

Technical Papers and Presentations by Akzo Nobel

1. **"Cationic Asphalt Emulsions"**, J. N. Dybalski, Paint Industry Magazine, November 1959, pp24-27.
2. **"The Chemistry of Slurry Sealing"**, D. J. Clifton, Roads and Road Construction, 1967, 45, 60.
3. **"The Chemistry of Slurry Sealing - Part 2"**, D. J. Clifton, P. Naylor, P. J. Robbins, Chemistry and Industry, May 1968, pp638-642.
4. **"Asphalt Emulsions"**, J. N. Dybalski, presented to the Iowa Asphalt Paving Conference, 20th March 1975, Ames, Iowa.
5. **"The Chemistry of Asphalt Emulsions"**, J. N. Dybalski, presented at the 55th Annual Meeting of the Transportation Research Board, January 1976.
6. **"Surface Area and Zeta Potential and their Relation to Slurry Mixes"**, Leslie M. Harkness, presented to the ISSA R&D Committee Symposium on Quick-Set, Quick-Cure Slurry Seal Systems, February 13th 1978, Atlanta, Georgia.
7. **"Cationic Surfactants in Asphalt Adhesion"**, J. N. Dybalski presented at the AAPT Annual Meeting, 1982, Kansas City, Missouri.
8. **"A Comparison of Properties of Laboratory Prepared Cold Mixed Emulsified and Hot Mixed Asphalt Mixtures Phase 1"**, Jack N. Dybalski, presented at the 9th Annual Meeting of AEMA, March 17-18, 1982, Las Vegas, Nevada
9. **"A Comparison of Properties of Laboratory Prepared Cold Mixed Emulsified and Hot Mixed Asphalt Mixtures"**, Jack N. Dybalski, presented at the 10th Annual Meeting of AEMA, March 22-25, 1983, Palm Springs, California
10. **"Road Chemicals: Selection, Test Methods and Future Trends"**, W. T. Hulshof presented to New Zealand Roding Symposium, August 1983, Wellington, New Zealand.
11. **"Proposed Mix Design Methods for Emulsion Cold Mixes"**, J. N. Dybalski presented to 11th Annual Meeting of AEMA, 1984, Florida.
12. **"The Application of Bitumen Emulsions in Surface Dressing Technology"**, W. T. Hulshof, Highways, June 1985, pp16-17.
13. **"A European Viewpoint on Bitumen Emulsions"**, W. T. Hulshof, presented at the ARRB Bitumen Emulsion Workshops, 1985, Melbourne and Sydney, Australia, pp45-62.
14. **"Bitumen Emulsion Cold Mix"**, J. N. Dybalski, presented at the ARRB Bitumen Emulsion Workshops, 1985, Melbourne and Sydney, Australia, pp103-115.
15. **"Bitumen Emulsion Practices USA"**, J. N. Dybalski, presented at the ARRB Bitumen Emulsion Workshops, 1985, Melbourne and Sydney, Australia, Program and Papers, pp1-10.
16. **"Bitumen Emulsions"**, J.N. Dybalski, presented at the ARRB Bitumen Emulsion Workshops, 1985, Melbourne and Sydney, Australia, pp1-10.
17. **"Slurry Seal Applications"**, Thomas Dahl, presented at the ARRB Bitumen Emulsion Workshops, 1985, Melbourne and Sydney, Australia, pp117-125.
18. **"Redicote AP - A New Bitumen Improvement Additive"**, A. D. James, D. Stewart and P. Vening, presented at the Conference on Bitumen, Budapest Hungary, 1987.
19. **"Cationic Emulsions for Sealing"**, A. D. James and D. Stewart presented at New Zealand Roding Symposium, August 1987, Wellington, and published in Roads Research Unit

Technical Papers and Presentations

- Occasional Paper 'Emulsion Sealing and Open-Graded Emulsion Mixes', NRB, Wellington, New Zealand, 1988.
20. ***"Chemically Modified Asphalt"***, J. Dybalski, presented at the 15th Annual Meeting of AEMA, Maui, Hawaii, 1988.
 21. ***"Adhesion Agents for Use in Hot Mixes and Cutback Bitumens"***, A. D. James, R. Senior and D. Stewart, Proceedings of the 3rd IRF M.E. Regional Meeting, 1988, Volume 5, pp57-68.
 22. ***"Cationic Bitumen Emulsions - Theory and Applications"***, A. D. James, D. Stewart and P. Vening presented to the 6th Strassenkonferenz in Budapest, 1988, Hungary.
 23. ***"New Quality Improver for Emulsion-Grade Bitumens"*** A. D. James and D. Stewart, 4th Eurobitume Symposium 1989. Madrid, Spain, pp230-233.
 24. ***"Effects of Various Polymers on Quick-Set Quick-Traffic Emulsified Asphalt Microsurfacing Mixes"***, David R. Jones IV and Antonio Ng, AEMA: Asphalt Emulsions Updates and New Technologies, 1988, St. Louis, Missouri.
 25. ***"Wet Track Abrasion Test Machine Correlation"***, David R. Jones IV and Antonio Ng, 26th ISSA Annual Convention 1988, San Diego, California.
 26. ***"Effects of Various Polymers on Quick-Set Quick-Traffic Emulsified Asphalt Microsurfacing Mixes, Part II"***, David R. Jones and Antonio Ng, 27th ISSA Annual Convention 1989, Hawaii.
 27. ***"The Direct Measurement of the Adsorption of Cationic Surfactants onto the Surface of Slurry Seal Aggregates"***, Julia Wates and David Stewart, presented at the ISSA 28th Annual Convention, 1990, Tampa, Florida.
 28. ***"Cationic Surfactants in Road Construction and Repair"***, A. D. James and D. Stewart, Industrial Applications of Surfactants II, Edited by D. R. Karsa, Special Publication No. 77, Royal Society of Chemistry, 1990, pp338-353.
 29. ***"A Gas-Chromatography Method for the Determination of Anti-stripping Agents in Hot Binders and the Significance of this Technique for Surface Dressing"***, D. Stewart, A. D. James, A. Woodside and P. McCool, presented at the conference 'The Chemistry of Bitumen', 1991, Rome, Italy.
 30. ***"The Use of Fatty Amine Derivatives to Slow Down the Age-Hardening Process in Bitumen"***, D. Stewart and A. D. James presented at the conference 'The Chemistry of Bitumen', 1991, Rome, Italy.
 31. ***"A Laboratory Method for Determining the Retaining Force of Chippings in Surface Dressings"***, David Stewart and Per Redelius, presented at the 19th Annual Meeting of AEMA and the 16th Annual Meeting of ARRA, February 26th-March 1st 1992, Fort Lauderdale, Florida, pp1-12.
 32. ***"Zeta Potential Measurements on Bitumen Emulsions and Road Aggregates"***, A. D. James and J. Wates, presented at the 1st World Congress on Emulsions, 19-22nd October 1993, Paris, France, 1-40-089.

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Technical Papers and Presentations

33. **"Determination of the Hydrophilicities of Nitrogen-Based Surfactants by Measurement of Partition Coefficients between Heptane and Water"**, A. D. James, J. Wates and E. Wyn-Jones, *J. Colloid and Interface Science*, 1993, 160, pp158-165.
34. **"Laboratory Studies on Solventless Dense-Graded Cold Mix Using Redicote E-4868 Emulsion"**, A. D. James, D. Needham, J. M. Wates and S. Brown, presented at the 2nd International Symposium on Highway Surfacing, 27-28th January 1994, Ulster Northern Ireland, Session 4, Paper 4.
35. **"The Use of Emulsion Breaking Agents in Slurry Sealing"**, D. Stewart, D. Leah and P. Redelius, presented at the 32nd Annual ISSA Conference, February 13-17th 1994, Kauai, Hawaii, pp131-140.
36. **"The Benefits of Using Ordinary Portland Cement in Solvent-Free Dense-Graded Bituminous Emulsion Mixtures"**, A. D. James, D. Needham and S. F. Brown, presented at the 1996 International Symposium on Asphalt Emulsion Technology (AEMA), October 3-6, 1996, Washington DC, pp179-188.
37. Also presented at: 2nd International Conference on Road and Airfield Pavement Technology, 27-29th September 1995, Singapore.
38. **"Surface Dressing with Bitumen Emulsions: A Practical and Cost Effective Maintenance Technique to Increase the Lifetime of Roads"**, D. Stewart, presented at Bitumen Asia '95, 20-21 November 1995, Singapore.
39. **"Cationic Surfactants"**, A. D. James, P. H. Ogden and J. M. Wates, *Industrial Applications of Surfactants*, Editor D. Karsa, Royal Society of Chemistry, London, pp250-268.
40. **"Chip Seal Use-Back to the Basics"**, R. A. Plummer, *Better Roads*, April 1996, pp36-38.
41. **"What You Need to Know about Slurry Seal"**, B. H. Dunn, *Better Roads*, March 21-25, 1996.
42. **"Cationic Surfactants"**, A. D. James in *Lipid Technologies and Applications*, Editor J. Gunstone, published by Marcel Dekker, New York, 1997, pp609-631.
43. **"Water Enclosed Within the Droplets of Bitumen Emulsions and Its Relation to Emulsion Viscosity Changes During Storage"**, Alan James, Susan Furlong, Edward Kalinowski and Martin Thompson, presented at 2nd World Congress on Emulsion, 23-26 September 1997, Bordeaux, France.
44. **"Solving Viscosity Problems by the Choice of Emulsifier"**, A. D. James, 24th AEMA Meeting, March 14-16, 1997, Cancun, Mexico.
45. **"The Role of Surfactant in Asbestos-Free Roof Coatings...Or The Quat Thickens"**, Harry Mattson, *Roof Coating Manufacturers Association Report*, December 1997.
46. **"Specifying Slurry Surfacing Emulsion Quality: Particle Size Distribution"**, Mikael Engman, Alan James, David Needham & Tony Ng, 36th ISSA Annual Meeting, 1998, Florida.
47. **"Chemical Emissions from Slurry Sealing"**, Duane Campbell, Alan James, Per Redelius and Bengt-Arne Thorstensson, 36th ISSA Annual Meeting 1998, Florida.

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Technical Papers and Presentations

48. ***"In-Plant Cold Recycling and Cold Mix in Sweden – Developments in Laboratory Testing"***, Gunnar Hillgren, Alan James, Tomas Svensson and Thomas Wallin, 25th AEMA Annual meeting 1998, San Diego, California.
49. ***"Asphalt Emulsions- Chemistry and Concepts"***, Alan James, Asphalt Technology Conference of the Americas, 1998, Austin, Texas. Also presented at AEMA Annual Meeting 1999, Santa Fe, New Mexico.
50. ***"Water Enclosed Within the Droplets of Bitumen Emulsions and Its Relation to Viscosity Changes During Storage"***, S. Furlong, A. James, E. Kalinowski and M. Thompson, Colloids and Surfaces (A), 152, 1999, pp147-153.
51. ***"Cold Mix Recycling using Bitumen Emulsions- The Low Cost Road Construction Solution for the Start of the new Millenium"***, David Stewart, presented at the 5th Annual Bitumen Asia Conference, 21-22 June 1999, Singapore
52. ***"Chemical Emissions from Asphalt Emulsion Applications"***. Alan James, Bengt-Arne Thorstensson, Duane Campbell and Per Redelius, 27th Annual Meeting of AEMA 2000, Amelia Island, Florida
53. ***"A Study of Cement Modified Bitumen Emulsion Mixtures"***, S.F. Brown and David Needham, Proceedings of the technical session of AAPT, Reno, Nevada, 2000
54. ***"Emulsification: A Solution to Asphaltene handling Problems"***, Sundaram Logaraj, 27th Annual Meeting of AEMA 2000, Amelia Island, Florida.
55. ***"Comparisons between Shulze-Breuer & Ruck and Wet Track Abrasion Test Results"***, Tony Ng and Alan James, 39th Annual ISSA Conference March 2001, Maui, Hawaii
56. ***"Environmental and Safety aspects of Cationic Bitumen Emulsions"***, Alan James and Bengt - Arne Thorstensson, 5th ISSA World Congress, Berlin 2002.

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