



Invitation for Recovered Carbon Black Asia 2024 2024 首届“回收炭黑亚洲会议”通知

Following the success of the Recovered Carbon Black Conference 2023 in Europe, **Smithers**, in conjunction with the **China Tire Recycling Association**, will host the first Asia edition in 2024, bringing this global, high-level, strategic and key business event to the recovered carbon black industry in Asia.

继2023 回收炭黑大会在欧洲成功举办之后，**Smithers**将联合**中国轮胎循环利用协会**于2024 年举办首届亚洲会议，为亚洲回收炭黑行业带来这一全球性、高水平、战略性的关键商业活动。

The inaugural Recovered Carbon Black Asia will be held in Qingdao, China on September 24-25, 2024. In the context of China's dual carbon goal and global concern for sustainable development and circular economy, as one of the important ways of sustainable carbon black, recovered carbon black has received unprecedented attention in the tire recycling industry. As the world's leading event for the recovered carbon black industry, the conference will provide delegates with a unique opportunity to access the latest industry information and meet global experts face to face. 首届“回收炭黑亚洲会议”将于2024年9月24-25日在中国青岛举办。在中国的双碳目标和全球关注可持续发展和循环经济的背景下，作为可持续炭黑的重要途径之一，回收炭黑在轮胎循环利用行业受到前所未有的关注。作为全球领先的再生炭黑行业盛会，本次大会将为参会代表提供一个获取最新行业信息、与全球专家面对面交流的独特机会。

Venue

会场

Johnson Kangda Plaza Qingdao
青岛康大豪生酒店

Event Website

活动官网

<https://www.carbonblackworld.com/recovered-carbon-black-asia>

联合主办方



中国轮胎循环利用协会
China Tyre Retreading and Recycling Association

Attachments

附件

1. Delegate Registration Form
参会代表注册表
2. Draft Conference Agenda
会议议程草案



回收炭黑亚洲会议：参会代表注册表

2024年9月24-25日 | 青岛

请将填写完毕的表格邮件发送至 rbao@smithers.com；同时抄送 784886855@qq.com

1. 请选择以下价格：

门票种类 \ 单价	CTRA 会员价	非会员价格
【线上】回收炭黑亚洲会议	<input type="checkbox"/> RMB 5,280/人	<input type="checkbox"/> RMB 6,980/人
【线下】回收炭黑亚洲会议	<input type="checkbox"/> RMB 5,280/人	<input type="checkbox"/> RMB 6,980/人
【线下】回收炭黑亚洲会议+会后参观	<input type="checkbox"/> RMB 5,380/人	<input type="checkbox"/> RMB 7,080/人

备注：1. 费用包括注册费、会议资料、茶歇和午餐等（不含住宿费）；
2. 同一单位二人以上（含二人）报名优惠 300 元/人；
3. 2024 年 9 月 1 日之后付费统一按照非会员价收取。
4. 会后参观名额有限，先到先得，售完为止。

最终总价格：	
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2. 完整参会者资料（以下方格可直接输入，没有字数限制）：

参会公司/单位：

参会代表 1:

姓名：

职位：

邮箱地址：

手机/电话：

参会代表 2:

姓名：

职位：

邮箱地址：

手机/电话：

3. 发票信息（请务必提供开票信息和收件人信息）

发票种类	<input type="checkbox"/> 增值税普通发票（6%）	<input type="checkbox"/> 增值税专用发票（6%）	
单位名称		纳税人识别号	
地 址		电话（座机）	
开户行名称		开户行账号	
发票邮寄地址&收件人			

4. 付款方式：我发送此文件承认这是一个具有法律约束力的注册。（请勾选）

银行转账（有关信用转账付款的银行资料，请参阅以下条款及细则）

本人明白，本人已细阅及接受有关预订的条款及细则（见下文）（请在方格内打勾及签署，以便完成登记）

签章 _____

日期 _____

条款和条件

以下条款和条件适用于 Smithers，请仔细阅读。同时，请仔细阅读并勾选以上注册表格中的方格，以确认您已阅读并理解它们。

为了向您提供完整的活动体验，您授予 Smithers 与相关活动合作伙伴分享您的联系方式的权利。我们只会与参与活动的相关方分享您的详细信息，您可以随时通过 eventinfo@smithers.com 通知我们更改您的偏好。请注意，当参会者参观虚拟展位时，参会者的联系方式将与第三方赞助商和参展商共享。

会议费用

会议费包括全体会议的进入资格（除非另有说明，不包括会前研讨会），文件资料，午餐和茶歇点心。但是，**不包括参会代表的差旅和住宿费用**。如果在预订时未提供包括会员身份在内的详细信息，则不会追溯折扣。

请注意，如果您的预订在活动开始前不到 10 个工作日进行，则需要使用信用卡付款。如果没有提前收到资金，代表们将需要在注册时提供信用卡的详细信息才能进入活动，该信用卡将在酒店内现场付款。现行汇率和银行手续费将适用。

取消

只有在活动开始前超过 15 个工作日以书面形式提出并且收到时，才会接受取消并退还对应的费用（如下所述减去手续费）。

16-30 个工作日（包括）- 需支付 50% 的手续费

活动开始前超过 30 个工作日 - 需支付 25% 的手续费

晚于该时间，如因任何原因没有出席，预订不能取消，也不能退还费用，任何已开具发票的未付金额将到期。可以随时进行人员替换，请通知运营经理。如果已开具发票，但付款尚未收到，则取消政策仍适用。

人员替换

代表可以随时在线提出人员替换，也可以联系销售经理或活动经理。如果参会代表被替换，则不收取取消费用。

注意

Smithers 不对参加活动的代表的个人财物损失或损害承担责任。Smithers 保留取消、推迟或以其他方式修改程序的权利，恕不另行通知。

签证

需要签证的代表应在预订时向 Smithers 索取签证邀请函，并确保有足够的时间完成申请。之后，代表们自行负责联系相关/适当的大使馆。Smithers 在此过程中不再提供进一步的协助。

银行转账付款信息：

人民币收款账户	美元收款账户
账户名称：史密斯斯(苏州)信息咨询有限公司	银行名称：AGRICULTURAL BANK OF CHINA SUZHOU BRANCH XIANGCHENG SUBBRANCH
账户号码：10542901040008199	银行地址：588 JIAYUAN ROAD, XIANGCHENG DISTRICT, SUZHOU
开户银行：中国农业银行股份有限公司苏州 苏相合作区支行	账户名称：Smithers (Suzhou) Information Co., Ltd
	账户号码：10-542914040000223
	SWIFT Code：ABOCCNBJ103

请在银行转账付款时备注“RCBA 2024”

September 24-25, 2024	2024 年 9 月 24-25 日
Qingdao, China & Online	中国 青岛 & 线上
https://www.carbonblackworld.com/recovered-carbon-black-asia	

Advisory board	专家团成员
Weidong Li, President at China Tyre Recycling Association	中国轮胎循环利用协会 会长 李卫东
Kai Zhao, Executive VP at China Association of Circular Economy	中国循环经济协会 常务副会长 赵凯
Youlai Wu, China Sustainability Manager at Michelin	米其林 中国区可持续发展负责人 吴由来
Bin Zhang, Senior Engineer at Sumitomo Rubber China	住友橡胶(中国)有限公司技术中心 总监 章斌
Xiaoyan Chen, General Manager at Qingdao Ecostar	伊克斯达 (青岛) 控股有限公司 总经理 陈晓燕
Hong Wang, General Manager at Qingdao Black Cat	青岛黑猫新材料研究院有限公司 总经理 王宏
Jian-feng Cai, Global Marketing Manager – Sustainable Solutions and Regional Marketing Manager China at Cabot	卡博特 全球市场经理-可持续解决方案及中国区市场经理 蔡建锋
Andy Yuan, Business Development Director at Enrestec	環拓科技 业务拓展总监 袁梓鈞
Martin von Wolfersdorff, Principal Advisor at Wolfersdorff Consulting	Wolfersdorff 咨询公司 首席咨询师 Martin von Wolfersdorff
Paul Ita, President at Notch Consulting	Notch 咨询公司 总裁 Paul Ita

Pre- event Registration 会前签到

Sept 23, 2024, Monday	2024 年 9 月 23 日周一
03:00 pm Registration	03:00pm 签到
06:00pm buffet dinner	06:00pm 自助晚餐

-----Day One 第一天-----

Day One: Sept 24, 2024, Tuesday	第一天: 2024 年 9 月 24 日周二
08:30am Welcome Address <ul style="list-style-type: none"> - Smithers representative - CTRA representative - CACE representative - EcoStar representative 	08:30am 欢迎致辞环节 <ul style="list-style-type: none"> - Smithers 代表 - CTRA 相关领导 - CACE 相关领导 - EcoStar 相关领导

<p>08:55am Chair's Opening Remarks Martin von Wolfersdorff, Principal Advisor at Wolfersdorff Consulting</p>	<p>08:55am 主持人致辞 Wolfersdorff 咨询公司 首席咨询师 Martin von Wolfersdorff</p>
<p>Session 1: Keynotes & Market trend - regional round ups</p>	<p>板块一：市场趋势与前景—全球地区汇总</p>
<p>09:00am Deep dive of China r-CB market and future outlook (25 min)</p> <ul style="list-style-type: none"> - China rcb market size - Market characteristics & future outlook <p><i>Weidong Li, President at China Tyre Recycling Association</i></p>	<p>09:00am 中国回收炭黑市场现状与前景 (25 分钟)</p> <ul style="list-style-type: none"> - 中国回收炭黑市场规模 - 市场特点&发展前景 <p><i>中国轮胎循环利用协会 会长 李卫东</i></p>
<p>09:25am [Keynote] A leading tire company's roadmap to sustainability (25min)</p> <ul style="list-style-type: none"> - Sustainability goals globally - Progress made & challenges faced - The role rcb plays - What does it mean for China/Asia <p><i>Youlai Wu, China Sustainability Manager at Michelin</i></p>	<p>09:25am [主旨演讲] 领先轮胎企业的可持续发展之路 (25 分钟)</p> <ul style="list-style-type: none"> - 可持续发展目标 - 进展与挑战 - 回收炭黑所扮演的角色 <p><i>米其林 可持续发展中国区负责人 吴由来</i></p>
<p>09:50am [Keynote] Tire recycling: technological breakthrough and application of waste tire pyrolysis (25 min)</p> <p>In this paper, we propose an innovative high-value application scheme for recycling carbon black and recycled oil from waste tires, which can transform waste tires into high value-added products through pyrolysis technology. Due to its good pore structure and small metal composition, it can be modified to prepare functional materials such as activated carbon and catalysts. However, such technologies are still in the laboratory research stage, and the most widespread and economically valuable use of waste tire pyrolysis carbon black is to prepare high-quality recycled carbon black and reuse it in tire manufacturing. The recycled oil is further refined as a chemical raw material, replacing some traditional petroleum resources and reducing carbon emissions. This paper discusses the technical advantages of this solution in detail, and demonstrates its feasibility and promotion value in industrial applications through practical cases.</p> <p><i>Xiaoyan Chen, General Manager at Qingdao Ecostar</i></p>	<p>09:50am [主旨演讲] 轮胎再生：废轮胎裂解的技术突破与应用 (25 分钟)</p> <p>本文提出了一种创新的废旧轮胎回收炭黑及再生油的高值化应用方案，通过热裂解技术将废旧轮胎转化为高附加值产品。废旧胎热解炭黑由于具有良好的孔隙结构和少量金属成分，可改性后用于制备活性炭和催化剂等功能性材料。但此类技术尚处于实验室研究阶段，目前废轮胎热解炭黑最广泛且经济价值最高的用途是制备高品质回收炭黑，回用于轮胎制造。而再生油则经过进一步精炼作为化工原料，替代部分传统石油资源，降低碳排放。本文详细探讨了该方案的技术优势，通过实际案例展示了其在工业应用中的可行性和推广价值。</p> <p><i>伊克斯达（青岛）控股有限公司总经理 陈晓燕</i></p>
<p>10:15am networking tea break</p>	<p>10:15am 社交茶歇</p>
<p>10:45am Carbon Black Global Outlook: Focus on Asia (25 min)</p> <p>Paper focuses on current conditions and future prospects for the global carbon black industry, with a focus on Asia. Includes an overview of tire industry investment in new capacity, as well as sustainability objectives, timelines, and focus. Provides a look at carbon black conditions, supply/demand, and outlook, which leads to a discussion of the outlook for recovered carbon black.</p>	<p>10:45am 全球炭黑市场介绍：聚焦亚洲 (25 分钟)</p> <p>本报告重点介绍全球炭黑行业的现状和未来前景，重点关注亚洲。包括轮胎行业对新产能的投资概述，以及可持续发展目标、时间表和重点。介绍炭黑状况、供需和前景，从而讨论回收炭黑的前景。</p> <p>关键点：</p>

<p>Key bullet points:</p> <ul style="list-style-type: none"> • Tire Industry Investment - world & Asia • Tire Industry Sustainability Trends • Carbon Black current market conditions • Carbon Black forecast & outlook • Opportunities for Recovered Carbon Black <p><i>Paul Ita, President at Notch Consulting</i></p>	<ul style="list-style-type: none"> • 轮胎行业投资 - 世界和亚洲 • 轮胎行业可持续发展趋势 • 炭黑当前市场状况 • 炭黑预测和展望 • 回收炭黑的机会 <p><i>Notch 咨询公司 总裁 Paul Ita</i></p>
<p>11:10am India market landscape and outlook: r-CB vs. v-CB (25 min) Recovered Carbon black is widely used as environment-friendly and sustainable reinforcing in Tire, Non tire Rubber and Specialty applications like plastics and coatings. So the growth is directly associated with the rising demand in these sectors. Will share some key insights into the industry size, growth & trends in India.</p> <p><i>Chinmoy Dhole, Technical Service, South Asia region at Birla Carbon</i></p>	<p>11:10am 印度市场格局和前景：r-CB 与 v-CB (25 分钟) 再生炭黑作为一种环保型的可持续补强材料，被广泛应用于轮胎、非轮胎橡胶制品、以及塑料、涂料等特种应用领域。因此再生炭黑的发展与这些领域不断增长的需求直接相关。在此次演讲中将分享关于印度相关行业的规模、增长和趋势的重要见解。</p> <p><i>博拉炭黑 南亚技术服务总负责人 Chinmoy Dhole</i></p>
<p>11:35am Cabot's Long-Term Market View on Reclaimed Carbon Development (25 min) Investment in the tire pyrolysis industry is limited as tire pyrolysis oil is in high demand while reclaimed carbon continues to face adoption challenges due to performance, quality, consistency, and reliability. In this presentation, Cabot Corporation will provide insights to its future technology developments to overcome the challenges associated with reclaimed carbon, enabling broader industry use of reclaimed carbon to support a circular economy long-term.</p> <p><i>Jian-feng Cai, Global Marketing Manager – Sustainable Solutions and Regional Marketing Manager China at Cabot</i></p>	<p>11:35am 卡博特对再生碳市场发展的长期看法 (25 分钟) 于轮胎热解油需求旺盛，而再生碳由于性能、质量、一致性和可靠性而继续面临采用挑战，因此对轮胎热解行业的投资有限。在本次演讲中，卡博特公司将对未来技术发展提供见解，以克服与再生碳相关的挑战，使再生碳在行业中得到更广泛的应用，从而长期支持循环经济。</p> <p><i>卡博特 全球市场经理-可持续解决方案及中国区市场经理 蔡建锋</i></p>
<p>12:00pm Opportunities in Asia with recovered carbon black & tyre pyrolysis oil (25 min) Chemical recycling of tires is a growing industry, both in the western and eastern hemisphere. While greenhouse gas reduction and circularity drive the western business, but less than 1% of tires are recycled chemically, Asian countries have already scaled up chemical recycling of tires by pyrolysis and devulcanisation to a double digit percentage. Analysing both western and eastern pyrolysis industry developments and history in detail, we can derive best practices for the industry. What can the west learn from the east and what can the east learn from the west? Which role plays recovered carbon black for the scale-up of the tire pyrolysis industry? What applications are of interest for tyre pyrolysis oil? Are there limits to growth for tyre pyrolysis? How can the scale-up be accelerated through collaborations? Which role do regulations and governance play?</p> <p><i>Martin von Wolfersdorff, Principal Advisor at Wolfersdorff Consulting</i></p>	<p>12:00pm 亚洲市场回收炭黑和轮胎热解油的机遇(25 分钟) 轮胎化学回收是一个不断发展的行业，无论在西半球还是东半球。虽然温室气体减排和循环经济推动了西方的业务，但只有不到 1% 的轮胎通过化学方式回收，而亚洲国家已经通过热解和脱硫将轮胎化学回收扩大到两位数。通过详细分析西方和东方热解行业的发展和历史，我们可以得出该行业的最佳实践。西方可以向东方学到什么，东方可以向西方学到什么？回收炭黑在轮胎热解行业的扩大中扮演什么角色？轮胎热解油有哪些应用值得关注？轮胎热解的增长是否有限制？如何通过合作加速扩大规模？法规和治理发挥了什么作用？</p> <p><i>Wolfersdorff Consulting 首席咨询师 Martin von Wolfersdorff</i></p>

12:25pm Networking lunch	12:25pm 午餐
Chair: Calvin Xu, General Manager at Shanghai Veco New Material Technology Co. Ltd.	主持人: 上海微科新材料科技有限公司 总经理 徐舟波
Session 2: Environmental regulations and standards – challenges and opportunities	板块二：环境法规和标准—机会与挑战
<p>02:00pm Update on ASTM Committee D36 on rCB (30 min) The ASTM committee D36 on Recovered Carbon Black is working on relevant test methods and standards for rCB. During this presentation an update will be provided on the most recent developments of the committee including updates on various new standards that are currently being proposed and developed.</p> <p><i>Pieter ter Haar, Director Sustainable Carbonaceous Materials at Cirtec</i></p>	<p>02:00pm ASTM 委员会 D36 关于 rCB 的最新进展 (30 分钟) ASTM 回收炭黑委员会 D36 正在制定 rCB 的相关测试方法和标准。在本次演讲中，我们将介绍该委员会的最新进展，包括目前正在提议和制定的各种新标准的最新消息。</p> <p><i>Cirtec 可持续碳质材料总监 Pieter ter Haar</i></p>
<p>02:30pm Lead the way with the "dual carbon" concept and strive to be the vanguard of industry development. --Adhere to the adoption of advanced green and intelligent manufacturing equipment to achieve the continuous industrialization and modernization of China's waste tire pyrolysis industry. (30min)</p> <ul style="list-style-type: none"> - The development of China's waste tire comprehensive utilization industry - The main problems and suggestions encountered in the development process of waste tire pyrolysis enterprises in China - The main problems and countermeasures encountered by enterprises in the production process - The company's own development experience <p><i>Xiaogang Zhao, General Manager at Shandong Hesheng Environmental Protection Technology</i></p>	<p>02:30pm 以“双碳”理念为引领 争做行业发展排头兵 ——坚持采用先进绿色智能制造装备，实现中国废轮胎热解 工业连续化产业化的得失与思考(30 分钟)</p> <ul style="list-style-type: none"> - 我国废旧轮胎综合利用行业的发展 - 我国废轮胎热解企业发展过程中遇到的主要问题及建议 - 企业在生产过程中遇到的主要问题及对策 - 企业自身发展体会 <p><i>山东合晟环保科技有限公司 总经理 赵晓港</i></p>
<p>03:00pm C-level Panel: challenges of high value application of rcb (30 min)</p> <ul style="list-style-type: none"> - Case studies of flagship projects - Challenges of scaling up - Future opportunities <p><i>Moderator: Martin von Wolfersdorff, Principal Advisor at Wolfersdorff Consulting</i></p> <p><i>Panellists: Xiaoyan Chen, General Manager at Qingdao Ecostar Andy Yuan, Business Development Director at Enrestec Ravi Rath, Director at Capital Carbon</i></p>	<p>03:00pm 高管圆桌讨论：回收炭黑高端应用的痛点和难点(30 分钟)</p> <ul style="list-style-type: none"> - 旗舰项目分享 - 规模化的挑战 - 未来的机会 <p><i>讨论主持: Wolfersdorff Consulting 首席咨询师 Martin von Wolfersdorff</i></p> <p><i>小组成员: 双星集团总裁助理 伊克斯达环境产业 总经理 陈晓燕 环拓科技 业务拓展总监 袁梓钧 Capital Carbon 总监 Ravi Rath</i></p>
03:30pm Networking tea break	03:30pm 社交茶歇
Session 3: Technical advances and application of recovered carbon black	板块三：回收炭黑的技术和应用

<p>04:00pm Effects of rCB surface modification on the structures and properties in blends with natural rubber studied by Synchrotron Radiation X-Ray Nano-CT (30 min) In view of the complexity of the spatial and chemical microstructure of pyrolysis carbon black, with the advantages of high brightness of synchrotron radiation light source, high spatial and temporal resolution, sensitive element and chemical valence state resolution, etc., using synchrotron radiation X-ray Nano-CT, scanning transmission X-ray absorption spectroscopy imaging (STXM), X-ray photoelectron spectroscopy and other technologies, starting from the microstructure of pyrolysis carbon black, the three-dimensional morphology structure, bulk and surface elemental composition, chemical structure differences of pyrolysis carbon black aggregates are studied, and compared with native carbon black, the corresponding relationship between the change of surface activity of pyrolysis carbon black and the interaction with rubber and the microstructural factors with poor reinforcement effect are sought, so as to provide technical support for improving the quality of pyrolysis carbon black, targeted research and design, production of rubber carbon black composites with special properties, and high-value use of pyrolysis carbon black, and finally lay the foundation for achieving technological progress in the waste tire pyrolysis carbon black industry and the "3050 Sustainable Development Goals" of the tire industry.</p> <p><i>Dr. Liang Chen, Specially-appointed Chief Expert from CleanTire R&D Centre</i> <i>Dr. Jionghao He, Specially-appointed Chief Expert from CleanTire R&D Centre</i></p>	<p>04:00pm 利用同步辐射 X 射线纳米 CT 研究 rCB 表面改性对其与天然橡胶共混物的结构和性能的影响 (30 分钟)</p> <p>针对裂解炭黑空间和化学微观结构的复杂性，借助同步辐射光源亮度高、具备高空间和时间分辨、灵敏的元素和化学价态分辨能力等优势，利用同步辐射 X 射线 Nano-CT、扫描透射 X 射线吸收谱成像 (STXM)、X 射线光电子能谱等技术，从裂解炭黑的微观结构着手，研究裂解炭黑聚集体的三维形貌结构、体相和表面的元素组成、化学结构差异等，并与原生炭黑进行比较，寻找裂解炭黑表面活性变化与橡胶相互作用的对应关系和补强效果差的微观结构因素，为裂解炭黑品质提升、针对性研究设计、制作具有特殊性能的橡胶炭黑复合材料，和裂解炭黑的高值化使用提供技术支撑，最终为实现对废旧轮胎裂解炭黑行业的技术进步和轮胎行业“3050 可持续性发展目标”奠定基础。</p> <p><i>克林泰尔研发中心特聘首席专家 (中国科技大学教授 硕士研究生导师) 陈亮博士</i> <i>克林泰尔研发中心特聘首席专家 (大家材料科技 (上海) 有限公司总经理 研究所所长) 贺灵皓博士</i></p>
<p>04:30pm Challenges in rCB finishing (milling and pelletizing/drying) (30 min) How to increase the added value of the RCB is a focus topic in Europe nowadays, Hosokawa Group already support our customer reached it! Generally the RCB is low value if just simple cracking in a reactor, such as use in rubber runway, however when thinking mix with fresh carbon black to re-use in the tire or other high value application, the added value of finely processed RCB is greatly increases due to the partial substitution of fresh carbon black and research indicating that some characteristics of finely processed RCB are superior to fresh carbon black. Our responsibility is to finely process RCB through environmentally friendly processes and equipment such as milling and pelletizing/drying, etc., to enhance the added value and specific performance of RCB, thereby support RCB enterprises achieve success.</p> <p><i>Kevin Zhu, Head of Sales in China at Hosokawa Micron Group</i></p>	<p>04:30pm rCB 加工的挑战(研磨和制粒/干燥) (30 分钟)</p> <p>如何提高 RCB 的附加值是当今欧洲的一个焦点话题，细川密克朗集团已经支持我们的客户实现了这一目标！ 一般来说，如果只是在反应釜中裂解并简单加工得到再生炭黑，则该再生炭黑的附加值较低，例如在橡胶跑道中添加利用。然而，当再生炭黑与新鲜炭黑混合后用于轮胎或其他高价值应用中时，研究表明精细加工后的再生炭黑某些特性优于新鲜炭黑，这使得精细加工后的再生炭黑的附加值大大提升。 我们的职责是通过环境友好的工艺和设备，如研磨、造粒/干燥等，对再生炭黑进行精细加工，提升再生炭黑的附加价值及其特定性能，从而帮助再生炭黑企业获得成功。</p> <p><i>细川密克朗集团 中国区销售负责人 朱振斌</i></p>
<p>05:00pm End of day one</p>	<p>05:00pm 第一天会议结束</p>
<p>06:00pm Buffet Dinner</p>	<p>06:00pm 自助晚餐</p>



-----Day Two 第二天-----

<p>Chair: Hong Wang, General Manager at Qingdao Black Cat</p>	<p>主持人: 青岛黑猫新材料研究院有限公司 总经理 王宏</p>
<p>Session 4: Testing and study on recovered carbon black</p>	<p>板块四: 回收炭黑的测试和研究</p>
<p>09:00am Exploration on modification technology of recovered carbon black</p> <p>In terms of quality, recovered carbon black is greatly different from conventional carbon black. For instance, its specific surface area, structure degree and surface activity are all relatively low, and it contains un-cracked rubber hydrocarbons and organic volatiles, etc. Therefore, its reinforcing performance in rubber is poor. In order to provide theoretical guidance for optimizing the waste tire pyrolysis process or modifying and upgrading the recovered carbon black, Qingdao Black Cat has conducted in-depth analysis of the properties of pyrolysis carbon black and attempted various modification and upgrading methods with Beijing University of Chemical Technology, expecting to theoretically guide the optimization of the pyrolysis device and process. This thesis mainly introduces the exploration progress of Qingdao Black Cat on the modification technology of recovered carbon black.</p> <p><i>Beibei Wang, R&D Chief Engineer at Qingdao BlackCat New Materials Research Institute</i></p>	<p>09:00am 关于回收炭黑改性技术的探索</p> <p>回收炭黑从品质上来讲，大大区别于常规炭黑，比如比表面积、结构度和表面活性都较低，且含有未裂解的橡胶烃以及有机挥发物等，因此在橡胶中的补强性能较差。为了优化废轮胎热裂解工艺或对回收炭黑进行改性提质提供理论指导，青岛黑猫与北京化工大学联合开发，对裂解炭黑的性能做了深入分析，并尝试了多种改性提质方式，期待从理论上可以指导热裂解装置和工艺的优化。本论文主要介绍青岛黑猫关于回收炭黑改性技术的探索进展。</p> <p><i>青岛黑猫新材料研究院 研发主任工程师 王贝贝</i></p>
<p>09:30pm Single-particle TGA – a novel tool to quantify the distribution of ash in rCB particles</p> <p>Ash (silica, zinc sulfide,...) is a characteristic component of rCB. Transmission electron microscopy and other analyses show that the ash is unevenly distributed amongst the rCB particles. However, no quantitative information on the distribution of ash can be gained. We combined a tubular furnace with the femtoG device, an instrument to measure the mass of isolated rCB particles. This setup allows us to size-select particles and measure their mass at different temperatures, respectively stages of combustion. Similar to a standard thermogravimetric analysis, this allows us to determine the ash content in rCB, not only for the whole powder but also for single rCB particles of a defined size. Our analysis shows that rCB consists of two distinct fractions. A majority (by number) of the particles only contain carbon and are almost ash-free, and a minority are mixed-phase (or fused) particles that contain ash and carbon. The ratio of both fractions and the total ash content is dependent on the particle size. At small sizes (<200nm) we observed mostly pure carbon particles. With increasing size, the fraction of fused ash and carbon particles increases, and the total ash content increases as well. With that, we proved that the ash is mostly allocated at large particle sizes. Our novel analysis could be utilized to resolve the impact of different refinement treatments and to optimize the efforts to reduce the ash content by e.g. mechanical separation via air classification.</p> <p><i>Dr. Jorg Wieder, Co-funder at femtoG</i></p>	<p>09:30pm 单颗粒 TGA – 量化 rCB 颗粒中灰分分布的新工具</p> <p>灰分（二氧化硅、硫化锌等）是回收炭黑的特征成分。透射电子显微镜和其他分析表明，灰分在回收炭黑颗粒中分布不均匀。但是，无法获得有关灰分分布的定量信息。我们将管式炉与 femtoG 设备相结合，后者是一种用于测量孤立回收炭黑颗粒质量的仪器。这种设置使我们能够选择颗粒的尺寸，并测量它们在不同温度、不同燃烧阶段的质量。与标准热重分析类似，这使我们能够确定回收炭黑中的灰分含量，不仅包括整个粉末，还包括具有特定尺寸的单个回收炭黑颗粒。我们的分析表明，回收炭黑由两个不同的部分组成。大多数（按数量计算）颗粒仅含有碳，几乎不含灰分，少数是含有灰分和碳的混合相（或熔融）颗粒。两种分数和总灰分含量的比例取决于颗粒尺寸。在小尺寸（<200nm）下，我们观察到的大多是纯碳颗粒。随着尺寸的增加，熔融灰分和碳颗粒的比例增加，总灰分含量也增加。由此，我们证明了灰分主要分布在较大的颗粒中。我们新颖的分析可用于解决不同精炼处理的影响，并优化降低灰分含量的努力，例如通过空气分类进行机械分离。</p> <p><i>femtoG 联合创始人 Jorg Wieder 博士</i></p>

<p>10:00pm Research progress: Innovative new applications for rCB. rCB can be further refined to produce materials for high-tech products outside the rubber value chain. Industries such as the electronics or photovoltaic industries would derive sustainability benefits from these very high-value materials. Research conducted under Weibold's Innovation program in cooperation with Green Avengers associated with the University of Mumbai is studying innovative treatments such as chemical modification, carbon advancement, and other techniques for manufacturing such materials. Particular attention is also being given to photosensitive properties. The presenter will report on the status and findings of the research."</p> <p><i>Yogesh Gaikwad, Technical Consultant Carbon Black at Weibold</i></p>	<p>10:00pm 研究进展：rCB 的创新新应用</p> <p>回收炭黑可以进一步精炼，生产橡胶价值链之外的高科技产品材料。电子或光伏等行业将从这些高价值材料中获得可持续发展的益处。Weibold 创新计划与孟买大学绿色复仇者联盟合作开展的研究正在研究创新处理方法，例如化学改性、碳改进和制造此类材料的其他技术。还特别关注感光特性。演讲者将报告研究的现状和结果。”</p> <p><i>Weibold 炭黑技术顾问 Yogesh Gaikwad</i></p>
<p>10:30am networking tea break</p>	<p>10:30am 社交茶歇</p>
<p>Session 5: Processing and equipment: tire recycling and recovering CB</p>	<p>板块五：工艺及设备：回收轮胎及回收炭黑</p>
<p>11:00 Environmental protection pyrolysis of scrap tires and high value conversion of pyrolysis carbon black This speech will discuss the latest progress in environmentally friendly pyrolysis technology of scrap tires, focusing on how to achieve continuous and efficient transformation of scrap tires under the premise of safety and environmental protection through innovative pyrolysis process, provide Niutech's solutions and suggestions for the current industry puzzles, and share the relevant experience in the high value conversion and quality up-grading of pyrolysis carbon black.</p> <p><i>Feng Lu, Senior Engineer, Niutech Environment Technology</i></p>	<p>11:00 废旧轮胎的环保裂解与裂解炭黑高值化</p> <p>本次演讲将探讨废旧轮胎环保裂解技术的最新进展，重点介绍：如何通过创新的裂解工艺实现废旧轮胎的在安全、环保前提下，连续式高效转化，针对目前行业痛点提供恒誉环保的解决思路和建议，并分享在裂解炭黑高值化方面的相关经验。</p> <p><i>济南恒誉环保科技股份有限公司 高级工程师 鲁锋</i></p>
<p>11:30am Ecostar's Recycled Waste Tire Utilization Equipment and Solutions Introduction to the core equipment of Ecostar Intelligent Equipment; Ecostar equipment has won a number of scientific and technological awards, patents and industry standards. Introduce the production process of Ecostar equipment and the innovative remote operation and maintenance system; Illustrate the automation and intelligent management of the production process and the ability of Ecostar Intelligent Equipment to provide comprehensive solutions.</p> <p><i>Zhou Shifeng, General Manager at Qingdao Hailang Holding Co., Ltd</i></p>	<p>11:30am 伊克斯达废旧轮胎循环利用设备及解决方案</p> <p>伊克斯达智能装备的核心装备介绍；简述伊克斯达装备获多项科技奖项以及专利和行业标准。介绍伊克斯达装备的生产流程、以及创新的远程运维系统；说明生产过程的自动化和智能化管理和伊克斯达智能装备提供全面的解决方案的能力。</p> <p><i>周士峰, 青岛海琅控股有限公司总经理</i></p>
<p>12:00am lunch</p>	<p>12:00am 午餐</p>
<p>Chair: To be confirmed</p>	<p>主持人：待定</p>
<p>Session 6: R&D and success stories on Pyrolysis and rCB</p>	<p>板块六：热解和回收炭黑的研发及成功案例</p>
<p>01:30pm Tire pyrolysis is the only validated technology to enable the tire circular economy. While recovered carbon black can partially replace virgin carbon black in some applications, the circular carbon black made from tire pyrolysis oil can fully replace ASTM grades in any application.</p>	<p>01:30pm 轮胎热解是唯一经过验证的能够实现轮胎循环经济的技术</p>

<p>In addition, further research on purification of recovered carbon black is underway to increase replacement rate.</p> <p>Based on our experience, working as the carbon black partner at the BlackCycle project in Europe, and having already started commercialization of circular carbon blacks, we know that collaboration along the value chain – both in technology development and commercial implementation is critical for the transition to the tire circular economy. We will share our views and technical results with the audience and are open to further discussions.</p> <p>Celso Magri, Global Marketing and Sustainability Director at Orion</p>	<p>虽然回收的炭黑在某些应用中可以部分替代原始炭黑，但由轮胎热解油制成的循环炭黑在任何应用中都可以完全替代 ASTM 等级。此外，正在对回收炭黑的净化进行进一步研究，以提高替代率。</p> <p>根据我们在欧洲 BlackCycle 项目中担任炭黑合作伙伴的经验，并且已经开始循环炭黑的商业化，我们知道，价值链上的合作——无论是在技术开发还是商业实施方面，对于向轮胎循环经济的过渡都至关重要。我们将与观众分享我们的观点和技术成果，并愿意进行进一步的讨论。</p> <p>欧励隆 全球市场和可持续发展总监 Celso Magri</p>
<p>02:00pm Tech research on high-value application of recovered carbon black from rubber product pyrolysis.</p> <p>The pyrolysis carbon black of waste tires accounts for more than 30% of the pyrolysis products, and the carbon black consumption in the rubber tire industry is close to 90%. Due to factors such as large particle size, low structural degree, low surface activity, and high ash content, pyrolysis carbon black has become a technical challenge for high-value batch and quantitative reuse of rubber tires in the industrial chain.</p> <ol style="list-style-type: none"> 1. Study the regulation mechanism of pyrolysis process. Explore the influence of pyrolysis time, temperature, pressure, catalyst and other conditions on the composition, distribution and structure of pyrolysis carbon black, study the intrinsic mechanism of pyrolysis process conditions and the performance quality of pyrolysis carbon black, and achieve quality control of pyrolysis process of pyrolysis carbon black. 2. Study the modification mechanism of pyrolysis carbon black. Explore the reinforcement mechanism of pyrolytic carbon black under factors such as large particle size, low structural degree, low surface activity, and high ash content, study the physical and chemical modification mechanism of pyrolytic carbon black, investigate the activation modification method of pyrolytic carbon black, and improve the performance and quality of pyrolytic carbon black. 3. Study the mechanism of wet mixed refining preparation. Explore the influence mechanism of formula parameters on the physicochemical properties of pyrolytic carbon black, study the wet mixing processing mechanism and method, and achieve the preparation of high-performance rubber composite materials by modifying pyrolytic carbon black. <p>Diancai Yang, General Manager (Disciplinary company) at Qingdao University of Science and Technology</p>	<p>02:00pm 橡胶裂解产物炭黑高值化应用技术研究</p> <p>废旧轮胎热解炭黑占热解产物 30%以上，橡胶轮胎行业炭黑用量接近 90%。热解炭黑因受粒径大、结构度低、表面活性低及灰分含量高等因素制约，高值化批量回用橡胶轮胎已成产业链“卡脖子”的技术难题。</p> <ol style="list-style-type: none"> (1) 研究热解过程调控机制。探讨热解时间、温度、压力、催化剂等条件对热解炭黑组分、分布及结构的影响规律，研究热解工艺条件与热解炭黑性能品质的内在机制，实现热解炭黑的热解过程品质调控。 (2) 研究热解炭黑改性机理。探讨热解炭黑在粒径大、结构度低、表面活性低及灰分含量高等因素下的补强机制，研究热解炭黑物理和化学改性机理，研究热解炭黑活化改性方法，提升热解炭黑性能品质。 (3) 研究湿法混炼制备机理。探讨配方参数对热解炭黑物化特性的影响机制，研究湿法混炼加工机理和方法，实现改性热解炭黑制备高性能橡胶复合材料。 <p>热解炭黑生产、改性及应用全流程科学问题解决有助于其作为新材料高性价比回用橡胶轮胎制造，实现产业链闭环。</p> <p>青岛科技大学 总经理 (学科性公司) 杨殿才</p>

<p>02:30pm The emergence of Alternative Carbon Blacks aCB's and Recycled Carbon Blacks rCB's-A route to Market</p> <p>Within Europe, changes in government legislation and associated initiatives, manufacturing standards and consumer expectations has facilitated the need for the supply chain to review their waste management and end of product life strategies towards recycling and repurposing polymer based products.</p> <p>This has led to the growth of new entrants whom are actively investing in the research and development of processes that can convert waste polymer based products, for example tyre's and flexible packaging, into materials that are comparable to or can partially replace original materials. The subsequent emergence of Alternative Carbon Blacks aCB's and Recycled Carbon Blacks rCB's manufactured by these new entrants, lack the knowledge and expertise required to overcome traditional thinking and norms to facilitate change towards new raw materials within the existing markets.</p> <p>Smithers understands these target markets, the established technical requirements and standards and customer and product needs and has developed a clear technology roadmap to support the new entrant in successfully introducing their new rCB/aCB raw material. The presentation will outline the Technology Roadmap for these new raw materials.</p> <p><i>Phil Hall, Principal Consultant – Elastomer/Rubber Materials, Materials Science and Engineering at Smithers</i></p>	<p>02:30pm 替代炭黑 aCB 和再生炭黑 rCB 的出现——进入市场的途径</p> <p>在欧洲，政府立法和相关举措、制造标准和消费者期望的变化促使供应链需要审查其废物管理和产品报废策略，以实现聚合物基产品的回收和再利用。这导致了新进入者的增长，他们积极投资于研究和开发可以将废旧聚合物基产品（例如轮胎和软包装）转化为可与原始材料相媲美或可以部分替代原始材料的材料的工艺。</p> <p>随后出现的替代炭黑 aCB 和再生炭黑 rCB 由这些新进入者制造，缺乏克服传统思维和规范以促进现有市场向新材料转变所需的知识和专业知识。Smithers 了解这些目标市场、既定的技术要求和标准以及客户和产品需求，并制定了明确的技术路线图，以支持新进入者成功推出其新的 rCB/aCB 原材料。该演讲将概述这些新材料的技术路线图。</p> <p><i>Smithers 材料科学与工程事业部 弹性体/橡胶材料首席顾问 Phil Hall</i></p>
<p>03:00pm networking tea break</p>	<p>03:00pm 社交茶歇</p>
<p>03:30pm Sustainability in the rubber world: green compounding</p> <p>Rubbers play a critical role in virtually all areas of modern life and are of paramount importance in maintaining the living standards of current society. Being a reliable and responsible rubber producer, ARLANXEO takes a sustainable approach in the design of synthetic rubber products, and continuously looks at the use of green and safe chemicals through the whole rubber value chain. This study presents further efforts on green compounding with sustainable ingredients incl recycle carbon black, precipitated silica from rice husk ash, lignin etc.</p> <p><i>Dr. Baojiang Cheng, Head of Technical Service & Development, NorthEast Asia at ARLANXEO</i></p>	<p>03:30pm 橡胶世界的可持续性：绿色复合材料</p> <p>橡胶在现代生活的几乎所有领域都发挥着关键作用，对维持当前社会的生活水平至关重要。作为一家可靠且负责任的橡胶生产商，ARLANXEO 在合成橡胶产品的设计中采取了可持续的方法，并在整个橡胶价值链中持续关注绿色和安全化学品的使用。本研究介绍了使用可持续成分进行绿色复合材料的进一步努力，包括回收炭黑、稻壳灰沉淀二氧化硅、木质素等。</p> <p><i>阿朗新科 东北亚技术总监 程宝家</i></p>
<p>04:00pm Modification of carbon black recovered from waste tire pyrolysis and its application in rubber</p> <p><i>Aihua Du, Professor, Doctoral supervisor at Qingdao University of Science & Technology</i></p>	<p>04:00pm 废轮胎热解炭黑的改性及在橡胶中的应用</p> <p><i>青岛科技大学 教授 博士研究生导师 杜爱华</i></p>

Session 7: Green production and management	板块七：绿色生产和管理
<p>04:30pm Waste tire pyrolyzing and carbon emissions/energy efficiency Under the background of double carbon goals, carbon emission is one of the key points of enterprise production management. This session will interpret the relationship between waste tire pyrolyzing and carbon emission.</p> <p><i>Speaker TBC</i></p>	<p>04:30pm 废旧轮胎裂解和碳排放 双碳背景之下，碳排放是企业生产管理的重点之一，该环节将解读废旧轮胎裂解与碳排放的关系。</p> <p><i>演讲嘉宾待定</i></p>
05:00pm Wrap-up of Conference	05:00pm 会议结束
<p>06:30pm Dinner</p> <p>Sponsored by Ecostar</p> 	<p>06:30pm 答谢晚宴</p> <p>“伊克斯达之夜“</p> 

-----Post Event 会后安排 (名额有限, 先报先得) -----

Sept 26, 2024 THU	2026 年 9 月 26 日 周四
08:00am Check in for visit	08:00am 参观人员签到
08:30am Departure for Qingdao Ecostar facility	08:30am 专车出发
10:00am Tour at Qingdao Ecostar	10:00am 伊克斯达青岛工厂参观
11:00am Departure from Qingdao Ecostar	11:00am 专车回酒店
Time to arrive at event venue at 12:30pm	预计抵达活动酒店时间 12:30