



Assisting in Semiconductor Industry Transformation: Green Technology IPR Protection

Chinese Taipei
26 February 2024

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Green Technology
Certification Mark
(Green Mark)

Updates
in real time

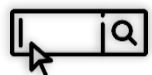


Green Technology
Accelerated
Examination
Program (AEP)

- Scope of eligibility for the AEP has been **expanded to encompass "green technologies"**
- Duration of examinations shortened from **9 to 6 months**



Green
Technology
Patent Analysis



Quick Green Technology
Patent Search



Environmental, Social, and Governance (ESG)

Environmental

- Energy management
- Waste management
- Sewage management
- Air pollution management
- Greenhouse gas emission

Social

- Labor rights and interests
- Privacy data protection
- Supplier management
- Occupational safety risk

Governance

- Shareholder rights
- Business ethics
- Supply chain management
- Transparency of business conduct

Research Direction & Methods

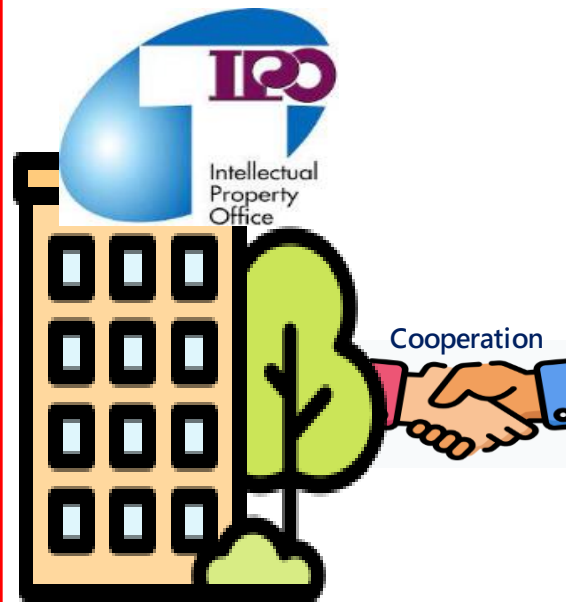
Sources



Academic papers,
Patent documents,
Newspapers,
Magazines,
Online information,
etc.

Refers
to

Interviews, Exchanges



Cooperation



Achievements

Patent Analysis



Search Strategy

Share



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Recycling of Semiconductor Industry Waste (2023)

Topic		Copper Recycling	Silicon Sludge Recycling	Hydrogen Recycling
Total Patents (Global)		3286(Cases)	619(Cases)	284(Cases)
Rank	1st	CNIPA(1639 Cases ; 49.9%)	CNIPA(291 Cases ; 47%)	CNIPA(92 Cases ; 32.4%)
	2nd	USPTO(220 Cases ; 6.7%)	JPO(117 Cases ; 18.9%)	JPO(63 Cases ; 22.2%)
	3rd	JPO(178 Cases ; 5.4%)	KIPO(81 Cases ; 13.1%)	EPO(31 Cases ; 10.9%)
Technical Direction		Disposal of heavy metal waste liquids, slag ; Recycling of printed circuit boards and its related equipment ; Mining industry and related technology ; etc...	Processing of silicon sludge, recovery of cutting oil, silicon or silicon carbide and related equipment or methods	Industrial gas treatment; Fuel cells; Semiconductor waste gas treatment and related equipment or methods
Trend Chart		<p>案/件</p> <p>專利申請趨勢 —趨勢線</p> <p>2015年~今 1、巴黎協定 2、全球「碳中和」政策</p> <p>2005年 1、京都議定書強制生效 2、全球銅需求/使用量大增 3、中國大陸推行廢棄物管理政策或舉辦大型國際會議</p> <p>1969年 聖塔芭芭拉漏油事件 (世界地球日的由來)</p> <p>1997年 京都議定書</p> <p>申請年</p> <p>未完全公開</p> <p>Upward trend!</p>	<p>案/件</p> <p>專利申請趨勢 —趨勢線</p> <p>2015年 巴黎協定</p> <p>2008年起，中國大陸施行： 1、循環經濟促進法 2、廢棄電器電子產品回收處理管理條例 3、再生資源回收管理辦法</p> <p>2005年的重大事件： 1、京都議定書強制生效 2、危險廢棄物管理政策與處理技術國際會議</p> <p>1997年的重大事件： 1、京都議定書 2、半導體產業蓬勃發展</p> <p>申請年</p> <p>未完全公開</p> <p>Market saturation</p>	<p>案/件</p> <p>專利申請趨勢 —趨勢線</p> <p>2012~今的重大政策： 1、京都議定書強制生效(2012) 2、巴黎協定(2015) 3、中國大陸(2016)「能源技術革命創新行動計劃」</p> <p>2005~2012年各國/區域的重大政策： 1、京都議定書強制生效(2005) 2、中國大陸(2006)「國家中長期科學和技術發展規劃綱要」 3、日本(2008)「Cool Earth - Innovative Energy Technology」計劃</p> <p>1997~2005年各國/區域的重大政策： 1、京都議定書(1997) 2、美國(2001)「2030年及以後美國向低碳經濟轉型的國家願景」 3、歐盟(2003)「氫能和燃料電池技術-我們未來的願景」</p> <p>1973~1974年 石油危機</p> <p>2011年 福島核災</p> <p>申請年</p> <p>未完全公開</p> <p>Upward trend!</p>

For more data, please visit: <https://gpss1.tipo.gov.tw>



Achievements over the past two years

Base on Corporate Interviews & ESG Reports

- Semiconductor green manufacturing/equipment (completed in 2022)
- Recycling of semiconductor industry waste (completed in 2023)
- Semiconductor industry water recycling and reuse (set in motion in 2024)

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