

Scientific Publications

Authored Books

1. H. Kalman, "Pneumatic Conveying of Solids", 1998. (220 pages in Hebrew)
2. H. Kalman, "Characterization of Particulate Solids", 1998. (170 pages in Hebrew)
3. H. Kalman, "Introduction to Powder Technology", 2001. (130 pages in Hebrew)

Chapters in Books

1. H. Kalman, "About Fins Performance and Optimization," in *Recent Advances in Analysis of Heat Transfer for Fin Type Surfaces*, Eds. B. Sunden and P. Heggs, WIT Press, Southampton, Chapter 5, pp. 97-144, 2000.
2. H. Kalman and E. Grant, "Size Reduction of Solids: an Energy Intensive and Highly Inefficient Process," *Energy and Environment: Technological Challenges for the Future*, Eds. Y.H. Mori and K. Ohnishi, Springer, Tokyo, pp. 207-220, 2000.

Editorship of Collective Volumes

1. The Forum for Handling and Conveying of Particulate Solids, Vol. 1, 1993. (in Hebrew)
2. The Forum for Handling and Conveying of Particulate Solids, Vol. 2, 1994. (in Hebrew)
3. Proceedings of the First Israel Conference for Conveying and Handling of Particulate Solids, 1995. (in Hebrew and English)
4. Proceedings of the Second Israel Conference for Conveying and Handling of Particulate Solids, 1997.
5. Proceedings of the Third Israel Conference for Conveying and Handling of Particulate Solids, Vol. 1 + Vol. 2, 2000 (with A. Levy and M. Hubert), 2000.
6. Handbook of Conveying and Handling of Particulate Solids, Elsevier Sciences, Amsterdam, 2001 (with A. Levy).

Refereed Articles in Scientific Journals

1. H. Kalman and R. Letan, "Thickness of Thermal and Velocity Boundary Layers on a Mobile Surface of a Sphere," *International Communications in Heat and Mass Transfer*, Vol. 12, pp. 201-209, 1985.
2. Y. Lerner, H. Kalman and R. Letan, "Condensation of an Accelerating-Decelerating Bubble: Experimental and Phenomenological Analysis," *ASME Journal of Heat Transfer*, Vol. 109, pp. 509-517, 1987.
3. H. Kalman, A. Ullmann and R. Letan, "Visualization Studies of a Freon-113 Bubble Condensing in Water," *ASME Journal of Heat Transfer*, Vol. 109, pp. 543-545, 1987.
4. A. Ullmann and H. Kalman, "Efficiency and Optimized Dimensions of Annular Fins of Different Cross-Section Shapes," *International Journal of Heat and Mass Transfer*, Vol. 32, No. 6, pp. 1105-1110, 1989.

5. K. Laor and H. Kalman, "The Effect of Tip Convection on the Performance and Optimum Dimensions of Cooling Fins," *International Communications in Heat and Mass Transfer*, Vol. 19, No. 4, pp. 569-584, 1992.
6. E. Assis and H. Kalman, "Transient Temperature Response of Different Fins to Step Initial Conditions," *International Journal of Heat and Mass Transfer*, Vol. 36, No. 17, pp. 4107-4114, 1993.
7. H. Kalman and E. Berman, "Thermal Analysis and Structural Modifications in an Electrical Card-to-Cold Plate Wedge Clamp," *ASME Journal of Heat Transfer*, Vol. 115, pp. 1054-1057, 1993.
8. H. Kalman and E. Zahavi, "Educating Young Engineers at the Ben-Gurion University, Israel," *Int. J. Mech. Eng. Education*, Vol. 22, No. 2, pp. 101-111, 1994.
9. E. Assis, K. Laor and H. Kalman, "Experimental and Theoretical Investigation of the Transient Temperature Response of Spines in Free Convection," *Experimental Thermal and Fluid Science*, Vol. 9, No. 2, pp. 289-298, 1994.
10. K. Laor and H. Kalman, "Performance and Optimum Dimensions of Different Cooling Fins With a Temperature-Dependent Heat Transfer Coefficient," *International Journal of Heat and Mass Transfer*, Vol. 39, No. 9, pp. 1993-2003, 1996.
11. H. Kalman and D. Goder, "Design Criteria for Particle Attrition," *Advanced Powder Technology*, Vol. 9, No. 2, pp. 153-167, 1998.
12. L. Prigozhin and H. Kalman, "Radial Mixing and Segregation of a Binary Mixture in a Rotating Drum: Model and Experiment," *Physical Review E*, Vol. 57, No. 2, pp. 2073-2080, 1998.
13. H. Kalman, D. Goder and S. Targan, "Preliminary Investigation on the Effect of Production Parameters on the Strength of Big Tablets," *Particle & Particle Systems Characterization*, Vol. 15, pp. 150-155, 1998.
14. A. Levy, E. Kogan and H. Kalman, "Simulation of Air Filtration Through a Cohesive Plug Moving in a Vertical Pipe," *Powder Technology*, Vol. 98, pp. 209-216, 1998.
15. H. Kalman and A. Ullmann, "Experimental Analysis of Bubble Shape During Condensation in Miscible and Immiscible Liquids," *Journal of Fluids Engineering – Transactions of the ASME*, Vol. 121, No. 2, pp. 496-502, 1999.
16. H. Kalman, "Attrition Control by Pneumatic Conveying," *Powder Technology*, Vol. 104, pp. 214-220, 1999.
17. T. Han, A. Levy, H. Kalman and Y. Peng, "Model for Dilute Gas-Particle Flow in Constant Area Lance with Heating and Friction," *Powder Technology*, Vol. 112, pp. 283-288, 2000.
18. H. Kalman, "Attrition of Powders and Granules at Various Bends During Pneumatic Conveying," *Powder Technology*, Vol. 112, pp. 244-250, 2000.
19. D. Eskin and H. Kalman, "A Numerical Parametric Study of Size Segregation in a Rotating Drum," *Chemical Engineering and Processing*, Vol. 39, pp. 539-545, 2000.
20. D. Eskin and H. Kalman, "Optimal Particle Acceleration in Centrifugal Rotor-Impact Mill," *Minerals Engineering International*, Vol. 13, No. 14-15, pp. 1653-1658, 2000.
21. H. Kalman, "Particle Breakage and Attrition," *KONA*, Vol. 18, pp. 108-120, 2000.

22. H. Kalman and E. Sher, "Enhancement of Heat Transfer by Means of a Corona Wind Created by a Wire Electrode and Confined Wings Assembly," *Applied Thermal Engineering*, Vol. 21, pp. 265-282, 2001.
23. E. Grant and H. Kalman, "Fatigue Analysis of Particle Attrition in a Rotating Drum," *Particle & Particle Systems Characterization*, Vol. 8, No. 2, pp. 64-69, 2001.
24. D. Goder, H. Kalman and A. Ullmann, "Fatigue Characteristics of Granular Materials," *Powder Technology*, Vol. 122, Issue 1, pp. 19-25, 2002.
25. H. Kalman and Y.H. Mori, "Experimental Analysis of a Single Vapour Bubble Condensing in Subcooled Liquid," *Chemical Engineering Journal*, Vol 85, Issue 2, pp. 197-206, 2002.
26. D. Eskin and H. Kalman, "Problems of Optimal Particle Acceleration on Straight Linear Blades of Centrifugal Rotor-Impact Mills," *Powder Technology*, Vol. 123, No. 1, pp. 75-82, 2002.
27. D. Eskin and H. Kalman, "Engineering Model of Friction of Gas-Solids Flow in a Jet Mill Nozzle," *Chemical Engineering and Technology*, Vol. 25, No. 1, pp. 57-64, 2002.
28. D. Eskin and H. Kalman, "A Simple Model of a Cylindrical Heavily Laden Gas-Particle Jet" *Chemical Engineering Science*, Vol. 57, No. 3, pp. 449-455, 2002.
29. E. Grant and H. Kalman, "Experimental Investigation of an Impact-Mill Performance," *Advanced Powder Technology*, Vol. 13, No. 3, pp. 233-247. 2002.
30. A. Rashkovan, H. Kalman and E. Sher, "Experimental Optimization of an Electrostatic Blower," *Applied Thermal Engineering*, Vol. 22, Issue 14, pp. 1587-1599, 2002.
31. M. Haim, Y. Weiss, H. Kalman and A. Ullmann, "The Effect of the Inlet Conditions on the Numerical Solutions of Particle-Gas Flows," *Advanced Powder Technology*, Vol. 14, No. 1, pp. 87-110, 2003.
32. T. Han, A. Levy and H. Kalman, "DEM Simulation for Attrition of Salt During Dilute-Phase Pneumatic Conveying," *Powder Technology*, Vol. 129, Nos. 1-3, pp. 92-100, 2003.
33. O. Braunshtein, H. Kalman and A. Ullmann, "Performance and Optimization of Composed Fin Arrays," *Heat Transfer Engineering*. 2003-in Press.
34. T. Han, H. Kalman and A. Levy, "DEM Simulation of Particle Comminution in Jet Mills," *Particulate Science & Technology*, 2003-in Press.
35. M. Haim, Y. Weiss and H. Kalman, "Turbulent Gas-Particle Flow in Dilute Phase," *Particulate Science & Technology*, 2003-in Press.
36. H. Kalman, "Condensation of Bubbles in Miscible Liquids," *International Journal of Heat and Mass Transfer*, 2003 – in Press.
37. G. Weidenfeld, Y. Weiss and H. Kalman, "The Effect of Compression and Preconsolidation on the Effective Thermal Conductivity (ETC) of Particulate Beds," *Powder Technology*, 2003 – in Press.