November 15-19, 2015 Pittsburgh, PA (2015), 10 pp.
6. Neal S. Berke and Ranjani M. Vijayakumar, "Case Studies for 100-Year Service Life Utilizing High Strength Low Chromium Reinforcing Bars," NACE Service Life Conference, Philadelphia, PA (2015), 15 pp.
7. Neal S. Berke and Richard G. Sibbick "Chapter 22—Cement and Concrete with Metals," Environmental Degradation of Advanced and Traditional Engineering Materials, eds. Hihara, Lloyd H., Adler, Ralph P.I., and Latanision, Ronald M., CRC Press, Boca Raton, FL (2014), pp.595-622.
8. Neal S. Berke, Brooks E. Bucher, Peter K. DiNicola, and Dr. Christopher Studte, "Organofunctional Silane Inhibitor Surface Treatment for Mitigating Corrosion of Steel in Concrete—Autopsy Results," Corrosion 2014, Paper Number C2014-4336, NACE International, Houston, TX, 2014, pp. 18.
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10. Neal S. Berke and Michael A. Caldarone, "Zinc Oxide: A Powerful Retarding Admixture," Concrete International, Vol. 36, No. 1, 2013.
11. Neal S. Berke, Brooks E. Bucher, Matthew A. Miltenberger, and Peter K. DeNicola, "Organofunctional Silane Inhibitor Surface Treatment for Mitigating Corrosion of Steel in Concrete," Corrosion 2012, Paper Number 0001445, NACE International, Houston, TX, 2012, pp. 12.
12. Jason P. Petti, Dan Naus, Alberto Sagüés, Richard E. Weyers, Bryan A. Erler, and Neal S. Berke, Nuclear Containment Steel Liner Corrosion Workshop: Final Summary and Recommendation Report, SANDIA REPORT SAND2010-8718, July 2011, pp. 62.
13. Neal S. Berke, "Understanding and Mitigating Corrosion Induced Concrete Deterioration," in Concrete Corrosion, FSEA Continuing Education Course, Tampa, FL, January 22, 2010.
14. Neal S. Berke, "Lecture 2: Concrete Deterioration," Boston Society of Civil Engineers Section/ASCE Continuing Education Program, Our Aging Infrastructure: Evaluation, Repair, Rehabilitation, October 2009.
15. Journal of ASTM International STP 1506 Advances in Electrochemical Techniques for Corrosion Monitoring and Measurement, Guest Editor: Sankara Papavinasam, Neal S. Berke, and Sean Brosia, ASTM International, West Conshohocken, PA, (2009), 316 pp.
16. N. S. Berke and A. J. Aldykiewicz, "Corrosion Performance of Epoxy-Coated Steel with Calcium Nitrite Corrosion Inhibitor," 5th International Symposium on Surface Protective Coatings, A. S. Khanna, ed., The Society for Surface Protective Coatings India, 26th-28th November 2007, Mumbai, India, pp.119-126.

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