

Plastic aerosols

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Objective

To create a technology landscape report on **Plastic Aerosols**

- Identify market players with prolific IP activity in the technology area
- Segment the players by the industry they belong to

Note: This report is just a template and gives an indication of what the paid report contains. [Click here](#) for information to purchase the report



Background

Aerosol is used by a wide range of industries: health, cosmetics, food, automobile and household chemicals. Plastic aerosol containers provide numerous benefits to consumers: lightweight, lower storage and transportation costs, design, texture, transparency, user friendliness and possible reuse. They are suitable for non-flammable, low pressure products. Plastic aerosol provides significant environmental benefits as compared to metal packaging because there is no volatile organic carbon. The Keltec dispensing system converts a liquid into foam by using pressurized air instead of a propellant, [Globenewswire](#). The new shapes and the artwork possibilities make them very attractive for the packaging of new products. The European Aerosol Federation (FEA) has developed new requirements for plastic aerosols which is a two step approach, [Committee of experts from FEA](#). There are tests for the empty container and filled aerosol. Graham packaging has developed a PEN aerosol for a body hygiene product in 2002 and have recently developed a PET product because PET is cheap and is a pressure resistant material. The main advantages of a plastic aerosol are rustfree, no BPA, ease of use, compatible with current filling lines, and new ways of decorating the product such as shrink labels, [Aerosol forum](#)

Search Strategy

Concept Table

| S.No | English Keywords | | | German Keywords | | | | French Keywords | |
|------|------------------|------------|------------|-----------------|------------|-----------|------------|-----------------|--------------|
| | Plastic | Aerosol | Container | Plastic | Aerosol | Container | Plastic | Aerosol | Container |
| 1 | Plastic | Aerosol | Container | Kunststoff | Aerosol | Container | Plastique | Aérosols | Conteneurs |
| 2 | Plastics | Aerosols | Containers | Kunststoffe | Aerosole | Container | Plastiques | Aérosols | Conteneurs |
| 3 | Polymer | Suspension | Dispenser | polymer | Aufhängung | Spender | Polymères | La suspension | Distributeur |
| 4 | **** | **** | **** | **** | **** | **** | **** | **** | **** |

- An indicative list of terms to show how a concept table is generated. View paid report for complete list.
- Concept Table was enriched by searches related to Plastic aerosols from relevant patents, scientific articles and various thesauri

Class Code Definition

US Class Definition

US Class for Aerosol Containers

| Class | Definition |
|-------|-------------------|
| 53 | package making |
| 470 | Aerosol container |
| **** | **** |

US Class for Aerosols

| Class | Definition |
|-------|---|
| 424 | drug, bio-affecting and body treating compositions |
| 1.13 | In aerosol, fine spray, effervescent, pressurized fluid, vapor or gas, or complete composition therefor |
| **** | **** |

IPC Class Definition

IPC Classes for Aerosol Container

| Class | Definition |
|----------|--|
| A | Human necessities |
| A61M | Devices for introducing media into, or onto, the body |
| **** | **** |
| B | Performing operations; transporting |
| B65D | Containers for storage or transport of articles or materials, e.g. bags, barrels, bottles, boxes, cans, cartons, crates, drums, jars, tanks, hoppers, forwarding containers; accessories, closures, or fittings therefor; packaging elements; packages |
| **** | **** |

IPC classes for Aerosols

| Class | Definition |
|----------|---|
| C | Chemistry, Metallurgy |
| C09K | Materials for applications not otherwise provided for; applications of materials not otherwise provided for |
| **** | **** |

ECLA Definition

ECLA Classes for Aerosol Container

| Class | Definition |
|-----------|--|
| A | Human necessities |
| A61M | Devices for introducing media into , or onto, the body |
| A61M **** | **** |

ECLA Classes for Aerosols

| Class | Definition |
|----------|--|
| A | Human necessities |
| A61K | preparations for medical, dental, or toilet purposes |
| A61K**** | **** |

F TERM

F Term for Aerosol Container Classes

| F Theme | Definition | View Point | F Term | Definition |
|---------|---|------------|-----------|------------------|
| 3E014 | Containers and packaging bodies having a special means to remove contents | PD00 | 3E014PD00 | Propulsion means |
| | | **** | **** | **** |
| | | **** | **** | **** |

F Term for Aerosol Classes

| F Theme | Definition | View Point | F Term | Definition |
|---------|-----------------------|------------|-----------|-------------------|
| 4C076 | MEDICINAL PREPARATION | AA24 | 4C076AA24 | Aerosols or foams |
| | | **** | **** | **** |

• An indicative list of various class codes used for the IP search. View paid report for complete list.

Thomson Innovation Search

Search with English Keywords

Search Engine: Thomson Innovation

Timeline: 1991 - 2011

Patent Coverage: US, DWPI, FR, WO, EP, JP, CN, KR, DE, GB

| S.No. | Comment | Search Query | Search by | No. of hits | INPADOC Family No. |
|-------|--|--------------------------|---------------------------|-------------|--------------------|
| 1 | Plastic keywords and Aerosol container classes | Plastic**** AND B65D**** | Claims, Title or Abstract | **** | **** |

| | | | | | |
|---|--|--------------------------|---------------------------|-------------|-------------|
| 2 | plastic keywords near container keywords AND Aerosol class | Plastic**** AND A61K**** | Claims, Title or Abstract | **** | **** |
| 3 | Combine | 1 OR 2 | Combined Query | **** | **** |
| 4 | NOT keywords | heat adj2 resist**** | Title/Abstarct | **** | **** |
| 5 | Final Result | 3 not 4 | Combined Query | **** | **** |

Search with German Keywords

Search Engine: Thomson Innovation

Timeline: 1991 - 2011

Patent Coverage: DE, WO, EP

| S.No. | Comment | Search Query | Search by | No. of hits | INPADOC Family No. |
|-------|--|------------------------------|---------------------------|-------------|--------------------|
| 1 | Plastic keywords and Aerosol container classes | Kunststoff**** AND A61M0**** | Claims, Title or Abstract | **** | **** |
| 2 | plastic keywords near container keywords AND Aerosol class | Kunststoff**** AND A61K**** | Claims, Title or Abstract | **** | **** |
| 3 | Combine | 1 or 2 | Combined Query | **** | **** |
| 4 | NOT keywords | Hitze resisant**** | Title/Abstract | **** | **** |
| 5 | Final Result | 3 not 4 | Combined Query | **** | **** |

Search with French Keywords

Search Engine: Thomson Innovation

Timeline: 1991 - 2011

Patent Coverage: FR, WO, EP

| S.No. | Comment | Search Query | Search by | No. of hits | INPADOC Family No. |
|-------|--|----------------------------|---------------------------|-------------|--------------------|
| 1 | Plastic keywords and Aerosol container classes | plastique**** AND A61M**** | Claims, Title or Abstract | **** | **** |
| 2 | plastic keywords near container keywords AND Aerosol class | plastique**** AND A61K**** | Claims, Title or Abstract | **** | **** |
| 3 | Combine | 1 OR 2 | Combined Query | **** | **** |
| 4 | NOT keywords | resisant chaleur**** | Title/Abstarct | **** | **** |
| 5 | Final Result | 3 not 4 | Combined Query | **** | **** |

Search with F Terms

Search Engine: Thomson Innovation

Timeline: 01/01/1991 - 09/26/2011 (mm/dd/yyyy)

Patent Coverage: JP

| S.No. | Comment | Search Query | Search by | No. of hits | Family No. |
|-------|--|--------------------------|---------------------------|-------------|-------------|
| 1 | Plastic keywords and Aerosol container classes | Plastic**** AND 3E01**** | Claims, Title or Abstract | **** | **** |
| 2 | plastic keywords near container keywords AND Aerosol class | Plastic**** AND 4C07**** | Claims, Title or Abstract | **** | **** |
| 3 | Combine | 1 OR 2 | | **** | **** |
| 4 | NOT keywords | heat adj2 resist**** | Title/Abstarct | **** | **** |
| 5 | Final Result | 3 not 4 | Combined Query | **** | **** |

Final Result

| Final Search Query | No. of Hits | No. of INPADOC Families |
|--------------------|-------------|-------------------------|
|--------------------|-------------|-------------------------|

The search was also performed in Micropat. Click below to get the search results

[Search in Micropat1](#)

Relevant Patents (Sample Set)

| S.No. | Publication No. | Assignee/Applicant | Publication year | Title | Picture |
|-------|------------------------------|--------------------------|------------------|---|--|
| 1 | WO2011088093 | GRAHAM PACKAGING COMPANY | 2011 | Deformation-resistant plastic aerosol container | <p>FIG. 1</p> <p>WO2011088093 A1 Fig</p> |
| 2 | WO2007140407 | THE CLOROX COMPANY | 2007 | ERGONOMIC PLASTIC AEROSOL CONTAINER | <p>WO2007140407 A1 Fig</p> |

Analysis Sheet

[Click here to download the sample patents analysis sheet](#)

Interactive Taxonomy

The description and application of container are categorized

```

.markmap-node {
  cursor: pointer;
}

.markmap-node-circle {
  fill: #fff;
  stroke-width: 1.5px;
}

.markmap-node-text {
  fill: #000;
  font: 10px sans-serif;
}

.markmap-link {
  fill: none;
}

pre, .mw-code{
  background-color: transparent;
}
d3.xml("https://www.dolcera.com/wiki/images/Plasticaerosols.mm", function(error, data) {
  if (error) throw error;

  markmap("svg#mindmap_64915d85f6e3083ef147726c28ecbe40", data, {
    preset: "colorful",
    linkShape: "diagonal"
  }, "xml");
});

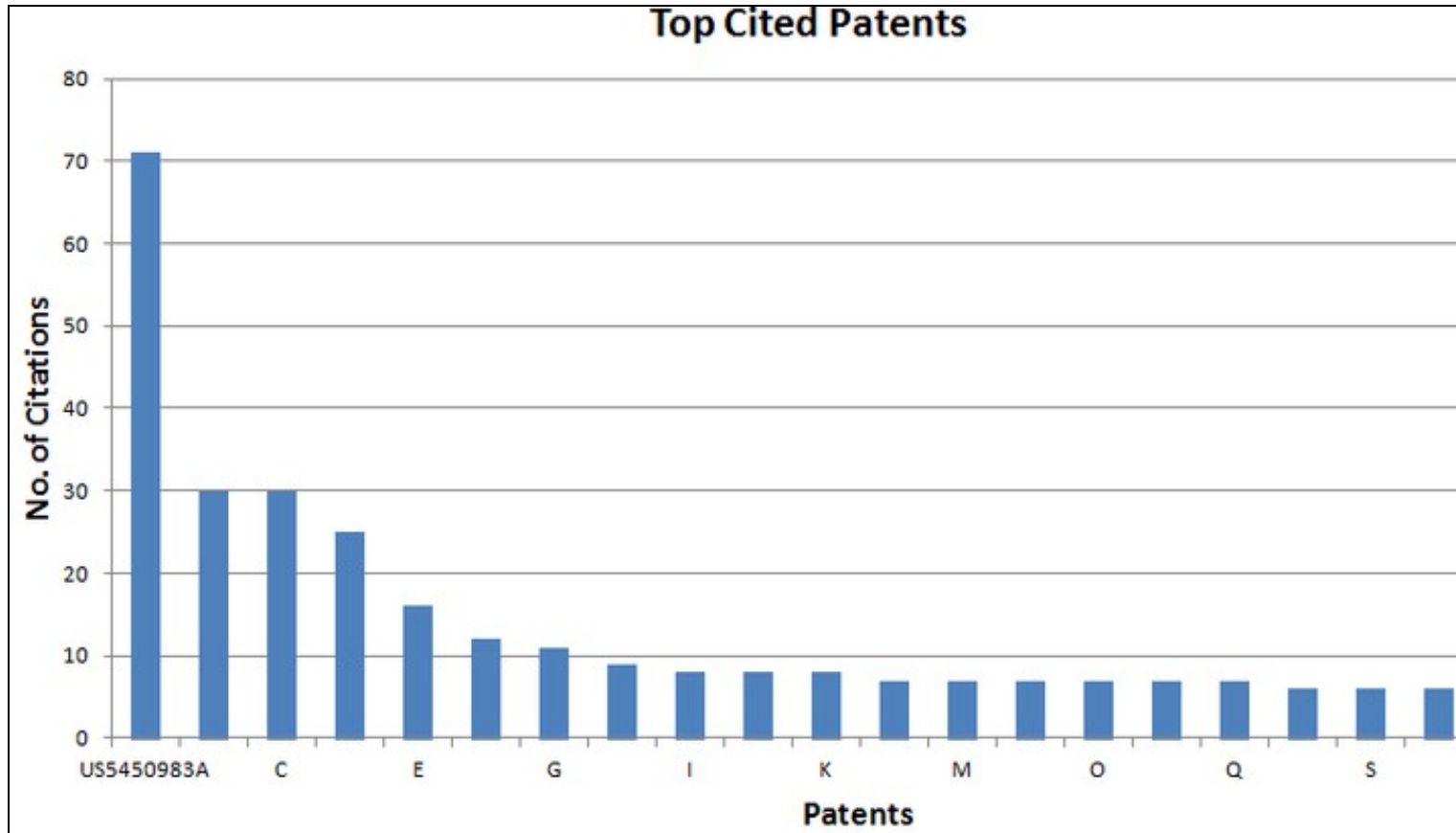
```

Top Cited Patents

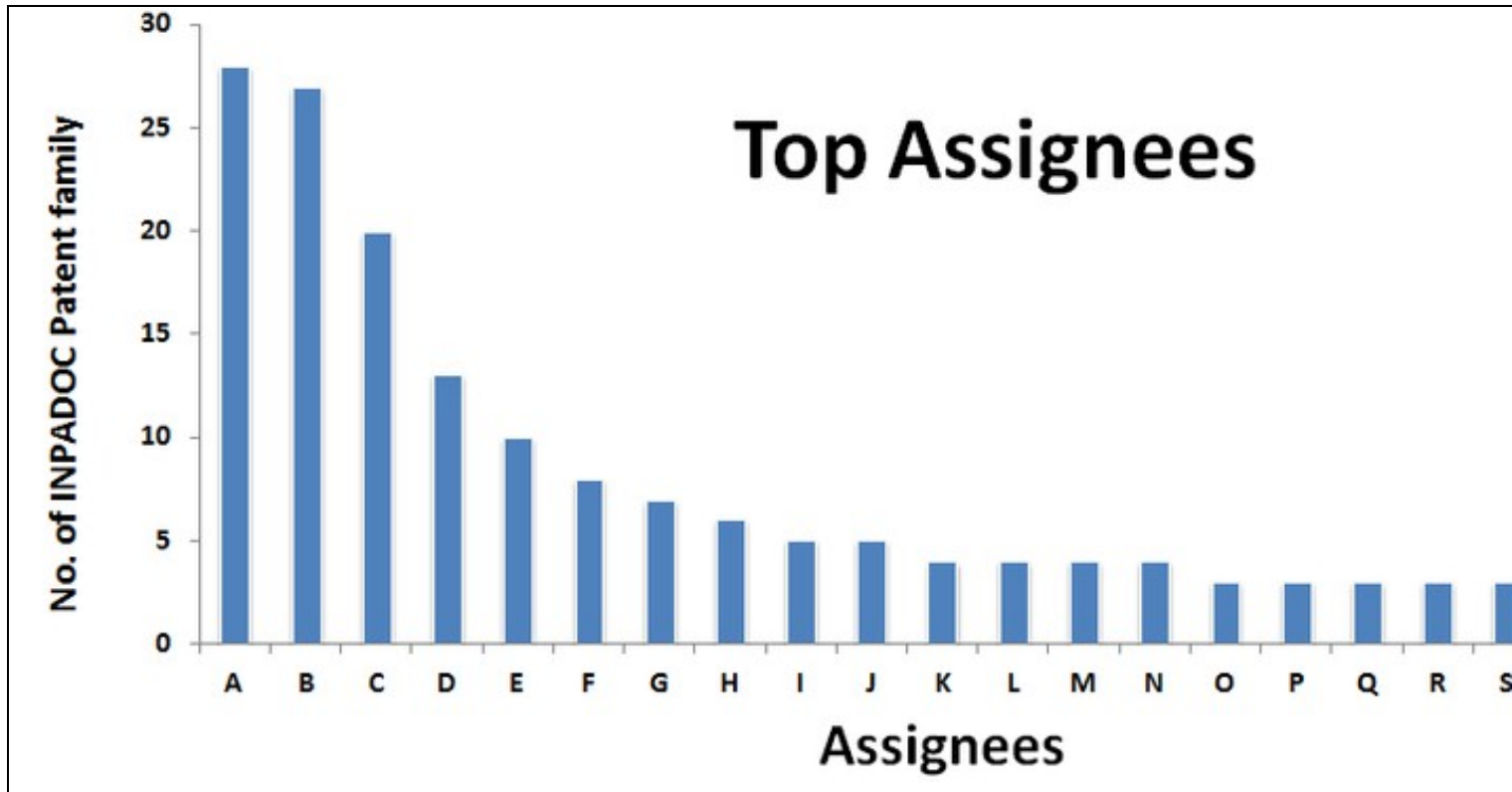
| S.No. | Patent/Publication Year | Title | Assignee/ Applicant | Citation count |
|-------|-------------------------|--|---------------------------|----------------|
| 1 | US5450983A | Aerosol spray texture apparatus and method for a particulate containing material | DJS&T Limited Partnership | 71 |
| 2 | **** | **** | **** | **** |

Key Patents

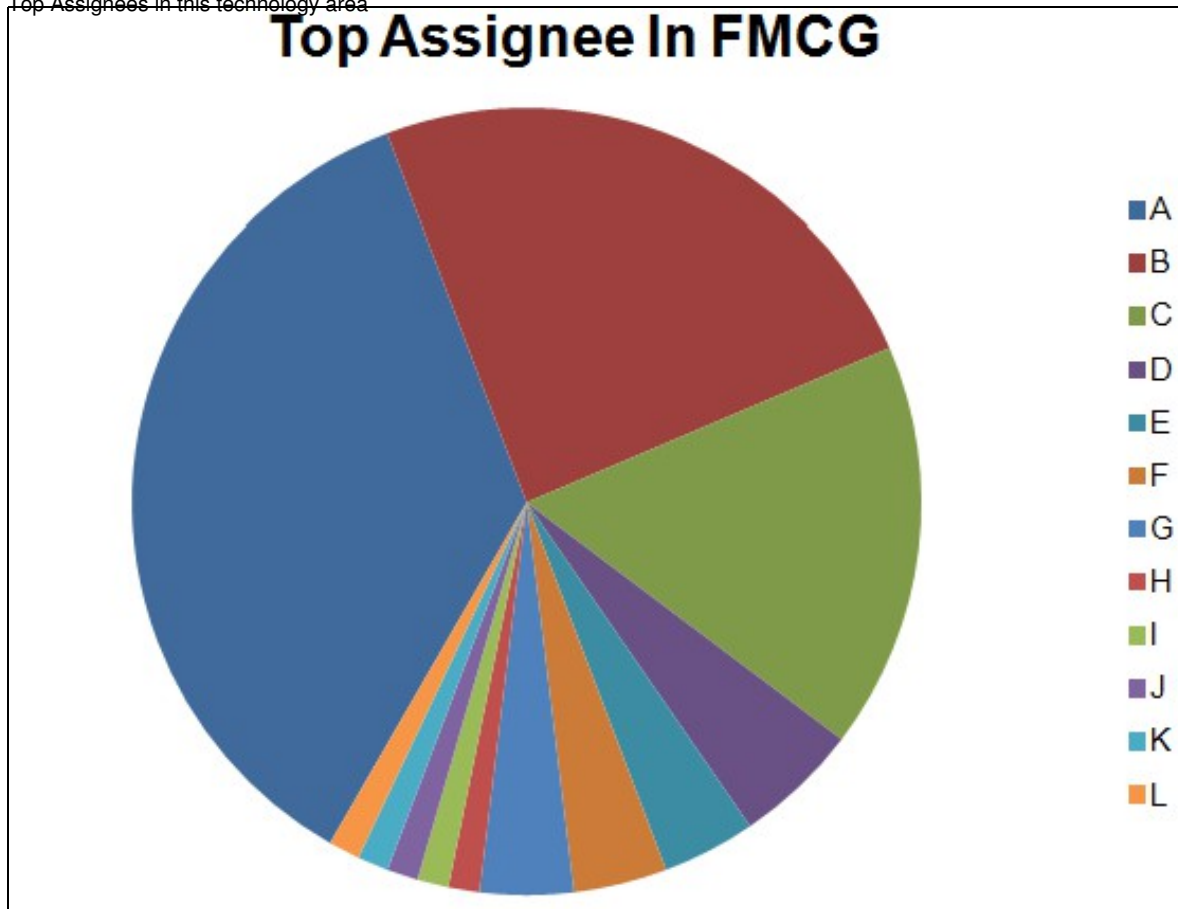
• Labels for all the charts below are available in the paid report.



Assignee Analysis and IP Activity

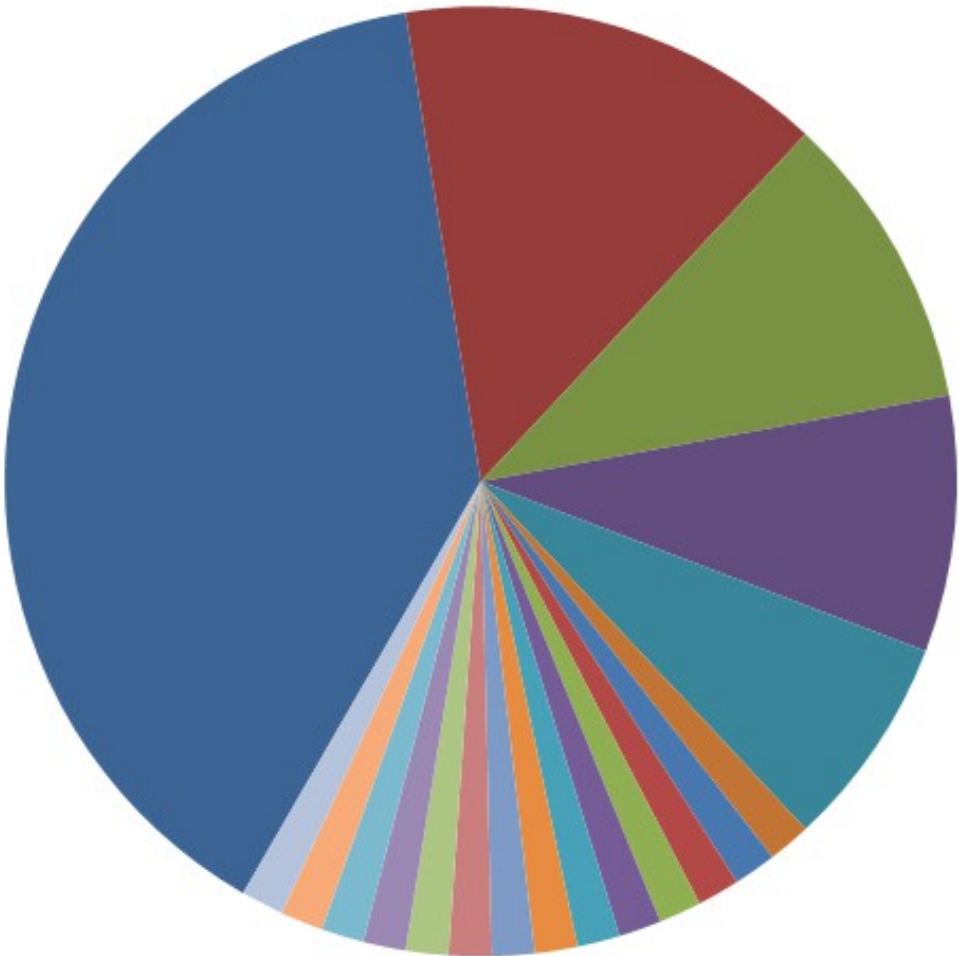


Top Assignees in this technology area



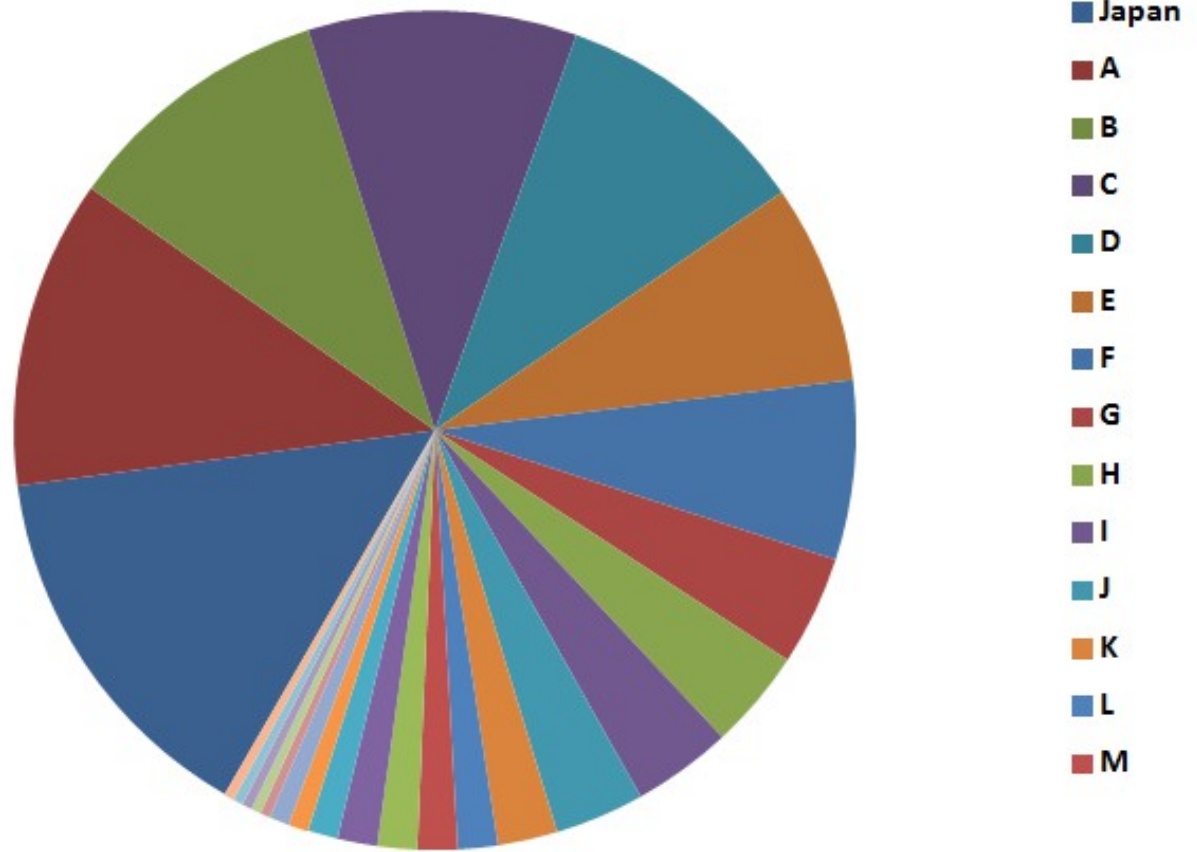
Top Assignees in FMCG

Top Assignee In Pharmaceuticals



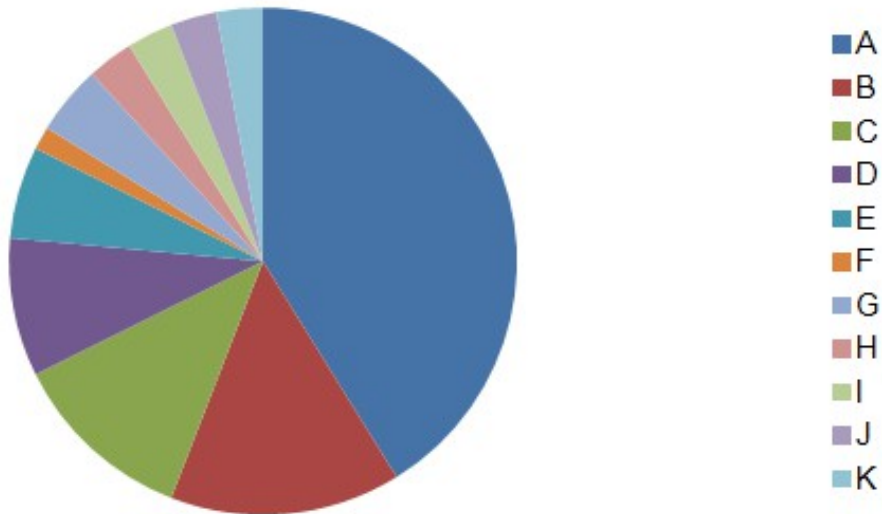
Top Assignees in Pharmaceutical Companies

Geographical distribution of Patents



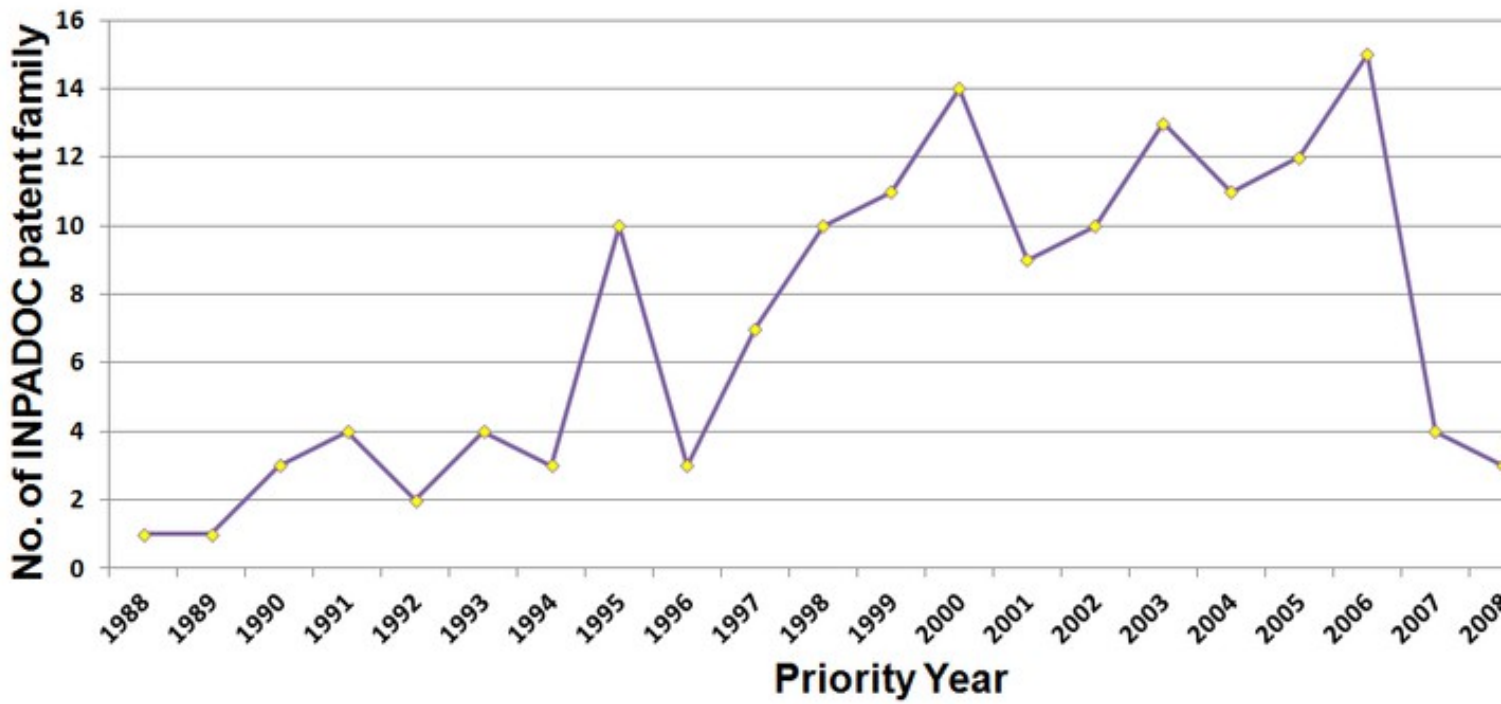
Geographical distribution of Patents

Geographical distribution of Assignees



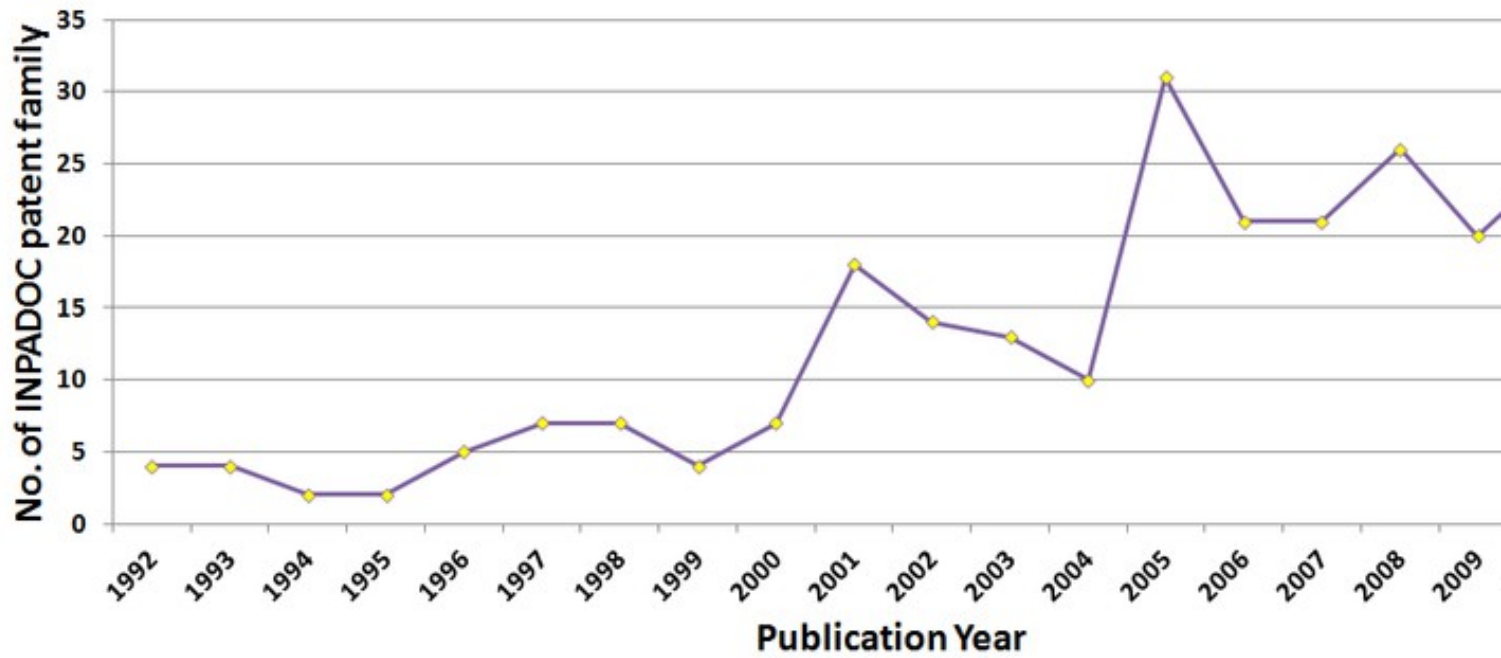
Geographical distribution of Assignees

IP Activity based on Priority Year



IP activity based on priority Year

IP activity based on Publication Year



IP activity based on publication Year

Dashboard link

Assignees were categorized based on the type of their sectors like cosmetics, FMCG, Pharmaceuticals etc and their patents have been shown in the Dolcera Interactive Dashboard. A data preview of the dashboard is shown below:





A chart preview of the dashboard is shown below:



Patent Product Mapping

- Some products with respect to this technology area were identified and mapped to the patents from their respective assignees.

| S.No. | Publication No. | Title | Assignee | Patent to Product correlation | Product | Image |
|-------|-----------------|-------|----------|-------------------------------|---------|-------|
|-------|-----------------|-------|----------|-------------------------------|---------|-------|

| | | | | | | |
|---|---------------------------|--|--------------------------|--|-------------------------------------|---|
| 1 | EP1943165 | PLASTIC AEROSOL CONTAINER WITH IMPROVED ANNULAR COLLAR | PETAPAK AEROSOL INT CORP | Patent describes container for dispensing a pressurised product has body and collar made up of PET and article says patented collar ring and PET container | Petapak PET aerosol |   Petapak Fig |
| 2 | **** | **** | **** | **** | **** | **** |

Purchase Information

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