

PUBLICATIONS

A. Theses

1. M.Sc. "Non Linear Numerical Solution for Membranes of Revolution", Civ. Eng. Faculty, Technion, Haifa, 1970.
2. Ph.D. "Application of Mixture Theory to Soil Mechanics", Applied Mechanics and Eng. Sci Dept., Univ. of Michigan, Ann Arbor, 1975.

B. Refereed papers in professional journals

1. R. Becker, I.K. Mclvor, "A Non Linear Mixture Theory Representation of Saturated Sand", Int. J. Eng. Sci., Vol. 16, April 1978, pp. 931-942.
2. R. Becker, "Window Air-tightness and its Influence on Energy Saving and Minimum Required Ventilation", Building and Environment Journal, Vol. 14, No. 3, 1979, pp. 157-166.
3. R. Becker, "Simplified Investigation of Floors Under Foot Traffic", Journal of the Structural Division, ASCE, Vol. 106, No. ST11, Nov. 1980, pp. 2221-2234.
4. R. Becker, C. Jaegermann, "The Influence of the Permeability of Materials and Absorption on Condensation in Dwellings", Building and Environment Journal, Vol. 17, No. 2, 1982, pp. 125-134.
5. C. Jaegermann, R. Becker, M. Relis, "Development of a Scratch-Test Instrument for Thick Wall Coverings", Journal of Testing and Evaluation, JTEVA, Vol. 10, No. 3, May 1982, pp. 94-101.
6. R. Becker, "Resistance to Heat Flow of Built-up Sections by Means of the Heat-Flow-Meter Test Method", Materials and Structures, Vol. 16, No. 94, 1983, pp. 275-283.
7. R. Becker, "Quality of Performance in Use of Building Systems", Building and Environment Journal, Vol. 19, No. 3, 1984, pp. 151-155.
8. R. Becker, "Condensation and Mould Growth in Dwellings - Parametric and Field Study", Building and Environment Journal, Vol. 19, No. 4, pp. 243-250, 1984.
9. R. Becker, J. Laks, "Cracking Resistance of Asbestos-Cement Panels Subjected to Drying", Durability of Building Materials, 3 (1985), pp. 35-49.
10. R. Becker, "Derivation of Moisture Correction Factors to the Thermal Resistance of Hollow Block Walls", Materials and Structures, Vol. 18, No. 107, pp. 345-348, 1985.
11. R. Becker, "A Method for the Generation of Weighting Factors for Performance Evaluation Systems", Building and Environment Journal, Vol. 20, No. 4, pp. 195-200, 1985.
12. R. Becker, M. Puterman, J. Laks, "The Effect of Porosity of Emulsion Paints on Mould Growth", Durability of Building Materials, 3 (1986), pp. 369-380.
13. R. Becker, "Elimination of Mould Growth in Buildings, a. Control of Condensation", Bauphysik 3 (1987) (Invited paper), pp. 79-85.
14. R. Becker, M. Puterman, "Elimination of Mould Growth in Buildings, b. The Effect of Surface Materials", Bauphysik 4 (1987) (Invited paper), pp. 107-110.
15. R. Becker, E. Barr, "Spatial Performance-Specifications for Workshops and Light Industry Standard Buildings", Architectural Science Review, Vol. 31, pp. 3-17, 1988.
16. R. Becker, A. Katz, "Effect of Moisture Movement on Tested Thermal Conductivity of Moist Materials", Journal of Materials in Civil Engineering, ASCE, Vol. 2, No. 2, May, 1990, pp. 72-83.
17. A. Wiezel, R. Becker, "Integration of Performance Evaluation in Computer Aided Design", in "Evaluating and Predicting Design Performance", Y. Kalay (editor), John Wiley & Sons, Inc., N.Y., 1990, 9 pp.
18. R. Becker, "Thermal Resistance of Masonry Walls - Analysis and Test Results". ASCE Journal of Materials in Civil Eng., Vol. 5, No. 3, pp. 308-320, Aug. 1993.
19. R. Becker, "Effects of Heating Patterns on Internal Surface Temperatures and Risk of Condensation". Building and Environment Journal, Vol. 28, No. 3, pp. 333-345, 1993.
20. R. Becker, "A Unified Methodology for Establishing Minimum Performance Criteria and Performance Grading tools for Buildings". Building and Environment Journal, Vol. 28, No. 3, pp. 243-249, 1993.
21. R. Becker, A. Wiezel, "A Computerized System for Performance Integrated Computer aided Design". Architectural Science Review Journal, Vol. 36, No. 3, pp. 113-119, Sept. 1993.

22. R. Becker, M. Paciuk, "Experimental Validation of TARP for Prediction of Overall Thermal Performance under Various Heating Patterns". *Journal of Energy and Buildings*, Vol. 20, No. 2, pp. 121-132, 1993.
23. R. Becker, M. Paciuk, "Effects of Heating Patterns on Overall Thermal Performance of Dwellings". *Journal of Energy and Buildings*, Vol. 20, No. 2, pp. 133-142, 1993.
24. R. Becker, "Computational Model for Analysis of Dynamic Thermal Performance of a Hybrid Slab-Collector System with Passive Discharge". *Solar Energy Journal*, Vol. 55, No. 6, pp. 419-433, 1995.
25. A. Wiezel, R. Becker, "CAD Model for Performance Evaluation". *Building and Environment*, Vol. 31, No. 4, pp 345-361, 1996.
26. R. Becker, "Performance Evaluation of an Intelligent Hybrid Floor-Collector System", *Automation in Construction 6 (Special Issue on Intelligent Buildings)*, 1997, pp. 427-436.
27. R. Becker, "Research and Development Needs for Better Implementation of the Performance Concept in Building". *Automation in Construction 8, (Special Issue on Application of the Performance Concept in Building)*, 1999, pp. 525-532.
28. R. Katsman, R. Becker, "Model for Moisture-Content Evolution in Porous Building Elements with Hygro-Thermal Bridges and Air-Voids", *Journal of Thermal Envelope and Building Science*, Volume 24 No. 1/July 2000, pp. 10-41.
29. D. Hattis, R. Becker, "The Systems Approach and the Nordic Model - A Comparison and Melded Application to Performance-Based Building Codes and Standards", *ASTM's Journal of Testing and Evaluation*, JTEVA, Volume 29, No. 4, July 2001, pp. 413-422.
30. R. Becker, "An Integrated Approach to the Development of Performance Test Methods and their Application to Evaluation and Design", *RILEM Journal Materials and Structures*, Vol. 34, October 2001, pp 467-474.
31. R. Becker, M. Paciuk, "Inter-Related Effects of Cooling Patterns and Building Features on Energy Consumption in Office Buildings", *Energy and Buildings*, Vol 34/1, November 2001, pp 25-31.
32. R. Becker, "Effects of Heat Sinks on Evolution of Longitudinal Temperature Distributions in Steel Structures", *Fire Safety Journal*, Volume 37/1, January 2002, pp 1-20.
33. R. Becker, "Structural Behavior of Simple Steel Structures with Non-uniform Longitudinal Temperature Distributions under Fire Conditions", *Fire Safety Journal*, Volume 37/5, August 2002, pp 495-515.
34. R. Becker, "Validation of a Mathematical and Numerical Model for Dynamic 1-D Moisture Content Evolution in Layered Building Elements", *RILEM Journal Materials and Structures*, Vol. 35 - No. 251, August 2002, pp 382-388.
35. J. G. Quintiere, M. diMarzio, R. Becker, "A suggested Cause for the Fire Induced Collapse of the World Trade Towers", *Fire Safety Journal*, Vol. 37, Issue.7, October 2002, pp 707-716.
36. R. Becker, "Implementation of the Performance Approach in the Investigation of Innovative Building Systems", *Building and Environment*, vol 37/10, December 2002, pp 923-931.
37. R. Becker, "Patterned Staining of Rendered Facades - Hygro-thermal Analysis as a Means for Diagnosis", *Journal of Thermal Envelope and Building Science*, Volume 36, April 2003, pp 321-341.
38. C.E Hagentoft, A. Sasics Kalagasidis, B. Adl-Zarrabi, S. Roels, J. Carmelit, H. Hens, J. Grunewald, M. Funk, R. Becker, D. Shamir, O. Adan, H. Brocken, K. Kumaran, R. Djebbar, "Assessment Method of Numerical Prediction Models for Combined Heat, Air and Moisture Transfer in Building Components. Benchmarks for One-dimensional Cases", *Journal of Thermal Envelope and Building Science*, Volume 27 No. 4, April 2004, pp 327-352.
39. S. Pushkar, R. Becker, A. Katz, "A methodology for design of environmentally optimal buildings by variable grouping", *Building and Environment Journal*, Vol 40/8, August 2005, pp 1126-1139.
40. R. Becker, I. Goldberger, M. Paciuk, "Improving Energy Performance of School Buildings with Indoor Air Quality Ventilation". *Building and Environment Journal*, Vol 42/9, September 2007, pp 3261-3276.
41. A. Warszawski, R. Becker, R. Navon, "Strategic planning for research in building – process oriented methodology". *Journal of Construction Engineering and Management*, Volume 133, Issue 9, September 2007, pp. 710-722.
42. R. Becker, "Fundamentals of performance based design". *Building Simulation Journal*, Vol. 1, NO.4, Dec. 2008, pp 356-371.

43. R. Becker, M. Paciuk, "Thermal comfort in residential buildings – failure to predict by standard model". *Building and Environment Journal*, Vol. 44, 2009, pp. 948-960.
44. R. Becker, "Air leakage through curtain walls – diagnostics and remediation". *Journal of Building Physics*, Vol. 34, No. 1, July 2010, pp 57-75.
45. R. Becker, "Air permeability and thermal performance of concrete block wall specimens". *Journal of Building Physics*. Vol. 34, No. 2, October 2010, pp 163-177.

C. Invited International State of the Art Report

1. R. Becker, (Editor and author of Chapters 1 to 5, t, 8), G. Foliente (Chapters 6,8), "Performance Based Building International State of the Art, PeBBu 2nd International SotA report". Invited final SotA report within the Performance Based Building Thematic Network, Funded by EU 5th Framework Research Program. Published by CIBdf. Rotterdam, The Netherlands. October 2005. 260 pp.

D. Chapters in Books

1. R. Becker, "Performance Specifications", Chapter No. 4 in the book "Industrialization and Robotics in Building" by A. Warszawski. Harper and Row Publishers, N.Y., 1990, pp. 100-129.
2. R. Becker, with contributions by A. Getzler and G. Rosenhouse, "Performance Oriented Design of Buildings", in "Guide to Civil Engineering", M. Reiss (editor), Massada Publishers, Givataim, Israel, 1990, pp. 129-314 (in Hebrew).
3. R. Becker, "Fungal Disfigurement of Construction - Analysis of the Effects of Various Factors", and "Some Case Studies of Fungal Disfigurement of Construction in Israel", *Air Quality Monographs - Vol.2' Health Implications of Fungi in Indoor Environments*. Editors: R.A. Samson et al. Elsevier, Amsterdam, 1994. pp 361-380, and pp 495-505.
4. R. Becker, "Application of the Performance Approach", Chapter No. 4 in the book "Industrialized and Automated Building Systems – A Managerial Approach", by A. Warszawski. Publisher: E & FN SPON. N.Y. & London, 1999. pp. 83-115.

E. Guest Editor of International Journal

1. Invited guest Editor of the Special Issue on "Application of the Performance Concept in Building", *Automation in Construction* 8 (1999).

F. Chief Editor of International Reports

1. R. Becker, Editor: Proceedings of the International Workshop on "Implementation of the Performance-Concept-in-Building in Education and Training", CIB W60, Instituto Superior Technico, Lisbon, 1989.
2. R. Becker, Editor: CIB Report No. 157, "Some Examples of Application of the Performance Concept in Buildings". CIB, International Council for Building Research Studies and Documentation, May 1993.
3. R. Becker, Editor: CIB Report No. 179, "New Developments in Performance Test Methods". CIB, International Council for Building Research Studies and Documentation, 1996.
4. R. Becker, M. Paciuk, Editors: Proceedings of the 3rd. International Symposium on Applications of the Performance Concept in Building. Dec. 1996. National Building Research Institute, Technion, Haifa, Israel.

G. Participation in International Reports

1. HAMSTAD project, GRD1-1999-20007, "Determination of liquid water transfer properties of porous building material and development of numerical assessment methods (WP2 – Modeling)". The European Community, under the "Competitive and Sustainable Growth Program (1998-2002). April 2003.

CONFERENCES

A. Invited Plenary or Keynote

1. International Conference on Performance Requirements in Buildings, May, 1988, Luxemburg. Title of invited presentation: "Performance Requirements in Education and Training".
2. International Workshop on Health Implications of Fungi in Indoor Environments, November 1992, Baarn, Netherlands. Titles of invited presentations:
 - 2a. "Fungal Disfigurement of Construction - Analysis of the Effects of Various Factors".
 - 2b. "Some Case Studies of Fungal Disfigurement of Construction in Israel".
3. International Seminar on Importance of Technical Approval in the Civil Construction Quality Development, June 1994, IPT - Cidade Universitaria San Paulo, Brasil. Title of invited presentation: "Different Ways to Operate Technical Approval of Products, Components and Sub-Systems in Building Construction".
4. International Meeting of Technical Agreement Organization, June 1994, Guaruja, San Paulo, Brasil. Title of invited presentation: "Ways for Investigation and Technical Approval of Building Systems in an Expanding Building Market".
5. International Symposium on Energy and Mass Flow in the Life Cycle of Buildings, Aug. 1996, Vienna, Austria. Title of invited Keynote presentation: "Energy Loads in Office Buildings with Various Cooling Patterns".
6. 3rd. International Symposium on Applications of the Performance Concept in Building, Dec. 1996, Tel-Aviv, Israel. Title of invited Keynote presentation: "Implementation of the Performance Concept - Future Research and Development Needs".
7. RILEM Annual Week, Lisbon, September 2003, Technical Day. Title of invited Plenary presentation "Development of Building Materials and Technologies within the Framework of Performance-Based Building".
8. Building Science Forum 2006, September 2006, Syracuse University, Syracuse, NY, USA. Title of presented paper: "Mitigation of Moisture Problems in Sheltered Bedrooms by means of Moisture Beffering and Daytime Ventilation".
9. Building Environment – Science & Technology Conference (BEST-CN 2010), Nanjing, China, May 2010. Title of invited talk: "Thermal and energy performance of buildings with large internal loads in warm climates".
10. Thermophysics 2010 Conference, Valtice, Czech Republic, November 2010. Title of invited plenary keynote talk: "Effects of PCM application on thermal and energy performance of buildings in summer".

B. Paper presentations in refereed conferences

1. Symposium on Performance over Time/Durability, 28,29th June 1982, Glasgow. Title of presentation: "Advice on Durability in a Design Guide for Civil Engineers".
2. 2nd International Symposium on Building Climatology, 11-15 May, 1987, Moscow, USSR. Title of presentation: "A Facility for the Simulation of Climatic Weathering of Thermal Rendering Systems".
3. International Workshop on Implementation of the Performance-Concept- in-Building in Education and Training, 14-15 Feb. 1989. Titles of presentations:
 - 3a. "Implementation of the Overall Performance Concept in Building in Education of Civil Engineers".
 - 3b. "The Performance Concept and Building Physics in Education of Building Professionals".
4. International Symposium on Energy, Moisture and Climate in Buildings, September, 1990, Rotterdam. Title of presentation: "Surface Condensation and Mould Growth: The Effects of Internal Finishing Materials".
5. International Symposium on Energy Efficient Buildings, March 1993, Stuttgart, Germany. Title of presentation: "Overall Thermal Performance of Buildings Subjected to Various Heating Patterns".
6. International Congress on Intelligent Buildings, Feb. 1995, Tel Aviv, Israel. Title of presentation: "Hybrid Systems in Intelligent Buildings".

7. International Workshop on New Developments in Performance Test Methods, Apr. 1995, Horsholm, Denmark. Titles of presentations:
 - 7a. "Development of a Performance Test Method - An Integrated approach".
 - 7b. "A Performance Test Method for Evaluating the Crack Resistance of Shrinkage Sensitive Construction".
8. Workshop on Building Serviceability, within the 8th International Conference on Durability of Building Materials and Components. Vancouver, Canada, May 1999. Title of presentation: "Ensuring Building Serviceability at the Design Stage".
9. 1st International SIF Workshop on "Structures in Fire", Copenhagen, Denmark, June 2000. Title of presentation: "Thermal and structural behavior of continuous steel construction under fire conditions".
10. 6th Symposium on "Building Physics in Nordic Countries", Trondheim, Norway, June 2002. Title of presentation: "Patterned Mold Growth on Rendered Facades as a Consequence of external Surface Condensation".
11. 11th Symposium on "Building Physics", Dresden, Germany. September 2002. Title of presentation: "2-D H&M Simulation for Dynamic Drying of Rendered Block Walls with Cementitious Joints".
12. 2nd International Building Physics Conference, Leuven, Belgium. September 2003. Title of presentation: "Upgrading energy efficiency, comfort and air quality in an Israeli school".
13. 3rd International Conference on Building Physics/Science, August 2006, Montreal, Canada. Title of presentation: "Sustainable construction - a simplified methodology for optimal design".
14. 3rd International Conference on Building Physics/Science, August 2006, Montreal, Canada. Title of presentation: "Thermal comfort in residential buildings with passive and active acclimatization".
15. The Thermal Performance of the Exterior Envelopes of Whole Buildings X International Conference December 2-7, 2007, Clearwater Beach, Fla, USA. Title of presentation: "Air Permeability and Thermal Performance of Concrete Block Wall Sections".
16. The 4th International Building Physics Conference "Energy Efficiency and New Approaches", June 2009, Istanbul, Turkey. Title of presentation: "Curtain wall air leakage – interrelation with construction details".

C. Refereed papers in conference proceedings

1. R. Becker, "Advice on Durability, in a Design Guide for Civil Engineers", Proc. of CIB Working commission W-60 Symposium, Performance Overtime/Durability, 1982, pp. 24-27.
2. R. Becker, "Developing Performance Criteria with Regard to Durability", 3rd International Conference on the Durability of Building Materials and Components, Aug. 1984, Espoo, Finland (refereed).
3. R. Becker, E. Barr, "Buildings for Industry - Performance Guidelines", CIB 86. Advancing Building Technology, Proc. of the 10th Triennial Congress, Washington 1986, pp. 2736-2746 (refereed).
4. R. Becker, A. Bentur, "A Facility for the Simulation of the Climatic Weathering of External Thermal Rendering Systems", Proc. of the 2nd International Symposium on Building Climatology, Moscow, 1987, pp. 400-406 (refereed).
5. R. Becker, "The Interrelation Between Air-Tightness, Internal Humidity Levels and Energy Losses in Buildings", Proceedings of the CIB, W40 Meeting, Boras, Sweden, 1987, 10 pp.
6. R. Becker, "Performance Requirements in Education and Training", Proceedings of the International Conference on "Performance Requirements in Building" (Luxemburg 1988), pp. 181-189 (Invited Key Paper).
7. R. Becker, "Implementation of the Overall Performance Concept in Building in Education of Civil Engineers", Proceedings of the International Workshop on Implementation of the Performance-Concept-in-Building in Education and Training, Lisbon, 1989, 4 pp.
8. R. Becker, "The Performance Concept and Building Physics in Education of Building Professionals", Proceedings of the International Workshop on Implementation of the Performance-Concept-in-Building in Education and Training, Lisbon, 1989.

9. A. Wiezel, R. Becker, "Development of a Computerized System for Evaluation of the Overall Performance of a Building", Proceedings of the International Conference on CAD/CAM and AMT, Jerusalem, 1989, Vol. 3.
10. A. Katz, R. Becker, "Thermal Conductivity Test of Moist Materials - Estimation of Error", Proceedings of the 9th International Heat Transfer Conference, August 1990, Jerusalem (refereed).
11. R. Becker, "Surface Condensation and Mould Growth: The Effects of Internal Finishing Materials", Proceedings of the CIB International Symposium on Energy Moisture and Climate in Buildings, Rotterdam, Sept. 1990, Vol. 1.
12. R. Becker, "Fungal Disfigurement of Construction - Analysis of the Effects of Various Factors", Proceedings of the International Workshop on Health Implications of Fungi in Indoor Environments, November 1992, Baarn, Netherlands. (Invited Paper). Air Quality Monograph - Vol.2' Health Implications of Fungi in Indoor Environments. Editors: R.A. Samson et al. Elsevier, Amsterdam, 1994. pp 361-380.
13. R. Becker, "Some Case Studies of Fungal Disfigurement of Construction in Israel", Proceedings of the Workshop on Health Implications of Fungi in Indoor Environments, November 1992, Baarn, Netherlands. (Invited Paper). Air Quality Monograph - Vol.2' Health Implications of Fungi in Indoor Environments. Editors: R.A. Samson et al. Elsevier, Amsterdam, 1994. pp 495-505
14. R. Becker, M. Paciuk, "Overall Thermal Performance of Buildings Subjected to Various Heating Patterns". Proceedings of the International Symposium on Energy Efficient Buildings, March 1993, Stuttgart, Germany, pp. 43-48. (Refereed).
15. R. Becker, "Employing the Performance Approach in the Investigation of New Building Systems", CIB Publication No. 157 on Some Examples of Application of the Performance Concept in Building. International Council for Building Research Studies and Documentation, May 1993.
16. R. Becker, "Different Ways to Operate Technical Approval of Products, Components and Sub-Systems in Building Construction", Proceedings of the International Seminar on Importance of Technical Approval in the Civil Construction Quality Development, June 1994, IPT - Cidade Universitaria San Paulo, Brasil, pp. 21-28. (Invited Paper).
17. R. Becker, "Ways for Investigation and Technical Approval of Building Systems in an Expanding Building Market", Proceedings of the International Seminar on Importance of Technical Approval in the Civil Construction Quality Development, June 1994, IPT - Cidade Universitaria San Paulo, Brasil, pp. 121-128. (Invited Paper).
18. M. Paciuk, R. Becker, "The Effect of Improved Thermal Insulation on Condensation and Mould Growth in Dwellings", Proceedings of the 3rd. International Conference on Healthy Building, Aug. 1994, Budapest, Hungary, Vol. 3, pp. 189-194.
19. R. Becker, "Hybrid Systems in Intelligent Buildings", Proceedings of the 1st. Intelligent Buildings International Congress, Feb. 1995, Stier Group, Tel-Aviv, ISRAEL, pp. 229-240. (Refereed).
20. M. Paciuk, R. Becker, "Effects of Heating Patterns on the Efficiency of Energy Use in Dwellings", Proceedings of the Conference on Technologies for Energy Efficiency and Environmental Protection, Mar. 1995, Cairo, Egypt, pp EE-7/33-41.
21. R. Becker, "Development of a Performance Test Method - An Integrated approach", CIB Publication No. 179: Proceedings of the International Workshop on New Developments in Performance Test Methods, April, 1995, Horsholm Denmark. pp. 15-25.
22. R. Becker, M. Paciuk, "Energy Loads in Office Buildings with Various Cooling Patterns", Proceedings of the 1996 International Symposium on Energy and Mass Flow in the Life Cycle of Buildings, Editor: Prof. Erich Panzhauser, Technical University, Vienna, Austria. pp. 369-374.
23. R. Becker, "Implementation of the Performance Concept - Future Research and Development Needs", Proceedings of the 3rd. International Symposium on Applications of the Performance Concept in Building, National Building Research Institute, Technion, Haifa, Isreal, Dec. 1996. pp. II-11 – II-21.
24. R. Becker, "Ensuring Building Serviceability at the Design Stage", Proceedings of the 8th International Conference on Durability of Building Materials and Components. Vancouver, Canada, May 1999, pp. 1841-1847.

25. R. Becker, "Thermal and structural behavior of continuous steel construction under fire conditions", Proceedings of the 1st International SIF Workshop on "Structures in Fire", Copenhagen, Denmark, June 2000. pp. 23-39.
26. M. Puterman, R. Becker, "Development of patterned stains on building facades: investigation of the phenomenon and its prevention", Proceedings of the 1st International RILEM Workshop on "Microbial Impact on Building Materials", San-Paulo, Brazil, July 2000. Edited by M. Ribas Silva, RILEM CD-ROM CD 02.
27. R. Katsman, and R. Becker, (2001), "A model for moisture-content evolution in porous building elements: treatment of irregular regions", eSim 2001-Canadian Conference on Building Energy Simulation, June 13th - 14th, Ottawa, Canada.
28. R. Becker, M. Puterman, "Patterned Mold Growth on Rendered Facades - A Consequence of Substrate Thermal Insulation ". Proceedings of the 6th Symposium on "Building Physics in Nordic Countries", Trondheim, Norway, June 2002. pp 667-674
29. M. Paciuk, R. Becker, "Predicted vs. Recorded Summer Thermal Responses in Air-conditioned and Naturally Ventilated Dwellings in Israel". Proceedings of the 9th International Conference on Indoor Air Quality and Climate, Indoor Air 2002, Monterey CA., USA, July 2002. Volume 5, pp 104-109.
30. R., Becker, "2-D H&M Simulation for Dynamic Drying of Rendered Block Walls with Cementitious Joints", 11th Symposium for Building Physics, Dresden, Germany. September 2002. Volume 2, pp 460-469.
31. R. Becker, and M. Paciuk, "Upgrading Energy Efficiency, Comfort and Air Quality in an Israeli School", in Proceedings of the 2nd International Conference on Building Physics, Leuven, Belgium, September, 2003, pp 929-935.
32. S. Pushkar, R. Becker, A. Katz, "A methodology for optimal design of sustainable buildings", Proceedings of the RILEM International Symposium on Environment-Consious Materials and Systems for Sustainable Development (ECM2004), Koriyama, Japan, September 2004, pp 229-237.
33. S. Pushkar, R. Becker, & A. Katz, "Sustainable construction - a simplified methodology for optimal design", The 3rd International Conference on Building Physics/Science, August 2006, Montreal, Canada, pp 877-885.
34. R. Becker, M. Paciuk, "Thermal comfort in residential buildings with passive and active acclimatization", The 3rd International Conference on Building Physics/Science, August 2006, Montreal, Canada, pp 747-755.
35. R. Becker, "Air Permeability and Thermal Performance of Concrete Block Wall Sections", Proceedings of The Thermal Performance of the Exterior Envelopes of Whole Buildings X International Conference, December 2-7, 2007, Clearwater Beach, Fa, USA.
36. R. Becker, "Curtain wall air leakage – interrelation with construction details", Proceedings of the 4th International Building Physics Conference "Energy Efficiency and New Approcahes", June 15-18, 2009, Istanbul, Turkey, pp 177-184.
37. R. Becker, "Thermal and energy performance of buildings with large internal loads in warm climates", Proceedings of the Building Environment – Science & Technology Conference (BEST-CN 2010), May 7-9, 2010, Nanjing, China, pp 28-43.
38. R. Becker, "Effects of PCM application on thermal and energy performance of buildings in summer", Proceedings of the Thermophysics 2010 Conference, November 3-5, 2010, Valtice, Czech Republic, pp 39-46.

D. Participation in organizing conferences

D1. Organization & Chairing of International Symposia, Meetings, Seminars, etc

1. Organization and Chairing of the CIB W60 meetings in Washington (1986), Haifa (1987), Luxemburg (1988), Istanbul (1991), Athens (1992).
2. Organization and Chairing of an International Workshop on "Implementation of the Performance-Concept-in-Building in Education and Training", 14-15 Feb. 1989, Instituto Superior Tecnico, Lisbon, Portugal.

3. Organization and Chairing of an International Workshop on "New Developments in Performance Test Methods", 10-12 April, 1995, Horsholm, Denmark.
4. Organization and Chairing of the International Symposium on "Applications of the Performance Concept in Building", Dec. 1996, Tel-Aviv, Israel.
5. Organization and Chairing of a Workshop on "Performance-Based Design of Structural Fire-Safety", in the 2001 ASCE Structures Congress, May 2001, Washington.
6. Organization and Chairing of the USA-Israel Workshop on "Sustainable Buildings – Materials and Energy", July 12-13, 2010 Haifa, Israel.

D2. Member of Scientific Committees for Congresses, Symposia, Conference, etc. (In addition to d1 above):

1. 13th. International CIB World Building Congress on Research and Technology Development as an Investment in the Construction Industry, May. 1995, Amsterdam, The Netherlands.
2. International Symposium on Moisture Problems in Building Walls, Sep. 1995, Porto, Portugal.
3. International Conference on Construction Modernization and Education, Oct. 1996, Beijing, China.
4. International Symposium on Energy and Mass Flow in the Life Cycle of Buildings, Aug. 1996, Vienna, Austria.
5. International Symposium on Intelligent and Responsive Buildings, March. 1999, Brugge, Belgium.
6. International Conference on Technology Watch and Innovation in the Construction Industry, April 2000, Brussels, Belgium.
7. 15th. International CIB World Building Congress on Performance in Product and in Process, April 2001, Wellington, New-Zealand.
8. International Conference on Sustainable Building, September 2002, Oslo, Norway.
9. 11th Symposium for Building Physics, September 2002, Dresden, Germany.
10. The 7th International Conference on Desert Technology, November 2003, Jodhpur, India.
11. The 3rd International Conference on Building Physics/Science, August 2006, Montreal, Canada.
12. the 4th International Building Physics Conference "Energy Efficiency and New Approaches", June 2009, Istanbul, Turkey.
13. 2010_BEST_CN Conference on building physics, May 2010, Nanjing, China.
14. Thermophysics 2010 Conference, Valtice, Czech Republic, November 2010.

D3. Chairman and Reporter of Sessions in International Congresses, Symposia, etc. (in addition to d1 above):

1. The 1st. International Congress on Intelligent Buildings, Apr. 1995, Tel-Aviv, Israel. Convenor of Workshop on What is an Intelligent Building?.
2. 13th. International CIB World Building Congress on Research and Technology Development as an Investment in the Construction Industry, May. 1995, Amsterdam, The Netherlands. Chairman of Session on Automation and Industrialization.
3. International Symposium on Moisture Problems in Building Walls, Sep. 1995, Porto, Portugal. Chairman and Commentator for the Session on Indoor Humidity Condensation and Mold.
4. The International NIST-SFPE Workshop on Fire Safety Design and Retrofit of Structures, Oct. 2003, Baltimore, USA. Chairman and Facilitator of Session on Design Fires - Modeling.
5. The 3rd International Conference on Building Physics/Science, August 2006, Montreal, Canada. Chairman of two sessions: i. Building Envelope – Wall testing, ii. Indoor environment – Indoor air quality.
6. the 4th International Building Physics Conference "Energy Efficiency and New Approaches", June 2009, Istanbul, Turkey. Chairman of two sessions: i. Building envelope systems, ii. Whole buildings – Sustainability and energy efficiency.

RESEARCH REPORTS (in Hebrew, unless noted otherwise)

1. Y. Tene, R. Becker, "An Experimental Investigation of Design Parameters for Plastic Hexahyp Shells", Civ. Eng. Technion, Haifa, Israel, No. 165, September 1971.
2. I.K. Mclvor, R. Becker, "Application of Mixture Theory to Soil Mechanics", Report to the NSF, March 1975 (in English).
3. C. Jaegermann, R. Becker et al, "Performance Specifications for Building Elements for Single and Multifamily Housing up to 4 Storeys", Building Research Station, Technion, Haifa, Israel, Final Report, 019-003, April 1978 (in Hebrew & English), 200 pp.
4. R. Becker, "The Air-Tightness of External Doors and Windows and their Influence on Energy Saving and Minimum Ventilation", Building Research Station, Technion, Haifa, Israel, Final Report 017-321/I, Sept. 1978, 87 pp.
5. R. Becker, "Prevention of Slip Hazards on Flooring", Building Research Station, Technion, Haifa, Israel, Final Report 017-321/III, Sept. 1978, 23 pp.
6. R. Becker, "Vertical Vibrations of Floors", Building Research Station, Technion, Haifa, Israel, Final Report 017-321/II, Sept. 1978, 54 pp.
7. R. Becker, "Plates Under Blast Loading - Sandwich Elements with a Soft Damping Layer, 1st Stage", Building Research Station, Technion, Haifa, Israel, Final Report 017-311, Nov. 1978, 87 pp.
8. R. Becker, C. Jaegermann, "The Influence of Water Absorption Capacity of Surface Materials on Visible Condensation", Building Research Station, Technion, Haifa, Israel, Final Report 017-321/IV, Oct. 1979, 84 pp.
9. C. Jaegermann, R. Becker, M. Relis, "Development of an Instrument for Testing the Scratch Resistance of Wall Coverings", Building Research Station, Technion, Haifa, Israel, Final Report 017-321/V, March 1980, 52 pp.
10. R. Becker, "A Literature Review of the Investigation Systems of New Building Methods in Europe, South Africa and Israel", Building Research Station, Technion, Haifa, Israel, May 1980, 22 pp.
11. C. Jaegermann, R. Becker et al, "A Document of Performance Specifications for Elements of High-Rise Buildings", Building Research Station, Technion, Haifa, Israel, Final Report 017-347, Dec. 1980, 100 pp.
12. R. Becker, "A Proposal for the Establishment of an Agreement System in Israel", Building Research Station, Technion, Haifa, Israel, Jan. 1981, 17 pp.
13. R. Becker, "Plates under Blast Loading - Sandwich Elements, etc., 2nd Stage", Building Research Station, Technion, Haifa, Israel, Final Report, 017-346, May 1981.
14. R. Becker, A. Getzler, "An Instrument for Testing the Resistance to Heat Flow of Heterogeneous Walls", Building Research Station, 017-386, July 1981, 29 pp.
15. R. Becker, "Design Guides for New Building Systems", prepared for the Ministry of Housing of Israel, Nov. 1981, 300 pp.
16. R. Becker, "Investigation of Resistance to Heat Flow of Hollow Block Walls, Continuation Series, Stage a", Building Research Station, 017-386, Dec. 1981, 7 pp.
17. R. Becker, "Investigation of Resistance to Heat Flow of Hollow Block Walls, Continuation Series, Stage b", Building Research Station, 017-386, June 1982, 5 pp.
18. R. Becker, J. Rektor, "The Actual Performance in Israel of Lightweight Building Systems for Housing", Building Research Station, 017-381, June 1982, 86 pp.
19. R. Becker, with the participation of J. Laks, "Developing a System for the Overall Performance Evaluation of Alternative Building Systems", Building Research Station, 6017-09, August 1982, 99pp.
20. R. Becker, A. Koren, "Investigation of the Mould Growth Problem in Dwellings Along the Coastal Region of Israel", Building Research Station, 6017-12, August 1983, 31 pp.
21. R. Becker, with the participation of A. Koren, "Mould Growth Problems in Dwellings, Stage 1", Building Research Station, 6017-12, Sept. 1983, 30 pp.
22. R. Becker, J. Laks, "The Possible Implementation of Lightweight Building Systems from Abroad in Israel - A Performance Analysis", Building Research Station, 017-381, Nov. 1983, 132 pp.
23. R. Becker, A. Koren, "Investigation of the Mould Growth Problem in Precast Concrete Buildings in Jerusalem", Building Research Station, 6017-12, May 1984, 13 pp.

24. R. Becker, E. Neeman, E. Barr, "Performance Guidelines for the Design of Standard Modular Buildings for Industry", Building Research Station, 017-385, April 1984, 246 pp.
25. R. Becker, J. Laks, "Fundamentals for Development of Specifications for Lightweight Building Systems, Part a: Subjects Related to Performance", Building Research Station, 017-381, Oct. 1984, 66 pp.
26. R. Becker, D. Carmel, "A Guide for the Diagnosis of Moisture Problems in Bathrooms and their Surroundings", Building Research Station, 017-377, Jan. 1985, 47 pp.
27. R. Becker, D. Carmel, J. Levin, with the participation of C. Jaegermann, E. Hoffman and T. Horn, "Solutions for the Thermal Insulation of Dwellings According to the Israeli Standard IS 1045", Building Research Station, 6017-27, 1985, 88 pp.
28. R. Becker, M. Puterman, S. Weisman, J. Laks, "The Influence of the Paint System on Mould Growth, Stage 2", Building Research Station, 6017-12, 1985, 73 pp.
29. R. Becker, E. Barr, M. Paciuk, "Procedure for the Development of Comprehensive Programmes for the Design of Non-Standard Buildings for Industry", Building Research Station, 017-385, 1985, 160 pp.
30. R. Becker, J. Nagar, "The Behaviour of Prestressed Concrete Slabs Under Fire", Building Research Station, 017-403, 1985, 220 pp.
31. A. Bentur, R. Becker, "A Proposal for the Specification of Thermal Renderings", Building Research Station, 6017-32, 1986, 23 pp.
32. R. Becker, with the participation of R. Miller, "Developing a 3-D Procedure for Estimating the Resistance to Heat Flow of Hollow-Concrete-Block Walls", Building Research Station, 017-386, 1987, 50 pp.
33. M. Puterman, R. Becker, with the participation of S. Weisman, J. Laks, "The Influence of Paint Systems and Interior Coatings on Mould Growth, Stage 3", Building Research Station, 6017-12, 1987, 22 pp.
34. R. Becker, M. Paciuk, "The Effect of Heating Patterns in Dwellings on Overall Thermal Performance", Building Research Station, RD-6-87, 1987, 79 pp.
35. R. Becker, D. Segal, "Survey of Condensation and Mould Growth Problems in Private Dwellings in the Coastal Region", Building Research Station, 1987, 38 pp.
36. R. Becker, M. Paciuk, "Verification of TARP by Comparison with Measurements in Monitored Unoccupied Dwellings Subjected to Various Heating Patterns", Building Research Station, RD-31-87, 1988, 126 pp.
37. R. Becker, A. Katz, "The Relationship Between Thermal Conductivity and Moisture Content of Masonry Materials", Building Research Station, 6017-35, 1988, 150 pp.
38. R. Becker, "Comparative Performance of Various Partitions", Building Research Station, 6017-57, 1988, 81 pp.
39. R. Becker, M. Paciuk, "Effect of Heating Patterns on Energy Conservation and Peak Consumption on the Dwelling and National Scale, Final Report No. 3", Building Research Station, RD-51-88, 1989, 78 pp.
40. R. Becker, with the participation of R. Miller, "Effect of Heating Patterns on Condensation Problems in Dwellings", National Building Research Institute, 017-434, 1990, 174 pp.
41. R. Becker, J. Levin et al, "Catalogue of Solutions for Thermal Insulation of Envelope Elements in Dwellings", National Building Research Institute, 1990, 100 pp.
42. R. Becker, E. Barr, M. Paciuk, "Performance Guidelines for the Design of Non-Standard Buildings for Industry", National Building Research Institute, 017-385, 1990, pp.
43. R. Becker, M. Paciuk, "The Effects of Building Factors on the Effectiveness of Energy Utilization in Typical Dwellings Subjected to Different Heating Patterns". National Building Research Institute, RD-07-90, 1990, 118 pp.
44. R. Becker, I. Berdichewski, N. Naveh, U. Korin, A. Rutenberg, "A Proposal for Concised Performance Specifications for Housing of Lightweight Building Systems", National Building Research Institute, 1990, 37 pp. (English translation available).
45. R. Becker, with the participation of R. Miller, "A Comparison of Analytical Results for Thermal Resistance of Masonry Walls with Laboratory Results", National Building Research Institute, 017-440, 1992, 58 pp.

46. R. Becker, A. Zajcek, "Effects of Building Material Properties on Fire Safety, Part 1", National Building Research Institute, 6017-89, 1992, 55 pp.
 47. R. Becker, M. Paciuk, "Follow-Up of the Thermal Performance of Dwellings Built According to the Updated Thermal Insulation Standard SI 1045", National Building Research Institute, 6017-86, 1992, 29 pp.
 48. A. Wiezel, R. Becker, "Development of a Computerized System for the Performance Integrated Design of Buildings, Stage 1: Detailed Design", National Building Research Institute, 017-441/1, 1993, 102 pp.
 49. A. Wiezel, R. Becker, "Development of a Computerized System for the Performance Integrated Design of Buildings, Stages 2,3: Preliminary Design", National Building Research Institute, 017-441/2/3, 1993, 125 pp.
 50. R. Becker, with the participation of B. Yurovitch, J. Zeharano, "Catalogue of Characteristic Building Details for Steel and Wood Construction", National Building Research Institute and the Ministry of Construction and Housing (Planning and Engineering Administration), 790-726, 1993, 100 pp.
 51. R. Becker, I. Shligerski, "Determination of the Moisture Content of Building Elements - part 1", National Building Research Institute, 6017-65/1, 1993, 112 pp.
 52. F. Goldman, A. Bentur, R. Becker, I. Soroka, "Ytong Masonry Walls: Effects of Construction Quality on Wall Performance", National Building Research Institute, 6017-14, 1994, 51 pp.
 53. H. Arkin, R. Becker, M. Paciuk, "Intelligent Buildings", National Building Research Institute, 017-464, 1994, 237 pp.
 54. R. Becker, with the participation of R. Miller, "Determination and Investigation of Solutions for Steel Thermal Bridges in Building Walls", National Building Research Institute, 6017-13, 1994, 103 pp.
 55. R. Becker, I. Shligerski, "Determination of the Moisture Content of Building Elements - part 2", National Building research Institute, 6017-65/2, 1995, 74 pp.
 56. M. Paciuk, R. Becker, "Optimization of Heating Patterns for Various Building Construction Types", National Building Research Institute, 5017-17, 1995, 102 pp.
 57. M. Paciuk, R. Becker, "Optimization of Cooling Patterns for Office Buildings - Preliminary Investigation", National Building Research Institute, 5017-17, 1995, 29 pp.
 58. R. Becker, I. Shligerski, "Requirements for Fire Resistance of Building Elements - part 1", National Building Research Institute, 017-528/1, 1996, 64 pp.
 59. R. Becker, I. Shligerski, "Air-tightness of the Built Parts of the Building Envelope", National Building Research Institute, 017-527, 1996, 29 pp.
 60. J. Mamman, H. Arkin, M. Paciuk, R. Becker, "Investigation of Internal Air Quality in Israeli Buildings - Stage 1, Literature Survey", National Building Research Institute, 017-546, 1997, 97 pp.
 61. R. Becker, M. Puterman, "Investigation of Capillary Moisture Ingress Through Foundation Beams, Stage 1", National Building Research Institute, 017-576, 1997, 108 pp.
 62. M. Puterman, R. Becker, "Preventive Measures to Avoid the Development of Mold Stains on Building Facades", National Building Research Institute, 017-605, 1998, 32 pp.
 63. R. Becker, U. Korin, E. Blujger, E. Karni, "Development of a Comprehensive Set of Performance Testing Methods for Curtain Walls", National Building Research Institute, 017-585, 1999, 89 pp.
 64. A. Warszawski, R. Becker, Y. Rosenfeld, "Building Industrialization - Difficulties and Ways for Resolution" National Building Research Institute, 017-633, 1999, 129 pp.
 65. R. Becker, E. Shaviv, "Building Energy-Code - A Proposal for Contents and Implementation Means", National Building Research Institute, 2000, 76 pp.
 66. R. Becker, chapter No.1 on "Preface and Integration", Part C. pp. 1-18.
M. Poreh, R. Becker & S. Netanel, chapter No.3 on "Fire Safety", Part C. pp. 42-111.
R. Becker, chapter No.5 on "Building Envelope", Part C. pp. 119-129.
- In the report "An Examination of High Rise Building - Stage 1, Literature Review", by A. Churchman, R. Becker, A. Warszawski, with the participation of A. Mann, A. Shenar, R. Alterman, A. Frenkel, E. Shaviv, A. Hanaor, S. Frydman, M. Poreh, Center for Urban Studies, and the National Building Research Institute, 021-734, 2000.

67. A. Furshpan, S. Rubin, R. Becker, Y. Benjamini, "Classification of Settlements for the Purpose of Thermal Insulation According to Defined Climatological Criteria", Ministry of Transport - Israel Meteorological Service, 2000. 109 pp.
 68. M. Paciuk, R. Becker, "Investigation of Thermal Comfort in Residential Buildings and the Factors Affecting it under Local Conditions – Stage 1", National Building Research Institute, 2001, 017-604/1 55 pp.
 69. R. Becker, chapter No.1 on "Preface and Integration", Part C. pp. 1-6.
M. Poreh, R. Becker & S. Netanel, chapter No.3 on "Fire Safety", Part C. pp. 18-49.
R. Becker, chapter No.5 on "Building Envelope", Part C. pp. 56-64.
- In the report "An Examination of High Rise Building - Stage 2, Present Situation", by A. Churchman, R. Becker, A. Warszawski, with the participation of A. Mann, A. Shenar, R. Alterman, A. Frenkel, E. Shaviv, A. Hanaor, S. Frydman, M. Poreh, Center for Urban Studies, and the National Building Research Institute, 021-734, 2001.
70. R. Becker, M. Puterman, "Development of Mold Stains on Building Facades - Causes and Preventive measures. Stage 2", National Building Research Institute, 017-605/2, 2002, 50 pp.
 71. R. Becker, A. Hanaor, S. Frydman, M. Poreh, M. Paciuk, and partners, "An Examination of High Rise Building, Engineering Aspects - Stage 3, Conclusions and Recommendations", Center for Urban Studies, and the National Building Research Institute, 021-734, 2002. 131 pp.
 72. R. Becker, M. Paciuk, I. Goldberger, "Development of a data base for the implementation of climate and energy conscious design and construction principles in education buildings – Stage I". Ministry of National Infrastructures Division of Research and Development, MONI-RD-2003, National Building Research Institute, 017-710/1. 2003. 73 pp.
 73. M. Paciuk, R. Becker, "Thermal Comfort in Residential Buildings and Factors Affecting it Under Local Conditions – Final Report". National Building Research Institute, 017-604/2, 2003, 84 pp.
 74. R. Becker, "Condensation and Mold Problems in Sheltered Rooms – Stage 1". National Building Research Institute, 100-4785, Interim Report 2005, 31 pp.
 75. A. Warszawski, R. Becker, A. Katz, R. Navon, Y. Frostig, S. Frydman, "Strategic Plan for the Advancement of Building Research". National Building Research Institute, 200-4084, 2005, 210 pp.
 76. R. Becker, "Condensation and Mold Problems in Sheltered Rooms – Stage 1". National Building Research Institute, 100-4785, Final Report 2006, 124 pp.
 77. R. Becker, M. Paciuk, I. Goldberger, I. Shohet, "Development of a Data Base for the Implementation of Climatic and Energy Conscious Design and Construction Principles in Education Buildings". National Building Research Institute, 200-3689, 2007, 220 pp.
 78. R. Becker, with the participation of A. Hanaor, M. Puterman, S. Schwarz, "Development of an Experimental Facility for Performance Testing of External Walls – Air and Water Permeability Testing of Walls with Dry Joints". National Building Research Institute, 200-4941, 2007, 48 pp.
 79. R. Becker, D. Shamir, "Thermal actions on bridges – Stage 1, Concrete slab and concrete beam bridges". National Building Research Institute, 200-7446, 2008, 115 pp.
 80. R. Becker, S. Schwarz, S. Frydman, M. Ben-Bassat, with the participation of R. Blan, A. Bronfman, G. Golan, R. Cohen, M. Marton, "Quality Control Self Testing Engineering, Architectural and Performance Aspects – Stage I". National Building Research Institute, 200-9736, 2010, 383 pp.
 81. R. Becker, E. Beagon, "Feasibility study for optimal integration of phase change materials, PCM, in building elements for achieving major energy savings – 1st year (Stage 1)". National Building Research Institute, 201-1047, 2010, 128 pp.

OTHER REPORTS

Reports of Technical Opinions on Building Systems

- A. Investigation Headed and Report Authored by R. Becker:
1. R. Becker et al, "Van Deck Bld. Sys., by Sycco Co. Ltd." (High-rise buildings made of precast R.C. wall panels with cast in-situ floors on precast R.C. skin slabs). July 1980, 50 pp.
 2. R. Becker et al, "Sigma Bld. Sys., by Urban Design and Buildings Co. Ltd." (4-story buildings made of prefabricated modular 3-D units composed of bolted 6 precast R.C. panels and slabs). July 1980, 44 pp.
 3. R. Becker et al, "Schechter - Spatial Structures, by M. Schechter Co. Ltd." (4-story buildings made of prefabricated modular 3-D units composed of hollow-tube steel structure, R.C. floors and precast concrete claddings), Aug. 1981. Modified and updated July 1991, 43 pp.
 4. R. Becker et al, "Building Method for Stone Covered Ytong Walls, by Ytong Co. Ltd." (Cavity wall of autoclaved aerated concrete blocks covered by mechanically fastened thin stone plates), Dec. 1984, 18 pp.
 5. R. Becker et al, "Amcon Bld Sys., by Amcon Buildings Co. Ltd." (Low-rise buildings made of wood frame construction, and in-situ lightweight claddings and finish), Aug. 1990, 33 pp.
 6. R. Becker et al, "Westcost Bld Sys., by Westcost Development Co. Ltd." (Low-rise buildings made of wood frame construction and in-situ lightweight claddings and finish), Aug. 1990, 39 pp.
 7. R. Becker et al, "Betony-p-Falco-Facombinat Bld. Sys., by D.M. Sinai Ltd." (Low-rise buildings made of prefabricated closed wood frame lightweight panels, with an external EPS insulation system applied in-situ), Aug. 1990, 69 pp.
 8. R. Becker et al, "Isorast-Neot-Eden Bld. Sys., by Neot-Eden Bld. Co. Ltd." (4-story buildings made of in-situ concrete walls cast into polystyrene hollow blocks with regular R.C. floors and fire protective internal finish), Aug. 1990, 27 pp.
 9. R. Becker et al, "Advanced Building Construction Corporation Bld. Sys., by A.A.C.C. Co. Ltd." (Low-rise buildings made of lightweight steel frames from cold formed studs and joists, R.C. floor on corrugated form deck, and in-situ lightweight claddings and finish), Oct. 1990, 32 pp.
 10. R. Becker et al, "Rein Bld. Sys., by the Cantor/Seinuk Group Ltd." (4-story buildings made of in-situ concrete walls and floors sprayed upon prefabricated reinforcement-insulation panels), Oct. 1990, 23 pp.
 11. R. Becker et al, "Pinto Curtain Walls, by S. Pinto" (Prefabricated curtain walls made of wood frame construction and G.F.R.C. cladding, with in-situ insulation and internal cladding), Oct. 1990, 18 pp.
 12. R. Becker et al, "Monolite - Yang-Alum, by Yang-Alum Co. Ltd. (Low-rise and 4-story buildings made of in-situ concrete walls and floors sprayed upon, or cast into, prefabricated reinforcement-insulation double-panels, with sprayed stucco), Oct. 1990, 43 pp.
 13. R. Becker et al, "Schechter - Low-Rise, by M. Schechter Co. Ltd." (Single-story buildings made of large precast thin R.C. wall panels and hollow prestressed floor slabs, with dry joints and finish), Oct. 1990, 42 pp.
 14. R. Becker et al, "Industrialized Israeli Building Method, by BIM Co." (Building method for speedy production of hot-steam cured prefabricated R.C. elements by means of a "moving belt"), Jan. 1991, 6 pp.
 15. R. Becker et al, "Kav Hayzur Bld. Sys., by Eng. Jaque Sudai" (Single-story buildings made of prefabricated modular 3-D units composed of a monolithic R.C. structure), Jan. 1991, 19 pp.
 16. R. Becker et al, "A.A. Gafni Bld. Sys., by A.A. Gafni Building and Investment Co. Ltd." (Single-story buildings made of prefabricated modular 3-D units composed of a monolithic R.C. structure), Feb. 1991, 16 pp.
 17. R. Becker et al, "Seibek-Alkon Bld. Sys., by Seibek Co. Ltd." (Single-story buildings made of large L-shaped precast R.C. wall panels and hollow prestressed floor slabs), Feb. 1990, 50 pp.

18. R. Becker et al, "Eurohouse Bld. Sys., by Eurotech Bld. Ser. Co. Ltd." (5-story buildings made of hot-rolled steel columns and beams, with composite floors of concrete on cold formed corrugated steel slab-deck, and aluminium sheeted curatin walls), Apr. 1991, 67 pp.
19. R. Becker et al, "Airkrete Thermal Insulation, by Mei Hasharon Co. Ltd." (Highly lightweight cementitious thermal insulation for wall and roof cavities), Apr. 1991, 5 pp.
20. R. Becker et al, "Granitul Bld. Sys., by Z. Elimelech Fraternity" (High-rise buildings made of precast R.C. wall panels and floor slabs with cast in-situ joints), May 1991, 29 pp.
21. R. Becker et al, "Modul-System Bld. Sys., by Apropim Co. of Commerce Ltd." (Single-story buildings made of prefabricated closed wall panels, with a hot rolled steel structure and polyurethane core, and hollow prestressed floor slabs), July 1991, 32 pp.
22. R. Becker et al, "Hatachof-Tal Curtain Walls, by Hatachof Co. Ltd." (Prefabricated curtain walls made of cold formed steel runners and wood studs with polyurethane core), Sept. 1991, 33 pp.
23. R. Becker et al, "Dirof Elite Bld. Sys., by Dirof Elite Co. Ltd." (5-story buildings made of lightweight steel frames composed of cold formed steel studs and joists, and a corrugated steel slab-deck, with lightweight wall and floor claddings, and an EPS external insulation system), Oct. 1991, 45 pp.
24. R. Becker et al, "Tilden-Metframe Bld. Sys., by Tilden Industries Ltd." (5-story buildings made of lightweight steel frames composed of cold formed studs, with composite floor of steel truss and in-situ concrete slabs), Oct. 1991, 34 pp.
25. R. Becker et al, "Romano Bld. Sys., by Romano Buildings Co. Ltd." (Single-story buildings made of prefabricated modular 3-D units composed of a monolithic R.C. structure), Nov. 1991, 19 pp.
26. R. Becker et al, "Shdemot 1990 Bld. Sys., by Shdemot Kfar Sava Ltd." (Single-story buildings made of lightweight steel frame from cold formed sections, and in-situ lightweight cladding with cast cementitious insulation in wall cavities), Dec. 1991, 34 pp.
27. R. Becker et al, "Peretz Bonei Hanegev-Dotan-Taza Bld. Sys., by Peretz Bonei Hanegev Co. Ltd." (High-rise buildings made of hot-rolled steel columns and beams, with composite floors of in-situ concrete on cold formed corrugated steel slab-deck, and precast concrete curtain walls), Dec. 1991, 54 pp.
28. R. Becker et al, "Danior Bld. Sys., by Danior Industries and Development Ltd." (Low-rise buildings made of steel columns with prefabricated closed panel floor slabs composed of steel beams and wood joists, and with panelized curtain walls with a wooden frame), Dec. 1991, 71 pp.
29. R. Becker et al, "C.C.S. Bld Sys., by M.S.G. Building and Development Co. Ltd." (4-story buildings made of lightweight steel frames composed of cold formed studs, with R.C. slabs cast in-situ on molded polystyrene blocks, with G.F.R.C. external cladding and internal gypsum boards), Feb. 1991, 42 pp.
30. R. Becker et al, "Almor Bld. Sys., by Almor Ltd., Industrialized Housing" (Single-story buildings made of prefabricated panels composed of lightweight steel sections with integral external steel cladding and internal wall board separated from the steel structure by thermal bridge breakers). January 1991, 48 pp.
31. R. Becker et al, "KBS Bld. Sys., by TAAS Ltd." (Single-story buildings made of prefabricated modular 3-D units composed of a tubular steel structure with lightweight walls, floor and roof). June 1992, 56 pp.
32. R. Becker et al, "Avnei Derech Bld Sys., by Avnei Derech Industries Development Ltd." (Single-story buildings made of prefabricated modular 3-D units composed of lightweight steel frames from cold formed sections and lightweight walls, floor and roof). July 1992, 89 pp.
33. R. Becker et al, "Rolan - Low-Rise Bld. Sys., by Rolan Ltd." (Single-story buildings made of prefabricated modular 3-D units constructed of lightweight steel frames composed of cold formed studs, with R.C. slabs on steel-deck and lightweight walls and roof). July 1992, 92 pp.
34. R. Becker et al, "Rolan - Industrialized, Residential Bld. Sys., by Rolan Ltd." (4-story buildings made of prefabricated 3-D units with a hot rolled steel structure, R.C. floors on a steel-deck and lightweight walls, ceilings and roof). Sept. 1992, 50 pp.

B. Participation in Investigation and Co-Author of Reports Headed by Others:

1. M. Adin, R. Becker, "Flexdeck Composite Slab, by Flexer Steel (Holdings) Co. Ltd." (Composite slabs made of in-situ cast concrete on cold formed flat steel slab-deck), March 1980, 8 pp.
2. M. Adin, R. Becker, et al, "Kalkarit-Kaltek Bld. Sys., by Ein Carmel Ltd." (4-story buildings made of in-situ concrete walls cast into polystyrene hollow blocks, with R.C. floors cast upon polystyrene forms and fire protective internal finish), March 1991, 23 pp.
3. M. Adin, R. Becker, et al, "Multifolded Bld. Sys., by Tashloz Co. Ltd." (4-story buildings made of precast R.C. walls and whole story floors, interconnected with rotational joints), March 1991, 28 pp.
4. M. Adin, R. Becker, et al, "Bulgarian Panel-Fabs Bld. Sys., by Hadar Tveria Co. Ltd." (High-rise buildings made of precast R.C. wall panels and floor slabs, with cast in-situ joints), March 1991, 61 pp.
5. M. Adin, R. Becker, et al, "Schechter - Stratified-Buildings Bld. Sys., by M. Schechter Co. Ltd." (3-story buildings made of large precast thin R.C. wall panels and hollow prestressed floor slabs, with dry joints and finish), May 1991, 81 pp.
6. A. Bentur, R. Becker, et al, "MasterClad Boards for External Application, by Ashban Co. Ltd." (Cellulose fiber reinforced cement boards for external cladding of external walls), July 1991, 10 pp.
7. M. Adin, R. Becker, et al, "Menrav Bld. Sys., by Menrav Eng. and Building co. Ltd." (Single-story buildings made of load bearing autoclaved aerated concrete blocks and lightweight roof), Aug. 1991, 27 pp.
8. U. Korin, R. Becker, et al, "Sharon-Eilon Bld. Sys., by Ramat Hashofet Wood Factory Ltd." (Single-story buildings made of prefabricated open face wood frame panels with lightweight in-situ claddings and finish), Aug. 1991, 34 pp.
9. U. Korin, R. Becker, et al, "Valhalla Bld. Sys., by Link Co. Ltd." (Low-rise buildings made of wood frame construction, and in-situ lightweight claddings and finish), Sept. 1991, 55 pp.
10. M. Adin, R. Becker, et al, "Pelles House Bld Sys., by Peles Industrialized Buildings (Yavne) 1990 Ltd." (Single-story buildings made of load-bearing autoclaved aerated concrete slabs and lightweight roof), Oct. 1991, 20 pp.
11. U. Korin, R. Becker, et al, "Mateh Benjamin Bld. Sys., by Mateh Benjamin Co. Ltd." (Low-rise buildings made of closed prefabricated wood frame panels, with external silicate brick veneer), Oct. 1991, 33 pp.
12. A. Bentur, R. Becker, et al, "Durock Boards for External Application, by Yehuda Import and Export Ltd." (Cement boards with glass fiber surface meshes for external cladding of external walls), Oct. 1991, 10 pp.
13. U. Korin, R. Becker, et al, "Batei Haemek Bld. Sys., by Batei Haemek Co. Ltd." (Single-story buildings made of 3-D prefabricated modular units composed of wood frame construction and lightweight claddings and finish), Oct. 1991, 45 pp.
14. M. Adin, R. Becker, et al, "WaffleCrete Bld. Sys., by Mador Ad Co. Ltd." (4-story buildings made of precast thin wall and floor slabs, with bolted connections and dry joints and finish), Oct. 1991, 66 pp.
15. U. Korin, R. Becker, et al, "Premier Bld. Sys., by Yehuda Shtang and Sons" (Low-rise buildings made of prefabricated open faced wood frame panels with lightweight in-situ claddings and finish), Nov. 1991, 45 pp.
16. A. Hanaor, R. Becker, et al, "Tronco Bld. Sys., by Adler Group Ltd." (Low-rise buildings made of lightweight cold forms steel studs supported by patented steel tubes, with lightweight claddings and finish), Nov. 1991, 57 pp.
17. A. Hanaor, R. Becker, et al, "Insper Bld. Sys., by Advanced Building Technologies Co. Ltd." (4-story buildings made of hot rolled steel columns and beams, with composite floors of in-situ concrete on cold formed corrugated steel slab-deck, and precast concrete curtain walls), Dec. 1991, 57 pp.
18. A. Hanaor, R. Becker, et al, "NuSteel Bld. Sys., by Y. Shamir" (Low-rise buildings made of lightweight steel frames from cold formed studs and joists, composite concrete slab-deck floor, internal gypsum boards and external brick veneer), Dec. 1991, 57 pp.
19. M. Adin, R. Becker, et al, "G.M.S. Bld. Sys., by Arch. G. Yeger" (Low-rise and high-rise buildings made of in-situ concrete walls and floors sprayed upon, or cast into, prefabricated reinforcement-insulation panels), Dec. 1991, 22 pp.

20. M. Adin, R. Becker, et al, "Structherm Bld. Sys., by Structherm Ltd." (Low-rise buildings made of concrete walls and floors sprayed upon prefabricated reinforcement-insulation panels), Dec. 1991, 31 pp.
21. U. Korin, R. Becker, et al, "Randor Bld. Sys., by Randor Co. Ltd." (Low-rise buildings made of closed prefabricated wood frame panels, with truss-joist floors, and lightweight claddings and finish), Feb. 1992, 54 pp.
22. U. Korin, R. Becker, et al, "Strattan Homes Bld Sys., by D.Z.G. International Industrialized Building Co. Ltd." (Single-story buildings made of 3-D prefabricated modular units composed of wood frame construction and lightweight claddings and finish), Feb. 1992, 36 pp.
23. U. Korin, R. Becker, et al, "Modular Bld. Sys., by Malibu co. Ltd." (Single-story buildings made of 3-D prefabricated modular units composed of wood frame construction and lightweight claddings and finish), Feb. 1992, 55 pp.
24. U. Korin, R. Becker, et al, "I.G.L. Bld. Sys., by Malibu Ltd." (Single-story buildings made of closed prefabricated wood frame panels, with an EPS external insulation system), Jan. 1992, 50 pp.
25. A. Hanaor, R. Becker, et al, "Yavil Shladot Bld. Sys., by Yavil Shladot Industries" (Single-story buildings made of prefabricated wall and roof panels from composite steel-and-concrete slabs, with lightweight internal partitions), January 1992, 50 pp.
26. M. Adin, R. Becker, et al, "I.C.P.M.C. Bld. Sys., by Granit Structures Ltd." (Low-rise buildings made of load-bearing autoclaved aerated concrete slabs and reinforced concrete floors and roof), March 1992, 60 pp.
27. U. Korin, R. Becker, et al, "EMC - Retan Bld. Sys., by E.M.C. Ltd." (Low-rise buildings made of closed prefabricated wood frame panels, with wood joist floors and lightweight claddings), May 1992, 74 pp.
28. A. Hanaor, R. Becker, et al, "Curtain Walls with Energex Cladding, by Ashban Building co., Ltd." (Curtain walls made of lightweight steel frames, gypsum wall-boards and an external insulation system of Energex), August 1992, 35 pp.
29. U. Korin, R. Becker, et al, "Bld. Sys. Hamon Sobelco, by Shponder Joshua, Investments and Building Ltd." (Single-Story buildings made of closed prefabricated wood frame panels with external rendering on XPM lath), August 1992, 41 pp.
30. U. Korin, R. Becker, et al, "Pohjola Talot Bld Sys., by Pirkanmaan Rakennustucts Oy" (Low-rise buildings made of prefabricated closed wood frame panels, and a wood joist floor, with external anchored veneer of natural stone), September 1992, 70 pp.
31. M. Adin, R. Becker, et al, "Spandeck Bld. Sys., by Meiden-Investments Co. Ltd." (4-story buildings made of prestressed concrete slabs and walls with integrated thermal insulation and some curtain walls. With cast in-situ structural connections). Sept. 1992, 92 pp.
32. M. Adin and R. Becker, "Dom Bld. Sys., by Sharbiv Ltd." (High-rise buildings made of precast concrete slabs and walls, with integrated thermal insulation and cast in-situ structural connections). Sept. 1992, 44 pp.
33. M. Adin and R. Becker, "Buk 2 Bld. Sys., by Engel-Islaf Ltd." (High-rise buildings made of precast concrete columns, shear walls and floor slabs, with dry-mounted thermal insulation and wood flooring). Oct. 1992, 41 pp.
34. M. Adin, R. Becker, et al, "Bld. Sys. with Load-Bearing Silicate Walls, by Akershtein Industries, Ltd." (Low-rise buildings with load-bearing silicate-brick walls and cast in-situ concrete slabs and lightweight roof), Nov. 1992, 34 pp.
35. U. Korin, R. Becker, et al, "Gidon Nemesh Bld. Sys., by Gidon Nemesh" (Low-rise buildings made of closed prefabricated wood frame panels, with external silicate brick veneer), Dec. 1992, 44 pp.
36. M. Adin, R. Becker, "Bld. Sys. Kalkir, by Kalkar Ein Carmel" (4-Story buildings made of in-situ concrete walls cast into polystyrene hollow thermal insulation forms, with R.C. Floors cast upon polystyrene forms and fire protective internal finish), Jan. 1993, 22 pp.
37. U. Korin, R. Becker, et al, "Bld. Sys. Viceroy, by Canada-Ashdod Projects and Building Ltd." (Low-rise buildings made of wood frame construction, and in-situ lightweight cladding and finish), March 1993, 43 pp.

38. M. Adin, R. Becker, et al, "Bld. Sys. Durisol, by Ter-Arme Ltd." (5-Story buildings made of in-situ concrete walls cast into wood-cement blocks, with R.C. floors), March 1993, 26 pp.
39. A. Hanaor, R. Becker, et al, "Bld. Sys. Abkins Homes, by Vehicle Industries Ltd." (Low-rise buildings made of closed prefabricated steel-frame panels, combined with internal wood studs and floor joists), March 1993, 114 pp.
40. A. Goldman, R. Becker, et al, "Bld. Sys. Prikon" (Precast Concrete Panel Residential Buildings), March 1997, 38 pp.
41. S. Shwartz, R. Becker, "Bld. Sys. Isorast-Polivid" (6-Story buildings made of in-situ reinforced-concrete walls cast into polystyrene hollow thermal insulation forms), June 1998, 37 pp.