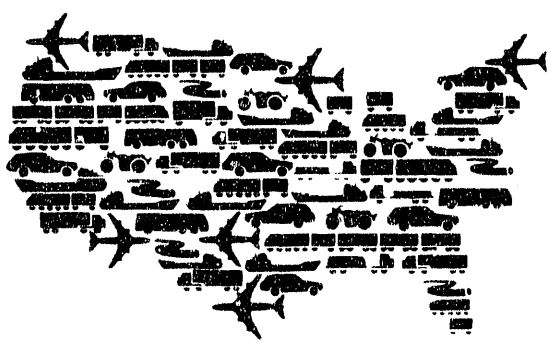


3/13/92 JSD

Publications on Maglev Technologies



**Center for Transportation Research
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Publications on Maglev Technologies

by J.L. He, H.T. Coffey, D.M. Rote, and Z. Wang

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Publications on Maglev Technologies

by

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Introduction

Magnetically levitated passenger-transportation vehicles, using attractive and repulsive magnetic forces, are currently in the development or prototype-revenue stages in Japan and Germany. The basic principles of these technologies have been understood for several decades, but their practical applications awaited advances in high-power electronic devices, modern controls, superconducting magnets, and improvements in our transportation infrastructures.

A considerable amount of work was devoted to magnetic-levitation (maglev) transportation systems in the late 1960s and the 1970s. Detailed development was sustained primarily in Germany and Japan. The literature on the subject spans more than 20 years.

This listing of publications was begun as the initial phase of a design study for a maglev development facility sponsored by the State of Illinois. The listing has been continually updated under programs sponsored by the Federal Railroad Administration (FRA) and the U.S. Army Corps of Engineers (COE). In 1991, the National Maglev Initiative, managed by the FRA, COE, and the U.S. Department of Energy, issued 27 contracts for the study of technical issues related to maglev and four contracts for the definition of maglev systems. In December 1991, the Intermodal Surface Transportation Efficiency Act was enacted, mandating the development of a U.S.-designed maglev system in a six-year period. This listing is offered as an aid to those working on these projects, to help them locate technical papers on relevant technologies.

The design and installation of a maglev transportation system will require the efforts of workers in many disciplines, from electronics to economics to safety. Accordingly, the references have been grouped in 14 different sections to expedite review of the listing. In many cases, the references are annotated to indicate the general content of the papers. Abstracts are not available. Appendix A provides a list of information services from which the listed documents might be obtained. Appendix B constitutes an author index, provided to assist the reader in finding the work of particular individuals.

1 Economic and Technical Feasibilities

TECHNICAL FEASIBILITY OF MAGNETIC LEVITATION AS A SUSPENSION SYSTEM FOR HIGH-SPEED GROUND TRANSPORTATION VEHICLES

Davis, L. C.; Reitz, J. R.; Wilkie, D. F.; Borcherts, R. H.
U. S. Dept. of Transp., Federal Railway Administration, Rep. FRA-RT-72-40, Feb. 1972

THE FEASIBILITY OF MAGNETICALLY LEVITATING HIGH-SPEED GROUND VEHICLES

Coffey, H. T.; Chilton, F.; Hoppie, L.O.
Prepared by Stanford Research Inst. for U.S. DOT, FRA, Rep. FRA-RT-72-39, Feb. 1972
NTIS (PB-210505)

MAGNETIC SUSPENSION FOR GUIDED TRANSPORT VEHICLES

Bunting, P.M.
Transportation Planning & Technology, Vol. 1, No. 1, April 1972, pp. 49-74
(TRIS No. 242247 DA) (*Survey and introductions*)

PROBLEMS ARISING IN CONNECTION WITH THE USE OF SUPERCONDUCTOR COILS IN A PASSENGER TRANSPORT SYSTEM

Autruffe, H.
Laboratorio Naz del Com Naz per l'Energ Nucl, Frascati, Italy, pp. 468-476
(TRIS No. 136416 DA)

AN ECONOMIC ASSESSMENT OF HIGH SPEED TRANSPORTATION IN THE CANADIAN CORRIDOR

Boon, C. J.; Eastham, A. R.; Schwier, C.
The Second Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982,
pp. 142-151
(*Economic evaluation with data analysis*)

SUBSTITUTION EFFECTS OF MAGLEV ON THE FRANKFURT-PARIS ROUTE

Schmitt, A.
Electr. Veh. Dev., No. 17, Summer 1983, pp. 14-15, 20
(NTIS No. 84-03 06459)

ESSENTIAL TECHNIQUES IN MAGLEV TRANSPORTATION

Sato, Y.; Hasegawa, Y.; Ishizuka, H.
Q. Rep. Railw. Tech. Res. Inst. (Jpn), Vol.25, No.1, 1984, pp. 13-18
(NTIS No. 84-09 07680)

HIGH-SPEED RAIL SYSTEMS IN THE UNITED STATES

Bondada, A.; Dondiego, R. L.; Harrison, J.; Kikuchi, S.; et al.
J. Transp. Eng., Vol.111, No.2, March 1985, pp. 79-94
(NTIS No. 85-04 03953)

GENERAL SURVEY OF THE POSSIBLE APPLICATIONS AND DEVELOPMENT TENDENCIES OF MAGNETIC LEVITATION TECHNOLOGY

Rogg, D.
IEEE Trans. Magn., Vol. Mag-20, No.5, Sept. 1984, pp. 1696-1707
(NTIS No. 85-07 10176)

STATUS, PROSPECT, AND FACTORS AFFECTING U.S. DEVELOPMENT OF MAGLEV TRANSPORTATION TECHNOLOGY

Norris, G. A.
SAE Tech. paper Ser. 841735, 1984, 25pp.
(NTIS No. 86-07 00088)

A FEASIBILITY STUDY ON ELECTROMAGNETIC SYSTEMS AND LINEAR MOTORS IN JAPAN

Iguchi, M.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 303-310

(Cost evaluations)

FEASIBILITY STUDIES FOR MAGLEV CONNECTIONS IN GERMANY

Polifka, F.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 289-293

(A plan of feasibility studies)

THE TRANSPRAPHIC MAGLEV SYSTEM - PROSPECTS OF APPLICATION

Hebler, H.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 285-288

(Feasibility studies)

DEMAND POTENTIALS FOR MAGLEV PASSENGER TRANSPORT IN EUROPE

Eberlein, D.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 277-284

(Market forecast)

THE TRANSPRAPHIC MAGLEV SYSTEM - ITS PROSPECTS FOR APPLICATION

Hessler, H., and Wackers, M.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 257-267

(General concept, feasibility studies, and future prospects)

TGV OR MAGLEV-EUROPEAN EXPERIENCE AND NORTH AMERICAN CHOICE

Blumstein, J. C., and Brand, N. M.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 21-25

(Feasibility studies)

MAGLEV: THE URBAN MARKET

Barber, J. B.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 13-20

(Market forecast)

FEASIBILITY OF THE MAGLEV TRANSPORT IN URBAN AND REGIONAL APPLICATIONS

Masada, E., and Tamura, M.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 7-11

(Feasibility studies)

SUPER-SPEED GROUND TRANSPORTATION SYSTEM - LAS VEGAS/SOUTHERN CALIFORNIA CORRIDOR, PHASE II: MAGLEV TECHNOLOGY ASSESSMENT

CIGGT

Canadian Institute Guided Ground Transport, Rep. CIGGT 86-09, Queen's Univ., Kingston, Ontario, Canada, July 1986.

LAS VEGAS TO SOUTHERN CALIFORNIA SS-GTS, PHASE II: ORGANIZATIONAL/FINANCIAL ANALYSIS

Harman, R. J.; & Associates

Prepared for the City of Las Vegas, Nev., March 1987

HIGH-SPEED GROUND TRANSPORTATION TECHNOLOGIES FOR THE LAS VEGAS - SOUTHERN CALIFORNIA CORRIDOR

Boon, C. J.; Hayes, W. F.; Schwier, C.; Eastham, A. R.; Campbell, T. I.; Dawson, G. E.
 Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE,
 87CH2443-0, pp. 227-240
(System feasibility studies)

PATRONAGE ANALYSIS AND FORECAST FOR MAGLEV SERVICE BETWEEN LAS VEGAS AND SOUTHERN CALIFORNIA

Hamburg, J. R., and Keith, R. W.
 Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE,
 87CH2443-0, pp. 219-225
(Market forecast)

THE TRANSPRAPHIC MAGLEV SYSTEM: ITS APPLICATION IN THE RHEIN/MAIN - RHEIN/RUHR CORRIDOR IN THE FEDERAL REPUBLIC OF GERMANY

Alexy, R.
 Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE,
 87CH2443-0, pp. 195-204
(Potential applications and feasibilities)

APPLICATION FIELD STUDIES

Ribbentrop, R.
 Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE,
 87CH2443-0, pp. 189-194
(Feasibility studies)

THE LAS VEGAS/M-BAHN MAGNETICALLY LEVITATED PEOPLE MOVER SYSTEM

Huss, H. W.
 Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE,
 87CH2443-0, pp. 125-128
(Prospect)

DUST FREE WAFER TRANSPORTATION SYSTEM FOR SEMICONDUCTOR PLANT - AN APPLICATION OF NEW MAGLEV TECHNOLOGY

Takagi, S.; Kanda, S.; Azukizawa, T.; Yokoyama, T.
 Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE,
 87CH2443-0, pp. 73-78

WILL MAGLEV EVER GET OFF THE GROUND IN THE U.S.?

Cortes-Comerer, N.
 Mech. Eng., Vol. 110, No. 10, Oct. 1988, pp. 58-63
 (NTIS No. 89-03 01495)

HSR COST ESTIMATING TECHNIQUES IN PENNSYLVANIA

Schmelz, R. E.
 J. Transp. Eng., Vol. 115, No. 1, Jan. 1989, pp. 84-94
 (NTIS No. 89-04 02295)

MAGLEV: AN EMERGING TRANSPORTATION TECHNOLOGY TO MEET AN IMMINENT TRANSPORTATION NEED

Uher, R. A.
 Rail Eng. Int., Vol. 18, No. 1, 1989, pp. 5-8
 (NTIS No. 89-08 02025)

MAGLEV VEHICLES AND SUPERCONDUCTOR TECHNOLOGY: INTEGRATION OF HIGH-GROUND TRANSPORTATION INTO THE AIR TRAVEL SYSTEM

Johnson, L. R.; Rote, D. M.; Hull, J. R.; Coffey, H. T.; Daley, J. G.; Glese, R.F
Center for Transp. Res., Argonne National Lab., Rep. No. ANL/CNSV-67, April 1989, 121 pp., available from NTIS

APPLICATION OF TRANSPRAPHIC MAGLEV IN MEDIUM/SHORT-DISTANCE ROUTES IN JAPAN

Otsuka, K.; Hoshino, A.; Kretzschmar, R.
Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Jpn., pp.129-133

APPLICATION OF TRANSPRAPHIC MAGLEV IN LONG-DISTANCE ROUTES IN JAPAN

Hoshino, A.; Otsuka, K.; Kretzschmar, R.
Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Jpn., pp. 123-127

TECHNICAL APPLICATION OF THE MAGLEV HIGH-SPEED TRANSPORT SYSTEM: THE OPERATORS POINT OF VIEW

Pollfka, F.
Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Jpn., pp. 105-109

SPECIFIC ASPECTS OF MAGLEV LINKS IN THE DIFFERENT TYPES OF CONNECTION WITH AIR TRANSPORTATION

Willigens, J. M., and Kraus, H. G.
Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Jpn., pp. 63-72

THE U.S. MARKET FOR HIGH-SPEED MAGLEV VEHICLES

Rote, D. M.; Coffey, H. T.; Johnson, L. R.; Daniels, E.
Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Jpn., pp. 53-61

SELECTION OF ROUTES FOR A MAGLEV HIGH-SPEED TRANSPORT SYSTEM IN THE FEDERAL REPUBLIC OF GERMANY FROM A FUTURE OPERATOR'S POINT OF VIEW

Ribbentrop, R.
Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Jpn., pp. 47-52

APPLICATION OF THE MAGNETIC LEVITATION TRAIN IN THE FEDERAL REPUBLIC OF GERMANY

Raschbichler, H. G., and Wackers, M.
Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Jpn., pp. 37-46

THE LINEAR EXPRESS

Doi, T.; Seki, A.; Uno, M.
Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Jpn., pp. 23-27

OPPORTUNITIES AND PROSPECTS FOR MAGLEV IN NORTH AMERICA

Eastham, T. R., and Coffey, H. T.
Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Jpn., pp. 19-22

PUTTING MAGLEV ON TRACK

Johnson, L.R.
Issues in Science and Technology, Vol. VI, No. 3, 1990, National Academy of Sciences, pp. 71-75

2 Concepts, Principles, and Potential Applications

THE MAGNETIC RAILROAD : A NEW FORM OF TRANSPORT

Powell, J. R.

American Soc. of Mech. Eng. Railroad Conf., April 1963, Pap. No. 63-RR4

HIGH-SPEED TRANSPORT BY MAGNETICALLY SUSPENDED TRAINS

Powell, J. R., and Danby, G. T.

American Soc. of Mech. Eng. Winter Annual Meeting, New York, N.Y., Nov. 1966,
Paper No. 66-WA/RR-5

A 300-MPH MAGNETICALLY SUSPENDED TRAIN

Powell, J. R., and Danby, G.T.

Mechanical Eng., Vol. 89, Nov. 1967, pp. 30-35

THE HYPERVELOCITY ROCKET SLED

Barbee, T. W., et al.

Stanford Research Inst., Final Rep., Project PMU 7014, July, 1968
(*Design analysis*)

ELECTROMAGNETIC INDUCTIVE SUSPENSION AND STABILIZATION SYSTEM FOR A GROUND VEHICLE

Powell, J. R., and Danby, G. T.

U. S. Patent, 3,470,828, filed Nov. 21, 1967, Granted Oct. 7, 1969

MAGNETICALLY SUSPENDED TRAINS: THE APPLICATION OF SUPERCONDUCTORS TO HIGH-SPEED TRANSPORT

Powell, J. R., and Danby, G. T.

Cryogenics and Industrial Gases, pp. 19-24, Oct. 1969

MAGNETIC LEVITATION: TOMORROW'S TRANSPORTATION

Chilton, F., and Coffey, H. T.

Proc. Helium Society Symp., Washington, D. C., 1971

MAGNETIC LEVITATION FOR TOMORROW'S TRANSPORTATION

Coffey, H. T.; Chilton, F.; Hoppie, L. O.

Advances in Cryogenic Technology, 4, 1971, R. W. Vance, ed., Xzyzx Information Corp., Los Angeles, Calif., pp. 275-298

ROAD-USER PERCEPTION

Kyotani, Y.

Jpn. Railw. Eng., Vol. 13, No. 4, 1972, pp. 3-9
(TRIS No. 081216 DA)

MAGNEPLANE: GUIDED ELECTROMAGNETIC FLIGHT

Koim, H. H., and Thornton, R. D.

Proc. Pap. 5th Int. Appl. Superconduct. Conf., IEEE Publ. No. 72CH0682-5-TABSC, May 1-3, 1972 pp. 76-85
(NTIS No. 74-02 02958)

MAGNETIC LEVITATION OF HIGH SPEED GROUND VEHICLES

Coffey, H.T.; Chilton, F.; Hoppie, L. O

Proc. Pap. 5th Int. Appl. Superconduct. Conf., IEEE Publ. No. 72CH0682-5-TABSC, May 1-3, 1972, pp. 62-75,
(NTIS No. 74-02 02959)

TRAINS OF THE FUTURE

Staeheli, G. A.

Proc., 37th Annual Proceeding of the Railway Fuel and Operating Officers Association, 1973, 10 pp.
(TRIS No. 054603 DA)

ELECTROMAGNETIC FLIGHT

Kolm, H. H. and Thornton, R. D.

Scientific American, Vol. 229, No. 4, Oct. 1973, pp. 17-25

SRI MAGNETIC SUSPENSION STUDIES FOR HIGH-SPEED VEHICLES

Coffey, H. T.

Advances in Cryogenic Engineering, Vol. 19, Plenum Press, New York, 1974, pp. 137-153

FLYING LAND VEHICLES USING SUPERCONDUCTING MAGNETS

Rhodes, R. G.; Mulhall, B. E.; Abel, E.

Proc. Paper, Int. Hovering Craft, Hydrofoil and Adv. Transit. Syst. Conf., Brighton, Sussex, England,
May 13-16, 1974, pp. 157-166
(TRIS No. 132946 DA)

U.S. DEPARTMENT OF TRANSPORTATION PROGRAM IN MAGNETIC SUSPENSION (REPULSION CONCEPT)

Reitz, J. R., and Borcherts, R. H.

IEEE Trans. Magn., Vol. MAG-11, No. 2, March 1975, pp. 615-618
(NTIS No. 75-09 03599)

MAGNETICALLY LEVITATED VEHICLES

Railway Engineer, Vol. 2, No. 2, March 1977, pp. 49-51

(TRIS No. 153799 DA) *(Introduction)*

MAGNETIC LEVITATION

Chartered Mechanical Engineer, Vol. 25, No. 11, Dec. 1978, p. 19

(TRIS No. 194146)

CONCEPTUAL DESIGN STUDY OF A HIGH SPEED MAGLEV GUIDED GROUND TRANSPORTATION SYSTEM

Hayes, W. F.

Natl. Res. Council, Can. Div. Mech. Eng., Q. Bull., No. 3, 1979, pp. 35-37

(NTIS No. 80-07 01877)

MAGNETIC WHEEL IN THE SUSPENSION OF HIGH-SPEED GROUND TRANSPORTATION VEHICLES

Gottzein, E.; Meisinger, R.; Miller, L.

IEEE Trans. Veh. Technol., Vol. Vt-29, No.1, Feb. 1980, pp. 17-23

(NTIS No. 80-09 01831)

PASSENGER CARRYING VEHICLES USING CONTROLLED DC MAGNETS

Jayawant, B. V.

Proc. Int. Conf. Cybern. Soc., Cambridge, Mass., Oct. 8-10, 1980, pp. 1013-1017

(NTIS No. 81-05 04161)

WHATEVER HAPPENED TO MAGLEV?

IEEE Spectrum, Aug. 1982, 1p.

(TRIS No. 372007)

THE USE OF MAGNETIC ATTRACTION AND LEVITATION FOR THE LANDING OF AIRCRAFT ON A CARRIER

Wipf, S. L.

The Second Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982,
pp. 152-159 *(New application)*

SAGA OF MAGLEV

Money, L. J.
 Transp. Res. Part A, Vol. 18A, No.4, July 1984, pp. 333-341
 (NTIS No. 85-04 01447)

FLYING LOW MAGNETICALLY

Sinha, P. K.
 Electron Power, Vol.30, No.10, Oct. 1984, pp. 797-802
 (NTIS No. 85-10 01117)

HIGH SPEED GROUND TRANSPORTATION: SOME CURRENT AND FUTURE ALTERNATIVES

Morita, T.
 Technol. Soc., Vol. 6, No.2, 1984, pp. 141-149
 (NTIS No. 86-01 05404)

PROPELLING PASSENGERS FASTER THAN A SPEEDING BULLET (MAGLEV R&D IN FOREIGN COUNTRIES)

Alsher, H.; Boldea, I.; Eastham, A. R.; Iguchi, M.
 IEEE Spectrum, Vol. 21, Aug. 1984, pp 57-64
 (TRIS No. 469293)

HIGH-SPEED RAIL

Thompson, L. S.
 Technology Review, Vol. 89, No. 3, 1986, pp. 41-70

WEST GERMANY OKAYS WORLD'S FIRST COMMERCIAL MAGLEV LINE

New Technol. Week, July 5, 1988, p. 3

MAGLEV

Kyotani, Y.
 Cryogenic Engineering, Vol. B:21, Nov. 1986, pp. 14-16
 (TRIS No. 468825)

RIDING OR FLYING?- TRANSRAPID AND ITS LINKS WITH CAR, RAILWAY, AND AIRCRAFT

Brochure, MVP Versuchs - und Planungsgesellschaft fur Magnetbahnsysteme mGH, Munich, Federal Republic of Germany, 1985

COMPARATIVE EVALUATION OF TECHNOLOGIES FOR HIGH-SPEED GROUND TRANSPORTATION

Genest, B. A.; Audette, M.; Sanders, D. B.
 Transp. Res. Rec. 1023, 1985, pp. 38-48
 (NTIS No. 86-03 02648)

FUTURE OF MAGLEV TECHNOLOGY

Pollard, M. G.
 Proc. Inst. Civ. Eng.(London), Vol.80, Feb. 1986, pp. 161-178
 (NTIS No. 86-05 09000)

MAGLEV: TRANSPORTATION FOR THE 21ST CENTURY

Andrus, G. M., and Gillies, G. T.
 Civ. Eng. (New York) Vol.57, No.4, April 1987, pp.65-67
 (NTIS No. 87-06 02932)

MAGLEV APPROACHES PRACTICAL USE

Tanaka, H.
 Japan Railway Engineers' Association
 Japanese Railway Eng., Vol. 27, No.1, June 1987, pp. 2-6
 (TRIS No. 468377)

MAGNETIC LEVITATION TECHNOLOGY AND ITS DEVELOPMENT POTENTIAL

Weh, H.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 1-9

MAGLEV SYSTEM DESIGN CONSIDERATIONS

Coffey, H.T.

Future Transportation Technology Conference and Exposition, Portland, Oregon, Aug. 5-7, 1991
SAE Technical Papers Series 911624

TRANSPORTATION IN THE TWENTY-FIRST CENTURY

Coffey, H.T.

The Nineteenth Annual Illinois Energy Conference, The Fairmont Hotel, Chicago, Illinois, Oct. 11, 1991

3 Present Status of Development

HIGH-SPEED TRANSPORTATION VIA MAGNETICALLY SUPPORTED VEHICLES. A STUDY OF THE MAGNETIC FORCES

Borcherts, R. H., and Reitz, J. R.
Transportation Res., Vol. 5, 197-209, 1971

STUDY OF A MAGNETICALLY LEVITATED VEHICLE

Coffey, H.T.; Colton, J. D.; Mahrer, K. D.
Stanford Res. Inst., Final Report, Feb 1973, 103 pp., Contract No. DOT-FR-10001
(TRIS No. 047848 DA) (NTIS PB 221696)

SUPERCONDUCTING MAGNET LEVITATION / PROPULSION TEST VEHICLE

Usami, Y.; Kuzuu, T.; Fujie, J.
Q. Rep. Railw. Tech. Res. Inst. (Jpn), Vol. 15, No. 2, 1974, pp. 62-68
(TRIS No. 057857 DA)

AN EVALUATION OF THE DYNAMICS OF A MAGNETICALLY LEVITATED VEHICLE

Coffey, H. T.; Colton, J.D.; Solinsky, J.C.; Woodbury, J.R.
Prepared by SRI for U.S. DOT, FRA, Report FRA-ORD80-74-41 March 1974
(NTIS No. PB-23667/4GA)

HIGH SPEED RAILWAYS IN JAPAN

Kyotani, Y.
Proc. 5th Int. Cryog. Eng. Conf., Kyoto, Japan, May 7-10, 1974, pp.17-20
(TRIS No. 130901 DA)

HIGH-SPEED MAGLEV STUDIES IN CANADA

Atherton, D. L.
Proc. 5th Int. Cryog. Eng. Conf., Kyoto, Japan, May 7-10, 1974, pp. 46-50
(TRIS No. 130902 DA)

ELECTROMAGNETIC DYNAMIC LEVITATION DEVELOPMENT IN CANADA

Atherton, D. L., and Eastham, A. R.
High Speed Ground Transport. Journal, Vol. 8, No. 2, June 1974, pp. 101-110
(TRIS No. 096106 DA)

CONCEPTUAL DESIGN AND ANALYSIS OF THE TRACKED MAGNETICALLY LEVITATED VEHICLE TECHNOLOGY (TMLV), REPULSION SCHEME, VOL. I, TECHNICAL STUDIES

Ford Motor Co., Feb. 1975, Final Rept.
Federal Railroad Administration, Report FRA-OR&D-75-21
(NTIS PB-247931) (*Executive summary*)

CONCEPTUAL DESIGN AND ANALYSIS OF THE TRACKED MAGNETICALLY LEVITATED VEHICLE TECHNOLOGY PROGRAM (TMLV), REPULSION SCHEME, VOL. II, APPENDIX A-F

Ford Motor Co., Feb. 1975, Final Rept.
Federal Railroad Administration, FRA-OR&D-75-21A
(NTIS PB-247932) (*Executive summary*)

CONCEPTUAL DESIGN AND ANALYSIS OF THE TRACKED MAGNETICALLY LEVITATED VEHICLE TECHNOLOGY PROGRAM (TMLV), REPULSION SCHEME, VOL. III, APPENDIX G. 5 DOF COMPUTER PROGRAM

Ford Motor Co., Feb. 1975, Final Rept.
Federal Railroad Administration, FRA-OR&D-75-21B
(NTIS PB-247933) (*Computer programs*)

ANNUAL REPORT OF THE CIGGT. 1974-1975. PART 1: RESEARCH PROGRESS

Law, C. E.

Canadian Inst. of Guided Ground Transport; Rep. No. CIGGT-75-6, Queen's Univ., Kingston, Ontario, Canada

(TRIS No. 145176 DA)

SUPERCONDUCTING MAGNETIC LEVITATION AND LINEAR SYNCHRONOUS MOTOR PROPULSION FOR HIGH SPEED GROUND TRANSPORTATION

Eastham, A. R., Editor

Canadian Inst. of Guided Ground Transport; Rep. No. CIGGT-75-5, Queen's Univ., Kingston, Ontario, Canada, March 1975, 297 pp.

(TRIS No. 141128 DA)

SUPERCONDUCTING MAGLEV AND LSM DEVELOPMENT IN CANADA

Atherton, D. L., and Eastham, A. R.

IEEE Trans. Magn., Vol. MAG-11, No. 2, March 1975, pp. 627-632

(TRIS No. 127628 DA)

UNITED STATES DEPARTMENT OF TRANSPORTATION PROGRAM IN MAGNETIC SUSPENSION (REPULSION CONCEPT)

Reitz, J. R., and Borcherts, R. H.

IEEE Trans. Magn., Vol. MAG-11, No. 2, March 1975, pp. 615-618

(TRIS No. 127630 DA)

SUPERCONDUCTING LEVITATED HIGH SPEED GROUND TRANSPORTATION PROJECT IN JAPAN

Ohtsuka, T., and Kyotani, Y.

IEEE Trans. Magn., Vol. MAG-11, No.2, March 1975, pp. 608-614

(NTIS No. 75-09 0358.7)

REPULSION MAGNETIC SUSPENSION RESEARCH - U.S. PROGRESS TO DATE

Borcherts, R. H.

Cryogenics, Vol. 15, No. 7, July 1975, pp. 385-393

DEVELOPMENT OF SUPERCONDUCTING LEVITATED TRAINS IN JAPAN

Kyotani, Y.

Cryogenics, Vol. 15, No. 7, July 1975, pp. 372-376

(TRIS No. 128905 DA)

CANADIAN MAGLEV PROJECT ON HIGH-SPEED INTERURBAN TRANSPORTATION

Stemon, G. R.

IEEE Trans. Magn., Vol. MAG-11, No.5, Sept. 1975, pp.1478-1483

(NTIS No. 76-07 06848)

MAGNETIC LEVITATION TECHNOLOGY OF TRACKED VEHICLES PRESENT STATUS AND PROSPECTS

Yamamura, S.

IEEE Trans. Magn., Vol. MAG-12, No.6, Nov. 1976, pp.874-878

(NTIS No. 77-08 08137)

DEVELOPMENT OF LEVITATED VEHICLES WITH SUPERCONDUCTING MAGNETS

Albrecht, C.

2nd Conf. on Adv. in Magn. Mater. and Their Appl., London, England, Sept.1-3 1976, IEE Proc. No.142, pp. 113-116 (Experimental results)

(NTIS No. 77-09 01376) (TRIS No. 167542DA)

DESIGN AND TESTING OF A LOW SPEED MAGNETICALLY SUSPENDED VEHICLE

Linder, D.

2nd Conf. on Adv. in Magn. Mater. and Their Appl., London, England, Sept.1-3 1976, IEE Proc. No.142, pp. 96-99

(NTIS No. 77-09 01372)

PASSENGER CARRYING VEHICLES USING CONTROLLED D.C. AND CONTROLLED PERMANENT MAGNETS

Jayawant, B. V.

2nd Conf. on Adv. in Magn. Mater. and Their Appl., London, England, Sept.1-3, 1976, IEE Proc. No.142, pp. 92-96

(NTIS No. 77-09 01371)

DEVELOPMENT OF 1-TON MAGNETICALLY SUSPENDED VEHICLE USING CONTROLLED D.C. ELECTROMAGNETS

Jayawant, B. V. et al.

Proc. Inst. Electr. Eng. (Lond.), Vol.123, No.9, Sept. 1976, pp. 941-948

(NTIS No. 77-10 02603)

ON RESEARCH AND DEVELOPMENT OF LEVITATION RAILWAY

Hobara, T.

Q. Rep. Railw. Tech. Res. Inst., (Jpn), Vol. 17, No. 4, Dec. 1976, pp. 144-181

(TRIS No. 168118 DA) (*Review progress*)

OUTLINE OF EXPERIMENTAL TRACK FACILITIES IN MIYAZAKI FOR LEVITATION LINEAR MOTOR CAR

Takeda, H.

Japanese Railway Engineering, Vol. 17, No. 4, pp 7-9

(TRIS No. 178955 DA)

MAGNETICALLY SUSPENDED VEHICLES FOR URBAN TRANSPORT SYSTEMS

Jayawant, B. V.

Electron Power, Vol.23, No.3, March 1977, pp. 235-238

(NTIS No. 77-11 01246)

TENTH REPORT ON THE HIGH-SPEED GROUND TRANSPORTATION ACT OF 1965

U.S. Dept. Of Transp., FRA/ORD-77/27, Washington, D. C., May 1977

MAGNETICALLY SUSPENDED VEHICLE

Linder, D., and Goodall, R. M.

Transp. Road Res. Lab.(GB) TRRL. Rep. No. 300, 1977, 16pp.

(NTIS No. 78-01 04723)

REPULSIVE-TYPE MAGNETIC LEVITATION SYSTEMS FOR HIGH SPEED TRANSPORT (SURVEY OF FOREIGN INVESTIGATIONS)

Vasil'ev, S. V.; Kim, K. I.; Matin, V. I.; Mikirtichev, A. A.

Izvestiia Vysshikh Ucheb Zaved, Elektromekhanika NB, Aug. 1977, pp. 882-888 (Russian)

(TRIS No. 177170 DA)

ELECTRODYNAMIC SUSPENSION AND LINEAR SYNCHRONOUS MOTOR PROPULSION FOR HIGH SPEED GUIDED TRANSPORTATION

Atherton, D. L.

Canadian Inst. of Guided Ground Transport, Final Rep., Queen's Univ., Kingston, Ontario, Canada, Sept. 1977, 264 pp.

(TRIS No. 176665 DA)

THE CANADIAN HIGH-SPEED MAGNETICALLY LEVITATED VEHICLE SYSTEM

Atherton, D. L., et al., ed. by Eastham, A. R.

Canadian Inst. Guided Ground Transport, Report 77-12, Queen's Univ., Kingston, Ontario, Canada, Sept. 1977

CANADIAN HIGH-SPEED MAGNETICALLY LEVITATED VEHICLE SYSTEM

Atherton, D. L.; Belanger, P. R.; Burke, P. E.; et al.

Can. Electr. Eng. J., Vol.3, No.2, April 1978, pp. 3-25
(NTIS No. 78-10 01180)

TECHNICAL ALTERNATIVES FOR A MAGLEV SYSTEM

Leonhard, W.

Electron Power, Vol.24, No. 4, April 1978, pp. 293-296
(NTIS No. 78-12 06803)

PROGRESS OF RESEARCH AND DEVELOPMENT ON REPULSIVE LEVITATION RAILWAY IN JNR

Yamashita, H.

Q. Rep. Railw. Tech. Res. Inst. (Tokyo), Vol. 19, No.3, Sept. 1978, pp. 99-105
(NTIS No. 79-05 00828)

AN OVERVIEW OF THE U.S. POSITION ON NON-CONTACT SUSPENSION AND PROPULSION SYSTEMS

Palmer, J. D.

Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1978, pp. 59-66
(*Status report*)

RESEARCH AND DEVELOPMENT OF MAGLEV SYSTEMS IN THE U. K.

Rhodes, R. G.

Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1978, pp. 50-58
(*Status report*)

TECHNOLOGIES FOR MAGNETIC LEVITATION SYSTEMS

Schulz, H.

Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1978, pp. 37-49
(*Status report*)

STATUS OF HIGH SPEED MAGNETICALLY LEVITATED TRANSPORTATION RESEARCH IN CANADA

Rudback, N. E.; Hayes, W. F.; Eastham, E. R.

Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1978, pp.17-25
(*Status report*)

JNR'S MAGLEV: CLOSER TO COMMERCIAL PRACTICALITY?

Middleton, W. D.

Railway Age, Vol. 180, No. 15, Aug. 1979, pp. 32-33
(TRIS No. 300564 DA)

RUNNING TESTS ON SUPERCONDUCTING MAGNETIC LEVITATION SYSTEM (INTERCITY PASSENGER RAILWAY)

Kyotani, Y.

Int. Conf. Transp. Electronics Proc., Utica, Michigan, 1980, Publ. IEEE-80CH1601-4, SAE-SP-90
(TRIS No. 380930) (*Overview*)

DEVELOPMENT OF THE MAGNETICALLY SUSPENDED TRANSPORTATION SYSTEM IN THE FEDERAL REPUBLIC OF GERMANY

Glatzel, K.; Khurdok, G.; Rogg, D.

IEEE Trans. Veh. Technol., Vol. Vt-29, No.1, Feb. 1980, pp. 3-17
(NTIS No. 80-09 01830)

TRACKED AIR CUSHION VEHICLES AND MAGNETIC LEVITATION. 1964-MARCH, 1980 (CITATIONS FROM THE ENGINEERING INDEX DATA BASE)

Habercom, G. E.

National Technical Information Service, Springfield, Virginia, April 1980, 147 pp., 141 Abstracts (TRIS No. 318099 DA)

TEST RESULTS OF HSST MAGLEV SYSTEM

Nakamura, S.; Aizawa, H.; Eno, S.

Proc. Int. Conf. Cybern. Soc. Cambridge, Mass., Oct. 8-10, 1980, pp. 1036-1041 (NTIS No. 81-05 04164)

RESEARCH AND DEVELOPMENT PROGRAM MAGNETICALLY SUSPENDED TRANSPORT SYSTEMS IN THE FEDERAL REPUBLIC OF GERMANY

Glatzel, K.; Rogg, D.; Schulz, H.

Proc. Int. Conf. Cybern. Soc. Cambridge, Mass., Oct. 8-10, 1980, pp. 763-774 (NTIS No. 81-05 04118)

MAGNETIC LEVITATION RAILWAY - RESULTS OF THE MIYAZAKI TESTS AND FUTURE PLANS

Miyazaki, Kunio

Jpn Railw. Eng., Vol. 20, No. 4, 1981, pp. 2-5 (NTIS No. 82-03 02167)

HIGH-SPEED MAGNETICALLY LEVITATED TRANSPORT DEVELOPMENT IN CANADA

Atherton, D. L.; Belanger, P. R.; Eastham, A. R.; et al.

J. Adv. Transp., Vol. 14, No. 1, Spring 1980, pp. 73-105 (NTIS No. 82-07 07345)

PRESENT STATUS OF RESEARCH AND DEVELOPMENT OF SUPERCONDUCTING MAGNETIC LEVITATION RAILWAY. RESEARCH ON LINEAR MOTOR MAGNETIC LEVITATION SYSTEM IN THE JAPANESE NATIONAL RAILWAYS

Kyotani, Y.

Rail International, Vol. 12, No. 4, April 1981, pp. 155-163 (TRIS No. 341729 DA)

JR PRESSES ON WITH MAGLEV TRIALS

Railway Gazette Int., Vol. 137, No. 8, Aug. 1981, pp. 648-649 (TRIS No. 341705 DA)

TRANSRAPID MAGNETIC-LEVITATION TRANSPORT LONG-DISTANCE LINK FOR 400 km/h

Borchert, J.

Rail Eng. Int., Vol. 10, No. 4, Oct.-Dec. 1981, pp. 119-121 (NTIS No. 82-09 03240)

MAGLEV TEST VEHICLE ML-500 RUNNING ON INVERTED-T-SHAPE GUIDEWAY

Nagaoka, H.; Nakashima, N.; Terada, K.; Fukase, S.

Hitachi Rev., Vol. 30, No. 2, April 1981, pp. 93-96 (NTIS No. 82-10 02137) (*Design*)

MAGLEV TEST VEHICLE MLU 001 RUNNING ON A U-SHAPED GUIDEWAY

Fukase, S.; Nakashima, N.; Terada, K.; Takahashi, H.

Hitachi Rev., Vol. 31, No. 1, Feb. 1982, pp. 7-12 (NTIS No. 82-12 00108)

MAGLEV RESEARCH IN THE U.K.

Rhodes, R. G.

The Second Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982, pp. 31-37

(Status report)

AN UPDATE OF THE U.S. POSITION ON HIGH-SPEED, MAGNETICALLY LEVITATED VEHICLES

Birmingham, B. W.

The Second Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982, pp. 25-30

(Status report)

DEVELOPMENT OF MAGNETICALLY LEVITATED HIGH SPEED TRANSPORT SYSTEMS IN THE FEDERAL REPUBLIC OF GERMANY

Rogg, D.

The Second Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982, pp. 16-24

(Status report)

STATUS OF MAGNETICALLY LEVITATED TRANSPORTATION RESEARCH IN CANADA

Eggleton, P.L.

The Second Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982, pp. 12-15

(Status report)

CURRENT CANADIAN MAGLEV SYSTEM DESIGN CONCEPT AND ENERGY EFFICIENCY

Hayes, W. F.

The Second Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982, pp. 92-101

(Design concept)

MAGLEV - A BRITISH FIRST AT BIRMINGHAM

Pollard, M. G.

Phys. Technol., Vol. 15, No.2, March 1984, pp. 61-66, 72

(NTIS No. 84-06 09212)

PRESENT SITUATION CONCERNING JNR'S MAGNETIC LEVITATION SYSTEM

Fujii, H.

Civ. Eng. Jpn., Vol.22, 1983, pp. 127-136

(NTIS No. 84-07 02986)

VEHICLE OF THE EMSLAND TRANSRAPID TEST FACILITY (TVE)

Borchert, J., and Parnitzke, R. A.

J. Adv. Transp., Vol.17, No. 1, Spring 1983, pp. 57-71

(NTIS No. 84-09 01172)

DEVELOPMENT OF THE MAGNETICALLY LEVITATED TRAIN

Sasaki, M.

Jpn. Railw. Eng., Vol. 22, No. 4, 1983, pp. 20-24

(NTIS No. 83-12 03393) (TRIS No. 380232) *(Review of development since 1977)*

HSST-03 SYSTEM

Suzuki, S.; Kawashima, M.; Hosoda, Y.; Tanida, T.

IEEE Trans. Magn., Vol. MAG.-20, No.5, Sept. 1984, pp. 1675-1677

(NTIS No. 85-07 10169)

PRESENT STATUS OF MAGLEV DEVELOPMENT IN JAPAN AND HSST-03 PROJECT

Masada, E.; Kitamoto, M.; Kato, J.; Kawashima, M.

Mechanical Engineering Publications Ltd., Box 24, Northgate Ave., Bury St., Edmunds, Suffolk, England, 1P32, 6PW, 1984, 91 pp.

(TRIS No. 462935)

ELECTROMAGNETIC LEVITATION AND GUIDANCE TECHNOLOGY OF THE TRANSPRAPHIC TEST FACILITY EMSLAND

Bohn, G., and Steinmetz, G.

IEEE Trans. Magn., Vol. MAG-20, No. 5, Sept. 1984, pp. 1666-1671

(NTIS No. 85-07 10167)

THE ROMANIAN LINEAR INDUCTOR (SYNCHRONOUS) MOTOR (PASSIVE GUIDEWAY) MAGLEV

Boldea, I.; et al.

In Maglev Transport - Now and for the Future, IMechE 1984-12

TRANSPRAPHIC MAGLEV SYSTEM - PROSPECTS FOR APPLICATION

Hessler, H.

Rail Int., Vol. 16, No. 3, March 1985, pp. 69-71

(NTIS No. 85-09 11887)

PRESENT CONDITIONS OF SHINKANSEN AND DEVELOPMENT OF MAGLEV IN JNR.

Ono, J.

Rail Int., Vol. 16, No. 1, Jan. 1985, pp. 111-115

(NTIS No. 85-11 12503)

LIM DRIVEN SUBWAY RAILCAR WITH SMALL SECTIONAL AREA

Shoyama, Y.; Ando, M.; Namikawa, H.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 311-318

(System description and test results)

OPERATIONAL EXPERIENCE OF JNR'S MAGLEV TEST TRAIN

Tanaka, H.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 271-276

(Operational experience review)

GROUND FACILITIES AND OPERATIONAL EXPERIENCE OF HSST-EXPO'85

Kawashima, M.; Hosoda, Y.; Takada, T.; Kitamoto, M.; Mihirogi, K.; Iwaya, M.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 263-270

(Operational experience review)

OPERATIONAL EXPERIENCE OF BIRMINGHAM MAGLEV

Mustow, S. N.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 255-262

(Operational experience review)

OPERATION OF THE TRANSPRAPHIC TEST FACILITIES IN EMSLAND

Polifka, P.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 251-254

(Operational experience review)

BIRMINGHAM MAGLEV: DEVELOPMENT FOR THE FUTURE

Pollard, M. G., and Riches, E. E.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp.123-136

(Status report)

THE VEHICLE TRANSRAPID 06, SPECIFICATION AND EXPERIENCES UNDER PRACTICAL CONDITIONS

Gaede, P. J.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp.115-121

(General description on system)

THE DEVELOPMENT OF MAGLEV TRANSPORT AND RELATED SYSTEMS IN JAPAN

Masada, E.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 21-28

(Status report)

AN OVERVIEW OF CANADIAN MAGLEV RESEARCH AND DEVELOPMENT

Rudback, N. E.; Hayes, W.F.; Fife, A. A.; Eastham, A. R.; Audette, M. A.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 13-20

(Status report)

DEVELOPMENT OF MAGNETIC LEVITATION TRANSPORT SYSTEMS IN THE FEDERAL REPUBLIC OF GERMANY - SURVEY, PRESENT STATUS, PROSPECTS, AND REASONS

Dogg, D.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 1-11

(Status report)

PRESENT CONDITIONS OF MAGLEV TEST ON JNR

Tanaka, H.

Japan Railway Engineering No. 96, Dec. 1985, pp. 8-11

(TRIS No. 456310)

THE MAGLEV TRANSPORTATION SYSTEMS TRANSRAPID AND ULIMAS

Miller, L.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 233-242

(Summary, discussion, and performance analysis)

CIVIL ASPECTS OF MAGLEV DESIGN

Zicha, J.H.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B.C., Canada, Publ. by IEEE, 86CH2276-4, pp. 69-88

(Summary, discussion, and performance analysis)

EXPERIENCES WITH THE EMSLAND TRANSRAPID SYSTEM

Steinmetz, G.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 59-66

(Status report and test results)

THE TRANSPRAPHIC MAGNETIC LEVITATION SYSTEM ON ITS WAY TO BEING PUT INTO SERVICE

Heinrich, K.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 53-57

(Status report)

THE MAGNETIC TRAIN TRANSPRAPHIC 06

Bohn, G., and Alscher, H.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B.C., Canada, Publ. by IEEE, 86CH2276-4, pp. 47-52

(Subsystem Introduction and status report)

PRESENT STATUS OF JNR MAGLEV DEVELOPMENT

Kyotani, Y., and Tanaka, H.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 41-45

(Status report)

THE RESEARCH AND DEVELOPMENT PROGRAM "MAGNETICALLY SUSPENDED HIGH SPEED TRANSPORT SYSTEMS" IN THE FEDERAL REPUBLIC OF GERMANY

Rogg, D.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 31-39

(Status report)

HSST-03 SYSTEM: OPERATIONAL SUMMARY AT EXPO '85 AND OPERATIONAL OUTLINE AT EXPO '86

Suzuki, S.; Murai, M.; Kawashima, M.; Hosoda, Y.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 27-30

(Status report)

A REVIEW OF BIRMINGHAM MAGLEV AFTER ONE YEAR IN PUBLIC SERVICE

Dalglish, E. H., and Riches, E. H.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 1-5

(Status report)

PRESENT STATE AND PROSPECTS OF MAGLEV TRANSPORT

Masada, E.

System and Control, Vol. 30, No. 9, Sept. 1986, pp. 543-552

(TRIS No. 468831)

THE MAGLEV TRANSPRAPHIC SYSTEM ON THE WAY TO APPLICATION - TEST RESULTS

Merklinghaus, W., and Mnich, P.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 211-218

(Status report and test results)

MANUFACTURING PROCESS AND ASSEMBLING LINE OF GUIDEWAY AND ITS COMPONENTS OF THE TRANSPRAPHIC MAGLEV SYSTEM

Stockl, R., and Schwindt, G.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 163-169

(Status report)

TRANSRAPID 06 II - PERFORMANCE AND CHARACTERISTICS

Miller, L.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 155-162

(Status report)

STATUS OF THE MAGLEV AND LINEAR DRIVE TECHNOLOGY PROGRAM IN THE FEDERAL REPUBLIC OF GERMANY

Raschbichler, H. G., and Wackers, M.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 147-154

(Status report)

THE GOVERNMENT-SPONSORED PROGRAM "DEVELOPMENT OF THE MAGNETIC LEVITATION SYSTEM TRANSRAPID" IN THE FEDERAL REPUBLIC OF GERMANY

Menden, W., and Hartmann, P.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 143-146

(Status report)

OPERATIONAL EXPERIENCE OF HSST-03 SYSTEM AT EXPO' 85 AND EXPO' 86

Suzuki, S.; Murai, M.; Kawashima, M.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 129-141

(Status report)

THE M-BAHN DEMONSTRATION LINE IN BERLIN PROJECT; STATUS AND ARTISTIC IMPLEMENTATION

Eck, M. G.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 119-124

(Status report)

THE M-BAHN MAGLEV RAPID TRANSIT SYSTEM - TECHNOLOGY, STATUS, EXPERIENCE

Dreimann, K.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 113-118

(Status report)

HSST-3 SYSTEM

Kawashima, M.; Takata, T.; Hosoda, Y.; et al.

Sumitomo Electr. Tech. Rev., No.25, Jan. 1986, pp. 144-151

(NTIS No. 86-05 06280)

TRANSRAPID MAGLEV UPDATE

Dickhart, W. W.

IEEE Aerosp. Electron. Syst., Mag., Vol.2, No.2, Feb. 1987, pp. 5-8

(NTIS No. 87-08 08506)

PRESENT STATUS OF MAGLEV DEVELOPMENT

Tanaka, H.

Society of Automotive Engineers Japan, Inc., Journal, Vol. 41, No. 2, Feb. 1987, pp. 166-170

(TRIS No. 468440)

DEVELOPMENT OF HIGH-SPEED GUIDED TRANSPORT - PART 2.

Barwell, F. T.

Electr. Veh. Dev., Vol.6, No.2, April 1987, pp.46-49

(NTIS No. 87-11 07495)

CURVATURE RUNNING TEST RESULTS OF HSST VEHICLE

Hosoda, Y.; Kawashima, M.; Iwaya, M.; Hikasa, Y.

IEEE Trans. Magn., Vol. MAG-23, No.5, Sept. 1987, pp. 2344-2346

(NTIS No. 88-07 07483)

DEVELOPMENT OF MAGNETICALLY LEVITATED TRANSPORTATION SYSTEM

Japan Railway, Jan. 1988, Railway System and Component, 35, Available from Japan Rolling Stock Exporter's Assn., No. 1, Tekko Bldg., 8-2, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan

MAGLEV SYSTEM DEVELOPMENT STATUS

Eastham, A. R., and Hayes, W. F.

IEEE Aerosp. Electron. Syst., Mag., Vol.3, No. 1, Jan. 1988, pp. 21-30

(NTIS No. 88-07 08124)

HIGH SPEED MAGLEV TRANSPORT SYSTEM TRANSRAPID

Meins, J.; Miller, L.; Mayer, W. J.

IEEE Trans. Magn., Vol.24, No.2, Mar. 1988, pp. 808-811

(NTIS No. 88-10 08944)

RECENT PROGRESS BY JNR ON MAGLEV

Kyotani, Y.

IEEE Trans. Magn., Vol.24, No.2, Mar. 1988, pp. 804-807

(NTIS No. 88-10 08943)

FIELD TESTS ON A MAGLEV WITH PASSIVE GUIDEWAY LINEAR INDUCTION MOTOR TRANSPORTATION SYSTEM

Boldea, I.; Trica, A.; Papusolu, G.; Nasar, S. A.

IEEE Trans. Veh. Technol., Vol 37, No. 4, Nov. 1988, pp. 213-219

(NTIS No. 89-11 07994)

EXPERIMENTAL MAGNETIC LEVITATION RAILWAY LINE "TRANSRAPID" AT EMSLAND IN WESTERN GERMANY

Anon

Ind. Ital. Cem., Vol. 59, No. 3, Mar. 1989, pp. 170-181

(NTIS No. 89-11 02820)

THE STARLIM MAGLEV

Pascal, J. P.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 111-114

M-BAHN MAGLEV TRANSIT SYSTEM EXPERIENCE, STATUS, APPLICATION

Dreimann, K.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 101-104

HSST-05 SYSTEM GENERAL AND OPERATIONAL OUTLINE AT YES'89

Ohishi, A.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 93-100

PERFORMANCE ANALYSIS OF THE TRANSRAPID 07

Miller, L., and Ruoss, W.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drive., July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 85-92

CURRENT STATUS OF EDS SYSTEM IN JAPAN

Fujie, J.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 81-83

PRESENT STATUS AND PROSPECT OF HSST

Nagaike, T., and Takatsuka, H.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 29-35

**STATE OF DEVELOPMENT AND FUTURE PROSPECTS OF THE MAGLEV-SYSTEMS TRANSRAPID,
M-BAHN AND STARLIM**

Menden, W.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 11-18

U.S. MAGLEV FINALLY LIFTS OFF

Carlson, L.

Superconductor - Industry, Vol. 4, No. 4, Winter 1991, pp. 12-16

4 Suspension and Levitation Techniques

(Also see 10 Superconducting Magnets and Cryogenic Technologies)

MAGNETIC SUSPENSION AND GUIDANCE OF HIGH SPEED VEHICLES

Alston, I. A.; Clark, J. M.; Hayden, J. T.

Cranfield Center for Transport Studies, Bedford, England, Available from IPC Transport Press Limited, Dorset House, Stamford St., London, SE1 9LU, England
(TRIS No. 048297 DA)

MAGNETIC SUSPENSION AND GUIDANCE OF HIGH-SPEED VEHICLES

Coffey, H. T.; Chilton, F.; Barbee, T. W.

Proc. Low Temperatures and Electric Power Conf., International Institute of Refrigeration, Paris, France, 1969, Bulletin I.I.F./I.I.R. 1969-1

FORCES ON MOVING MAGNETS DUE TO EDDY CURRENTS

Reitz, J. R.

J. Appl. Physics, Vol. 41, No. 5, 1970, pp. 2067-2071

MAGNETIC SUSPENSION FOR HIGH SPEED TRAINS

Rhodes, R. G., and Eastham, A. R.

Hovering Craft & Hydrofoil, Vol. 11, No. 3, Dec. 1971, pp. 12-26
(TRIS No. 241679 DA)

FORCE ON A COIL MOVING OVER A CONDUCTING SURFACE INCLUDING EDGE AND CHANNEL EFFECTS

Borcherts, R. H., and Davis, L. C.

J. Appl. Phys., Vol. 43, 1972, pp. 2418-2427

MAGNETIC SUSPENSION TECHNOLOGY FOR HIGH-SPEED TRAINS

Weh, H.

Association Suisse Des Electriciens Bulletin, Vol. 64, No. 9, April 1973, pp. 564-571 (German)
(TRIS No. 047887 DA)

FORCE CALCULATIONS FOR HYBRID (FERRO-NULFLUX) LOW-DRAG SYSTEMS

Danby, G. T.; Jackson, J. W.; Powell, J. R.

IEEE Intermag Conf., Toronto, Canada, May 7, 1972

ELECTROMAGNETIC LIFT AND DRAG FORCES ON A SUPERCONDUCTING MAGNET PROPELLED ALONG A GUIDEWAY COMPOSED OF METALLIC LOOPS

Hoppie, L. O.; Chilton, F.; Coffey, H. T.; Singleton, R. C.

Proc. Pap. 5th Int. Appl. Superconduct Conf., May 1-3, 1972, IEEE Publ. No. 72CH0682-5-TABSC, pp. 113-119

PRELIMINARY DESIGN STUDIES OF MAGNETIC SUSPENSIONS FOR HIGH-SPEED GROUND TRANSPORTATION

Reitz, J. R., Borcherts, R. H.; Davis, L. C.; Hunt, T. K.; Wilkie, D. F.

U.S. Dept. of Transp., Rep. No. FRA-RT-73-27, March 1973
(NTIS No. 223237)

LEVITATION, DRAG AND TRANSVERSE FORCES IN FINITE WIDTH SHEET GUIDEWAYS FOR REPULSIVE MAGNETIC LEVITATION

Ooi, B. T.

High-Speed Ground Transp. Journal, Vol. 19, No. 1, pp. 369-373
(TRIS No. 096555 DA)

PARAMETER OPTIMIZATION STUDIES MAGNETIC SUSPENSIONS FOR HIGH-SPEED GROUND TRANSPORTATION

Borcherts, R. H.; et al.
U. S. Dept. Transp., Rep. FRA-ORD&D-74-12, April 1974

EDDY CURRENT DISTRIBUTION AND LIFT FORCE FOR FINITE MAGLEV STRIPS

Atherton, D. L.; Eastham, A. R.; Fombrum, C.; Chong, M.
Can. J. Phys., Vol. 52, No. 13, July 1974, pp. 1203-1208
(NTIS No. 74-10 04772)

LIMITATIONS OF LEVITATION BY IRON-CORED ELECTROMAGNETS

Atherton, D. L.; et al.
IEEE Trans. Magn., Vol. MAG-10, No. 3, 1974, pp. 410-412

PARAMETER OPTIMIZATION STUDIES OF MAGNETIC SUSPENSIONS FOR HIGH SPEED GROUND TRANSPORTATION

Borcherts, R. H.; Daris, L. C.; Wan, C. C.; Mohdulla, A. U.; Reitz, J. R.
U.S. Dept. Transp., Rep. FRA-ORD&D-74-42, April 1974
(NTIS No. 75-05 04202)

COMPARISON AND OPTIMIZATION OF LIFT AND DRAG FORCES ON VEHICLES LEVITATED BY EDDY CURRENT FOR VARIOUS NULL AND NORMAL FLUX MAGNETS WITH ONE OR TWO TRACKS

Hogan, J. R., and Fink, H. J.
IEEE Trans. Magn., Vol MAG-11, No. 2, March 1975, pp. 604-607
(TRIS No. 127632 DA)

BASIC MAGNETIC LEVITATION SYSTEMS WITH A CONTINUOUS SHEET TRACK

Urankar, L.
Siemens Forsch Entwicklungsber Res. Dev. Rep., Vol. 4, No. 1, 1975, pp. 25-32
(NTIS No. 75-03 06575)

STUDY OF SUPERCONDUCTING MAGNETIC SUSPENSION AND GUIDANCE CHARACTERISTICS ON LOOP TRACKS

Iwahana, T.
IEEE Trans. Magn., Vol. MAG-11, No. 67, Nov. 1975, pp. 1704-11
(TRIS No. 14111 DA), (*Theoretical and experimental analysis*)

NEW METHOD FOR STABLE LEVITATION OF AN IRON BODY USING SUPERCONDUCTORS

Homer, G. J.; Randle, T. C.; Walters, C. R.; Wilson, M. N.; Bevir, M. K.
J. Phys. D. (Appl. Phys), Vol.10, No.6, April 21, 1977, pp. 879-886
(NTIS No. 77-08 0164)

INFLUENCE OF EDDY CURRENTS ON AN ELECTROMAGNETIC LEVITATION SYSTEM

Bohn, G. H.
2nd Conf. on Adv. in Magn. Mater. and Appl., London, England, Sept. 1-3 1976, IEE Proc. No. 142, pp. 104-107
(NTIS No. 77-09 01374)

PASSIVE SUSPENSION DESIGN FOR A MAGNETICALLY LEVITATED VEHICLE

Belanger, P. R., and Guillemette, R.
Proc. of the Autom. Control Conf., San Francisco, Calif., June 22-24, 1977, pp. 1476-1486
(NTIS No. 78-01 02788)

ANALYSIS OF MAGNETIC SUPPORT SYSTEMS OF ELECTRIC TRACTION ARRANGEMENTS FOR HIGH SPEED SURFACE TRANSPORT AND SELECTION OF LINES OF FURTHER RESEARCH

Shapovalenko, A. G.; Gavilyuk, V. A.; Zukin, P. P.
Izvestiia Vysshikh Ucheb Zaved, Elektromekhanika NB, Aug. 1977, pp. 879-881 (Russian)
(TRIS No. 177171 DA)

SOME PROBLEMS OF THE THEORY OF ELECTRODYNAMIC SUSPENSION OF HIGH-SPEED SURFACE TRANSPORT (HSST) VEHICLES

Treshchev, I. I.; Kochetkov, V. M.; Yudakov, Y. V.

Izvestia Vysshikh Ucheb Zaved, Elektromekhanika NB, Aug. 1977, pp. 871-874 (Russian)
(TRIS No. 177173 DA) (*Theoretical analysis*)

HOW TO CALCULATE LEVITATION CHARACTERISTICS IN ELECTRODYNAMIC SUSPENSION OF HIGH-SPEED VEHICLES

Kochetkov, V. M.

Power Eng. (New York), Vol.15, No.5, 1977, pp. 98-105
(NTIS No. 79-05 06804)

LEVITATION CHARACTERISTICS OF MAGNETICALLY SUSPENDED VEHICLES UTILIZING CONTINUOUS CONDUCTIVE SHEETS

Takahashi, T.

Electrical Engineering in Japan, Vol. 96, No. 6, Nov. 1977, pp. 97-105
(TRIS No. 174035 DA)

MAGNETIC SUSPENSION FOR LOW-SPEED VEHICLES

Sinha, P. K.

J. Dyn. Syst., Meas. Control, Trans. ASME, Vol.100, No. 4, Dec. 1978, pp. 333-342
(NTIS No. 79-06 00883)

DESIGN OF SUSPENSION SYSTEMS WITH MAGNETIC LEVITATION

Tozoni, O. V., and Nikolaeva, N. S.

Power Eng. (New York), Vol.16, No.5, 1978, pp. 28-35
(NTIS No. 79-11 02033)

FORCES AND MOMENTS FOR ELECTRODYNAMIC LEVITATION SYSTEMS - LARGE-SCALE TEST RESULTS AND THEORY

Atherton, D. L.; Eastham, A. R.; Ooi, B. T.; Jain, O. P.

IEEE Trans. Magn., Vol. MAG-14, 1978, pp. 59-68

PASSENGER CARRYING VEHICLES USING CONTROLLED ELECTROMAGNETS FOR SUSPENSION

Jayawant, B. V.

Proc. Int. Conf. Electr. Mach., Vol.1, Brussels, Belgium, Sept. 11-13, 1978, Organ. by Kathol Univ., Louvain, pp. L7. 2. 1 - L7. 2. 6
(NTIS No. 80-12 07871)

MOMENTS AND FORCE DENSITIES OF THE ELECTRODYNAMIC LEVITATION SYSTEM

Ooi, B. T., and Jain, O.P.

IEEE Trans. Magn., Vol. MAG-15, No. 3, May 1979, p. 1102
(TRIS No. 307648 DA)

SUBOPTIMAL SEMI-ACTIVE VEHICLE SUSPENSIONS

Hrovat, D.; Hubbard, M.; Margolis, D. L.

Proc. Jt. Autom. Control Conf., An ASME Century 2 Emerging Technol. Conf., Vol.1, San Francisco, Calif., Aug.13-15, 1980 (Cat. No. 81CH1580-0)
(NTIS No. 81-05 08241)

CHARACTERISTICS OF A MAGLEV VEHICLE RUNNING ON ALUMINIUM SHEET GUIDEWAYS

Iwahana, T.; Iketan, T.; Fujimoto, T.

Q. Rep. Railw. Tech. Res. Inst. (Jpn), Vol.21, No.4, Dec. 1980, pp. 174-179
(NTIS No. 81-09 04801)

DAMPING CHARACTERISTICS AND AC MAGNETIC FIELD OF REPULSIVE MAGNETIC LEVITATION

Fujiwara, S., and Hariyama, T.

Q. Rep. Railw. Tech. Res. Inst., (Jpn), Vol. 24, No. 2, June 1983, p. 93

(TRIS No. 382253), (*Experimental analysis*)

MAGNET/RAIL SYSTEMS - A CRITICAL REVIEW OF THE OPTIONS

Armstrong, D. S.

Int. Conf. Maglev Transp.: Now and for the Future, Solihull, England, Oct. 9-12, 1984, IIME Conf.

Publications 1984-12, Available from Mechanical Engineering Publications Ltd. Box 24, Northgate Ave., Bury St., Edmunds, Suffolk IP32, 6PW, England, 1984, pp. 59

(TRIS No. 462931)

A NEW FORM OF MAGNETIC SUSPENSION FOR HIGH SPEED MAGLEV TRANSPORT

Paul, R.J. A.; Asher, G. M.; Williams, J. T.; Brown, J.

Int. Conf. Maglev Transp.: Now and for the Future, Solihull, England, Oct. 9-12, 1984, IIME Conf.

Publications 1984-12, Available from Mechanical Engineering Publications Ltd., Box 24, Northgate Ave., Bury St., Edmunds, Suffolk IP32, 6PW, England, 1984, pp. 67

(TRIS No. 462933)

PERFORMANCE OF INDUCTION LEVITATORS

Eastham, J. F. and Rodger, D.

IEEE Trans. Magn., Vol. MAG-20, No.5, Sept. 1984, pp.1684-1686

(NTIS No. 85-07 10172)

TRANSVERSE FLUX ELECTRODYNAMIC LEVITATION SYSTEM

Gieras, J. F.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 207-215

(*Theoretical and experimental analysis*)

EXPERIMENTAL STUDIES OF THE SUPERCONDUCTING SPLIT TRACK MAGLEV SYSTEM

Mahtani, J. L., and Rhodes, R. G.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 199-205

(*Experimental analysis*)

A PROPOSAL OF NEW STRUCTURE FOR ELECTROMAGNETIC LEVITATION SYSTEM FOR TRAINS

Yamamura, S., and Yamaguchi, H.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 165-172

(*Theoretical analysis and design with some experimental results*)

FAST ACTING MAGNETS FOR TRANSPORTATION PURPOSES

Weh, H., and May, H.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 155-163

(*Design and analysis of various types of magnets*)

EVALUATION-MODULE/SUSPENSION SYSTEM INSTALLED ON THE HSST-03 VEHICLE

Kitamoto, M.; Suzuki, S.; Iwaya, M.; Kato, J.; Kawashima, M.; Shimada, T.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 137-144

(*Test results*)

THE ELECTROMAGNETIC SUSPENSION SYSTEM OF THE MAGNETIC TRAIN "TRANSRAPID"

Bohn, G., and Steinmetz, G.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 107-114

(System description and experimental results)

ELECTROMAGNETIC LEVITATION SYSTEM BY MEANS OF SALIENT-POLE TYPE MAGNETS COUPLED WITH LAMINATED SLOTLESS RAILS

Yamamura, S., and Yamaguchi, H.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 227-232

(Theoretical design and analysis)

STUDY FOR OPTIMIZATION OF GROUND COILS OF REPULSIVE TYPE MAGLEV

Fujiwara, S., and Terauchi, N.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 95-99

(Theoretical analysis)

THE REDUCTION OF LATERAL FORCE BY THE ARRANGEMENT OF PERMANENT MAGNETS IN THE PM-TYPE MAGNETIC LEVITATION DEVICE

Ebihara, D.; Suzuki, T.; Imagawa, K.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 95-98

LATERAL BEHAVIOUR OF A MAGNETIC WHEEL AND ITS COORDINATION WITH THE MAGLEV CONTROL SYSTEM

Masada, E.; Koseki, T.; Kawashima, M

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 87-93

ELECTROMAGNETIC SUSPENSION AND LEVITATION TECHNIQUES

Jayawant, B. V.

Proc. R. Soc. London Ser. A, Vol.416, No.1851, April 8, 1988, pp. 245-320

(NTIS No. 88-08 06829)

CHARACTERISTICS OF EDS MAGNETIC LEVITATION WITH GROUND COILS FOR LEVITATION ARRANGED ON THE SIDE WALL

Fujiwara, S.

Electr. Eng. Jpn., Vol. 108, No.3, May-June 1988, pp. 101-110

(NTIS No. 89-03 02281)

CHARACTERISTICS OF EDS MAGLEV HAVING LEVITATION COILS ON THE SIDE WALL OF THE GUIDEWAY

Fujiwara, S.

Q. Rep. Railw. Tech. Res. Inst. (Jpn), Vol. 29, No. 4, Nov. 1988, pp. 157-163

(NTIS No. 89-04 02124)

ATTRACTIVE LEVITATION FOR HIGH-SPEED GROUND TRANSPORT WITH LARGE GUIDEWAY CLEARANCE AND ALTERNATING-GRADIENT STABILIZATION

Hull, J. R.

IEEE Trans. Magn., Vol. MAG-25, No. 5, Sept. 1989, pp. 3272-3274

DESIGN OF THE HYBRID MAGNET IN THE MAGNETIC LEVITATION SYSTEM BY THE BOUNDARY ELEMENT METHOD

Amano, H.; Mural, T.; Onuki, T.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Jpn., pp. 441-446

**STUDY ON FUNDAMENTALS OF MECHANICALLY CONTROLLED PERMANENT MAGNET
LEVITATION SYSTEM FOR MAGLEV TRANSPORT VEHICLE**

Abe, M.; Fukumoto, Y.; Tsunashima, H.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 387-392

A NEW ELECTROMAGNETIC GUIDANCE TECHNOLOGY WITH NO GUIDANCE MAGNETS

Morishita, M., and Azukizawa, T.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 381-386

**MAGNET CONCEPTS WITH ONE- AND TWO-DIMENSIONAL STABLE SUSPENSION
CHARACTERISTICS**

Weh, H.; May, H.; Hupe, H.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 251-256

**STUDY FOR HARMONIC RIPPLE OF ELECTROMAGNETIC FORCE IN SUPERCONDUCTING
MAGNETICALLY LEVITATED VEHICLE WITH NON-RECTANGULAR GROUND COILS**

Saitoh, T.; Miyashita, K.; Kiwaki, H.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 245-249

**CHARACTERISTICS OF THE COMBINED LEVITATION AND GUIDANCE SYSTEM USING GROUND
COILS ON THE SIDE WALL OF THE GUIDEWAY**

Fujiwara, S.; Fujimoto, T.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 241-244

VELOCITY DEPENDENCE OF LEVITATION POSITION OF A MAGNETICALLY LEVITATED VEHICLE

Kobayashi, T.; Shibata, M.; Maki, N.; Saito, T.

Proc. 1991 National Convention of the Institute of Electrical Engineers (IEE of Japan).

**CHARACTERISTICS OF THE NULL FLUX TYPE LEVITATION SYSTEM WITH RACE TRACK SHAPED
SUPERCONDUCTING COIL**

Fujiwara, S. and Fujimoto, T.

Proc. 1990 National Convention of the Institute of Electrical Engineers (IEE of Japan).

**SUPERCONDUCTING MAGNETIC LEVITATION AND LINEAR SYNCHRONOUS MOTOR PROPULSION
FOR HIGH SPEED GUIDED GROUND TRANSPORTATION**

Eastham, A.R., Editor

Canadian Inst. of Guided Ground Transport, CIGGT Report No. 75-5, Queen's Univ., Kingston, Ontario,
Canada, March 1975, 297 pp.

(TRIS No. 141128DA)

**SUPERCONDUCTING MAGNETIC LEVITATION AND LINEAR SYNCHRONOUS MOTOR PROPULSION
FOR HIGH-SPEED GUIDED GROUND TRANSPORTATION**

Eastham, A.R., Editor

Canadian Inst. of Guided Ground Transport, CIGGT Report No. 77-13, Queen's Univ., Kingston, Ontario,
Canada, Sept. 1977, 180 pp.

5 Linear Propulsion Techniques

PROPOSED PROPULSION SYSTEM FOR MAGNETICALLY LEVITATED GUIDED GROUND TRANSPORTATION

Atherton, D. L.

Proc. Pap. 5th Int. Appl. Superconduct Conf., Annapolis, Md., May 1-3, 1972 pp. 110-112
(NTIS No. 74-02 02965)

MAGNETIC PROPULSION FOR MAGNETICALLY LEVITATED TRAINS

Melville, P. H.

Cryogenics, Vol. 13, No. 12, Dec. 1973, pp. 716-717
(TRIS No. 056804 DA)

LINEAR SYNCHRONOUS MOTORS FOR HIGH-SPEED GROUND TRANSPORTATION

Levi, E.

IEEE Trans. Magn., Vol. MAG-9, No. 3, Sept. 1973, pp. 242-248

ANALYSIS OF SUPERCONDUCTING MAGNETIC LEVITATION AND LINEAR SYNCHRONOUS MOTOR PROPULSION FOR HIGH SPEED GUIDED GROUND TRANSPORTATION

Canadian Inst. of Guided Ground Transport, Queen's Univ., Kingston, Canada, Project No. D.71.72,
235 pp.

(TRIS No. 126463)

CONFERENCE ON LINEAR ELECTROMAGNETIC MACHINES, HELD AT IEE, LONDON, OCT. 21-23, 1974

1974 Conf. Paper, 250 pp., IEE, Savoy Place, London, WC2R OBL, England
(TRIS No. 125581 DA)

CHARACTERISTICS OF PROPULSION SYSTEM OF THE MAGNETIC LEVITATION VEHICLE NAMED ML-100

Fujiwara, S.

Q. Rep. Railw. Tech. Res. Inst., Vol. 16, No. 2, June 1975, pp. 77-78
(TRIS No. 127350 DA)

CANADIAN DEVELOPMENTS IN SUPERCONDUCTING MAGLEV AND LINEAR SYNCHRONOUS MOTORS

Atherton, D. L., and Eastham, A. R.

Cryogenics, Vol. 15, No. 7, July 1975, pp. 395-402

ASSESSMENT OF LINEAR SUPERCONDUCTING MOTORS FOR MAGLEV

Abel, E.; Mahtani, J. L.; Mulhall, B. E.; Rhodes, R. G.

2nd Conf. on Adv. in Magn. Mater. and Appl., London, England, Sept. 1-3, 1976, IEE Proc. No. 142,
pp. 125-127

(NTIS No. 77-09 01379)

NORMAL FORCE VARIATION IN SINGLE-SIDED LINEAR INDUCTION MACHINES

Freeman, E. M., and Lowther, D. A.

2nd Conf. on Adv. in Magn. Mater. and Appl., London, England, Sept. 1-3 1976, IEE Proc. No. 142,
pp. 128-130

(NTIS No. 77-09 01380)

DESIGN, ANALYSIS AND TEST RESULTS FOR A SUPERCONDUCTING LINEAR SYNCHRONOUS MOTOR

Atherton, D. L.; Cunningham, J. A.; Dewan, S. B.; Eastham, A. R.; Slemon, G. R.; Turton, R. A.

IEE Proc., Vol. 124, No. 4, April 1977, pp. 363-372

(TRIS No. 167563 DA) (*Test results from 7.6 m-diameter wheel*)

THE AIR-CORED LINEAR SYNCHRONOUS MOTOR: THE STATE OF THE ART IN ERLANGEN

Parsch, C. P., and Wiegner, G.

Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1978, pp. 98-107
(*Overview, test results*)

NORMAL FORCES IN LINEAR INDUCTION MOTORS WITH WOUND SECONDARY

Andresen, E., and Baertz, U.

Proc. Int. Conf. Electr. Mach., Vol. 1, Brussels, Belgium, Sept. 11-13, 1978, Organ. by Kathol Univ.,
Louvain, pp. L1. 1. 1 - L1.1.14
(NTIS No. 80-12 07706)

LINEAR SYNCHRONOUS MOTOR FOR URBAN TRANSIT USING RARE-EARTH MAGNET

Slemon, G. R.; Burke, P. E.; Terzis, N.

IEEE Trans. Magn., Vol. MAG-14, No.5, Sept. 1978, pp. 921-923
(NTIS No. 79-07 02809)

PROPULSION CONTROL OF A TRACK-POWERED LINEAR SYNCHRONOUS MOTOR FOR A
MAGNETICALLY LEVITATED VEHICLE ON THE BASIS OF POWER MEASUREMENT IN THE
INVERTOR STATION

Boening, B., and Leonhard, W.

Proc. Int. Conf. Electr. Mach., Vol. 1, Brussels, Belgium, Sept. 11-13, 1978, Organ. by Kathol Univ.,
Louvain, pp. L5. 1. 1 -L5. 1. 9
(NTIS No. 80-12 07730)

DESIGN AND TECHNOLOGY OF THE IRON-CORE LINEAR SYNCHRONOUS MOTOR FOR ADVANCED
GROUND TRANSPORTATION

Weh, H.; Mosebach, H.; May, H.

Proc. Int. Conf. Electr. Mach., Vol. 1, Brussels, Belgium, Sept. 11-13, 1978, Organ. by Kathol Univ.,
Louvain, pp. L4. 5. 1 -L4. 5. 10
(NTIS No. 80-12 07729)

HOMOPOLAR LINEAR SYNCHRONOUS MOTOR

Slemon, G. R.

Proc. Int. Conf. Electr. Mach., Vol. 1, Brussels, Belgium, Sept. 11-13, 1978, Organ. by Kathol Univ.,
Louvain, pp. L4. 4. 1 -L4. 4. 10
(NTIS No. 80-12 07728)

AIR-CORED LINEAR SYNCHRONOUS MOTOR: THE STATE OF THE ART IN ERLANGEN

Parsch, C. P., and Wiegner, G.

Proc. Int. Conf. Electr. Mach., Vol. 1, Brussels, Belgium, Sept. 11-13, 1978, Organ. by Kathol Univ.,
Louvain, pp. L4. 3. 1 -L4. 3. 13
(NTIS No. 80-12 07727)

CHARACTERISTICS OF THE FORCE COMPONENTS OF AN AIR-CORED LINEAR SYNCHRONOUS
MOTOR WITH SUPERCONDUCTING EXCITATION MAGNETS

Lingaya, S., and Persch, C. P.

Proc. Int. Conf. Electr. Mach., Vol. 1, Brussels, Belgium, Sept. 11-13, 1978, Organ. by Kathol Univ.,
Louvain, pp. L4. 2. 1 -L4. 2. 11
(NTIS No. 80-12 07726)

LINEAR RELUCTANCE MACHINES FOR URBAN TRANSPORT

Chahal, J. S.

Proc. Int. Conf. Electr. Mach., Vol. 1, Brussels, Belgium, Sept. 11-13, 1978, Organ. by Kathol Univ.,
Louvain, pp. L4. 1. 1 -L4. 1. 10
(NTIS No. 80-12 07725)

COMPARISON BETWEEN ASYNCHRONOUS AND SYNCHRONOUS LINEAR MOTORS OF SHORT STATOR CONSTRUCTION

Rentmeister, M.

Proc. Int. Conf. Electr. Mach., Vol. 1, Brussels, Belgium, Sept. 11-13, 1978, Organ. by Kathol Univ., Louvain, pp. L3. 5. 1 - L3. 5. 11
(NTIS No. 80-12 07722)

PROPULSION SYSTEMS FOR MAGNETICALLY SUSPENDED VEHICLES

Lang, A.

Proc. Int. Conf. Electr. Mach., Vol. 1, Brussels, Belgium, Sept. 11-13, 1978, Organ. by Kathol Univ., Louvain, pp. L3. 3.1 - L3. 3.10
(NTIS No. 80-12 07720)

COMPARISON OF SINGLE SIDED AND DOUBLE SIDED LINEAR MOTORS

Oberrettl, K.

Proc. Int. Conf. Electr. Mach., Vol. 1, Brussels, Belgium, Sept. 11-13, 1978, Organ. by Kathol Univ., Louvain, pp. L1. 4. 1 - L1. 4. 8
(NTIS No. 80-12 07709)

ASSESSMENT BY SCALING TESTS OF ELECTROMAGNETIC LINEAR MACHINES

Giovachini, J.L.; Leyrit, M.; Pascal, J. P.

Proc. Int. Conf. Electr. Mach., Vol. 1, Brussels, Belgium, Sept. 11-13, 1978, Organ. by Kathol Univ., Louvain, pp. L1. 3. 1 - L1. 3.10
(NTIS No. 80-12 07708)

PERMANENT MAGNETIC EXCITATION OF ROTATING AND LINEAR SYNCHRONOUS MACHINES

Weh, H., and May, H.

J. Magn. Mater., Vol.9, No.1-3, Oct.-Nov. 1978, pp. 173-178
(NTIS No. 79-05 06608)

LINEAR SYNCHRONOUS PROPULSION WITH PERMANENT MAGNET EXCITATION

Weh, H.

Proc. Int. Conf. Cybern. Soc., Cambridge, Mass., Oct. 8-10, 1980 (Cat. No. 80CH1555-2), pp. 1042-1049
(NTIS No. 81-05 04165)

SINGLE-SIDED LINEAR INDUCTION MOTORS WITH CAGE AND SOLID-STEEL REACTION RAILS FOR INTEGRATED MAGNETIC SUSPENSION AND PROPULSION OF GUIDED GROUND TRANSPORT

Katz, R. M., and Eastham, T. R.

Conf. Rec. 15th IAS Ann. Meet., Cincinnati, Ohio, Sept. 28-Oct. 3, 1980, pp. 261-269
(NTIS No. 81-11 06708)

DESIGN PRINCIPLE OF THE HIGH SPEED SINGLE-SIDED LINEAR INDUCTION MOTORS FOR PROPULSION OF MAGNETICALLY LEVITATED TRAINS

Nonaka, S., and Higuchi, T.

Electr. Eng. Jpn., Vol.101, No.4, July-Aug. 1981, pp. 96-105
(NTIS No. 83-04 01540)

OPTIMUM LINEAR SYNCHRONOUS MOTOR DESIGN FOR HIGH SPEED GROUND TRANSPORTATION

Azukizawa, T.

IEEE Trans. Power Appar. Syst., Vol. PAS-102, No. 10, Oct. 1983, pp. 3306-3314
(NTIS No. 84-01 08673)

PROJECT DESIGN OF A MAGLEV SYSTEM WITH SHORT-STATOR LINEAR MOTOR PROPULSION

Gaede, P. J.

J. Adv. Transp., Vol. 17, No.1, Spring 1983, pp. 49-56
(NTIS No. 84-09 01171)

TECHNICAL CONCEPT AND SYSTEM DATA OF A MAGNETICALLY SUSPENDED TRAIN WITH
PROPULSION BY SHORT STATOR LINEAR INDUCTION MOTOR

Gaede, P. J.

Siemens (Georg) Verlagsbuchhandlung, Glasers Annalen ZEV, Vol. 107, No. 12, Dec. 1983,
pp. 411-416 (German)
(TRIS No. 382635)

LATERAL FORCES IN LINEAR RELUCTANCE MOTORS

El-Antably, A.M.

Eletr. Mach. Power Syst., Vol.9, No.6, 1984, pp.413-420
(NTIS No. 85-05 02329)

LINEAR SYNCHRONOUS MACHINES FOR MAGNETICALLY-LEVITATED VEHICLES

Anon

IEE Colloq. Dig. No. 1983/11, Linear Synchronous Mach. for Magn.-Levitated Veh., London, England,
Feb. 4, 1983, Item No. 709266
(NTIS No. 85-09 11391)

PROPULSION AND POWER SUPPLY SYSTEM OF THE TRANSPAPID O6 VEHICLE DESIGN AND
TEST RESULTS-PART 1: PROPULSION

Friedrich, R.; Dreilmann, K.; Leistikow, R.; Bohm, E.; Weller, A.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keldanren Kalkan, Tokyo, Japan, Publ. by IEE,
Japan, pp. 75-82
(General discussion on design and test results)

INFLUENCE OF CONDUCTIVE GAP THICKNESS ON THE PERFORMANCE OF SINGLE-SIDED LINEAR
INDUCTION MOTORS

Gieras, J. F.; Eastham, A. R.; Dawson, G. E.

Electr. Mach. Power Syst., Vol.11, No.2, 1986, pp.125-136
(NTIS No. 86-05 02952)

SHORT-STATOR PROPULSION SYSTEM OF HSST-03

Masada, E.; Fujisaki, K.; Kitamoto, M.; Takeuchi, H.; Kawashima, M.; Hosoda, Y.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keldanren Kalkan, Tokyo, Japan, Publ. by IEE,
Japan, pp. 61-68
(Test results)

ANALYSIS OF LINEAR INDUCTION DRIVES BY ELECTROMAGNETIC AND FINITE ELEMENT
TECHNIQUES

Eastham, A. R.; Dawson, G. E.; Gieras, J. F.; Ong, R.; Ananthasivam, K.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keldanren Kalkan, Tokyo, Japan, Publ. by IEE,
Japan, pp. 53-60
(Theoretical, numerical and experimental results)

ON THE DESIGN OF SINGLE-SIDED LINEAR INDUCTION MOTORS FOR PROPULSION OF MAGLEV
VEHICLES

Higuchi, T., and Nonaka, S.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keldanren Kalkan, Tokyo, Japan, Publ. by IEE,
Japan, pp. 45-52
(Design with examples)

ON SUITABLE ANALYTICAL METHOD FOR LIM PROPULSION

Nonaka, S., and Furukawa, T.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keldanren Kaikan, Tokyo, Japan, Publ. by IEE,
Japan, pp. 37-44
(Analytical and numerical results)

AN ANALYSIS OF A THIN STEEL ROTOR, DOUBLE SIDED, ANNULAR, LINEAR INDUCTION MOTOR
 Peabody, F.; Dunford, W. G.; Brdiczko, J.
 Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE,
 86CH2276-4, pp. 193-198
(Theoretical and experimental analysis)

APPROACH TO PERFORMANCE CALCULATION OF A SINGLE-SIDED LINEAR INDUCTION MOTOR
 WITH A CAGE REACTION RAIL
 Gleras, J. F.; Eastham, A. R.; Dawson, G. E.; Ballantyne, W.J.
 Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE,
 86CH2276-4, pp. 187-192
(Theoretical model and numerical results)

ANALYSIS OF LINEAR INDUCTION MOTORS USING A SIMPLIFIED SPACE HARMONIC TECHNIQUE
 Nonaka, S., and Fujii, N.
 Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE,
 86CH2276-4, pp. 179-186
(Theoretical model and numerical results)

TEST RESULTS OF FULL-SCALE 1 MW LINEAR INDUCTION MOTOR ("U-LIM-AS") WITH PWM
 INVERTER
 Fintescu, N. D., and Pascal, J. P.
 Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE,
 86CH2276-4, pp. 165-170
(Introduction and test results)

THRUST AND LEVITATION FORCE CHARACTERISTICS OF LINEAR SYNCHRONOUS MOTORS
 Saijo, T.
 Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE,
 86CH2276-4, pp. 157-164
(Theoretical model and numerical results)

A LINEAR SYNCHRONOUS UNIPOLAR MOTOR FOR INTEGRATED MAGNETIC PROPULSION AND
 SUSPENSION
 Gilliland, R. G., and Pearson, G. W.
 Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE,
 86CH2276-4, pp. 149-155
(Theoretical and test results)

DESIGN OF SINGLE-SIDED LINEAR INDUCTION MOTORS FOR URBAN TRANSIT
 Nonaka, S., and Higuchi, T.
 Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE,
 86CH2276-4, pp. 141-148
(Theoretical model with numerical results)

OPERATIONAL EXPERIENCE WITH A LIM-DRIVEN TRANSIT SYSTEM
 Gibbon, M. A., and Parker, J. H.
 Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE,
 86CH2276-4, pp. 135-140
(Test results)

LINEAR SYNCHRONOUS UNIPOLAR MOTOR (LSUM) DEVELOPMENT REPORT
 Gilliland, R. G., and Pearson, G. W.
 Prepared by Boeing Aerospace Co. for U.S. Dept. of Transp., Urban Mass Transp. Administration Rep.
 UMTA-WA-06-0014-086-2, Dec. 1986

THE LONG STATOR PROPULSION SYSTEM OF THE TRANSRAPID - DEVELOPMENT PROSPECTS UNTIL SERVICE MATURITY

Friedrich, R.; Dreilmann, K.; Leistikow, R.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 171-180

(Status report, including power supply)

THE MAGNETIC ELEVATOR FOR SOLIDS (MES): A TUBULAR LINEAR RELUCTANCE MOTOR

Wallace, A. K., and Ranawake, U.A.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 45-51

THE SWITCH RELUCTANCE MOTOR AS A LOW-SPEED LINEAR DRIVE

Adamlak, K.; Barlow, D.; Choudhury, C. P.; Cusack, P.M.; et al.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 39-43

THE SERIES CONNECTION OF SHORT STATOR LINEAR INDUCTION MOTORS FOR INTERCITY TRANSIT

Nonaka, S., and Fujii, N.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 23-29

TRANSIENT OPERATION OF A LINEAR INDUCTION MOTOR

Gentile, G.; Rotondale, N.; Scarano, M.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 7-11

DESIGN STRATEGY OF SINGLE-SIDED LINEAR INDUCTION MOTORS FOR PROPULSION OF VEHICLES

Nonaka, S., and Higuchi, T.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 1-5

ELEMENTS OF LINEAR INDUCTION MOTOR DESIGN FOR URBAN TRANSIT

Nonaka, S., and Higuchi, T.

IEEE Trans. Magn., Vol. MAG-23, No.5, Sept. 1987, pp.3002-3004
(NTIS No. 88-07 07691)

COMPARISON OF SHORT PRIMARY LINEAR MACHINES FOR HIGH-SPEED MAGLEV VEHICLES

Eastham, J. F.; Balchin, M. J.; Rodger, D.; Coles, P. C.

IEEE Trans. Magn., Vol. MAG-23, No. 5, Sept. 1987, pp.2338-2343
(NTIS No. 88-07 07482)

REVIEW OF RECENT PROGRESS IN LINEAR MOTORS

Mclean, G. W.

IEE Proc. Part B, Vol. 135, No. 6, Nov. 1988, pp. 380-416
(NTIS No. 89-03 02293)

SIMULATION OF HEAVE MOTION OF CONTROLLED-PM LSM TYPE TR 06 USING A DECENTRALIZED CONTROL MODEL

Yohida, K., and Nakajima, O.

Electr. Eng. Jpn., Vol. 108, No. 4, July-Aug. 1988, pp. 113-119
(NTIS No. 89-06 03939)

DESIGN OF SINGLE-SIDED LINEAR INDUCTION MOTORS FOR URBAN TRANSIT

Nonaka, S., and Higuchi, T.

IEEE Trans. Veh. Technol., Vol. 37, No. 3, Aug. 1988, pp 167-173

(NTIS No. 89-08 07996)

DEVELOPMENT OF A MAGNETICALLY SUSPENDED STEPPING MOTOR FOR CLEAN-ROOM TRANSPORTATION AND SAMPLE HANDLING

Higuchi, T., and Kawakatsu, H.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 363-368

DEVELOPMENT OF THE TRANSPORT SYSTEM WITH PM TYPE LPM

Iwahana, T.; Watanabe, T.; Asakawa, Y.; Yashiro, M.; Inoue, M.; Ebihara, D.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 357-362

TESTING MACHINE OF HYDRODYNAMIC FORCES USING LINEAR MOTOR

Kawanishi, T.; Takagi, N.; Kato, T.; Karita, J.; Takakado, Y.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 351-356

A NOVEL CONTROL SCHEME OF A LINEAR INDUCTION MOTOR

Koseki, T.; Ohsaki, H.; Masada, E.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 345-350

ON THE REDUCTION OF ENERGY CONSUMPTION OF LINEAR INDUCTION MOTORS FOR URBAN TRANSIT

Nonaka, S., and Higuchi, T.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 333-338

THE ASPECTS OF DESIGN OF SINGLE-SIDED LINEAR INDUCTION MOTORS FOR TRANSPORT AND INDUSTRIAL APPLICATIONS

Gieras, J. F.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 321-326

CHARACTERISTICS OF TUBULAR LINEAR INDUCTION MOTOR ENERGIZED BY OPTIMIZED PRIMARY CURRENT

Yamamura, T.; Yokoi, T.; Ishiyama, A.; Numata, H.; Kohyama, H.; Onuki, T.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 223-228

STUDY OF NORMAL FORCE REDUCTION TYPE OF LINEAR SYNCHRONOUS MOTOR

Miyashita, K.; Kanazawa, H.; Nihel, H.; Kiwaki, H.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 217-221

EXPERIMENTAL RESULTS OF SINGLE SIDED L.I.M.

Im, D. H.; Park, E. C.; Kim, G. T.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 209-216

STUDY OF LINEAR RELUCTANCE MOTOR FOR ELECTROMAGNETIC LEVITATION SYSTEM

Yamaguchi, H., and Yamamura, S.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 197-202

THE SYNCHRONOUS LONG-STATOR PROPULSION SYSTEM FOR TRANSRAPID - PRESENT STATE OF DEVELOPMENT -

Friedrich, R.; Elkermann, J.; Ruppel, J.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Jpn., pp. 147-154

6 Integrated Magnetic Suspension, Propulsion, and Guidance Systems

INTEGRATED SYSTEMS FOR MAGNETIC SUSPENSION AND PROPULSION OF VEHICLES

Darby, G.T., and Powell, J. R.

Applied Superconductivity Conf., May 1-3, 1972, pp. 120-126, IEEE Pub. No. 72CH0682-5-TABSC.

BASELINE SPECIFICATIONS FOR A MAGNETICALLY SUSPENDED HIGH-SPEED VEHICLE

Borcherts, R. H.; Davis, L. C.; Reitz, J. R.; Wilkie, D. F.

IEEE Proc., Vol. 61, No. 5, May 1973, pp. 569-578

(TRIS No. 046395 DA)

DESIGN PRINCIPLES FOR MAGNETIC LEVITATION

Thornton, R. D.

IEEE Proc., Vol. 61, No. 5, May 1973

(TRIS No. 046396 DA)

CHARACTERISTICS OF SUPERCONDUCTIVE MAGNETIC SUSPENSION AND PROPULSION FOR HIGH-SPEED TRAINS

Iwamoto, M., and Yamada, T.

IEEE Proc., Vol. 61, No. 5, May 1973

(TRIS No. 047000 DA)

PERFORMANCE OF MAGNETIC SUSPENSIONS FOR HIGH-SPEED VEHICLES OPERATING OVER FLEXIBLE GUIDEWAYS

Katz, R. M.; Nene, V. D.; Ravera, R. J.; Skalski, C. A.

Intersoc. Conf. on Transp., Denver, Colo., USA, Sept. 23-27, 1973, Report No. 73-ICT-89

(TRIS No. 051415 DA)

ANALYSIS OF A COMBINED ATTRACTION-MAGLEV-PROPULSION SYSTEM FOR A HIGH SPEED VEHICLE

Muhlenberg, J. D., and Nene, V. D.

US Fed. Railroad Admin. Rep. FRA-OR&D 75-61, March 1975, 45pp., Location of Work - MITRE Corp, Mclean, Va.

(NTIS No. 75-12 06147)

CONCEPTUAL DESIGN OF A MAGLEV HSGT SYSTEM

Pons, R. L., and Clark, T. B.

Intersoc. Conf. on Transp., Atlanta, Ga, USA, July 14-18, 1975, ASME Pap. No. 75-ICT-2, 12pp.,

(NTIS No. 75-12 01553)

REPULSIVE LEVITATION AND PROPULSION

Yamashita, H.

Q. Rep. Railw. Tech. Res. Inst., Vol. 17, No. 4, Dec. 1976, pp. 157-165

(TRIS No. 156236 DA) (*Principles, concepts, and experimental results*)

CHARACTERISTICS OF SUPERCONDUCTING MAGNETIC SUSPENSION AND GUIDANCE ON LOOP TRACKS

Iwahana, T.

Q. Rep. Railw. Tech. Res. Inst., Vol. 17, No. 4, Dec. 1976, pp. 178-181

(TRIS No. 156240 DA) (*Theoretical and experimental results*)

MECHANICAL SUSPENSION VEHICLE WITH AN ACTIVE GUIDE-WAY

Weh, H.; Mosebach, H.; Deleroi, W.

2nd Int. Hovering Craft, Hydrofoil and Adv. Trans. Syst. Conf., Amsterdam, Netherlands, May 17-20 1976, pp. 101-109, Location of the work - Tech. Univ., Braunschweig, Germany, No. -021190

(NTIS No. 77-03 04109)

SUPERCONDUCTING PADDLEWHEEL AS AN INTEGRATED PROPULSION LEVITATION MACHINE FOR HIGH GROUND TRANSPORTATION

Borcherts, R. H., and Davis, L. C.

Electr. Mach. Electromech., Vol.3, No. 3-4, April-June 1979, pp. 341-355
(NTIS No. 79-08 01870)

ANALYTICAL AND DESIGN ASPECTS OF MAGNETICALLY SUSPENDED VEHICLES

Sinha, P. K.

Automatica, Vol. 15, No. 5, Sept. 1979, pp. 539-552
(NTIS No. 80-02 05326)

MAG-TRANSIT DEVELOPMENT AT BOEING

Gilliland, R. G.

29th IEEE Veh. Technol. Conf., Arlington Heights, Ill., USA, March 27-30, 1979, Conf. Rec. of Pap.,
Cat. No. 79CH1378-9VT
(NTIS No. 79-09 07445)

INTEGRATED MAGNETIC SUSPENSION AND PROPULSION OF GUIDED GROUND TRANSPORTATION VEHICLES WITH A SLIM

Katz, R. M.; Eastham, A. R.; Dawson, G. E.; Atherton, D. A.; Schwalm, C. L.

IEEE Trans. Magn., Vol. MAG-15, No.6, Nov. 1979, pp. 1437-1439
(NTIS No. 81-08 03246)

"SPLIT-TRACK" SYSTEM OF ELECTROMAGNETIC LEVITATION FOR HIGH SPEED TRANSPORT

Mahtani, J. L.; Rakels, J. H.; Rhodes, R.G.

Proc. 8th Int. Cryogenic Eng. Conf., Genoa, Italy, June 3-6, 1980
(TRIS NO. 341945 DA)

CONTROLLED PERMANENT MAGNET (CPM) CONFIGURATIONS GENERATING FORCES FOR LIFT, GUIDANCE AND THRUST

May, H.

Proc. Int. Conf. Cybern. Soc., Cambridge, Mass., USA, Oct.8-10 1980, Publ. by IEEE (Cat No. 80CH1555-2), Piscataway, N.J., 1980, pp.793-800
(NTIS No. 81-05 04122)

ACTIVITIES OF MBB IN THE FIELD OF MAGNETIC LEVITATION FOR HIGH SPEED GROUND TRANSPORTATION SYSTEMS

Bohn, G.

Proc. Int. Conf. Cybern. Soc., Cambridge, Mass., USA, Oct.8-10 1980, pp. 775-779
(NTIS No. 81-05 04119)

MAGNETIC LEVITATION FOR RAIL TRANSPORT

Rhodes, R. G., and Mulhall, B. E.

Clarendon Press, Oxford, United Kingdom, 1981
(Book, 102 p.)

DESIGN OF A MAGNETICALLY LEVITATED VEHICLE

Sinha, P. K.

IEEE Trans. Magn., Vol. MAG-20, No.5, Sept.1984, pp. 1672-1674
(NTIS No. 85-07 10168)

MAGNETIC LEVITATION IN LINEAR PROPULSION MACHINES

Schieber, D.

J. Franklin Inst., Vol.317, No.3, Mar. 1984, pp. 171-181
(NTIS No. 84-06 03042)

DESIGN CONCEPT AND COMPARATIVE PERFORMANCE OF AN ELECTRODYNAMIC MAGLEV
TRANSPORTATION SYSTEM FOR THE TORONTO-MONTREAL CORRIDOR OF CANADA

Hayes, W. F., and Tucker, H. G.

Inst. Mech. Eng., IMechE C400/84, 1984, pp. 137-147

INTEGRATED MAGNETIC PROPULSION AND SUSPENSION SYSTEM TECHNOLOGY

Gilliland, R. G., and Basic, J. J.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE
Japan, pp. 145-154

(Theoretical discussion)

CRITERIA FOR THE EFFECTIVENESS OF A LINEAR TRACTION DRIVE AND MAGNETIC SUSPENSION
IN TERRESTRIAL TRANSPORTATION

Bakhvalov, Yu. A.; Bocharov, V. I.; Kozachenko, E. V.; Kuprianov, Yu. V.; Pavlyukov, V. M.

Sov. Electr. Eng., Vol.57, No.4, 1986, pp. 52-57

(NTIS No. 87-12 06580)

NEW MAGLEV SYSTEM FOR MAGNETICALLY LEVITATED CARRIER SYSTEM

Morishita, M.; Azukizawa, T.; Kanda, S.; Tamura, N.; Yokoyama, T.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE,
86CH2276-4, pp. 199-204

(Theoretical analysis and design including control scheme)

ELECTROMAGNETIC LEVITATION SYSTEM BY MEANS OF SALIENT POLE TYPE MAGNETS AND
TRAPEZOIDAL LAMINATED RAILS

Yamaguchi, H., and Yamamura, S.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE,
87CH2443-0, pp. 79-86

CHARACTERISTICS OF ARMATURE CIRCUIT TAKING THE ELECTROMAGNETIC CHARACTERISTICS
OF THE COMBINED LEVITATION AND GUIDANCE SYSTEM USING GROUND COILS ON THE SIDE
WALL OF THE GUIDEWAY INTO CONSIDERATION

Nakamichi, Y.; Toda, H.; Ikeda, H.

Proc. 1990 National Convention of the Institute of Electrical Engineers (IEE) of Japan

SURGE ANALYSIS OF MAGLEV COIL FOR GUIDANCE AND PROPULSION

Ema, S., and Ajiki, K.

Proc. 1990 National Convention of the Institute of Electrical Engineers (IEE) of Japan

INSIDE SURGE CHARACTERISTICS OF MAGLEV COIL FOR GUIDANCE AND PROPULSION

Shiraishi, H.; Ajiki, K.; Ema, S.

Proc. 1988 National Convention of the Institute of Electrical Engineers (IEE) of Japan

EQUIVALENT CIRCUIT OF MAGLEV COIL FOR GUIDANCE AND PROPULSION

Ema, S.; Ajiki, K.; Shiraishi, H.

Proc. 1988 National Convention of the Institute of Electrical Engineers (IEE) of Japan

7 Vehicle Dynamics

DYNAMIC CHARACTERISTICS AND CONTROL REQUIREMENTS OF ALTERNATIVE MAGNETIC LEVITATION SYSTEMS

Wilkie, D. F., and Borcherts, R. H.

ASME Paper No. 73-ICT-17 from Meet., Sept. 23-27, 1973, 17p, (NTIS No. 73-10 01714)

DYNAMICS OF MAGNETIC LEVITATION SUSPENSION SYSTEMS FOR HIGH SPEED GROUND VEHICLES

Millner, J. L.

ASME AMD, Vol. 5, 1973, for Meet., Detroit, Mich., Nov. 1973, pp. 79-86
(NTIS No. 74-04 00956)

CHARACTERISTICS OF THE RIDE QUALITY OF SUPERCONDUCTING MAGNETIC LEVITATION TEST VEHICLE

Twahana, T., and Kuzuu, T.

Proc. 5 th Int. Cryog. Eng. Conf., Kyoto, Japan, May 7-10, 1974, pp.106-107

(TRIS No. 130899 DA)

(Experimental results)

DYNAMIC PERFORMANCE OF THE SRI MAGLEV VEHICLE

Coffey, H. T., et al.

IEEE Trans. Magn., Vol. MAG-10, No. 3, Sept. 1974, pp. 451-457

AN EVALUATION OF THE DYNAMICS OF A MAGNETICALLY LEVITATED VEHICLE

Coffey, H. T., et al.

Prepared by SRI for US Dept. of Transp., Federal Railway Administration, Rep. FRA ORD&D-74-41, March 1974

(NTIS No. PB-236671)

STABILITY OF MAGNETICALLY LEVITATED VEHICLES OVER A SPLIT GUIDEWAY

Howell, J. P.; Wong, J. Y.; Rhodes, R. G.

IEEE Trans. Magn., Vol. MAG-11, pp. 1487-1489

CHARACTERISTICS OF INDUCTIVE MAGNETIC LEVITATION SYSTEM WITH MONOPOLAR TRAIN LOOPS

Okuma, S., and Amemiya, Y.

Electr. Eng. Jpn., Vol. 98, No. 2, March 1976, pp. 84-91

(TRIS No. 311044 DA)

PASSIVE SECONDARY MAGNETIC DAMPING FOR SUPERCONDUCTING MAGLEV VEHICLES

Atherton, D. L., et al.

J. Appl. Phys., Vol. 47, No.10, Oct. 1976, pp. 4643-4648

(NTIS No. 77-02 04825)

PERFORMANCE AND STABILITY CHARACTERISTICS OF AN ELECTRODYNAMICALLY LEVITATED VEHICLE OVER A SPLIT GUIDEWAY

Wong, J. Y.; Howell, J. P.; Rhodes, R. G.; Mulhall, B. E.

ASME Pap., No. 76-Aut-HH 1976, 9 pp., Location of work- Univ. of Warwick, England

(NTIS No. 77-03 04040)

DYNAMICS AND CONTROL OF COMBINED LIFT-GUIDANCE FERROMAGNETIC VEHICLE SUSPENSIONS

Limbert, D. A.; Richardson, H. H.; Wormley, D. N.

Proc. Jt. Autom. Control Conf., San Francisco, Calif., June 22-24, 1977, Publ. by IEEE (Cat. No. 77 Ch 1220-3cs), New York, N.Y., 1977, Vol. 1, pp. 435-440

(NTIS No. 78-01 02681)

LOW-SPEED VEHICLE DYNAMICS AND RIDE QUALITY USING CONTROLLED D.C. ELECTROMAGNETS
 Jayawant, B. V., and Sinha, P. K.
 Automatica Vol. 13, No. 6, Nov. 1977, pp. 605-610
 (NTIS No. 78-04 04277)

STUDIES ON PASSIVE MAGNETIC DAMPING IN THE REPULSIVE MAGNETIC LEVITATION SYSTEM
 Fujwara, S.
 Q. Rep. Railw. Tech. Res. Inst., Vol. 19, No. 4, Dec. 1978, pp. 191-192
 (TRIS No. 300730 DA), (*Experimental results*)

DYNAMICAL ASPECTS OF PASSENGER CARRYING VEHICLES USING CONTROLLED D.C. ELECTROMAGNETS
 Jayawant, B. V.
 Dyn. Veh. on Roads and on Tracks, Proc. 5th Veh. Syst. Dyn. (VSD) Symp., Sept. 19-23 1977, Publ. by Swets & Zeitlinger, Amsterdam, Netherlands, 1978, pp. 343-356
 (NTIS No. 79-03 01020)

ELECTROMAGNETIC PROPERTIES OF REPULSION LEVITATION SYSTEM IN THE PRESENCE OF SPATIAL OSCILLATIONS OF THE FIELD SOURCE
 Mikirtichev, A. A.; Kim, K. I.; Vasil'ev, S. V.
 Power Eng. (New York), Vol. 16, No. 4, 1978, pp. 66-73
 (NTIS No. 79-10 06157)

NONCONSERVATIVE INSTABILITIES IN ELECTRODYNAMIC MAGNETIC LEVITATION OF VEHICLES
 Moon, F.
 Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1978, pp. 108-112.

ELECTRODYNAMICS OF FINITE WIDTH GUIDEWAY MAGLEV SYSTEMS IN AN INTEGRAL EQUATION FORMULATION
 Urankar, L.
 Siemens Forsch Entwicklungsber Res. Dev. Rep., Vol. 8, No. 4, 1979, pp. 204-208
 (NTIS No. 80-01 02217)

DYNAMICS OF MAGNETICALLY SUSPENDED VEHICLES
 Sinha, P.K.
 Trans. Inst. Meas. Control, Vol. 1, No. 1, Jan-March 1979, pp. 57-64
 (NTIS No. 80-02 05861)

DYNAMICS SIMULATION FOR A HIGH SPEED MAGNETICALLY LEVITATED GUIDED GROUND VEHICLE
 Cherchas, D. B.
 J. Dyn. Syst. Meas. Control Trans. ASME, Vol. 101, No. 3, Sept. 1979, pp. 223-229
 (NTIS No. 80-02 01228)

CONTROLLED DYNAMIC CHARACTERISTICS OF FERROMAGNETIC VEHICLE SUSPENSIONS PROVIDING SIMULTANEOUS LIFT AND GUIDANCE
 Limbert, D. A.; Richardson, H. H.; Wormley, D. N.
 J. Dyn. Syst. Meas. Control Trans. ASME, Vol. 101, No. 3, Sept. 1979, pp. 217-222
 (NTIS No. 80-02 01227)

MAGNETIC DAMPING CHARACTERISTICS OF MAGNETICALLY SUSPENDED ULTRA-HIGH-SPEED VEHICLES
 Takano, I., and Ogiwara, H.
 Electr. Eng. Jpn., Vol. 98, No. 5, Sept.-Oct. 1978, pp. 14-23
 (NTIS No. 80-07 03488)

DAMPING CHARACTERISTICS OF THE REPULSIVE MAGNETIC LEVITATION VEHICLE

Fujiwara, S.

Q. Rep. Railw. Tech. Res. Inst. (Tokyo), Vol. 21, No. 1, March 1980, pp 49-52

(NTIS No. 81-01 07202)

DYNAMIC RESPONSE OF MAGNETICALLY LEVITATED FLEXIBLE VEHICLE TO RANDOM TRACK IRREGULARITIES

Miyamoto, M.

Q. Rep. Railw. Tech. Res. Inst. (Tokyo), Vol. 21, No. 1, March 1980, pp 44-48

(NTIS No. 81-01 07201)

VERTICAL UNSTABLE STABILITY OF ELECTRODYNAMIC SUSPENSION OF HIGH-SPEED GROUND TRANSPORT

Baiko, A. V.; Voevodskii, K. E.; Kochetkov, V.M.

Cryogenics, Vol. 20, No. 5, May 1980, pp 271-276

TRIS No. 341943 DA)

VEHICLE-GUIDEWAY DYNAMICS OF A HIGH-SPEED MAGLEV TRAIN

Meisinger, R.

Proc. Int. Conf. Cybern Soc., Cambridge, Mass., USA, Oct. 8-10, 1980, pp. 1028-1035

(NTIS No. 81-05 04163)

DYNAMICS OF MAGLEV VEHICLES ON ELEVATED GUIDEWAYS

Popp, K.

Proc. Int. Conf. Cybern Soc., Cambridge, Mass., USA, Oct. 8-10, 1980, pp. 1018-1027

(NTIS No. 81-05 04162)

DYNAMIC CHARACTERISTICS OF A LONG TRAIN OF EML VEHICLES OVER ELEVATED FLEXIBLE GUIDEWAYS

Nagai, M., and Iguchi, M.

Bull. JSME, Vol.23, No. 184, Oct. 1980, pp. 1663-1669

(NTIS No. 81-07 02336)

RIDE QUALITY ANALYSIS OF REPULSIVE-TYPE MAGNETICALLY LEVITATED VEHICLES

Tsuhamoto, O., and Iwasa, Y.

Electr. Eng. Jpn., Vol. 99, No. 5, Sept.-Oct 1979, pp. 76-85

(NTIS No. 82-01 06043)

OPTIMIZATION OF MAGNET SUSPENSION AND ANALYSIS OF VEHICLE DYNAMICS

Poberezhskii, L. P.; Renzhin, G. I.; Tyurin, Yu. V.

Power Eng. (New York), Vol. 19, No. 1, 1981, pp. 100-106

(NTIS No. 82-05 02693)

ELECTROMAGNET CONTROL IN HIGH-SPEED TRANSPORT SUSPENSION SYSTEMS

Katsan, T. I.; Lebedev, V. G.; Mytarev, A. I.

Power Eng. (New York), Vol. 19, No. 1, 1981, pp. 95-99

(NTIS No. 82-05 02692)

DYNAMICS OF MAGNETIC-SUSPENSION TRANSPORT ROLLING STOCK

Baibakov, S. N.; Rabinovich, B. I.; Sokolov, Yu. D.

Power Eng. (New York), Vol. 19, No. 1, 1981 pp. 81-88

(NTIS No. 82-05 02690)

MAGNETIC DAMPING AND STIFFNESS COEFFICIENTS IN SUPERCONDUCTING MAGLEV SYSTEM WITH SHEET GUIDEWAYS

Yoshida, K., and Takakura, M.

Electr. Eng. Jpn., Vol. 99, No. 6, Nov.-Dec. 1979, pp. 90-97

(NTIS No. 82-07 04186)

OBSERVATIONS OF DYNAMIC INSTABILITIES IN MAGNETICALLY LEVITATED MODELS

Chu, D., and Moon, F. C.

2nd Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982, pp. 136-141 (*Experimental analysis*)

MAGLEV DYNAMICS AND RIDE QUALITY: PAST, PRESENT AND FUTURE

Borcherts, R. H.

2nd Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982, pp. 133-135 (*Introduction*)

VIBRATION PROBLEMS IN MAGLEV VEHICLE DYNAMICS

Iguchi, M.

2nd Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982, pp. 127-132 (*Computer simulations*)

DYNAMICS OF HIGH-SPEED VEHICLES

Schliehler, W. O.

Course Lect. Int. Cent. Mech. Sci., No. 274, Dyn. High-Speed Veh., Udine, Italy, 1981, Publ. by SpringerVerlag, Vienna, Austria and New York, NY, USA, 1982, 395pp. (NTIS No. 86-02 08818)

DYNAMIC INSTABILITIES IN MAGNETICALLY LEVITATED MODELS

Chu, D., and Moon, F. C.

J. Appl. Phys., Vol. 54, No. 3, March 1983, pp. 1619-1625 (NTIS No. 83-07 06560)

SUSPENSION BOUNCE RESPONSE OF CANADIAN MAGLEV VEHICLE UNDER GUIDEWAY EXCITATIONS. PART 1: DETERMINISTIC ANALYSIS

Kotb, M.; Sanker, T. S.; Samaha, M.

J. Vib. Acoust. Stress Reliab. Des., Vol. 105, No. 1, Jan. 1983, pp. 104-111 (NTIS No. 83-09 07780)

SUSPENSION BOUNCE RESPONSE OF CANADIAN MAGLEV VEHICLE UNDER GUIDEWAY EXCITATIONS. PART 2: STOCHASTIC MODELING ANALYSIS

Kotb, M.; Sanker, T. S.; Samaha, M.

J. Vib. Acoust. Stress Reliab. Des., Vol. 105, No. 1, Jan. 1983, pp. 261-266 (NTIS No. 83-09 07803)

DYNAMIC INSTABILITY OF A TRACK STRUCTURE

Bagryantsev, V. I., and Tyurin, Y. V.

Power Eng. (New York), Vol. 22, No. 1, 1984, pp. 16-21 (NTIS No. 85-01 00116)

FEASIBILITY OF PASSIVE DAMPING FROM MIXED-MU LEVITATION

Oraee Mirzamani, S. J.; Asher, G. M.; Paul, R. J. A.

IEEE Trans. Magn., Vol. MAG-20, No. 5, Sept. 1984, pp. 1681-1683 (NTIS No. 85-07 10171)

DYNAMICS BEHAVIORS OF MAGNETIC WHEEL

Fujisaki, K., and Masada, E.

IEEE Trans. Magn., Vol. MAG-20, No. 5, Sept. 1984, pp. 1678-1680 (NTIS No. 85-07 10170)

CONTROL LAW DESIGN AND DYNAMIC EVALUATIONS FOR A MAGLEV VEHICLE WITH A COMBINED LIFT AND GUIDANCE SUSPENSION SYSTEM

Kortuem, W., and Utzt, A.

J. Dyn. Syst. Meas. Control Trans. ASME, Vol. 106, No. 4, Dec. 1984, pp. 282-292 (NTIS No. 85-07 00969)

ELECTRODYNAMIC FORCE CHARACTERISTICS OF THE SPLIT-TRACK MAGLEV SYSTEM

Mahtani, J. L., and Rhodes, R. G.

Journal de Physique, supplement au no. 1, C1-747-751 (1984).

PROGRESS OF RESEARCH WORKS ORIENTED TOWARDS MAGNETIC HOVER TRAIN ON ELECTRODYNAMIC BASIS

Hochhaeusler, P.

Arch. Elektrotech. (Warsaw), Vol. 33, No. 1-2, 1984, pp. 343-348

(NTIS No. 86-04 06110)

MODE COUPLING IN MAGLEV VEHICLES

Sinha, P. K.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keldanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 179-184

(Theoretical analysis)

GUIDANCE DYNAMICS OF MIXED-MU LEVITATORS FOR MAGLEV VEHICLES

Mirzamani, S. J., and Orae Paul, R. J. A.

IEEE Trans. Magn., Vol. MAG-21, No. 6, Nov. 1985, pp. 2404-2407

(NTIS No. 86-08 11507)

SIMULATION OF RUNNING COUPLED RAIL CARS USING A CONTROL THEORY OF BOGIE TRUCK FOR DAMPING RAIL OSCILLATION

Nakagawa, T.; Yamamura, S.; Nakanishi, K.

Electr. Eng. Jpn., Vol. 106, No. 2, Mar.-Apr. 1986, pp. 131-138

(NTIS No. 86-11 09724)

ON THE FORCE DEVELOPMENT DURING OSCILLATIONS OF AN ELECTRODYNAMIC SUSPENSION

Kochetkov, V. M., and Matin, V. I.

Power Eng. (New York), Vol. 24, No. 6, 1986, pp. 147-150

(NTIS No. 87-08 04358)

A STUDY OF CURVATURE RUNNING OF HSST VEHICLE

Hikasa, Y.; Iwaya, M.; Kusunoki, K.; Hosoda, Y.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE,

86CH2276-4, pp. 127-134

(Computer simulations)

DYNAMIC INTERACTION BETWEEN PROPULSION AND SUSPENSION SYSTEM IN A MAGLEV VEHICLE

Masada, E.; Fujisaki, K.; Suzuki, S.; Kawashima, M.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE,

86CH2276-4, pp. 119-126

(Theoretical and experimental results)

ELECTRODYNAMIC MAGLEV SYSTEM OPERATIONAL SAFETY CONSIDERATIONS

Hayes, W. F., and Tucker, H. G.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE,

86CH2276-4, pp. 107-117

(Theoretical model)

SOME STRUCTURAL PROPERTIES OF THE ELECTROMAGNETIC SUSPENSION SYSTEM

Sinha, P. K.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE,

86CH2276-4, pp. 101-106

(Theoretical model, suspension dynamics)

SIMULATION OF THE DYNAMICS OF HIGH SPEED GROUND TRANSPORTATION VEHICLES WITH MEDYNA-POTENTIALS AND CASE STUDIES

Kortum, W.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 99-112

(*Computer Simulations*)

DYNAMICS OF THE PM TYPE LINEAR SYNCHRONOUS MOTOR FOR MAGNETICALLY LEVITATED CARRIER VEHICLE

Hayafune, K., and Masada, E.

IEEE Trans. Magn., Vol. MAG-23, No. 5, Sept. 1987, pp. 2578-2580

(NTIS No. 88-07 07558)

DYNAMICS OF THE PROPULSION AND LEVITATION SYSTEMS IN THE CONTROLLED-PM LSM MAGLEV VEHICLE

Yoshida, K., and Umino, T.

IEEE Trans. Magn., Vol. MAG-23, No. 5, Sept. 1987, pp. 2353-2355

(NTIS No. 88-07 07486)

DYNAMICS BETWEEN THE RUNNING COUPLED VEHICLES AND FLEXIBLE RAIL OUT OF THE STANDARD TYPE

Nakagawa, T.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 429-434

STABILIZATION FOR FLEXIBLE BEAM SYSTEM CONTROLLED BY MAGNETIC SUSPENSION

Matsumura, F.; Fujita, M.; Ozaki, Y.; Shimizu, M.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 423-428

ROBUST SERVO LEVITATION CONTROL AND RUNNING SIMULATION OF CONTROLLED-PM LSM MAGLEV VEHICLES

Yoshida, K.; Nakashima, O.; Yoshida, K.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 411-416

BOUNCING AND PITCHING OSCILLATIONS OF A MAGNETICALLY LEVITATED VEHICLE CAUSED BY GUIDEWAY ROUGHNESS (EXCITATION DUE TO NONLINEARITY OF MAGNETIC LIFT FORCE)

Yabuno, H.; Takabayashi, Y.; Yoshizawa, M.; Tsujioka, Y.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 405-410

OPTIMAL ACTIVE SUSPENSION TO IMPROVE THE DYNAMIC STABILITY OF REPULSIVE MAGLEV SYSTEMS

Nagai, M.; Moran, A.; Tanaka, S.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 399-404

DYNAMIC CHARACTERISTICS OF URBAN TRANSIT LIM WITH FEED-BACK SPEED CONTROL

Nonaka, S., and Fujii, N.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 327-332

A STUDY OF THE CHARACTERISTICS OF THE AERODYNAMICS OF THE MAGNETICALLY LEVITATED
TRANSPORTATION SYSTEM (MAGLEV)

Matsunuma, S.; Nagayama, Y.; Kobayashi, S.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 275-280

AERO-ACOUSTIC INVESTIGATIONS OF THE MAGNETIC TRAIN TRANSRAPID 06

Alscher, H.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 269-274

DYNAMIC BEHAVIOUR OF THE MODULE & SUSPENSION SYSTEM ON HSST05

Iwaya, M.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 263-268

8 System Control and Simulations

MEASURING AND CONTROL SYSTEM FOR TESTING NEW COMPONENTS FOR GUIDED TRANSPORTATION SYSTEMS EMPLOYING MAGNETIC LEVITATION

Mandt, K.

Siemens Res., Vol. 41, No. 12, Dec. 1974, pp. 527-532

(NTIS No. 75-04 04069)

CONTROL OF A LINEAR SYNCHRONOUS MOTOR FOR MAGNETICALLY LEVITATED VEHICLES

Gibson, J.; Holtz, J.; Lingaya, S.

Proc. INFAC/ IFIP (Int. Found. for Inf. Process.) / IFORS (Int. Fed. of Oper. Res. Soc.) Int. Symp.: Control in Transp. Syst., Columbus, Ohio, Aug. 9-13, 1976, Publ. by IFAC, 1976. Available from ISA, Pittsburgh, Pa., pp. 143-152

(NTIS No. 77-04 06106)

SYNTHESIS OF A HIGH-SPEED TRACKED VEHICLE SUSPENSION SYSTEM - PART II: DEFINITION AND SOLUTION OF THE CONTROL PROBLEM

Guenther, C. R., and Leondes, C. T.

IEEE Trans. Autom. Control, Vol. AC-22, No. 2, April 1977, pp. 165-172

(NTIS No. 77-08 07198)

SYNTHESIS OF A HIGH-SPEED TRACKED VEHICLE SUSPENSION SYSTEM - PART I: PROBLEM STATEMENT, SUSPENSION STRUCTURE, AND DECOMPOSITION

Guenther, C. R., and Leondes, C. T.

IEEE Trans. Autom. Control, Vol. AC-22, No. 2, April 1977, pp. 158-165

(NTIS No. 77-08 07197)

SUSPENSION AND GUIDANCE CONTROL SYSTEM FOR A DC ATTRACTION MAGLEV VEHICLE

Goodall, R. M.

IEE Conf. Publ. (London) No. 142, 2nd Conf. on Adv. in Magn. Mater. and Appl., London, England, Sept. 1-3, 1976, pp. 100-103

(NTIS No. 77-09 01373)

CONTROL ASPECTS OF A TRACKED MAGNETIC LEVITATION HIGH SPEED TEST VEHICLE

Gottzeln, E.; Brock, K. H.; Schneider, E.; Pfefferl, J.

Automatica, Vol. 13, No. 3, May 1977, pp. 205-223

(NTIS No. 78-02 05925)

SIMULATION OF ROAD SURFACES FOR USE IN ANALOG COMPUTER STUDIES OF VEHICLE SUSPENSION SYSTEMS

Kavanagh, R. J.

Proc. of the 20th Midwest Symp. on Circuits and Syst., Texas Tech. Univ., Lubbock, Texas, USA, Aug. 15-17, 1977, Publ. by Western Periodicals Co., North Hollywood, Calif., 1977, pp. 269-273

(NTIS No. 78-03 03148)

ANALYTICAL AND DESIGN ASPECTS OF PASSENGER CARRYING VEHICLES USING CONTROLLED D. C. ELECTROMAGNETIC SUSPENSION

Sinha, P. K.

4th IFAC Int. Symp. on Multivariable Technol. Syst., Prepr., Univ. of NB., Fredericton, July 4-8, 1977,

Publ. by Pergamon Press., Elmsford, N.Y. and Oxford, England, 1977, pp. 573-581

(NTIS No. 78-10 07605)

DESIGN OF OPTIMAL STATE-OBSERVERS AND ITS APPLICATION TO MAGLEV VEHICLE
SUSPENSION CONTROL

Mueller, P. C.

4th IFAC Int. Symp. on Multivariable Technol. Syst., Prepr., Univ. of NB., Fredericton, July 4-8, 1977,
Publ. by Pergamon Press., Elmsford, N.Y. and Oxford, England, 1977, pp. 175-182
(NTIS No. 78-10 07559)

ANALOG SIMULATION OF MAGNETICALLY LEVITATED VEHICLES ON FLEXIBLE GUIDEWAYS

Melsinger, R.

IMACS (Int. Assoc. for Math and Comput. in Simul.) Symp. on Simul. of Control Syst. with Spec. Emphasis
on Model and Redundancy, Sept. 27-29, 1978, Publ. by North-Holland Publ. Co., New York, N.Y.,
pp. 207-214
(NTIS No. 80-05 01130)

GENERAL PURPOSE PROGRAM FOR THE SIMULATION OF VEHICLE-GUIDEWAY INTERACTION
DYNAMICS

Duffek, W.; Kortuem, W.; Wallrapp, O.

Dyn. Veh. on Roads and on Tracks, Proc. 5th Veh. Syst. Dyn. (VSD) Symp., Sept. 19-23, 1977, Publ. by
Swets & Zeitlinger, Amsterdam, Netherlands, 1978, pp. 104-126
(NTIS No. 79-03 01004)

OPTIMAL CONTROL OF ELECTROMAGNETIC LEVITATION SYSTEMS

Ohnishi, K.; Yamamura, S.; Hayashi, T.

Electr. Eng. In Jpn., Vol. 98, No. 2, March 1978, pp. 122-130
(TRIS No. 311045 DA)

SIMULATION OF MAGLEV VEHICLES RIDING OVER SINGLE AND DOUBLE SPAN GUIDEWAYS

Melsinger, R.

Math. Comput. Simul., Vol. 21, No. 2, Aug. 1979, pp. 197-206
(NTIS No. 80-03 07721)

THEORY OF CONTROL OF ELECTROMAGNETICALLY LEVITATED BOGIE TRUCK

Yamamura, S.; Ohnishi, K.; Masada, E.

Electr. Eng. Jpn., Vol. 99, No. 6, Nov.-Dec. 1979, pp. 62-69
(NTIS No. 82-07 04183)

LOW SENSITIVITY CONTROL SYSTEMS FOR MAGLEV VEHICLES

Breinl, W.

Proc. Int. Conf. Cybern. Soc., Cambridge, Mass., USA, Oct. 8-10, 1980, pp. 786-792
(NTIS No. 81-05 04121)

ACTIVE-SYNCHRONIZATION CONTROL SYSTEM USED IN DC LINEAR MOTOR

Umemori, T.; Matsuoka, K.; Matsui, K.; Otsubo, T.

IEEE Power Eng. Soc. Summer Meet., Conf. Pap., Portland, Oregon, USA, July 26-31, 1981, Publ. by
IEEE, 81 SM 310-2, 9 pp.
(NTIS No. 82-06 07610)

PROPULSION CONTROL SYSTEM FOR TEST VEHICLE ML-500

Koike, S.; Matsumaru, H.; Nakamura, K.; Yatsu, S.

Hitachi Rev., Vol. 30, No. 2, April 1981, pp. 103-108
(NTIS No. 82-10 02139)

OPTIMUM CONTROL THEORY OF A BOGIE-TRUCK FOR DAMPING RAIL OSCILLATION AND
SIMULATION FOR THE RUNNING COUPLED RAIL CARS

Nakagawa, T., and Yamamura, S.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keldanren Kaikan, Tokyo, Japan, Publ. by IEE,
Japan, pp. 173-178
(Theoretical analysis with numerical simulation)

A LINEAR INDUCTION MOTOR CONTROL SYSTEM FOR MAGNETICALLY LEVITATED CARRIER SYSTEM

Azukizawa, T.; Morishita, M.; Kanda, S.; Tamura, N.; Yokoyama, T.
 Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 205-209
 (*Theoretical and experimental analysis*)

STUDY ON MAGLEV VEHICLE POSITION DETECTING SYSTEM USING THE FEEDING CIRCUITS

Ikeda, H., and Shimada, K.
 Railw. Tech. Res. Inst., Railw. Tech. Res. Rep. N1318, March 1986, pp. 1-73
 (TRIS No. 468826)

AUTOMATED OPERATIONS CONTROL SYSTEM FOR HIGH SPEED MAGLEV TRANSPORTATION

Schnieder, E.; Kraft, K. H.; Guckel, H.
 Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 181-188
 (*Theoretical model of system control*)

CONTROL SIMULATION OF RAILWAY SWITCH SYSTEM USING X-Y TYPE LINEAR INDUCTION MOTOR

Ohira, Y.; Kawanishi, T.; Masada, E.
 Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 13-21

OPTIMAL ROBUST SERVO SYSTEM DESIGN AND SIMULATION OF MAGNETIC LEVITATION SYSTEM IN CONTROLLED PERMANENT MAGNET LINEAR SYNCHRONOUS MOTOR VEHICLE

Yoshida, K., and Muta, H.
 Electr. Eng. Jpn., Vol. 107, No. 4, July-Aug. 1987, pp. 122-129
 (NTIS No. 88-05 01575)

CONTROL METHOD FOR A TWIST RESPONSE TYPE OF ELECTROMAGNETICALLY LEVITATED TRUCK AND ITS EXPERIMENTS USING DIGITAL CONTROL THEORY

Nakagawa, T.; Yamamura, S.; Nakanishi, K.
 Electr. Eng. Jpn., Vol. 107, No. 5, Sept.-Oct 1987, pp. 94-101
 (NTIS No. 88-08 05323)

RUNNING SIMULATION OF CONTROLLED-PM LSM TYPE HIGH-SPEED MAGLEV VEHICLE

Yoshida, K., and Takagi, T.
 Electr. Eng. Jpn., Vol. 108, No. 3, May-June 1988, pp. 131-139
 (NTIS No. 89-03 02284)

CONTROL CHARACTERISTICS OF A TRANSPORTATION SWITCH USING X-Y LINEAR INDUCTION MOTOR

Ohira, Y.; Kawanishi, T.; Masada, E.
 Electr. Eng. Jpn., Vol. 108, No. 3, May-June 1988, pp. 121-130
 (NTIS No. 89-03 02283)

DEVELOPMENT OF THRUST CONTROL SYSTEM FOR LINEAR SYNCHRONOUS MOTORS

Ikeda, H., and Kawaguchi, I.
 Electr. Eng. Jpn., Vol. 108, No. 5, Sept.-Oct 1988, pp. 93-102
 (NTIS No. 89-08 04191)

DIGITAL CONTROL OF ATTRACTIVE LEVITATION WITH PERMANENT MAGNET

Miyamoto, K.; Murai, T.; Koga, S.; Onuki, T.
 Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Jpn., pp. 447-452

ELECTRO-MAGNETIC LEVITATION CONTROL OF AN ELASTIC PLATE

Oshinoya, Y., and Shimogo, Taro

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 435-440**REAL-TIME CONTROL OF A NONLINEAR MAGLEV SYSTEM USING CONCURRENT PROCESSING TECHNIQUES**

Sinha, P. K.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 417-422**FLEXIBLE STRUCTURE CONTROL OF MAGLEV VEHICLES BY ACTIVE SECONDARY SUSPENSIONS**

Nagai, M., and Sawada, Y.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 393-398**SIGNAL AND COMMUNICATION SYSTEM OF HSST-05**

Hashimoto, F.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 303-308**HIGHLY RELIABLE CONTROL AND PROTECTION FOR THE TRANSPRAPHIC HIGH SPEED MAGLEV TRANSPORTATION SYSTEM**

Bimmermann, H.; Geduhn, N.; Knigge, R.; and Schnieder, E.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 297-301**TRAIN CONTROLS AND FEEDING SYSTEMS FOR MAGNETICALLY LEVITATED SYSTEMS**

Hirao, Y., and Sasaki, T.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 291-296**A MAGNETIC SUSPENSION SYSTEM OF LINEAR INDUCTION MOTOR - CONTROL METHOD AND STABILITY OF SUSPENDED MOTION**

Hikihara, T.; Hirata, T.; Hirane, Y.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 203-208**LSM CONTROL METHOD FOR MULTIPLE POWER CONVERSION STATIONS**

Ikeda, H.; Kawaguchi, I.; Fujie, J.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,
Publ. by IEE Jpn., pp. 141-146

9 Guideway Designs

FLAT GUIDANCE SCHEMES FOR MAGNETICALLY LEVITATED HIGH-SPEED GUIDED GROUND TRANSPORT

Atherton, D. L., and Eastham, A. R.
J. Appl. Phys., Vol. 45, 1974, pp. 1398-1405

TRANSVERSE EDGE EFFECTS OF SHEET GUIDEWAYS IN MAGNETIC LEVITATION

Ooi, B. T., and Eastham, A. R.
IEEE Trans. Power Appar. Syst., Vol. PAS-94, 1975, pp. 72-80

DESIGN OF FLAT LADDER AND COIL GUIDEWAY SYSTEMS FOR HIGH SPEED TRAINS

Burke, P. E., and Akinbiyi, T.
IEEE Trans. Magn., Vol. MAG-12, No. 6, Nov. 1976, pp. 882-884
(NTIS No. 77-08 08139)

COMPARISON OF LADDER AND SHEET GUIDEWAYS FOR ELECTROMAGNETIC LEVITATION OF HIGH SPEED VEHICLES

Akinbiyi, T., and Burke, P. E.
IEEE Trans. Magn., Vol. MAG-12, No. 6, Nov. 1976, pp. 879-881
(NTIS No. 77-08 08138)

FORCES ON MAGNETICALLY LEVITATED VEHICLES ABOVE FLAT GUIDEWAYS - A MODELLING TECHNIQUE

Campbell, P., and Johnson, R. B. I.
IEE Conf. Publ. (London) No. 142, 2nd Conf. on Adv. Magn. Mater. and Their Appl., London, England, Sept. 1-3, 1976, pp 128-130
(NTIS No. 77-09 01378) (*Theoretical analysis with some test results obtained from a small rotating disc*)

FORCE TRANSIENTS AT GUIDEWAY BUTT JOINTS IN REPULSIVE MAGNETIC LEVITATION SYSTEM

Ooi, B. T., and Jain, O. P.
IEEE Trans. Power Appar. Syst., Vol. PAS-98, No. 1, Jan.-Feb. 1979, pp. 323-332
(NTIS No. 79-06 00452)

STRUCTURES ON EXPERIMENTAL LINE OF JNR'S MAGNETIC LEVITATION SYSTEM

Niwa, T., and Kuwahara, Y.
Civ. Eng. Jpn., Vol. 17, 1978, pp. 47-69
(NTIS No. 79-08 05038)

TOLERANCE OF GUIDEWAY IRREGULARITY AND ITS CONTROL ON THE MIYAZAKI TEST TRACK

Sato, Y.; Kishimoto, S.; Miura, S; Takeshita, K.
Q. Rep. Railw. Tech. Res. Inst. (Jpn), Vol. 21, No. 1, March 1980, pp. 1-8
(NTIS No. 81-01 07197)

DESIGN STUDY OF THE GUIDEWAY FOR THE CANADIAN HIGH SPEED MAGNETICALLY LEVITATED VEHICLE SYSTEM

Atherton, D. L.; Campbell, T. I.; Eastham, A. R.; Fitzpatrick, C.; Hayes, W. F.; Van Dalen, K.
J. Adv. Transp., Vol. 16, No. 1, Spring 1982, pp. 25-58
(NTIS No. 82-10 06293)

IMPLEMENTATION OF A MAGLEV VEHICLE SUSPENSION FOR FLEXIBLE GUIDEWAYS

Lawton, A. P.
Veh. Syst. Dyn., Vol. 14, No. 1-3, June 1985, pp. 144-149
(NTIS No. 86-03 08789)

RUNNING TRACK OF THE LINEAR MOTOR CAR

Nishiki, T.; Akihama, Y.; Sakaguchi, T.; Ninagawa, Y.; Yamamiya, M.; Terada, M.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 319-324

(Test results)

DEVELOPMENT OF GUIDEWAY FOR MAGLEV

Sato, Y., and Matsuura, A.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 243-250

(Review based on operational experience)

BIRMINGHAM AIRPORT MAGLEV-THE DEVELOPMENT AND DESIGN OF THE SUPPORT STRUCTURE AND GUIDEWAY

North, B. H.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 237-242

(Design and development)

STEEL GUIDEWAYS FOR ELECTROMAGNETIC HIGH-SPEED TRANSPORTATION SYSTEMS

Raschbichler, H. G., and Schwindt, G.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 225-235

(System description and operational experience)

A RESPONSE-ELIMINATED DESIGN OF SIMPLY SUPPORTED BEAM FOR A GUIDEWAY OF A HIGH SPEED MAGLEV SYSTEM

Iguchi, M., and Hara, H.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 217-224

(Theoretical analysis and design)

DYNAMIC CHARACTERISTICS OF MAGLEV VEHICLE MLU001 - GUIDEWAY IRREGULARITY TEST

Yoshioka, H., and Miyamoto, M.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 89-94

(Test Results)

GUIDEWAY FOR MAGLEV

Joyce, H.

Spaceflight, Vol. 28, No. 5, May 1986, pp. 205-206

(NTIS No. 86-11 02964)

A JACK SYSTEM WHICH RECTIFIES HSST TRACK BEAMS ON SINKING UNI-LOAD BASE FOUNDATION

Okada, K.; Kakurai, M.; Enokuchi, M.; Hoshino, H.; Iwaya, M.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Japan, pp. 315-320

10 Superconducting Magnets and Cryogenic Technologies

(Also see 4 Suspension and Levitation Techniques)

MAGNETIC SUSPENSION AND GUIDANCE FOR HIGH-SPEED ROCKETS BY SUPERCONDUCTING MAGNETS

Guderjahn, C. A.; et al.

J. Appl. Phys., Vol. 40, No. 5, pp. 2133-2140, Presented at Applied Superconductivity Conf. and Exhibition, Gatlinburg, Tenn., USA, Nov. 1969

(Abstract)

SUSPENSION AND GUIDANCE OF VEHICLES BY SUPERCONDUCTING MAGNETS

Coffey, H. T.; Chilton, F.; Barbee, T. W.

J. Appl. Phys., Vol. 40, p. 2161, Presented at Applied Superconductivity Conf. and Exhibition, Gatlinburg, Tenn., USA, Nov. 1969

(Abstract)

THE ROLE OF SUPERCONDUCTING MAGNETS IN TRACKED MAGNETIC CUSHION VEHICLES FOR HIGH SPEED TRANSPORTATION

Reitz, J. R.

5th Int. Applied Superconductivity Conf., May 1-3, 1972, pp. 57-61, IEEE Pub. No. 72CH0682-5 TABSC

SUPERCONDUCTING MAGNET FOR "ML-100"

Saito, R.; Fujinaga, T.; Tada, N.; Kimura, H.

Hitachi Review, Vol. 24, No. 2, pp. 103-108

(TRIS No. 125820 DA)

SUPERCONDUCTING MACHINES AND DEVICES

Iwasa, Y.

High-Speed Magnetically Levitated and Propelled Mass Ground Transportation, Edited by S. Foner and B. Schwartz, Plenum Press, New York and London, 1973, Chap. 6, pp 347-399

SOME APPLICATIONS OF CRYOGENICS TO HIGH SPEED TRANSPORTATION

Arp, V. D.; Clark, A. F.; Flynn, T. M.

Natl. Bureau of Standards, Cryogenics Div., Boulder, Colo., Feb. 1973, 31 pp.

(TRIS No. 242636 DA)

SUPERCONDUCTING LEVITATION OF HIGH SPEED VEHICLES

Arp, V. D.; Clark, A. F.; Flynn, T. M.

Transportation Engineering Journal, Vol. 99, No. TE4, Nov. 1973, pp. 873-875

(TRIS No. 054475 DA)

ON-BOARD CRYOGENIC SYSTEM FOR MAGLEV LEVITATION OF TRAINS: CRYOGENIC SYSTEM OF EET

Asztalos, S. L.; Baldus, W.; Kneuer, R.; Stephan, A.

Proc. 5th Int. Cryog. Eng. Conf., Kyoto, Japan, May 7-10, 1974, pp. 37-41

(TRIS No. 130899 DA) (Test results)

SUPERCONDUCTIVITY: LARGE-SCALE APPLICATIONS

Science, Vol. 185, No. 4147, July 1974, pp. 211-222

(TRIS No. 260198 DA) (Introduction)

ON-BOARD CRYOGENIC SYSTEM FOR MAGLEV LEVITATION OF TRAINS: CRYOGENIC SYSTEM OF EET

Asztalos, S. L.; Baldus, W.; Kneuer, R.; Stephan, A.

Cryogenics, Vol. 15, No. 2, Feb. 1975, pp. 52-56

(TRIS No. 096590 DA)

DEVELOPMENT OF SUPERCONDUCTING MAGNETS FOR MAGNETICALLY SUSPENDED HIGH-SPEED TRAINS

Ogiwara, H.; Takano, N.; Okamoto, H.; Hayashi, K.
Toshiba Review, Vol. N98, July 1975, pp. 7-11
(TRIS No. 130906 DA)

SUPERCONDUCTING MAGNETS (A BIBLIOGRAPHY WITH ABSTRACTS)

Reimberr, G. W.
Natl. Tech. Inf. Service, 5285 Port Royal Rd., Springfield, Va. 22161, Oct. 1976, 251 pp., 246 ref.
(TRIS No. 146104 DA)

HIGH-SPEED TRANSPORTATION LEVITATED BY SUPERCONDUCTING MAGNET

Oshima, K.
Advances in Cryogenic Engineering, Vol. 199, pp. 127-136
(TRIS No. 098008 DA)

SUPERCONDUCTING SOLENOIDS FOR SUSPENSION OF HIGH-SPEED MEANS OF SURFACE TRANSPORTATION

Omel' Yanenko, V. I.; Bocharov, V. I.; Dolgosheev, E. A.; Usichenko, Y. G.
Izvestiia Vysshikh Ucheb Zaved, Elektromekhanika NB, Aug. 1977, pp. 875-878 (Russian)
(TRIS No. 177172 DA) (*Review existing designs*)

SUPERCONDUCTING MAGNETS FOR MAGNETIC LEVITATION: STATE OF DEVELOPMENT (1978) IN ERLANGEN

Albrecht, C.
Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1978, pp. 74-84
(*Status report*)

REFRIGERATION TECHNOLOGY AND RELATED PROBLEMS

Oshima, K.
Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1978, pp. 70-73
(*Summary*)

SUPERCONDUCTING MAGNETS AND RELATED PROBLEMS

Ohtsuka, T.
Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1978, pp. 67-69
(*Introduction*)

CRYOGENIC SYSTEM FOR ONBOARD SUPERCONDUCTIVE MAGNET

Nakashima, H.
Q. Rep. Railw. Tech. Res. Inst. (Jpn), Vol. 20, No. 1, March 1979, pp. 1-8
(TRIS No. 196532 DA)

SUPERCONDUCTING MAGNETS. SEPTEMBER, 1978-SEPTEMBER, 1980 (CITATIONS FROM THE NTIS DATA BASE)

Reimherr, G. W.
Natl. Tech. Inf. Service, 5285 Port Royal Rd., Springfield, Va. 22161, Oct. 1980 (Bibliography containing 218 Citations).
(TRIS No. 327031 DA)

SHUNT PROTECTION FOR SUPERCONDUCTING MAGLEV MAGNETS

Atherton, D. L.
Cryogenics, Vol. 19, No. 9, Sept. 1979, pp. 537-541
(80-01 01204)

COOLING CHARACTERISTICS OF SUPERCONDUCTING MAGNET COOLED WITH THE HELIUM REFRIGERATOR

Nakashima, H., and Herai, T.

Q. Rep. Railw. Tech. Res. Inst. (Jpn), Vol. 21, No. 1, March 1980, pp. 35-39

(TRIS No. 323195 DA)

SUPERCONDUCTING MAGNETS - REFLECTIONS ON STABILITY VS PROTECTION

Iwasa, Y.

The Second Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982,

pp. 106-110 (*Theoretical analysis*)

CANADIAN MAGLEV CRYOGENIC SYSTEM DEVELOPMENT

Fife, A. A.

The Second Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982,

pp. 102-105 (*Introduction*)

ON-BOARD REFRIGERATOR

Mita, H.

The Second Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982,

pp. 78-91 (*Japanese*)

ON-BOARD REFRIGERATOR

Terasaki, M.

The Second Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982,

pp. 65-71 (*Japanese*)

CRYOSTAT FOR MAGNETIC LEVITATED TRAIN

Furuta, Y.

The Second Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982,

pp. 57-64

MAGLEV SUPERCONDUCTING COIL

Yamaji, M.

The Second Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982,

pp. 49-56

MAGLEV SUPERCONDUCTING MAGNET SYSTEM

Fujinaga, T.

The Second Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982,

pp. 38-48

COMPOSITE SUPERCONDUCTORS

Chawla

Morgan-Grampian Limited

Engineer, Vol. 224, No. 1, Jan. 1984, pp. 39-41

(TRIS No. 382632 DA)

ON-BOARD REFRIGERATION SYSTEM OF MAGNETICALLY LEVITATED HIGH SPEED TRAINS MLU001

Ohguma, H.; Wada, T.; Yamaji, H.; Nakao, A.; Nakashima, H.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE,

Japan, pp. 193-198 (*Design and exp. results*)

EFFICIENCY OF PASSIVE MAGNETIC-CONFINEMENT METHODS FOR RAPIDLY ROTATING SOLID RINGS

Hull, J. R.

J. Appl. Phy., Vol. 58, 1985, pp. 3594-3600

SUPERCONDUCTING MAGNET FOR MAGLEV TRAIN

Jizo, Y.; Furuta, Y.; Nakashima, H.; T. Iwahana

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keldanren Kalkun, Tokyo, Japan, Publ. by IEE, Japan, pp. 185-192, (*Area review*)

RESEARCH AND DEVELOPMENT OF SUPERCONDUCTING COILS FOR MAGLEV CARS

Iwahana, T., and Nemoto, K.

Q. Rep. Railw. Tech. Res. Inst. (Jpn), Vol. 26, No. 3, Sept. 1985, pp. 103-109
(NTIS No. 86-05 04441)

DEVELOPMENT OF HIGH ELECTRICAL RESISTANCE PERSISTENT CURRENT SWITCH FOR HIGH SPEED ENERGIZATION SYSTEM

Jizo, Y., and Furuta, Y.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 219-225

(Theoretical analysis and sample test results)

DEVELOPMENT OF SUPERCONDUCTOR MAGNETS FOR THE CANADIAN ELECTRODYNAMIC MAGLEV VEHICLE

File, A. A.; Ensing, H. J.; Tillotson, M.; Westera, W.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 211-217

(Review, discussion, and experiment)

DEVELOPMENT OF SUPERCONDUCTING COILS FOR MAGLEV

Iwahana, T., and Nemoto, K.

J. Japan. Society of Mechanical Engineers, Vol. 89, No. 817, Dec. 1986, pp 1353-59
(TRIS No. 468441)

ANALYSIS OF SHIELDING AGAINST MAGNETIC FLUX DENSITY MAKING USE OF SUPERCONDUCTING MATERIAL

Terauch, N.

Q. Rep. Railw. Tech. Res. Inst. (Jpn), Vol. 29, No. 4, Nov. 1988, pp. 164-171
(NTIS No. 89-04 02125)

ADVANTAGES OF HIGH-TEMPERATURE SUPERCONDUCTIVITY IN LARGE-SCALE APPLICATIONS

Hull, J. R.

Proc., American Society of Mechanical Eng. 109th Winter Annual Meeting, Chicago, Nov. 28-Dec.2, 1988

THE CRYOGENIC SYSTEM FOR MAGNETIC LEVITATION VEHICLES

Nakashima, H., and Heral, T.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Jpn., pp. 235-239

NEW TYPE SUPERCONDUCTING MAGNET FOR EDS SYSTEM

Nakao, H.; Yamaji, M.; Kurosawa, K.; Jizo, Y.; Nakashima, H.; Tsuchishima, H.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Jpn., pp. 229-234

11 Power Supply Systems

REACTIVE POWER COMPENSATED CYCLOCONVERTER

Shimada, K.; Ikeda, H.; Saijo, T.

Q. Rep. Railw. Tech. Res. Inst. (Jpn), Vol. 25, No.1, 1984, pp. 33-38

(NTIS No. 84-09 07683)

DRIVE AND ENERGY SUPPLY SYSTEMS FOR MAGNETIC LEVITATION LINES

Dreilmann, K., and Clessow, G.

Elektr. Bahnen, Vol. 82, No. 3, March 1984, pp. 82-86

(NTIS No. 85-10 00589)

POWER SUPPLY SYSTEM TO DRIVE MAGLEV VEHICLES MLU 001

Ikeda, H., and Iwawaki, S.

Q. Rep. Railw. Tech. Res. Inst. (Jpn), Vol. 27, No. 1, March 1986, pp. 26-31

(NTIS No. 86-07 10446)

POWER SUPPLY SYSTEM TO DRIVE MAGLEV VEHICLES MLU 001

Ikeda, H.; Iwawaki, S.; Nakamichi, Y.; Outake, T.; Saijo, T.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 99-106

(Construction and characteristics of the cycloconverter with control scheme)

LSM PROPULSION SYSTEM OF THE MIYAZAKI MAGLEV TEST TRACK

Nakamura, N.; Koike, S.; Tatsurni, T.; Maki, N.; Nakamichi, Y.; Nishi, N.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 91-98

(Control and drive system for EML)

PROPULSION AND POWER SUPPLY SYSTEM OF THE TRANSPRAPHIC O6 VEHICLE DESIGN AND TEST RESULTS- PART 2: POWER SUPPLY

Dreilmann, K.; Friedrich, R.; Leistikow, R.; Clebow, G.; Grunwald, H.; Wienenga, P.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 83-90

(General discussion on design and test results)

THE STATE-OF-THE-ART TECHNOLOGY OF ON-BOARD INVERTERS FOR TRACTION

Sone, S.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 69-74

(Discussion on power electronics technology)

DEVELOPMENT OF HIGH ELECTRICAL RESISTANCE PERSISTENT CURRENT SWITCH FOR HIGH SPEED ENERGIZATION SYSTEM

Jizo, Y., and Furuta, Y.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 219-225

(Theoretical analysis and sample test)

POWER SUPPLY SYSTEM TO DRIVE HSST-EXPO '86

Suzuki, S.; Hikasa, Y.; Suzuki, K.; Hosoda, Y.; Yamaoka, S.; Takada, N.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 69-88

(Summary and discussion)

THE POWER SUPPLY AND THE PROPULSION SYSTEM OF THE TRANSRAPID 06 VEHICLE
RESULTS OF TRIALS

Friedrich, R.; Dreimann, K.; Leistkow, R.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp.251-256

(Status report, operational results)

CHOOSING A PROSPECTIVE DRIVE FOR TRANSPORTATION VEHICLES WITH MAGNETIC
SUSPENSION AND LINEAR TRACTION MOTORS

Bocharov, V. I., and Suslova, K. N.

Sov. Electr. Eng., Vol. 58, 1987, pp. 99-102

(NTIS No. 88-05 04296)

ZERO POWER CONTROL OF ELECTROMAGNETIC LEVITATION SYSTEM

Morishita, M., and Azukizawa, T.

Electr. Eng. Jpn., Vol. 108, No. 3, May-June 1988, pp. 111-120

(NTIS No. 89-03 02282)

RATE OF ELECTRIC POWER CONSUMPTION AND INSTALLED ELECTRIC POWER CAPACITY AT
SUBSTATION WITH ON-BOARD PRIMARY LINEAR INDUCTION-DRIVEN RAILWAY

Mizuma, T., and Matsumoto, A.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 309-313

LEVITATION MAGNET DRIVER FOR HSST - CONTROLLED BY SI THYRISTORS

Nagata, K.; Sekimoto, H.; Mural, M.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 257-262

AUXILIARY POWER SYSTEM FOR HSST-05

Takel, H., and Suzuki, K.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 191-196

NEW MODULATION METHOD FOR VVVF INVERTER FOR HSST-05

Miyashita, I., and Ohmori, Y.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 185-190

A NEW CONTROL METHOD FOR FORCED COMMUTATED PWM CYCLOCONVERTERS USING A
MICROPROCESSOR

Furuhashi, T.; Ishiguro, A.; Ishida, M.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 173-178

HARMONIC RESONANCE APPEARING IN INPUT SIDE OF BIG POWER CONVERTER FOR
DRIVING LSM

Kawaji, M.; Saijo, T.; Ikeda, H.; Kaga, S.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 167-172

OPTIMIZING THE FEEDING SYSTEM FOR LINEAR SYNCHRONOUS MOTOR OF EDS JAPAN

Ishizu, S.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 161-166

A STUDY ON THE POWER SUPPLY NETWORK FOR A SUPERSPEED MAGLEV TRANSPORT

Masada, E.; Ohsaki, H.; Tamura, M.; Torii, S.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 155-160

ELECTRIC EQUIPMENT OF THE CHUO LINEAR EXPRESS

Gaki, A., and Shimomae, T.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 135-139

12 Numerical Analysis

THREE-DIMENSIONAL EDDY CURRENT ANALYSIS OF CRYOSTAT OUTER-VESSEL IN SUPERCONDUCTIVE MAGNETICALLY LEVITATED VEHICLE

Nonaka, S.; Sakamoto, T.; Ueno, T.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 67-72

THREE DIMENSIONAL SOLUTION OF HIGH-SPEED MAGNETIC LEVITATION PROBLEMS

Nicolas, A.; Sabornadlere, J. C.; Silvester, P. P.

J. Appl. Phys., Vol. 53, No. 11, Pt. 2, Nov. 1982, pp. 8417-8419
(NTIS No. 83-05 02762)

FINITE ELEMENT MODELS OF EXTERIOR REGIONS CONTAINING MOVING CONDUCTORS

Lowther, D. A., and Silvester, P.P.

COMPUMAG Conf. on the Comput. of Magn. Field, Commun. Proc., Grenoble, France, Sept. 4-6, 1978, Publ. by Lab. d'Electrotech., Grenoble, France, 1978, Pap. 3. 4, 6pp., Location of Work - Imp. Coll of Soc. & Technol., London, England
(NTIS No. 80-03 04678)

A 3-DIMENSIONAL CALCULATION METHOD FOR A LIM HAVING U-SHAPED SECONDARY COMPARED WITH MEASUREMENTS

Sattler, P. K.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keldanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 29-36
(Numerical and test results)

BOUNDARY ELEMENT ANALYSIS OF LINEAR INDUCTION MOTOR FOR MAGLEV VEHICLE

Nonaka, S., and Ogawa, K.

Proc., Int. Conf. Maglev and Linear Drives, May 14-16, 1986, Vancouver, B. C., Canada, Publ. by IEEE, 86CH2276-4, pp. 171-177
(Numerical Results)

FINITE ELEMENT ANALYSIS OF LINEAR INDUCTION MOTORS TAKING INTO ACCOUNT DISCONTINUITY OF SECONDARY RAILS

Nonaka, S., and Furukawa, T.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan, Publ. by IEE Jpn., pp. 339-344

COMPUTATION OF MAGNETIC SUSPENSION OF MAGLEV SYSTEMS USING DYNAMIC CIRCUIT THEORY

He, J.L.; Rote, D.M.; Coffey, H.T.

International Symposium on Magnetic Suspension Technology, NASA Langley Research Center, Hampton, Va., USA, Aug. 19-23, 1991

PRESENT STATUS OF COMPUTATIONAL TOOLS FOR MAGLEV DEVELOPMENT

Wang, Z.; Chan, S.; Rote, D.

Report No. ANL/ESD/TM-24, Center for Transportation Research, Energy Systems Division, Argonne National Laboratory, Dec. 1991

13 Safety Considerations

SAFETY ASPECTS OF THE MAGLEV TEST SITE TRANSRAPID VERSUCHSANLAGE EMSLAND

Jansen, H., and Mnich, P.

Proc., Int. Conf. Maglev Transport '85, Sept. 17-19, 1985, Keidanren Kaikan, Tokyo, Japan, Publ. by IEE, Japan, pp. 295-302

(Theoretical discussions)

SAFETY AND LICENSING ASPECTS OF TRANSRAPID AND MAGLEV SYSTEM

Blomerius, D. I. J.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE, 87CH2443-0, pp. 205-210

(Introduction and state report)

CONCEPT OF THE OPERATIONAL SAFETY SYSTEM FOR THE CHUO LINEA³ EXPRESS

Seki, A.; Kato, S.; Kawakami, T.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 287-290

DEVELOPMENT OF AERODYNAMIC BRAKE OF MAGLEV VEHICLE FOR EMERGENCY USE

Oda, K.; Azakami, M.; Yoshimura, M.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 281-286

SAFETY REQUIREMENTS FOR MAGLEVS IN GERMANY - VIEW AND FORECAST

Jansen, Ing. H.

Proc., 11th Int. Conf. Magnetically Levitated Syst. and Linear Drives, July 7-11, 1989, Yokohama, Japan,

Publ. by IEE Jpn., pp. 73-79

14 Electromagnetic Field Shielding

MAGNETIC SHIELDING FOR MAGNETICALLY LEVITATED VEHICLES

Iwasa, Y.

IEEE Proc., Vol. 61, No. 5, May 1973

(TRIS No. 046397 DA)

AN APPRAISAL OF LIMIT OF SAFE EXPOSURE TO MAGNETISM

Nakagawa, M.

The Second Int. Seminar on Superconductive Magnetic Levitated Train, Miyazaki, Japan, Nov. 1982,

pp. 111-116

(Experimental analysis)

ENVIROMENTAL ASSESSMENT FOR A SUPER-SPEED GROUND TRANSPORTATION SYSTEM PROPOSED TO LINK LAS VEGAS TO SOUTHERN CALIFORNIA

Flowers, C. A.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE,

87CH2443-0, pp. 241-245

(Feasibility Studies)

MAGNETIC FIELD SHIELDING FOR ELECTRODYNAMIC MAGLEV VEHICLES

Hayes, W. F.

Proc., Int. Conf. Maglev and Linear Drives, Las Vegas, Nev., USA, May 19-21, 1987, Publ. by IEEE,

87CH2443-0, pp. 53-66

(Numerical Results)

15 Bibliography

1. INTERNATIONAL SEMINAR ON SUPERCONDUCTIVE MAGNETIC LEVITATED TRAIN, Miyazaki, Japan, November 9-10, 1978.
2. THE SECOND INTERNATIONAL SEMINAR ON SUPERCONDUCTIVE MAGNETIC LEVITATED TRAIN, Miyazaki, Japan, November 4-5, 1982.
3. INTERNATIONAL CONFERENCE ON MAGLEV TRANSPORT'85, Tokyo, Japan, September 17-19, 1985, Published by IEE Japan.
4. INTERNATIONAL CONFERENCE ON MAGLEV AND LINEAR DRIVES, Vancouver, British Columbia, Canada, May 14-16, 1986, Published by IEEE, No. 86CH2276-4.
5. INTERNATIONAL CONFERENCE ON MAGLEV AND LINEAR DRIVES, Las Vegas, Nevada, USA, May 19-21, 1987, Published by IEEE, No. 87CH2443-0.
6. 11TH INTERNATIONAL CONFERENCE ON MAGNETICALLY LEVITATED SYSTEMS AND LINEAR DRIVES, MAGLEV'89, Yokohama, Japan, July 7-11, 1989, Published by IEE Japan.
7. MAGLEV AND SUPERCONDUCTIVITY. Search of Transportation Research Information Service (TRIS) Database for Citations on Magnetic Levitation and Superconductivity by Barbara Post, January 19, 1989.
8. MAGNETIC LEVITATION FOR RAIL TRANSPORTATION (JAN. 1971-NOV. 1989). Citations from the COMPENDEX Database, National Technical Information Service (NTIS).

Appendix A: Some Sources of Useful Information

NTIS:

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IEEE:

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Publishing Services
345 East 47th Street
New York, NY 10017

IEE of Japan:

Institute of Electrical Engineers of Japan
1-12-1, Yurakucho, Chiyoda-ku
Tokyo, 100 Japan

NMI: Office of National Maglev Initiative
400 Seventh St., S.W.
Washington, DC 20590

Telephone (202) 366-6708
(202) 366-6144

Japan Information Center of Science and Technology, Washington Office
1550 M Street, N.W.
Washington, DC 20005

Telephone (202) 872-6371
Fax (202) 872-6372

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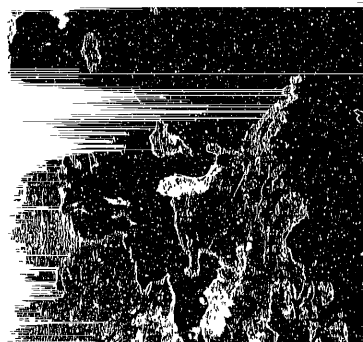
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