



Carbon Emission
Accounts & Datasets
for emerging economies

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中国
碳核算
数据库

Decarbonization of Global Iron and Steel sector

CEADs – Carbon Emission Accounts and Datasets

Up to date energy, emission and socioeconomic accounting inventories for
all developing countries, regions and cities

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CARBON EMISSION ACCOUNTS AND DATASETS FOR EMERGING ECONOMIES

**UP-TO-DATE ENERGY, EMISSION AND SOCIOECONOMIC ACCOUNTING INVENTORIES
FOR ALL DEVELOPING COUNTRIES, REGIONS AND CITIES.**

Data Download

<https://www.ceads.net.cn/> (中文版)

<https://www.ceads.net> (English)



Total Final Consumption
Farming, Forestry, Animal Husbandry, Fishery & Water Conservancy
Coal Mining and Dressing
Petroleum and Natural Gas Extraction
Ferrous Metals Mining and Dressing
Nonferrous Metals Mining and Dressing
Nonmetal Minerals Mining and Dressing
Other Minerals Mining and Dressing
Logging and Transport of Wood and Bamboo
Food Processing
Food Production
Beverage Production
Tobacco Processing
Textile Industry
Garments and Other Fiber Products
Leather, Furs, Down and Related Products
Timber Processing, Bamboo, Cane, Palm & Straw Products
Furniture Manufacturing
Papermaking and Paper Products
Printing and Record Medium Reproduction
Cultural, Educ
Petroleum Pro
Raw Chemicals
Medical and Pharmaceutical
Chemical Fiber
Rubber Products
Plastic Products
Nonmetal Mineral Products
Smelting and Pressing of Ferrous Metals
Smelting and Pressing of Nonferrous Metals
Metal Products
Ordinary Machinery
Equipment for Special Purpose
Transportation Equipment
Electric Equipment and Machinery
Electronic and Telecommunications Equipment
Instruments, Meters and Office Machinery
Other Manufacturing Industry
Scrap and Waste
Electric Power, Steam and Hot Water Production and Supply
Gas Production and Supply
Tap Water Production and Supply
Construction
Transport, Storage, Postal & Telecommunications Services
Wholesale, Retail Trade and Catering Service
Other
Urban
Rural

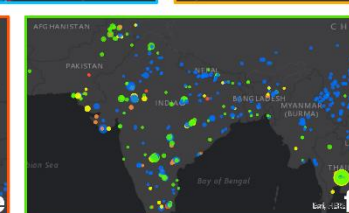
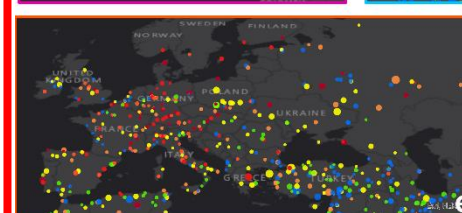
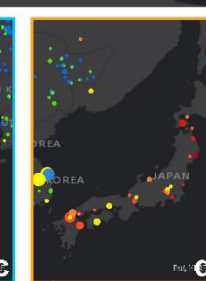
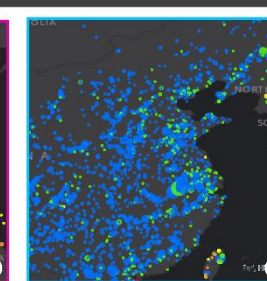
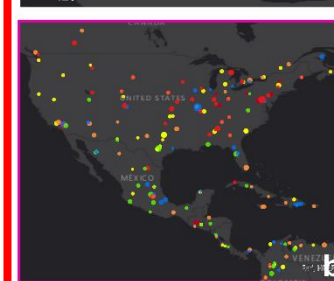
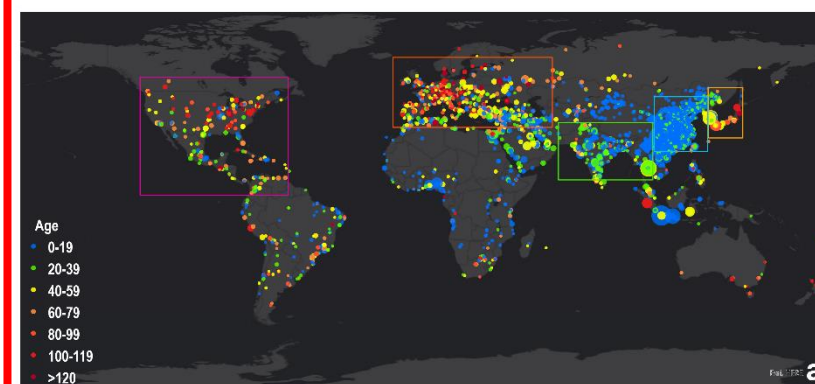
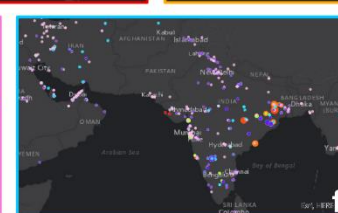
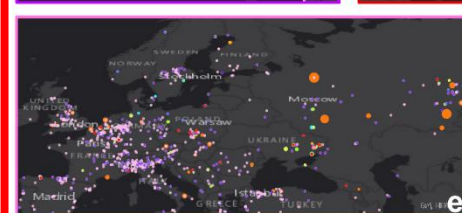
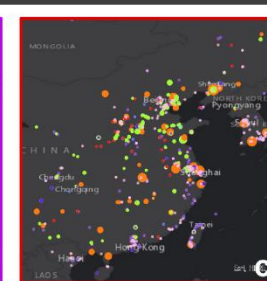
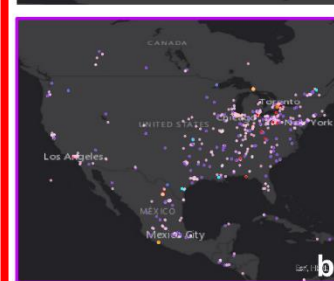
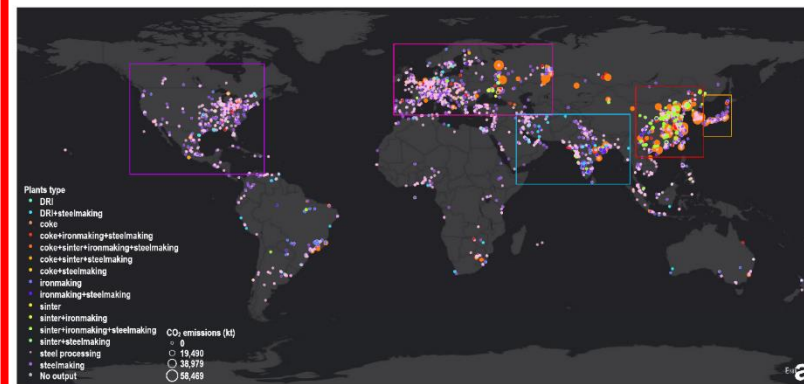
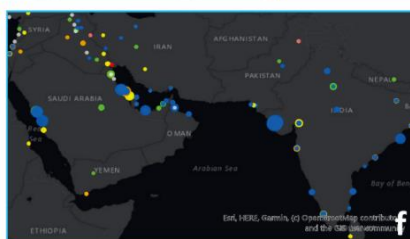
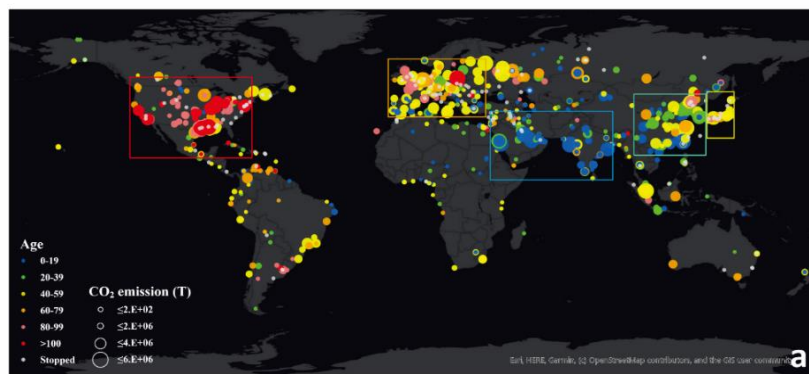
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全球重点行业点源碳核算数据集：钢铁、水泥、炼油

Global key industry point-source carbon accounts: iron&steel, cement, oil refinery



近百年以来全球炼油厂点源排放 (1600+)
Global refinery point source emissions
for nearly a century (1600+)

全球钢铁厂点源排放
16种冶炼工艺, 2万+点源
Global steel plant point source emissions
of 16 smelting processes
20,000+ units

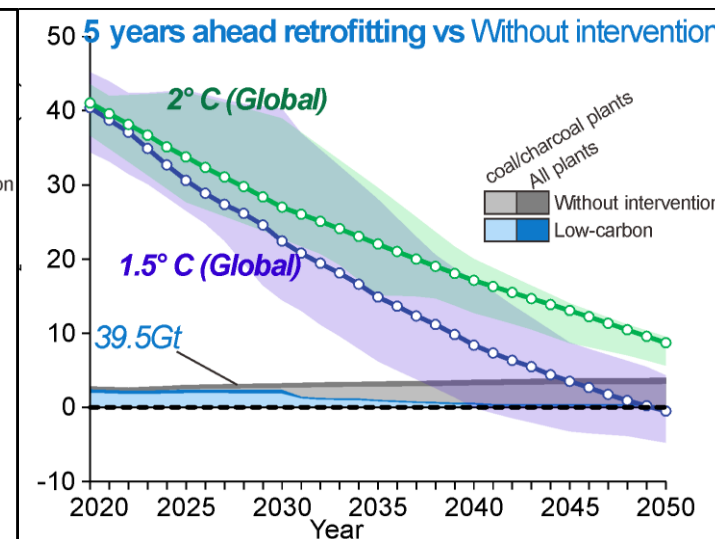
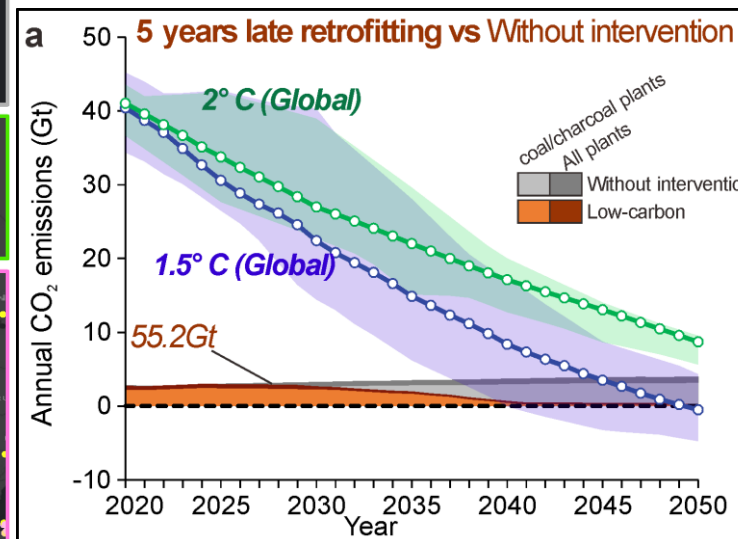
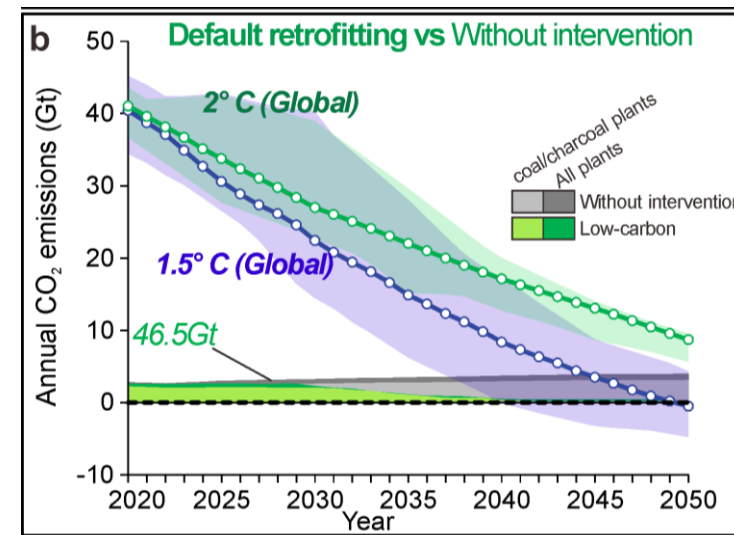
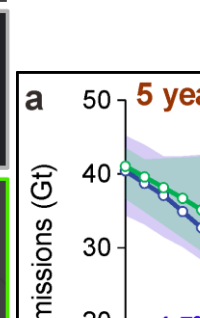
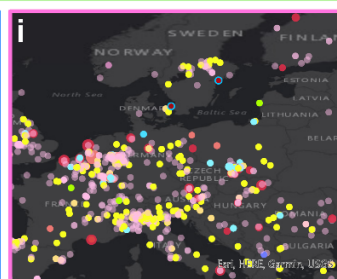
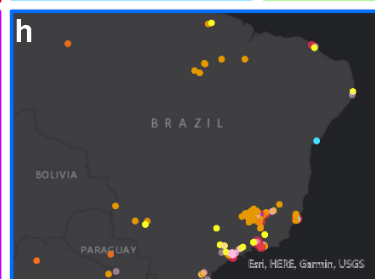
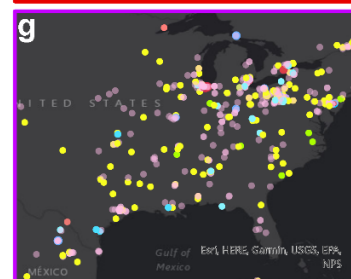
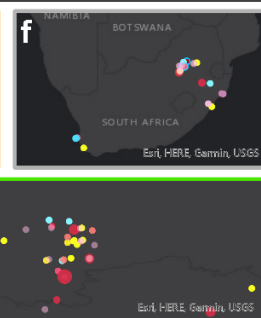
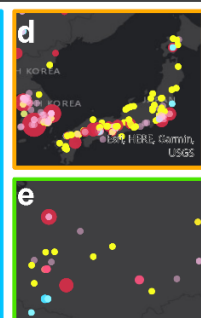
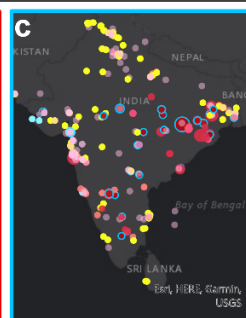
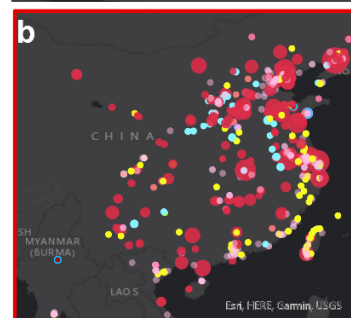
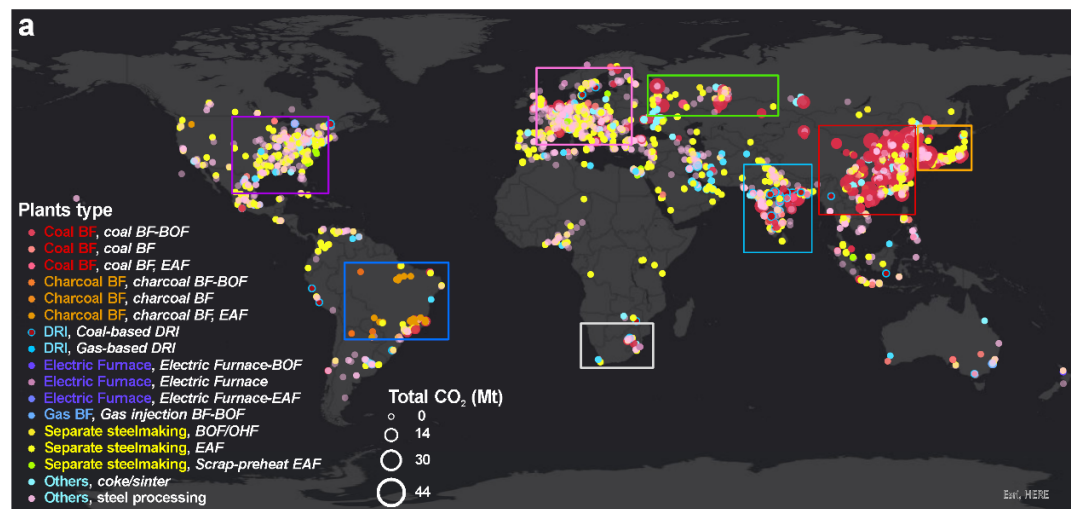
全球水泥厂点源排放
5000+点源
Global cement plants' emissions of
5000+ points



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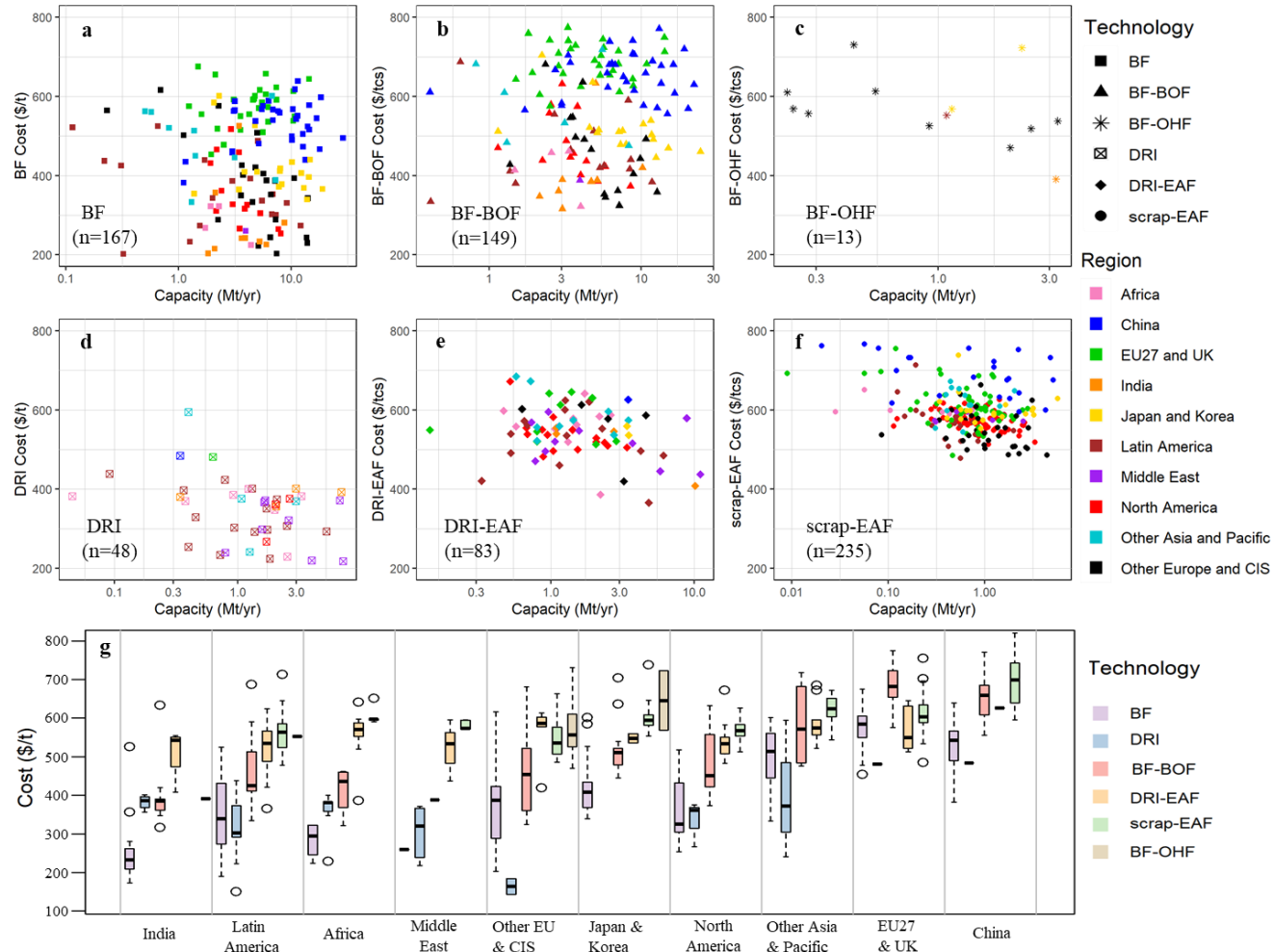
全球钢铁行业脱碳路径

Decarbonization pathway of global iron&steel industry





➤ Cost analysis of current industrial production technologies : case of global Steel and Iron plants



1) Global average cost of different technologies

2) Regional distribution patterns of different technologies

- Cost varied with regional location: BF-BOF

e.g.: Cost in EU and China was about 1.6 times higher than that of India

Reason: high import proportion of raw material in China, high carbon emission permit fee in EU, low-cost raw material in India.

- Cost significantly decreased with capacity: DRI-EAF

e.g.: Middle East, Latin America, North America, India accounted for 60% of global DRI-EAF capacity but had the lowest cost.

Reason: accessibility and low price of nature gas

- Clustered cost and capacity: scrap-EAF

e.g.: Regional cost ranged from \$537/ton-\$603/ton, regional capacity was generally 0.6-1.3 Mt.

Reason: uniform price of scrap in international market

CEADs数据库国际影响力 International Influence

CEADs自2016年成立以来在国际上受到广泛认可，国际影响力不断提升，截至2022年6月提及或使用“中国碳核算数据库（CEADs）”的外文文献共计**296**篇，分别来自20余个国家的研究机构，且引用文献**逐年上升**，涉及物理学、工程技术、经济商贸等多个领域。

Since its establishment in 2016, CEADs has been widely recognized internationally, and its international influence has been increasing. **296** foreign-language documents mentioning or using "China Carbon Accounting Database (CEADs)" have been published by June 2022, respectively from research institutions in more than 20 countries, and the cited documents have been **increasing** year by year, covering many fields such as physics, engineering and technology, economic and trade.

数据库	全部年份被引量	2016以来被引量
中国碳核算数据库 (CEADs)	296	296
英国全球碳报告 (GCP)	383	287
美国国家CO ₂ 分析研究中心 (CDIAC)	709	302
欧盟环境署排放数据库 (EDGAR)	611	451
各数据库全字条检索被引量		

检索源：Elsevier全文数据库

全部年份被引量	2016以来被引量
260	260
198	159
300	177
177	133
在“Carbon Emission”相关研究中被引量	