

WREF 2012

金属资源再生国际论坛

Electronics Recycling Asia

November 13 – 16, 2012, Guangzhou, China
Conference, exhibition and plant tours organized
by World Recycling Forum



Supported by:

China Resource Recycling Association

Institute for Environmental Science and Technology (INEST),
Vietnam

Institute of Scrap Recycling Industries, Inc. (ISRI), USA

Japan Electronics and Information Technology Industries
Association (JEITA)

Korea Institute of Geoscience & Mineral Resources (KIGAM)

National Metallurgical Laboratory, Council of Scientific &
Industrial Research (CSIR), India





FOREWORD

PROFESSOR JINHUI LI

Chairman of
Electronics Recycling Asia

Welcome to Guangzhou – the Pearl in Maritime Silk Route

On behalf of the Electronics Recycling Asia Steering Committee, I welcome you to the 7th World Recycling Forum WRF 2012 in Guangzhou. With your honorable participation, the WRF 2012 will be another successful event.

Hundreds of delegates from all over the world gather in the charming city Guangzhou where the Pearl River meets the sea, where the Maritime Silk Route meets its starting point.

Ram City is the nickname of Guangzhou, and it's also known as the south gate of China. It has a long history and culture tradition where Cantonese originates. What's more, Guangzhou cuisine has its own seat in the world.

Guangzhou has always been an economy, finance, culture, technology, transport and education center of southern parts of China since ancient time. It is the largest open port and has the longest history in south China, and it is marked as one of the most famous harbor city in the world as well. Guangzhou, as the one of the most outstanding open city in China, is the golden window for foreign trading. Guangzhou attracts a great many of foreign friends to dwell and it is also a well-known hometown for overseas Chinese.

With the rapid development of science and technology, human beings gradually step into a whole new digitalized world. A variety of advanced electronics and electric appliances are striding into people's life bringing convenience. The fast speed of updating electron-

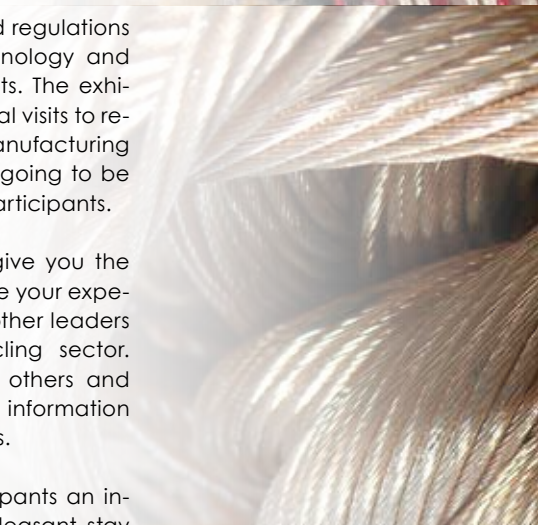
ics and electric appliances produces increasing electrical wastes, leaving harmful and tough environmental problems. The wastes not only contain valuable metal and plastic materials, but also hazardous composition threatening people's health. The recycling and reusing of wastes rouses the awareness and attracts high attention of the people from all over the world. Guangzhou, as one of the most crucial industrial base, is confronted with the challenge of how to efficiently utilize the recycling material as well as recyclable resources which has already become a rapidly expanding business asset.

There will be many associations, a diversified Steering Committee, powerful sponsors and interesting exhibitors from all over the world. Many speakers from all over the world will present solutions to challenges in the

field of laws and regulations as well as technology and industrial projects. The exhibition and several visits to recycling and manufacturing companies are going to be offered to the participants.

The forum will give you the platform to share your experience among other leaders from the recycling sector. Learn from the others and get the latest information from the markets.

I wish all participants an interesting and pleasant stay and look forward to meeting you in charming Guangzhou!



KEYNOTE SPEAKERS



PROF. JINHUI LI

Executive Secretary, Basel Convention
Coordinating Center for Asia and the Pacific
Professor, School of Environment, Tsinghua University
China

“RARE AND PRECIOUS METALS RECYCLING IN E-SCRAP”

CRYSTYNNA EWE

Dell
Head of Take Back
Asia Pacific & Japan

“THE PRINCIPLES OF PROPER REGULATION”



PROF. YANGZU WANG

Member of Committee of Science & Technology
Ministry of Environmental Protection
(Former Vice Minister of Ministry of Environmental Protection)
China

“GLOBAL TRADE OF METALS AND WASTES”

DR PAEAN ZHANG

Hunan VARY Tech. Co., Ltd.
Deputy General Manager
China

“ENVIRONMENTAL PROTECTION EQUIPMENT
IN THE FIELD OF RENEWABLE RESOURCE
RECYCLING”



LINDA LI

Li Tong Group
Vice President
Hong Kong, China

“ELECTRONICS REMANUFACTURING & CLOSED-
LOOP RECYCLING IN CHINA”



INTERNATIONAL STEERING COMMITTEE

CHAIRMAN



PROF. JINHUI LI
Executive Secretary
Basel Convention, Coordinating
Center for Asia and the Pacific
Tsinghua University
China

CO-CHAIRMAN



ROGER BURRI
Air Mercury AG
President
Switzerland

MEMBERS



DR MICHAEL BIDDLE
MBA Polymers, Inc.
President and Founder
USA



ANNUKKA DICKENS
Hewlett-Packard
Head of Environmental
Management
Asia Pacific & Japan



PROF. HUANZHENG DU
Institute of Recycling Economic
Technology of the Yangtze Delta
Area Zhejiang Province, Director
China



CRYSTYNNA EWE
Dell
Head of Take Back
Asia Pacific & Japan



JEAN-PHILIPPE FUSIER
MTB Recycling
President
France



PAUL HEALEY
Xstrata Copper
Senior Director Recycling
Canada



PROF. TRUNG HAI HUYNH
Institute for Environment Science
and Technology (INEST), Hanoi
University of Science & Technology
(HUST), Director, Vietnam



DR MANIS KUMAR JHA
Metal Extraction & Forming Division
National Metallurgical Laboratory
Assistant Director / Senior Scientist
India



JEFFREY JERMYN
GEEP International Inc.
President
Canada



SONG JIANG
China Nonferrous Metal Industry
Resource Regenerating Co., Ltd.
General Manager
China



DR JAE-CHUN LEE
Korea Institute of Geoscience
and Mineral Resources (KIGAM),
Principal Researcher
Korea



PROF. HSHAO-KANG MA
National Taiwan University
Department of Mechanical
Engineering
Taiwan



CHRISTINA MESKERS
Umicore Precious Metals Refining
Marketing and Business
Development Manager
Belgium



SCOTT NEWELL
The Shredder Company, LLC
Chairman and CEO
USA



KAZUMI NOZAWA
IBM Corporation, Program Manager,
Environmental Policy & Programs
Japan and ASEAN countries
Japan

INTERNATIONAL STEERING COMMITTEE



STEPHAN SCHWARZ
ALBA Group
Management Trading Plastics
Paper Southwest
Germany



PROF. DUAN WENG
Chairman of WRF
Tsinghua University, Institute
for Energy & Environment
Materials, Director, China



STEVE SKURNAC
Sims Recycling Solutions
North America
President
USA



ROBIN WIENER
Institute of Scrap Recycling
Industries, Inc. (ISRI)
President
USA



CARL E. SMITH
Call2Recycle®
CEO/President
USA



DR. KAIHUA XU
Shenzhen GEM High-Tech Co., Ltd.
President
China



DOUGLAS SMITH
Sony Electronics Inc.
Director, Corporate Environment,
Safety and Health
USA



JOSEPH YOB
Creative Recycling Systems, Inc.
Business Development Manager
USA



MARK TOMASZEWSKI
Inmetco Inc.
President
USA



JOE ZHOU
Global Metals Co., Ltd.
President
China

MEDIA PARTNERS



MANFRED BECK
Recycling International Magazine
Publisher & Editor
Netherlands



BRIAN TAYLOR
Recycling Today Media Group
Associate Publisher/
Editorial Director
USA



STEPHAN PETER KRAFZIK
Recycling Magazin
Senior Editor
Germany



XIN ZHAI
Resource Recycling
Chief Editor
China



ADAM MINTER
Shanghai Scrap
Freelance Recycling
Industry Journalist
China

CONFERENCE STRUCTURE

LOCATION OF THE CONFERENCE



The Electronics Recycling Asia will be held from **November 13 – 16, 2012**, in the Shangri-La Hotel in Guangzhou, China.

It is one of Guangzhou's top luxury hotels, combining spectacular views of the Pearl River with elegant landscaped gardens. This Guangzhou luxury hotel offers guests an oasis of warm comfort as they indulge in the lavish accommodation and dining options presented alongside the renowned Shangri-La hospitality.



For the participants of the conference a number of rooms are held at a special rate, if you register **before October 14, 2012**. If you wish, you may also extend your stay at this beautiful hotel at the same special rate.

Shangri-La Hotel Guangzhou*****
1 Hui Zhan Dong Road, Hai Zhu District
Guangzhou 510308, China

Phone +86 20 8917 8888
Fax +86 20 8917 8899

www.shangri-la.com/en/guangzhou/shangrila



TUESDAY, NOVEMBER 13, 2012 / PLANT TOURS

11.00 – 19.00	Registration		
12.30 – 17.00	Plant tour 1 Electronics dismantling plant Guangdong Mingjie, Foshan	13.00 – 17.00	Plant tour 2 Plastics recycling plant Kingfa Sci. & Tech., Guangzhou
		13.00 – 17.00	Plant tour 3 Plastics recycling plant MBA Polymers, Guangzhou
17.00 – 19.00	Welcome reception		
19.00	Steering Committee Meeting (I)		

WEDNESDAY, NOVEMBER 14, 2012 / CONFERENCE & EXHIBITION

08.00 – 09.00	Registration and welcome coffee in the exhibition area		
09.00 – 12.00	Keynote Speakers & Panel Discussion		
12.00 – 13.30	Lunch		
13.30 – 15.00	Today's cutting edge recycling technology		
15.30 – 17.00	New frontiers of recycling technology		
19.00	Cocktail reception & networking dinner		

THURSDAY, NOVEMBER 15, 2012 / CONFERENCE & EXHIBITION

07.30 – 08.30	Coffee and tea		
08.30 – 10.00	Keynote Speakers		
10.30 – 12.00	How to recycle strategic metals out of E-scrap	10.30 – 12.00	E-scrap country reports
12.00 – 13.30	Lunch		
13.30 – 15.00	E-scrap collections: The data	13.30 – 15.00	How to recycle lamps and other mercury containing waste
15.30 – 17.00	E-scrap in Asia: Reports from the biggest players		
17.00 – 18.00	Cocktail reception		
18.00	Steering Committee Meeting (II)		

FRIDAY, NOVEMBER 16, 2012 / PLANT TOURS

07.00 – 20.00	Plant tour 4* Electronics recycling plant E. Tech Management, Hong Kong	08.00 – 16.30	Plant tour 5 Electronics recycling plant Qingyuan Dongjiang, Qingyuan	08.30 – 17.00	Plant tour 6 Electronics manufacturing plant Wistron South China, Zhongshan
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*Cross-boundary tour to Hong Kong: As you will leave mainland China for this tour, please make sure that you have a valid multiple visa to China, if you are returning to mainland China after this plant tour.

TRAVELLING TO GUANGZHOU

Visa for China

Foreigners who visit China are generally required to apply for a visa before departure. Please check with your local China embassy if you need a visa.

By plane

Guangzhou Baiyun International Airport (CAN) has been in operation since August 5, 2004 and is one of the three largest air hubs in China. Flights from this airport connect the city with more than 70 domestic cities and over 20 international cities. The airport is 28 km (17 mi) north from central Guangzhou and around 45–60 minutes from the conference hotel Shangri-La.

Flying to Hong Kong is another option. From the Hong Kong International Airport, you can take cross-boundary coach to Guangzhou and other cities in Guangdong province. The trip takes around 3 hours.

Weather

Guangzhou weather is generally warm and humid all year round without a clear division between the four seasons. The average low and high temperatures are respectively 16°C (60°F) and 24°C (75°F) in November. A light sweater and a coat should be enough at the coolest of times.



EXCITING GUANGZHOU

Guangzhou, located at the north of the Pearl River delta, is an important trading center as well as a busy port and the capital city of the province of Guangdong. The Canton faire has been held twice a year in the city since 1957. The city is renowned for its arts and crafts, namely the Guang Dong embroidery, ivory-carving and ceramics.

"Eating in Guangzhou" has become a popular saying both at home and abroad. Guangzhou ranks first in the

number of restaurants and tea-houses in the country. Cantonese cuisine is good in color, fragrance, taste and presentation. Cantonese cuisine is among the most famous four in the country.

And then there is Shamian Island, a gazetted historical area that serves as a tranquil reminder of the colonial European period, with quiet pedestrian avenues flanked by trees and lined by historical buildings in various states of upkeep.



www.visitgz.com/en

PLANT TOUR 1

TUESDAY, NOVEMBER 13, 2012

GUANGDONG MINGJIE, FOSHAN



Visit of the electronics dismantling plant

- 12.30 Departure by bus from the Shangri-La Hotel Guangzhou to Guangdong Mingjie
- 14.00 Arrival at Guangdong Mingjie
- 14.00 – 15.30 **Visit of the electronics dismantling plant**
- 17.00* Arrival at the Shangri-La Hotel Guangzhou

Guangdong Mingjie Environmental Protection Science & Technology Co., Ltd., a leading company in circular economy and an authorized pilot unit, has devoted itself to the green business of circular economic development since 1998. Our company carries out standard administration and excellent risk management, featuring international joint purchasing, automatic mass production and one-stop informatization marketing.

With the prominent advantage of capital management, our company has witnessed a continual dramatic growth for years and developed more than 20 professional subsidiaries. Every year we provide plenty of high-quality renewable resources and re-manufactured products for domestic and foreign companies in the circular economic industries. Up to the year 2011, our sales volume has outnumbered RMB 7 billion.

Our main business includes:

- Renewable resources import, recycling, & processing
- Domestic E-waste disassembling & recycling
- Scrap automobile disassembling & recycling
- Spare Parts re-manufacturing
- Establishment of the marketing system of urban renewable resources
- Research and development of environmental protection facilities

More information at: www.cmjr.cn

* No guarantee on arrival time due to traffic conditions.

MJR 明杰资源
MINGJIE RESOURCE

Annual sales is more than 1.5 billion USD

Recycle Reduce Resource Remanufacturing

汽车零部件再制造
Automotive Parts Remanufacturing

Domestic Recycling System

We dedicate ourselves to create a bright future for sustainable development, boost our technology to upgrade the recycling system and reduce waste, hoping to share the green achievements with our customers. We are carrying out the concept of Reduce, Recycle & Resource. We input advanced technology and huge funds to help reduce pollutions and retrieve the environment, exploiting the green future with our excellent performance.

我们致力于创造一个更加可持续发展的未来。不断推进技术来减少浪费，增加循环再利用，创造更为安全处理和处置的选择，发展可再生资源，与客户及合作伙伴共享绿色效益成果。“减量化、再利用、再循环”是我们的行动格言。
明杰追求卓越，与您共同开创绿色未来。

Leading Enterprise in Resource Reutilization
National Authorised Enterprise Of Metal Scrap & Plastic Scrap Import
Car Dismantling,
Household Appliance Disassembling,
Spare Parts Remanufacturing
Annual Business Tax Exceeds 10 million RMB

资源综合利用龙头企业
循环经济试点企业
国家限制类进口定点单位
汽车家电拆解处置企业
零部件检测及再制造企业
国内纳税超千万元企业

WWW.CMJR.CN

Household Appliance Recycling Hotline : 400-777-3838 (China)
ES Store Alliance Hotline : 0086-757-86223838

Build Up Your Healthy Life

PLANT TOUR 2

TUESDAY, NOVEMBER 13, 2012

KINGFA SCI. & TECH. CO., LTD., GUANGZHOU

KINGFA
金发科技

Visit of the plastics recycling plant

13.00	Departure by bus from the Shangri-La Hotel Guangzhou to Kingfa
14.00	Arrival at Kingfa
14.00 – 16.00	Visit of the plastics recycling plant
17.00*	Arrival at the Shangri-La Hotel Guangzhou

Kingfa was founded in 1993 with registered capital of 1'396 million Yuan. It is China's first listed company in the modified plastics industry.

Kingfa has qualified 600'000 tons of modified plastics production capacity. It is the most complete & the largest output production enterprise in China's modified plastics. In September 2004, Kingfa's production base in East China – Shanghai Kingfa was put into operation. At the same year, Kingfa established a production base in western China – Mianyang ChangXin New Materials Development Ltd. Thus, Kingfa has created allocation of production and manufacture across the East, South and West in China.

To further explore the international market, the company has registered "Kingfa" trademark in more than 30 countries including USA, Canada, Japan, Malaysia, Thailand, Mexico, India, South Korea etc. The company has a rapid product sales growth and accomplished sales volume which exceeded 7.51 billion Yuan (tax included) in 2007. In 2010, Kingfa reached on the basis of sales growth of 30% & its domestic market share reached 15–20%.

More information at: www.kingfa.com.cn

* No guarantee on arrival time due to traffic conditions.

KINGFA

- 注册资本13.965亿元，是国内改性塑料行业第一家上市公司；
- 是全国最大的改性塑料生产基地，也是全球改性塑料产品种类最为齐全的厂商之一；
- 改性塑料品种及销售量连续十年排名全国首位；
- 行业内唯一一家国家工程实验室；
- 行业内唯一一家4A级标准良好行为企业（国家认证委员会）；
- 行业内唯一一家全国首批“91家创新型企业”；
- 国家火炬计划重点高新技术企业；
- 亚太地区第一家UL认可的LTTA CTDTP实验室；
- 开发了阻燃树脂、增强增韧树脂、塑料合金、功能母粒、全降解塑料、特种工程塑料等7大系列自主知识产权产品；
- 产品广泛应用于汽车、家电、OA设备、通讯、电工电气、建材、玩具、电动工具、照明灯饰、航空航天等行业；

金发科技股份有限公司
KINGFA SCI. & TECH. CO., LTD.

PLANT TOUR 3

TUESDAY, NOVEMBER 13, 2012

MBA POLYMERS CHINA, GUANGZHOU



Visit of the plastics recycling plant

- 13.00** Departure by bus from the Shangri-La Hotel Guangzhou to MBA Polymers China
- 14.00 Arrival at MBA Polymers China
- 14.00 – 16.00** **Visit of the plastics recycling plant**
- 17.00* Arrival at the Shangri-La Hotel Guangzhou

MBA Polymers China is a Sino-US Joint Venture between Guangzhou Iron & Steel Enterprise Group (GISE) and MBA Polymers Inc. (MBA). MBA is located in the Nansha District of Guangzhou, China. It produces high quality, recycled plastics of ABS, HIPS and PP from 100% post-consumer plastic from durable goods (appliances, electronics and automobiles). Operations began in the 3rd quarter of 2005. MBA has the capacity to process 40'000 tons of mixed scrap plastics per year. The MBA Polymers technology is entirely mechanical using the physical characteristics of the plastics and it thus offers a revolutionary solution to post-consumer plastic (PCR) recycling of plastics from electronic scrap.

MBA Polymers China produces consistent high quality PCR (Post Consumer Recycled) plastic resin. Its EvoSource™ premier finished goods are UL certified and are widely used for green electronic OEM products. Compared to producing virgin plastic, MBA consumes less than 10% of the energy and reduces CO₂ emissions by 1,5 kilo to 2,5 kilo per kilo of PCR plastics produced. MBA is proud to contribute to the global CO₂ emission reductions and by playing a leading role in the growth of the sustainable production of plastics.

More information at: www.mbapolymers.com

* No guarantee on arrival time due to traffic conditions.



**“世界领先科技，
完全再生塑料，媲美新科品质，大规模工业化生产”**

“World leading technology, post consumer recycled plastic,
virgin quality, industrialized production”

MBA聚合物中国提供高质量的ABS、HIPS和PP再生塑料给客户。这些废旧塑料经过再生后可以用于制造电子电器、汽车和办公设备等。

MBA Polymers China provides high quality recycled plastics ABS, HIPS and PP to its customers. These Post Consumer Plastics are used in high tech applications such as in electronics, automotive parts and in office products.



MBA Polymers has developed a number of revolutionary processes where it is possible to economically recover distinct types and even grades of plastics from complex post-consumer plastics mixtures generated from E-Waste recycling such as Electronic Shredder Residues.

MBA聚合物发展出一系列革命性的工艺，使从电子废料如ESR中的废旧塑料混合物中经济地再生出不同种类和不同等级的塑料。



MBA POLYMERS CHINA

No. 1 Guanggangjin Rd., Huandaoshixi Rd.,
West Industrial Zone,
Nansha Development Zone District,
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Phone: +86 020-846823888
Fax: +86 020-84680038
Email: info@gisemba.com
Web: www.mbapolymers.com

CONFERENCE PROGRAM

TUESDAY, NOVEMBER 13, 2012

- 11.00 – 19.00 Registration
12.30 – 17.00 Plant tours 1 & 2 & 3
17.00 – 19.00 Welcome reception in the exhibition area

WEDNESDAY, NOVEMBER 14, 2012

- 08.00 – 09.00 Registration and welcome coffee & tea in the exhibition area

Session 1: OPENING AND KEYNOTE SPEAKERS

- 09.00 – 09.15 "Welcome and introduction"
Roger Burri, Co-Chairman of Electronics Recycling Asia
Prof. Duan Weng, Chairman of World Recycling Forum
Prof. Jinhui Li, Chairman of Electronics Recycling Asia
- 09.15 – 10.15 "Rare and precious metals recycling in E-scrap"
Prof. Jinhui Li, Tsinghua University, China
- "Global trade of metals and wastes"
Prof. Yangzu Wang, Committee of Science & Technology, Ministry of Environmental Protection, China
- 10.15 – 10.45 Coffee break in the exhibition area

10.45 – 12.00 PANEL DISCUSSION

"How rare is rare earth really?"

Moderator: Adam Minter, Shanghai Scrap, China

Participants:

Christian Ekberg, Chalmers University of Technology, Sweden
Crystynna Ewe, Dell, Asia Pacific & Japan
Thomas Langer, OSRAM AG, Germany
Prof. Jinhui Li, Tsinghua University, China
Prof. Kaihua Xu, Shenzhen GEM High-Tech Co., Ltd., China

- 12.00 – 13.30 Lunch

Session 2: Today's cutting edge recycling technology Chairman: **Jeffrey Jermyn, GEEP International Inc., Canada**

- 13.30 – 14.00 "Lamp and LCD recycling in India with Blubox"
Joe Yob, Creative Recycling Systems, USA
- 14.00 – 14.30 "Sorting process of WEEE"
Silvio Neumann, TOMRA Sorting GmbH (TITECH), Germany
- 14.30 – 15.00 "WEEE-treatment with impact shredding technology"
Alfred Weber, BHS-Sonthofen GmbH, Germany

- 15.00 – 15.30 Coffee break in the exhibition area

Session 3: New frontiers of recycling technology Chairman: **Thierry Van Kerckhoven, Umicore Precious Metals Refining, Belgium**

- 15.30 – 16.00 "Evolution of machinery and processes for electronics recycling industry"
Nader Nejad, Electronics Recycling Services (ERS), Canada
- 16.00 – 16.30 "Rare earth recovery from Urban Mines: Recycling of luminescent powder from fluorescent lamps"
Thomas Langer, OSRAM AG, Germany
- 16.30 – 17.00 "Development of total recycling technology for flat panel display devices"
Dr Hyun Seon Hong, Institute for Advanced Engineering, Korea
- 17.00 – 17.30 "Sustaining electronics recycling globally: Key ingredients for a successful market"
Robin Wiener, Institute of Scrap Recycling Industries, Inc. (ISRI), USA
- 19.00 – 19.30 Cocktail reception in the exhibition area
- 19.30 Networking dinner

CONFERENCE PROGRAM

THURSDAY, NOVEMBER 15, 2012

07.30 – 08.30 Registration and welcome coffee & tea in the exhibition area

Session 4: KEYNOTE SPEAKERS
Chairman: Paul Healey, Xstrata Copper, Canada

08.30 – 09.00 "Environmental protection equipment in the field of renewable resource recycling"
Dr Paean Zhang, Hunan VARY Tech. Co., Ltd., China

09.00 – 09.30 "The principles of proper regulation"
Crystynna Ewe, Dell, Singapore

09.30 – 10.00 "Electronics remanufacturing & closed-loop recycling in China"
Linda Li, Li Tong Group, China

10.00 – 10.30 Coffee break in the exhibition area

Session 5: How to recycle strategic metals out of E-scrap, Session Chairman: Steve Skurnac, Sims Recycling Solutions, USA

10.30 – 11.00 "Systematic approach on recyclability of complex waste mixtures"
Christian Ekberg, Chalmers University of Technology, Sweden

11.00 – 11.30 "Recovery of Nd as value added product from the magnets of hard-disk of PC's", **Amrita Kumari Jha, CSIR-National Metallurgical Laboratory (CSIR-NML), India**

11.30 – 12.00 "Securing high quality recycling of technology metals by improving transparency and certification of recycling chains"
Thierry Van Kerckhoven, Umicore Precious Metals Refining, Belgium

Parallel Session 5: E-scrap country reports
Session Chairman: Hai Liu, IBM Corporate Environmental Affairs, China

"How does Taiwan recycle electronics waste?"
Prof. Hsiao-Kang Ma, National Taiwan University, Taiwan

"Current situation on recovery and extraction copper and precious metals from E-scrap in China", **Xin Zhai, China Nonferrous Metal Industry Resource Regenerating Co., Ltd., China**

"Status of E-waste recycling in India and developing recycling processes at CSIR-NML, India", **Dr Manis Kumar Jha, Metal Extraction & Forming Division, CSIR-National Metallurgical Laboratory (CSIR-NML), India**

12.00 – 13.30 Lunch

Session 6: E-scrap collections: The data
Session Chairman: Carl E. Smith, Call2Recycle, USA

13.30 – 14.00 "How to shredder electronics scrap"
Scott Newell, The Shredder Company, LLC, USA

14.00 – 14.30 "European WEEE recycling standard – What will the EU WEEELABEX standard require of global recyclers?"
Julie-Ann Adams, Really Green Credentials Ltd., United Kingdom

14.30 – 15.00 "Electronic product stewardship in Australia and New Zealand"
Russ Martin, Global Product Stewardship Council, Australia

Parallel Session 6: How to recycle lamps and other mercury containing waste
Session Chairman: Stephan Schwarz, ALBA Group, Germany

"Development trends and desire for lamp recycling systems in China"
Alistair Rinfret, Balcan Engineering Ltd., United Kingdom

"Facts and figures about lamp recycling in Asia"
Christer Sundberg, MRT System International AB, Sweden

"The recycling system & risk management of the waste fluorescent lamps"
Jingdong Li, Beijing Solid Waste Management & Chemical Centre, China

15.00 – 15.30 Coffee break in the exhibition area

Session 7: E-scrap in Asia: Reports from the biggest players
Chairman: Prof. Duan Weng, Tsinghua University, China

15.30 – 16.00 "World recycling E-market: A new age for renewable resources E-business"
Shu Zhang, WorldScrap.com, China

16.00 – 16.30 "Eco-friendly process for the recovery of precious metals from scrap printed circuit boards"
Dr M.R.P. Reddy, Centre for Materials for Electronics Technology (C-MET), Hyderabad, India

16.30 – 17.00 "Plastics and precious metal refining solution for ICT industry"
Patrick SN Lin, Wistron, Taiwan

from 17.00 Cocktail reception in the exhibition area

**CROSS-BOUNDARY TOUR!
CHECK YOUR VISA!**

PLANT TOUR 4

FRIDAY, NOVEMBER 16, 2012

E. TECH MANAGEMENT (HK) LTD., HONG KONG



Visit of the electronics recycling plant

07.00	Departure by bus from the Shangri-La Hotel Guangzhou to E.T.M.
11.00	Arrival at E.T.M.
11.00 – 14.30	Visit of the electronics recycling plant
16.00*	Arrival at Hong Kong airport
20.00*	Arrival at the Shangri-La Hotel Guangzhou

Recycle Today, Save Tomorrow!

E. T. M. (E. Tech Management Ltd.) is a leader of electronic recycling based in Hong Kong and North America. As a local electronic recycler and raw materials supplier in Asia, top security recycling and environmental protection are our prioritized considerations.

We also strongly believe that our 3R mission "reduce", "reuse", "recycling" is the best way for us to keep the economy growing and minimize destruction to the environment. In our 100'000 SQF recycling plant, E. T. M. is able to handle any kind of E-Waste over 1'000 ton in a month, through sorting, separating, dismantling, baling and data-secure removing. To further improve our service, any positive comments and suggestion from you would be highly appreciated.

More information at: www.e-techmanagement.com

Cross-boundary tour to Hong Kong: As you will leave mainland China for this tour, please make sure that you have a valid multiple visa to China, if you are returning to mainland China after this plant tour.

* No guarantee on arrival time due to traffic conditions.



Recycle Today Save Tomorrow

E.Tech Management (HK) Ltd.

is a business specializing in sourcing, processing and exporting of various productive raw materials to different industry manufacturers. We are interested in collecting various kinds of computer, plastic, non ferrous and E-scrap materials from many qualified recyclers around the world.

We also offer professional disposal of telecom, computer, electronic equipments. We ensure all those obsolete equipments are disposed in an environmentally friendly manner.



E.Tech Management (HK) Ltd.

Unit 1-3, 29/F, CEO Tower, 77 Wing Hong Street, Lai Chi Kok, Kowloon, Hong Kong
Tel: 852-24462566 Fax: 852-24160266 e-mail: info.etmhk@gmail.com
website: www.e-techmanagement.com

PLANT TOUR 5

FRIDAY, NOVEMBER 16, 2012

QINGYUAN DONGJIANG, QINGYUAN



Visit of the electronics recycling plant

- 08.00** Departure by bus from the Shangri-La Hotel Guangzhou to Qingyuan Dongjiang Environmental Technology
- 10.30 Arrival at Qingyuan Dongjiang Environmental Technology
- 10.30 – 13.30** **Visit of the electronics recycling plant**
- 15.30* Arrival at Guangzhou airport (CAN)
- 16.30* Arrival at the Shangri-La Hotel Guangzhou

Qingyuan Dongjiang Environmental Technology Co., Ltd. is specialized in harmless treatment, disposal and comprehensive utilization of industrial hazardous wastes. It will be the largest base of industrial hazardous waste disposal and wastes comprehensive utilization in Qingyuan upon completion.

The base occupies an area of about 84'000 square meters, equipped with advanced processing and treatment lines of the industrial hazardous wastewater, waste print circuit board (PCB) and waste fluorescent lamp.

More information at: www.dongjiang.com.cn



* No guarantee on arrival time due to traffic conditions.

资源循环，绿色未来！
RESOURCE RECYCLING FOR GREEN FUTURE



聚合物基复合材料产品简介

清远市东江环保技术有限公司是一家专业进行废弃电器电子产品拆解及综合利用的环保型企业。我司采用先进的工艺技术，对线路板非金属粉末和废塑料等工业废物进行综合利用，生产的产品有复合材料基检查井盖、水算等。可广泛应用于市政工程、厂区给排水工程等领域，产品经久耐用，美观大方，具有良好的环保效益。



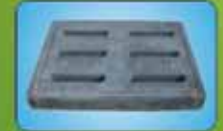
复合材料井圈(圈型)



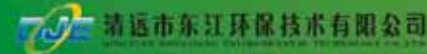
复合材料井盖(直径700mm)



复合材料井盖井圈(圈型)



复合材料水篦子
(规格500mmx400mm)



地址：清远市高新开发区泰基工业园13号
电话：0763-6861848 传真：0763-6861098
网址：www.dongjiang.com.cn

PLANT TOUR 6

FRIDAY, NOVEMBER 16, 2012

WISTRON SOUTH CHINA OPERATION,
ZHONGSHAN



Visit of the electronics manufacturing plant

08.30	Departure by bus from the Shangri-La Hotel Guangzhou to Wistron
11.00	Arrival at Wistron
11.00 – 14.30	Visit of the electronics manufacturing plant
17.00*	Arrival at the Shangri-La Hotel Guangzhou

Founded in 1999 **Wistron South China Operation** is one of eight manufacturing campuses operated by Wistron Corporation in North America, Europe, and Asia. Wistron is among the world's largest original design manufacturer (ODM) companies producing information and communication technology (ICT) products-including mobile and handheld devices, servers and storage, information appliances, LCD TVs and monitors, networking and communication products. Our service offerings support various key market areas including cloud computing infrastructure and applications and advanced end-to-end recycling services. Wistron is a leader in the delivery of a broad range of ICT services to globally recognized clients, aligning extensive engineering resources to develop leading products and services. Utilizing comprehensive product development experience, as well as partnerships with leading technology companies, Wistron incorporates the latest technology platforms into product offerings for OEM customers. Design teams cover all pre-manufacturing areas from initial product conceptualization and prototyping to design-for-manufacturing, test, and service. Manufacturing teams assist with all aspects of product development from PCB layout to full system integration. After-sales service teams collaborate with customers' service teams or customers' outsourced service partners to develop customized service business models and integrated reverse logistics programs.

Wistron was included in Fortune magazines' Global 500 in 2011. Wistron employs 60'000 people in over 25 offices worldwide with revenue of over US\$21 billion.

More information at: www.wistron.com

* No guarantee on arrival time due to traffic conditions.



Wistron
*Designing the programs
to protect our planet*

Wistron is an engineering-based technical service provider delivering end-to-end services to leading branded electronics companies. In 2011 we produced over 31M notebook PCs, 18M TVs/monitors, and 12M desktop/server PCs. As a major designer, manufacturer, and after-sales service provider for electronics products we are in a prime position to support products' entire life cycle. In partnership with leading recyclers, Wistron is creating the cradle-to-cradle, closed-loop solutions to protect our planet.

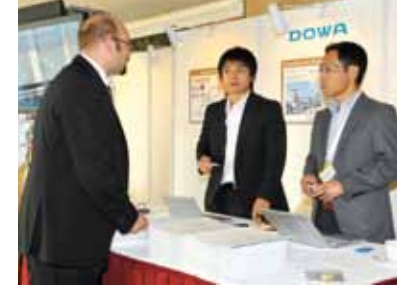
Providing services worldwide, Wistron is a US\$21B company with 60,000 employees. For more information about Wistron's recycling life cycle solutions contact: GreenRecycling@wistron.com



www.wistron.com

EXHIBITION AND POSTER PRESENTATIONS

EXHIBITION
AS PER OCTOBER 22, 2012



A special exhibition area will be organized for companies wishing to display their products or advertising materials.

The fee for an exhibition stand (2m x 3m) throughout the whole conference is from US\$ 3'000.- and for a poster presentation from US\$ 250.-.

Space is limited, so take the chance and book your exhibition stand or your poster presentation today!



NETWORKING DINNER



On Wednesday, November 14, an unforgettable networking dinner will be organized in exciting Guangzhou.

Do not miss this perfect possibility to meet your business partners and register to this evening now!



Meet friends and business partners in a relaxed atmosphere!



Upcoming ICM Events:

www.icm.ch

17th International Congress for Battery Recycling ICBR 2012

ICBR 2012



September 12 – 14, 2012
Amsterdam, Netherlands



12th International Electronics Recycling Congress IERC 2013

IERC 2013



January 16 – 18, 2013
Salzburg, Austria



13th International Automobile Recycling Congress IARC 2013

IARC 2013



March 13 – 15, 2013
Brussels, Belgium



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www.icm.ch

WHO SHOULD ATTEND?

- Original electronic equipment manufacturers (OEMs)
- Electronic components suppliers
- Electronic equipment importers and dealers
- Retailers
- Ferrous & non ferrous metal traders
- Collection and transportation companies
- Recycling and dismantling companies
- Shredding companies
- Plastics industry
- Non ferrous metal industry
- Ferrous and stainless steel industry
- Environmental authorities
- Universities and research institutes
- Laboratories for material science
- Consultants

ORGANIZER OF ELECTRONICS RECYCLING ASIA



**JEANETTE
DUTTLINGER**
Conference Organizer



**CLAUDIA
GERSTENDÖRFER**
Conference Assistant



**YING
LIU REICHENBACH**
Conference Assistant



**MIRJAM
WAGNER**
Conference Assistant



**SUSANN
SCHMID**
Conference Assistant



**SABRINA
BOLLIGER**
Conference Assistant

Registration for the conference should be made by means of the registration form. Participants registering and paying **before September 30, 2012** will benefit from a reduced registration fee. The registration fee includes conference, entrance to the exhibition, proceedings and luncheons.

REGISTRATION FEES

Conference Fee	before Sept. 30, 2012	after Sept. 30, 2012
Participants	US\$ 1'490.-	US\$ 1'590.-
Speakers	US\$ 990.-	US\$ 1'090.-
Universities, government & authorities	US\$ 590.-	US\$ 690.-
Networking dinner (Nov. 14, 2012)	US\$ 100.-	US\$ 120.-
Networking dinner for spouse (Nov. 14, 2012)	US\$ 120.-	US\$ 150.-

Conference registration on site US\$ 100.- surcharge

Plant tours on Tuesday, Nov. 13, 2012 (you may choose one)

Guangdong Mingjie, Foshan	US\$ 70.-	US\$ 90.-
Kingfa Sci. & Tech. Co., Ltd., Guangzhou	US\$ 70.-	US\$ 90.-
MBA Polymers China, Guangzhou	US\$ 70.-	US\$ 90.-

Plant tours on Friday, Nov. 16, 2012 (you may choose one)

E. Tech Management, Hong Kong*	US\$ 110.-	US\$ 130.-
Qingyuan Dongjiang, Qingyuan	US\$ 110.-	US\$ 130.-
Wistron South China Operation, Zhongshan	US\$ 110.-	US\$ 130.-

Conference language and additional proceedings

The language of the conference is English and Chinese. If it is not possible for you to attend the conference, you may purchase the complete proceedings at US\$ 250.-. Participants will get the proceedings free of charge.

Payment

Payment should be made in US\$ by bank transfer or by credit card. Wire payment to:

Beneficiary: ICM AG
Bank: Neue Aargauer Bank, 5400 Baden, Switzerland
IBAN: CH41 0588 1044 7941 7200 1
Swift code: AHHBCH22XXX

* Cross-boundary tour to Hong Kong: As you will leave mainland China for this tour, please make sure that you have a valid multiple visa to China, if you are returning to mainland China after this plant tour.



THE FIRST INTEGRATED PLANT FOR MIXED LAMP AND FLAT SCREEN RECYCLING

- First fully automatic flat screen recycling plant
- Best available technology for mixed lamp recycling
- Conversion of hazardous waste into valuable raw materials
- No mercury evaporation – the box has negative pressure
- Safe handling – all moving parts are contained
- Easy transportation – it is a 40 ft HC container
- Fast and cheap commissioning – just plug in
- Low maintenance costs – proven heavy duty parts



BLUBOX Trading AG developed, manufactures and sells the BLUBOX. Innovation and technology enable it to simultaneously recycle several kinds of mercurial wastes. Within the past few years the engineering team has been able to refine the BLUBOX to excellence. The idea of embedding all the equipment into a reinforced 40 ft high cube container succeeded.

16 plants sold!
Have a look at the new movie!
www.BLUBOX.ch

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