# Dedusting in Steelmaking

## Patent Landscape Report

Sample

This sample report showcases a landscape of advancements in Dedusting in Steelmaking technology by analyzing 2607 patent from 2000 to 2025.

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## Executive Summary

This sample report showcases a landscape of Dedusting in Steelmaking technology by analyzing 2607 patent from  2000 to 2025. The analysis reveals:

## Explosive Growth

Dedusting patent filings surged sixteenfold between 2000 and 2023, peaking at over 350 applications in 2022, highlighting a dramatic acceleration in innovation. With 74% of patents filed since 2016, the sector continues to exhibit robust year-on-year growth .

## Technology Focus

Key innovations concentrate on blast-furnace dust arresters and advanced gas-filtration systems, including electrostatic precipitators and hollow-filter technologies.

## Geographic Dominance

China dominates the dedusting landscape with approximately 84% of global patent registrations, far outpacing the US and Europe .
This concentration reflects China’s strong regulatory drive and heavy investment in emissions-control technologies.

## Market Potential

The global dedusting systems market was valued at USD 14.9 billion in 2023 and is projected to reach USD 21.3 billion by 2030, growing at a 3.9% CAGR .

# Methodology

The methodology employed in this report integrates AI-driven data analytics, machine learning algorithms, and expert human analysis, thereby ensuring a thorough and precise assessment of patent trends within this technology sector.

## Data Collection

The analysis initiates with the collection of patent metadata from reputable global patent databases, including:

- WIPO PATENTSCOPE (World Intellectual Property Organization)
- Lens.org
- USPTO (United States Patent and Trademark Office)
- EPO (European Patent Office)
- National Patent Offices

These datasets encompass structured metadata, including patent titles, abstracts, claims, classifications (e.g., IPC, CPC), applicants, publication dates, citations, and legal status.

## AI & Machine Learning Analysis

Using proprietary artificial intelligence (AI) and machine learning models developed by STIMAnalytics, the acquired patent data undergoes the following processing stages:

- Text Mining and Natural Language Processing (NLP): Extracting critical technical terms, concepts, and innovation themes from patent documents.
- Clustering and Classification: Categorizing patents into relevant technological groups and subgroups.
- Trend Analysis: Identifying growth trajectories, emerging technologies, and shifts in innovation focus over time.
- Network Analysis: Mapping interrelationships among applicants, technologies, and jurisdictions.
- Predictive Insights: Forecasting future technological advancements and market trends based on historical and contemporary patenting activities.

## Reporting Infrastructure

The analytical results are subsequently integrated into a robust reporting infrastructure, which autonomously generates structured reports and interactive dashboards. These outputs are further enriched with:

- Visual Analytics (charts, graphs, maps)
- Strategic Insights
- Technology Roadmaps
- Company and Academic Profiles

## Expert Review

Finally, all reports undergo a rigorous quality assurance process conducted by domain experts and technical editors to ensure:

- Accuracy of technical interpretation
- Consistency in terminology and classification
- Relevance of strategic insights
- Professional formatting and readability

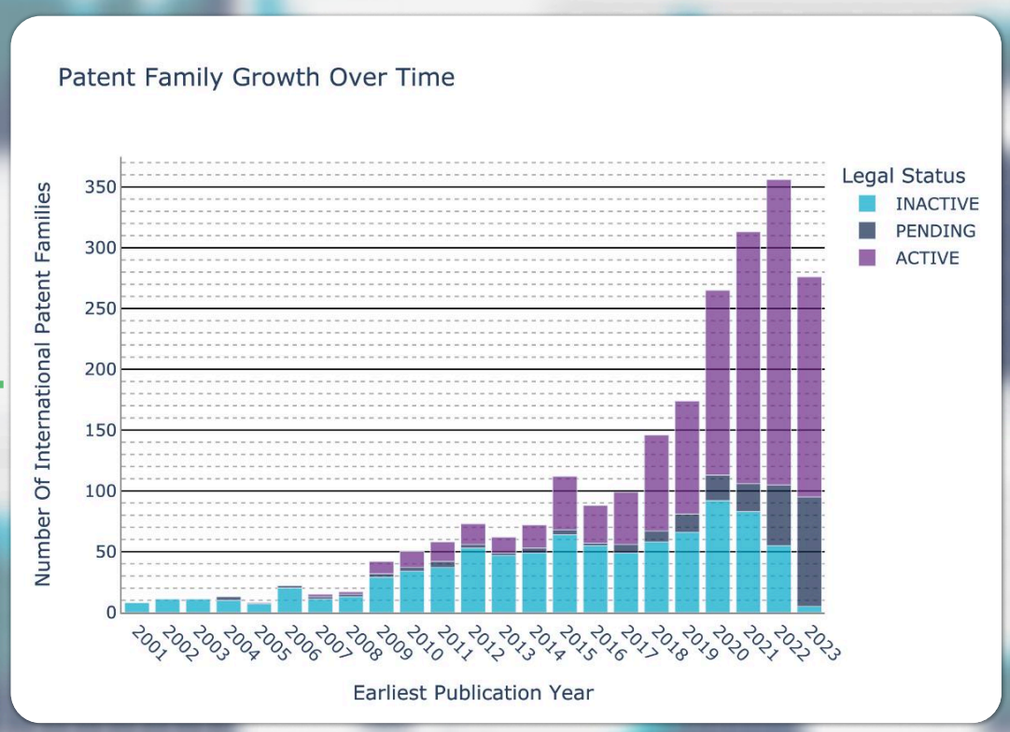
## Delivery Formats

The final outputs are delivered in two formats:

- Written Report (PDF): A comprehensive, publication-ready document featuring executive summaries, technology breakdowns, market insights, and key player profiles.
- Interactive Dashboard: A web-based platform enabling users to explore patent trends, filter by technology, applicant, jurisdiction, and time period, and generate customized reports.

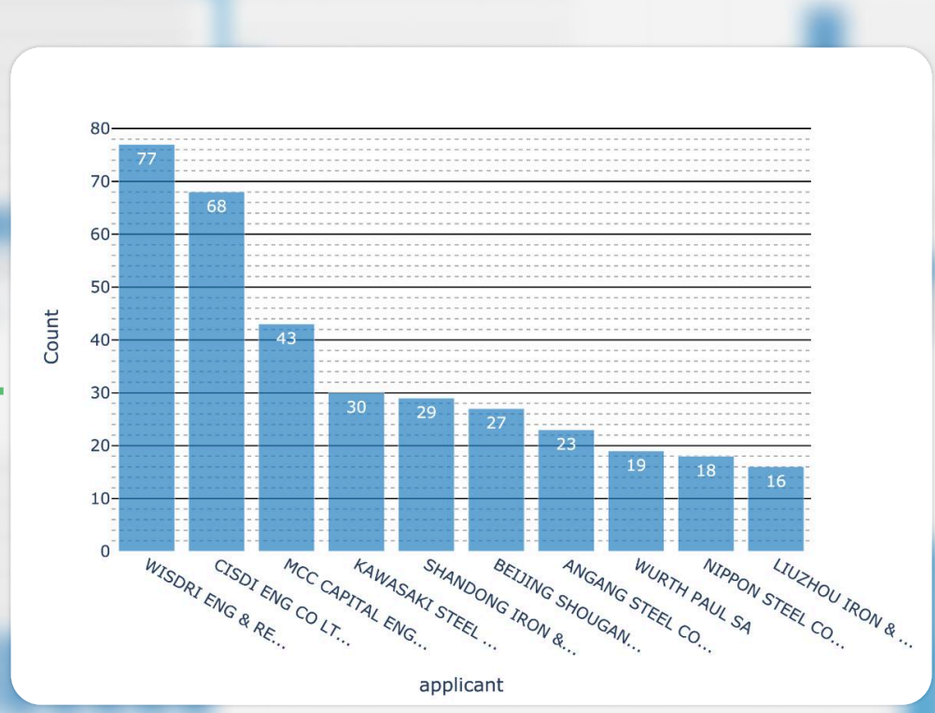
# Technology Trends

## Patent Landscape Overview




Patent filings grew steadily from 2001, then accelerated sharply after 2016, with pending applications driving growth; by 2022, total families exceeded 350, highlighting surging innovation with many technologies not yet granted.

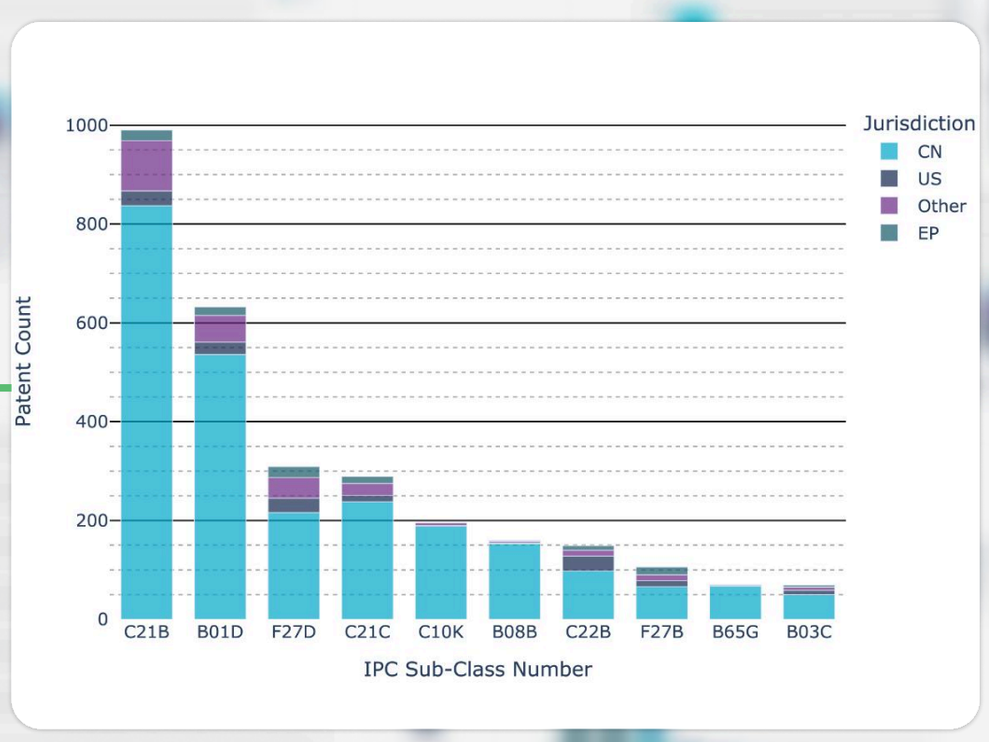
## Top Patent Applicants




WISDRI and CISDI lead with 77 and 68 patents respectively, highlighting dominant innovation in metallurgical engineering; the distribution suggests strong R&D concentration among Chinese engineering firms in steel production and process technologies.

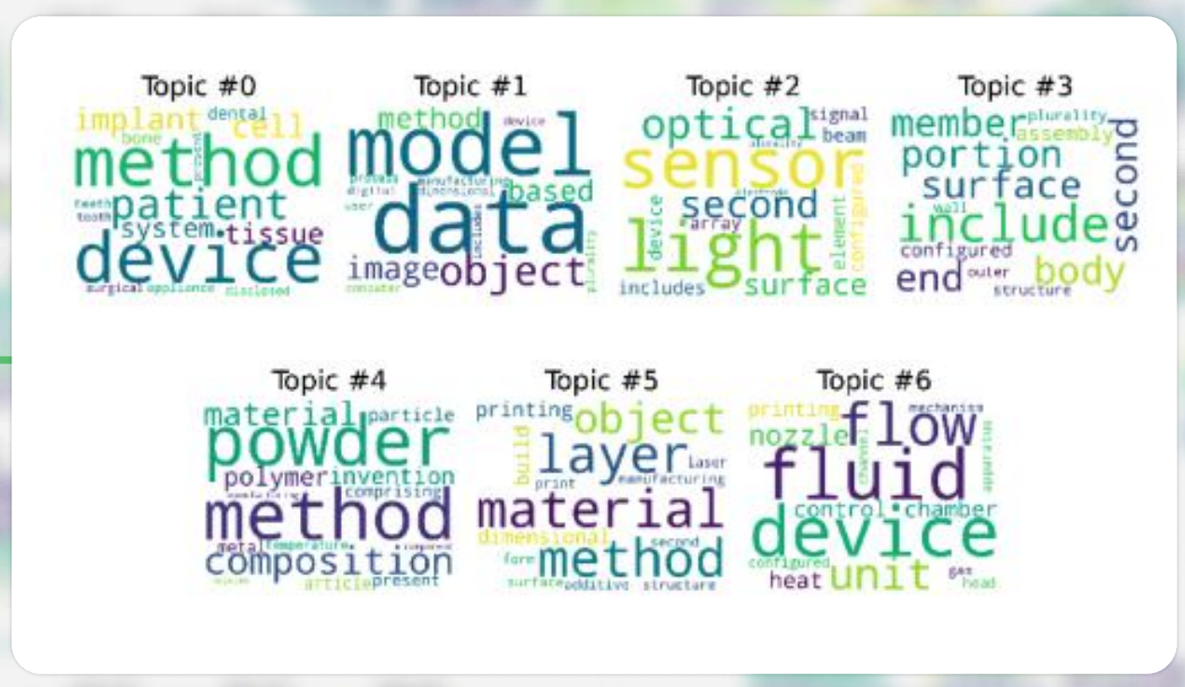
# Technology Trends

## Top Technologies by Sub-Class




C21B and B01D lead with over 1,500 patents combined, driven predominantly by China, reflecting concentrated innovation in primary steelmaking and separation technologies essential for industrial processing and environmental efficiency improvements.

## Key Patent Themes



# Strategic Recommendations:

### Policy Makers

1. Focus on fostering innovation in high-growth sectors.
2. Encourage investments in sustainable technologies.
3. Support industry-specific research and development initiatives.

### Investors

1. Prioritize companies with strong intellectual property in emerging technologies.
2. Monitor the latest advancements in new industrial applications and sectors.

### Manufacturers

1. Embrace new technology adoption to improve operational efficiency.
2. Invest in scalable solutions for long-term growth.
3. Focus on sustainability and circular economy practices.

# Our Industrial Expertise

### Energy

Exploring innovations in the oil, gas, electricity, and renewable energy sectors.

### Chemical

Advancing chemical processes, products, and catalysts for industrial applications.

### Health and Pharma

Analyzing new pharmaceutical products, health services, and medical technologies.

### ICT & Software

Examining trends in information and communication technology, software, and hardware.

### Mining Industry

Investigating improvements in iron, steel, aluminum, copper, and other related industries.

### New Materials

Researching advancements in advanced materials, nanotechnology, and their applications.

# Our Global Allies

# Dedusting in Steelmaking

## Patent Landscape Report

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