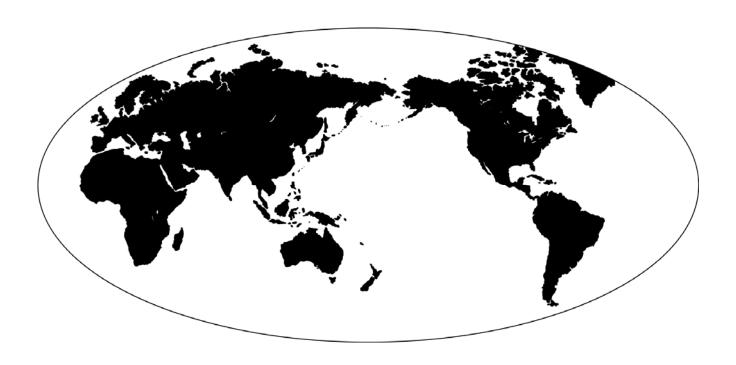
The International Symposium on

New Refrigerants and Environmental Technology 2012

- Latest Technology of Energy Conservation, New Refrigerants and Environment issue on Air conditioning and Refrigeration Equipment including Automotive A/C for lead up to the 21st Century -



(Ver.2)

November 8 - 9, 2012 International Conference Center Kobe, Main Hall

Dates & Venue

November 8 - 9, 2012

International Conference Center Kobe

6-9-1, Minatojima, Nakamachi, Chuo-ku, Kobe 650-0046 JAPAN

Tel: +81-78-302-5200 Fax: +81-78-302-6485

Organized and Sponsored by

The Japan Refrigeration and Air Conditioning Industry Association (JRAIA)

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Co-sponsored by (Tentative)

International Council of Air-Conditioning, Refrigeration, and Heating Manufacturers' Associations

(ICARHMA)

- Brazilian Refrigeration, Air Conditioning and Ventilation Industry Association (ABRAVA)
- The Air-Conditioning, Heating, and Refrigeration Institute (AHRI)
- Air Conditioning and Refrigeration Equipment Manufacturers Association of Australia (AREMA)
- China Refrigeration and Air Conditioning Industry Association (CRAA)
- European Committee of Air-Handling, Air-Conditioning and Refrigeration Equipment Manufacturers

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- Heating, Refrigerating and Air-Conditioning Institute of Canada (HRAI)
- Korea Refrigeration Air-Conditioning Industry Association (KRAIA)

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Heat Pump and Thermal Storage Technology Center of Japan (HPTCJ)

Industrial Network for Fluorocarbon Recovery Promotion (INFREP)

Japan Lubricating Oil Society (JALOS)

Japan Automobile Manufacturers Association, Inc. (JAMA)

Japan Association of Refrigeration and Air Conditioning Contractors (JARAC)

Japan Association of Refrigerated Warehouse (JARW)

Japan Air Conditioning and Refrigeration Testing Laboratory (JATL)

Japan Electrical Manufacturers' Association (JEMA)

Japan Fluorocarbon Manufacturers Association (JFMA)

Japan Industrial Conference for Ozone Layer Protection (JICOP)

Japan Refrigerants and Environment Conservation Organization (JRECO)

Japan Society of Refrigerating and Air Conditioning Engineers (JSRAE)

Osaka Refrigeration and Air Conditioning Industry Association (ORAIA)

Supported by (Tentative)

Ministry of Economy, Trade and Industry (METI) Kobe City

Languages

The symposium will be conducted in English and Japanese with simultaneous interpretation.

PROGRAM

Thursday	y, No	ovember 8
08:00 - 09:00		Registration
00:00 00:10	4	Opening Address
09:00 - 09:10	1 2	Kobe City Shinya Okada, Chairman of the board, JRAIA
09:10 - 10:00		Keynote Address
		Tetsuro Kishimoto, President, JRAIA to be determined
10:00 - 10:10		Refreshment Break
	•	Main Moderator of Technical Session: Makoto Kaibara, Panasonic Corporation, Japan
10:10 - 11:30		Technical Session 1 : Environment issue
		Moderator: Makoto Kaibara, Panasonic Corporation, Japan Toru Nikaido, Hitachi Appliances, Inc., Japan
	1.1	Satoshi Sadatani, Minister of Economy, Trade and Industry (METI), Japan
		R-32 Promotion Activities by Japanese Industry-Government Partnership to protect Ozone Layer and the Climate for Future Generation
	1.2	Hilde Dhont, European Partnership for Energy and the Environment(EPEE), Belgium
	1 2	The F Gas Regulation in Europe – State of Play Thoma Thomas China Potrigoration and Air Conditioning Industry Association (CRAA). China
	1.3	Zhang Zhaohui, China Refrigeration and Air Conditioning Industry Association (CRAA), China HPMP and Risk Assessment of R32being Processed in China
	1.4	Karim Amrane, The Air-Conditioning, Heating, and. Refrigeration Institute (AHRI), U.S.A
11:30- 13:00		AHRI Low-GWP Alternative Refrigerants Evaluation Program Lunch & Poster Session
13:00 - 14:20		Technical Session 2 : Energy Conservation
		Moderator: Masanori Kando, Mayekawa Mfg Co., Ltd., Japan
	2.1	Kazuhisa Mishiro, Sharp Corporation, Japan Takuho Hirahara, Working Group for Reviewing Heat Pump Technology , JRAIA, Japan
		Theoretical COP of Heat Pump Systems
	2.2	Satoko Sugisaki, Toshiba Carrier Corporation, Japan Study of Energy Efficient Field Operations of Multi-Split Type Air-Conditioning Systems for Buildings
	2.3	Motoshi Matsushita, Sharp Corporation, Japan
	2.4	Examination of Un-smooth Inverter of Compressor Motor Drive Using Power Factor Control Takayuki Kobayashi, Mitsubishi Heavy Industries, Ltd., Japan
	2.4	Commercial Use CO ₂ Heat Pump Water Heater with Scrotary Compressor
14:20 - 14:30		Refreshment Break
14:30 - 16:05		Technical Session 3: Safety Analysis of 2L Refrigerants 1 Medicarters Safety Full made Chairman Disk Assessment of ACL Defrigerant committee IDAIA Jones
	3.1	Moderator: Satoru Fujimoto, Chairman, Risk Assessment of A2L Refrigerant committee, JRAIA, Japan Eiji Hihara, Chairman, A2L Risk Evaluation Committee, JSRAE, Japan to be determined
	3.2	to be determined, University of Tokyo, Japan
	3.3	to be determined Osami Sugawa, Tokyo University of Science, Suwa, Japan
	0.0	Evaluation of Fire Hazards of A2L Class Refrigerants
	3.4	Tei Saburi, National Institute of Advanced Industrial Science and Technology (AIST), Japan Combustion Characteristics of Flammable Refrigerant Gases
	3.5	Kenji Takizawa, National Institute of Advanced Industrial Science and Technology (AIST), Japan
		Flammability Property of 2L Refrigerants
16:05 - 16:15		Refreshment Break
16:15 - 18:20		Technical Session 4: Safety Analysis of 2L Refrigerants 2 Moderator: Hiroichi Yamaguchi, Toshiba Carrier Corporation, Japan Tatsumi Kannon, Mitsubishi Heavy Industries, Ltd., Japan
	4.1	Denis Clodic, ERelE Energy Research Innovation Engineering, France
	4.2	Risk Assessment of R-1234yf in Stationary Applications Xudong Wang, The Air-Conditioning, Heating, and. Refrigeration Institute (AHRI), U.S.A Risk Assessment of Residential Heat Pump System Using 2L Flammable Refrigerants
	4.3	Atsushi Ooki, Japan Automobile Manufacturers Association, Inc (JAMA), Japan to be determined
	4.4	Kenji Takaichi, Risk Assessment of A2L Refrigerant committee, JRAIA, Japan Risk Assessment of Mini Split Air-conditioner with A2L Refrigerant in Progress
	4.5	Ryuzaburo Yajima, Risk Assessment of A2L Refrigerant committee, JRAIA, Japan
	4.6	Risk Assessment of VRF System with A2L Refrigerant in Progress Kenji Ueda, Risk Assessment of A2L Refrigerant committee, JRAIA, Japan
40.00		Risk Assessment of Chillers with A2L Refrigerant in Progress
18:20 -		Move to Portopia Hotel
18:45 - 20:45		Welcome reception
		at Room "Kairaku" Portopia Hotel (Main Building/ B1F)

08:30 - 09:00 Registration Trechnical Session 5 : Lubricants and Compressors 1 Moderator Kenji Tojo, Hilachi Appliances, Inc., Japan John Health Compressor 1 John Health Compressor 2 John Health Compressor 3 John Health Compressor 3 John Health Compressor 3 John Health Compressor 4 John Health Compressor 3 John Health Compressor 4 John Health Compressor 5 John Health C	Friday, N	love	mber 9
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Moderator. Kenji Tojo, Hitachi Appliances, Inc., Japan Takashi Kamia, J.X Nippon Oii & Energy Corporation, Japan Joe Healy, Emerson Electric Co., U.S.A. Low Ambient Performance of Vapour Injected Variable Speed Scrolls on Low GWP Refrigerants Sonny G. Sundaresan, Sundaresan Consulting Services, I.L.C, U.S.A. Compressor Lubrication in HVACR Industry-Proven Foad Map Samura Masaal Royana, Hitachi Research Laboratory, Japan Development of High Efficiency Twin Rolary Compressor by Adopting a New Manufacturing Method Masaal Royana, Hitachi Research Laboratory, Japan Wide-arage Scrol Compressor for Heat Pump System That Improves Annual Efficiency Wide-arage Scrol Compressor for Heat Pump System That Improves Annual Efficiency Wide-arage Scrol Compressor for Heat Pump System That Improves Annual Efficiency Wide-arage Scrol Compressor for Heat Pump System That Improves Annual Efficiency Wide-arage Scrol Compressor for Heat Pump System That Improves Annual Efficiency Wide-arage Scrol Compressor for Heat Pump System That Improves Annual Efficiency Wide-arage Scrol Compressor for Heat Pump System That Improves Annual Efficiency Wide-arage Scrol Compressor of Heat Pump System That Improves Annual Efficiency Wide-arage Scrol Compressor of Heat Pump Systems			
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16:50 - 17:00 Closing Remarks			· · · · · · · · · · · · · · · · · · ·
	16:50 - 17:00		Closing Remarks

Poster Session	
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Saga University	Thermal Conductivity Measurement of Saturated Liquid of HFOs and HFO+HFC mixtures
Iwaki Meisei University	Thermodynamic Properties of Low GWP Refrigerant Mixtures
Kobe University/ KEPCO	Heat Transfer and Two-phase Flow Characteristics in a Single-channel Plate Fin Evaporater
Tokyo University of Marine Science and Technology	Heat Transfer Characteristics of Low-GWP Refrigerants Inside Horizontal Internally Helical-grooved Small-Diameter Tubes
National Institute of Advanced Industrial Science and Technology (AIST)	Experimental Evaluation of The Fundamental Properties for Low-GWP Refrigerant
Japan Air Conditioning and Refrigeration Testing Laboratory	Research on The Improvement in Testing Accuracy of Air Conditioners and Spread It to Rising Countries
Saga University, Kyushu University, The Japan Society of Refrigerating and Air Conditioning Engineers (JSRAE)	Survey on Technical Subjects of Heat Exchanger for Refrigerating and Air-Conditioning
Japan Refrigerants and Environment Conservation Organization	Reducing The Refrigerant Emission and The Realty of Management System
ASADA CORPORATION	Automatic Monitor and Detector for Refrigerant Leak from HVAC Application "MIHARI series"
ASADA CORPORATION	Introduction of service tools for refrigeration and air conditioning equipment using the HFC-32
TASCO JAPAN CO., LTD.	About R32 Service Tools
DENGEN Co., Ltd.	Development of Applications Improve Refrigerant Recovery Efficiency and Rate
Pro-Step Co.,Ltd.	"Air Driven Typed Recovery Equipment For Mildly Flammable Low GWP Refrigerants
FUSO Co.,Ltd.	About The Newest Chlorofluocarbon Disclosure Detection Technology and Poofreading of A Detector Machine
Ziehl-Abegg Japan Co. Ltd.	The Innovative Products to Realize Energy-saving
Mitsubishi Heavy Industries, Ltd.	Development of CO2 Two Stage Compressor for Commercial Heat Pump Water Heater
Fukuoka University	Cooling heat transfer characteristics of CO2 inside a thin smooth tubeat supercritical pressure
JRAIA	10th Anniversary, History of Kobe Symposium

More new information and Registration, access to JRAIA Site; http://www.jraia.or.jp/frameset_english.html

 $\mathop{\mathsf{Symposium}}^\downarrow$

The Registration Secretariat

All inquiries related to this Symposium should be directed to the following address:

JRAIA Symposium DESK

c/o Kinki Nippon Tourist Co., Ltd.

Global Business Management Branch

Sumitomo-shoji Kanda-Izumi-Cho Bldg., 12F, 1-13 Kanda-Izumi-cho,

Chiyoda-ku, Tokyo 101-0024, JAPAN

Tel: +81-3-6891-9600 Fax: +81-3-6891-9599

E-mail: jraia2012-gbm@or.knt.co.jp

WEB Registration: http://www.jraia.or.jp/frameset_english.html

↓ Symposium

Registration Fee

Early Bird Registration before Sep. 30, 2010	¥30,000
After Oct. 1, 2010 or On-Site Registration	¥40,000
Welcome Reception	¥10,000

Accommodation

- *A sufficient number of rooms have been reserved at following hotels in Kobe by Kinki Nippon Tourist Co., Ltd.
- *Dead line for hotel reservation: Sep. 30
- *Please ensure us for a hotel reservation after the dead line.
- *Kobe Portopia Hotel, adjacent to the conference center is the main hotel for this Symposium. [Hotel Accommodations]

Name of Hotel	<u>Single</u>	Deposit(Single)	<u>Twin</u>	<u>Deposit</u>
1) Kobe Portopia Hotel	¥12,600	¥12600	¥21,000	¥21,000
2) Hotel Pearl City Kobe	¥9,975	¥9,975	¥15,750	¥15,750
3) Kobe Tokyu Inn	¥11,025	¥11,025	¥19,950	¥19,950
4) Sannomiya Treminal Hotel	¥7 [°] .875	¥7.875	¥12.600	¥12.600

^{*}A service charge, tax and breakfast are included.

Payment

Please refer to Registration and Hotel application form.

Confirmation

Upon receipt of the Form and confirmation of your payment of the appropriate fees, a confirmation letter will be sent to you after September 30, 2012 by Kinki Nippon Tourist Co., Ltd.

Confirmation

Upon receipt of the Form and confirmation of your payment of the appropriate fees, a confirmation letter will be sent to you after November 1, 2010 by Kinki Nippon Tourist Co., Ltd. Change or Cancellation

Any change or cancellation notice must be made in writing to Kinki Nippon Tourist Co., Ltd. to prevent troubles.

Refunds

Refunds will be made after deducting bank and/or credit card service charges and the above cancellation penalties either during or after the Symposium. If payment was made by credit card, reimbursement will be made through the credit card company.

^{*}Accommodation can be arranged through Registration Secretariat of the symposium.

^{*}If all available rooms of the desired hotel are fully booked, you will be assigned a room in the other hotel.

General Information

Climate and Clothing

The symposium will be held under the Pleasant early winter weather, the temperatures ranging between a daytime high of 14° C (57° F) and a low of 8° C (46° F). Dress for all events will be informal.

Passports and Visas

Participants are requested to ensure possession of all essential travel documents. For details, please contact a local travel agent or the carrier for your own security.

Exchange

Foreign currency may be exchanged at banks at airport and around the symposium site. Most hotels are able to exchange from US dollar to Japanese Yen for their guests.

Electrical Appliances

Japan operates on 100-110 volts for electrical appliances. The frequency is 60 cycles (Hz) in western Japan including Kobe and 50 cycles (Hz) in eastern Japan including Tokyo.

Shopping

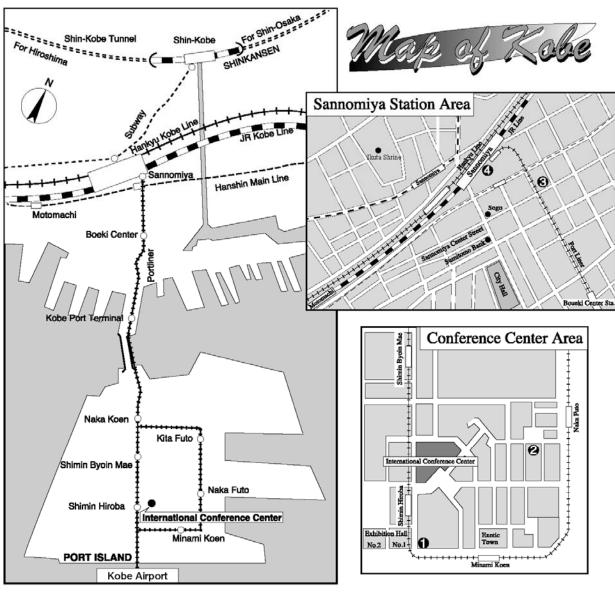
Saturdays and Sundays are major shopping days in Japan. All department stores and other shops are usually open until approximately 8:00 p.m.

Travel Information Desk

A travel Information Desk will set up in the registration area for those from overseas during the period.

Access to Conference Hall

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Narita International Airport ------ Tokyo Sta. ----- Shin-Kobe Sta.
                      Narita Express (60min. ¥3,140) Shinkansen Line (194min. ¥14,670)
Narita International Airport -----
                                                                     ----- Itami Airport
                                   Airline ANA/JAL (75min. ¥22,500)
Shin-Kobe Sta. ------ Sannomiya Sta. -----Shiminhiroba Sta. (International Conference Center Kobe)
         Subway (3min. ¥200) Portliner(10min. ¥240)
Shin-Kobe Sta. ---
                                                        -----.International Conference Center Kobe
                    Taxi (about 15min. ¥1,500~¥2,000)
Kansai International Airport --- Sannomiya Sta... --- Shiminhiroba Sta.(International Conference Center Kobe)
       Airport Bus (75min. ¥1,900) Portliner (10min. ¥240)
Kansai International Airport -----Kobe Airport -----Shiminhiroba Sta. (International Conference Center Kobe)
                                            Portliner (8 min. ¥240)
           Speedy Craft(30min. ¥1,500)
Itami Airport ----- Sannomiya Sta. ----- Shiminhiroba Sta. (International Conference Center Kobe)
   Airport Bus (40min. ¥1,020) Portliner(8 min. ¥240)
Kobe Airport ----- Shiminhiroba Sta. (International Conference Center Kobe)
        Portliner (8 min. ¥240)
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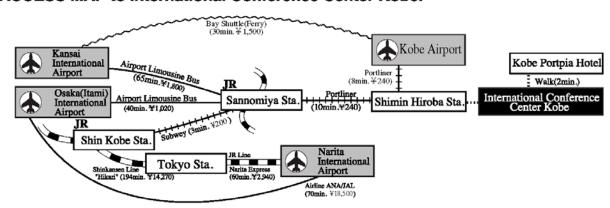


OKobe Portpia Hotel ----- Adjacent to the Portliner Shimin Hiroba Station

OHotel Pearl City Kobe ------ 2 min. walk from Portliner Naka Futo Station.
 OKobe Tokyu Inn ------ 3 min. walk from JR Sannomiya Station.

OSannomiya Terminal Hotel --- 0 min. walk from JR Sannomiya Station.

ACCESS MAP to International Conference Center Kobe.



The International Symposium on New Refrigerants and Environmental Technology 2012 November 8 - 9, 2012 Kobe

Registration and Hotel application For JRAIA Symposium DESK	m	Reg. No : Received :		
c/o Kinki Nippon Tourist Co., Ltd. Global Business Management Br Sumitomo-shoji Kanda-Izumi-cho Bldg 12 Tel: +81-3-6891-9600 Fax: +81-3-6891-9. PLEASE FILL IN BLOCK LETTERS: Title: □ Prof. □ Dr. □ Mr. □ Ms.	F,1-13 Kanda-Izumi-cho, Chiyoda-ki 599 E-mail: jraia2012-gbm@or.kn	Deadline: Sep u, Tokyo 101-0023, Ja	· · · · · ·	Registration)
Last Name :	First Name:			
Organization :	Dept :			
*Please do not abbreviate: □ Office □ Home Mailing Address :				
		Country :		
Tel : Fa	ax :	E-mail :		
Registration Early Bird Registration before G After Nov. 1 Registration or on Welcome Reception Hotel Accommodations		Total Registrat	tion Fee=¥	(A)
☐ (1) Kobe Portopia Hotel	☐ Single	, ,		
☐ (2) Hotel Pearl City Kobe	☐ Twin			
(3) Kobe Tokyu Inn		p:		night(s)
☐ (4) Sannomiya Terminal Hotel	Cneck-out date	2:	ior	nignt(s)
	Deposit : <u>¥</u> ×	room(s) = \(\frac{1}{2} \)		(B)
	Total Amount (A)+(B)	= ¥		
Payment *Payment should be in Japanese you I have enclosed a bank draft of ¥				
☐ I have remitted the sum of ¥	through	bank on		by direct transfer
in Japanese yen to the followi *Please attach a copy of the bar Bank Name: Sur Account Name: Kir SWIFT Code: SM	nk receipt to this form. mitomo Mitsui Banking Corp., Su nki Nippon Tourist Co., Ltd. BCJPJT 33610 ank receipt to this form.	zuran Branch	date	
□VISACARD □MASTE	R CARD □AMERICAN I	EXPRESS	□DINERS	□ЈСВ
Account No, (カードNo) Good Thru (有効期限)mo	nth/year	mount 計金額) e fill out the area within the b	old lines in block or ty	/pe letters.
Name of Holder:		vill be deemed invalid if the pa		
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10127				

Date: Signature:

«MEMO»		



JRAIA THE JAPAN REFRIGERATION AND AIR CONDITIONING INDUSTRY ASSOCIATION

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