June 2025

#### Notes on how to use Patent Abstract Search



Copyright © IPOS 2024. All rights reserved.

OFFICIAL (OPEN) / NON-SENSITIVE

### General Notes On Patent Abstract Search

#### Coverage:

- 1. Using the Patent Abstract Search, you can search for over 280,000 published patent abstracts.
- 2. The search results shown, are:
- Limited to the first 10,000 results, per query.
- Figure of Drawings are available only for national applications published from February 2014 onwards.

#### Searching with Boolean Operators:

3. To achieve more targeted search results, you may use Boolean Operators (AND, OR, NOT). Use brackets when necessary.



### General Notes On Patent Abstract Search

#### **Searching with Title and/or Abstract:**

- 4. To broaden your search results,
- use the stemming function.
- use wildcard symbols ? (0 or 1 character), # (exactly 1 character) and \* (0 or more characters). If stemming is on, the wildcard function will not be supported.
- 5. This feature is enabled by Proximity Search.
- If keywords are typed in a single text box, the system will return results where the keywords are separated by five or fewer words collectively.
- If the keywords include hyphenated words, the system will retrieve results where the keywords appear next to each other.
- 6. This feature enables searches using both British and American spellings simultaneously. A list of these spelling variations covered is available <u>here</u>.



# The following search features are applicable to Titles and Abstracts.

- **Proximity Search:** If 2 or more keywords are entered in a single text box, the system retrieves results that are relatively close in proximity, with five or fewer words or numbers separating them. The sequence of the words matters.
- Stemming Search: If toggled on, the system reduces the keywords to their base form and retrieves search results that match the exact word, as well as variations of the base word.
- Accented, Symbols, Superscript and Subscript Characters Search

The above search features are explained with examples in the following slides.



If two keywords are typed into a single text box, the system retrieves results where there are five or fewer words or numbers between them.

#### **Example:**

Abstract for 11201607919R: A washing machine is provided with a detergent case (400) in which a first housing chamber (410) for housing a detergent therein is formed, and a flow channel structure part which forms a flow channel on the detergent case (400). In the flow channel structure part, a plurality of falling holes which direct water in the flow channel toward the detergent case (400) are formed. The detergent case (400) includes a partition wall (414) which partitions the first housing chamber (410) into a mixing chamber (412) in which a water solution of the detergent is produced by mixing the detergent and the water, and a foaming chamber (413) in which the water solution flowing therein from the mixing chamber (412) is foamed. The plurality of falling holes include a first falling hole which directs the water to the mixing chamber (412), and a second falling hole which directs the water to the foaming chamber (413).

| Keywords in a single text box | 1120160791R<br>in search<br>results? | Relevant extract from abstract containing the keywords   |
|-------------------------------|--------------------------------------|--|
| Abstract: machine detergent   | Yes, fewer<br>than 5<br>words apart  | A washing machine is provided with a detergent case (400) in which a   |
| Abstract: washing detergent   | Yes, 5 words<br>apart                | 5 words apart         1       2       3       4       5         A washing machine is provided with a detergent case (400) in which a |
| Abstract: washing case        | No, more<br>than 5<br>words apart.   | 6 words apart<br>1 2 3 4 5 6<br>A washing machine is provided with a detergent Case (400) in which a                                 |

INTELLECTUAL PROPERT

DEFICE OF SINGAPOI

Similarly, if three or more keywords are typed into a single text box, the system will return results where the keywords are separated by five or fewer words or numbers in total.

#### **Example:**

Abstract for 10202204650W: Aspects concern method for creating a virtual 3D environment for a simulation comprising receiving a user input specifying an object insertion height level to be applied to a plurality of virtual 3D objects and, upon reception of an object insertion command for any one of the objects of the plurality of objects, inserting an instance of the object into the 3D virtual environment at the object insertion height level.

| Keywords in a single text<br>box                   | 10202204650W<br>in search<br>results? | Relevant extract from abstract containing the keywords  |
|--|---------------------------------------|---|
| Abstract: method virtual<br>environment            | Yes, fewer<br>than 5<br>words apart   | 4 words apart1234Aspects concern method for creating a virtual 3D environment for a simulation  |
| Abstract: aspects<br>method virtual<br>environment | Yes, 5 words<br>apart                 | 5 words apart         1       2       3       4       5         Aspects concern method for creating a virtual 3D environment for a simulation |
| Abstract: method virtual environment simulation    | No, more<br>than 5<br>words apart.    | 6 words apart<br>1 2 3 4 5 6<br>Aspects concern method for creating a virtual 3D environment for a simulation                                 |



Thus, to search for keywords that appear anywhere in the title and abstract, regardless of how far apart they are, simply enter each keyword in a separate text boxes. Proximity logic is not applicable across text boxes.

#### Example:

Using the keywords and applications from the previous slides, but with the keywords typed in separate text boxes.

| Keywords in separate text<br>boxes   | Relevant extract from abstract containing the keywords  |
|--|---|
| Abstract: washing<br>Abstract: case  | 11201607919R will be retrieved in the search results simply because "washing" and "case" appear in the abstract.                                |
| Abstract: method<br>Abstract: virtual<br>Abstract: environment<br>Abstract: simulation | 10202204650W will be retrieved in the search results simply because "method", "virtual", "environment" and "simulation" appear in the abstract. |



Expanding on the example in the previous slides, but with two keywords in separate text boxes.

#### Example:

Abstract for 11201507597T: A computer system for routing parcels to attended delivery/pickup locations (e.g., other than an individual's home and/or office) based on estimating the attended delivery/pickup location's capacity is disclosed. The computer system receives capacity information associated with the attended delivery/pickup location and characteristics of one or more parcels an individual wishes to be delivered to the attended deliver location. The system, based at least in part on the received information, determines whether the attended delivery/pickup location will have the capacity to store the one or more parcels associated with the individual. The system then routes the one or more parcels either to the attended delivery/pickup location (if there is capacity) or to an alternative delivery/pickup location (if there is not capacity).

| Keywords in separate text boxes                      | 11201507597T in Search Results"  |
|--|--|
| Abstract: home office<br>Abstract: delivery location | <ul> <li>Yes, because</li> <li>"home" and "office" are fewer than five words apart;</li> <li>"delivery" and "location" are fewer than five words apart; and</li> <li>proximity logic is not applicable between text boxes, i.e., between 'home office' and 'delivery location' in the example here.</li> </ul> |



# Proximity Search with Hyphenated Words

If keywords are hyphenated or contain hyphenated words, the system will retrieve results where all the keywords appear next to each other.

#### **Example:**

Abstract for 11201508802Y: In one aspect, the invention provides a catalyst for converting diesel type liquid hydrocarbons to methane rich gas. The catalyst includes a nickel component, a cerium oxide component, and gadolinium oxide component. The catalysts provide high conversion, selectivity, and stability compare to the state of the art commercial catalysts. The catalyst compositions can improve the overall fuel cell efficiency for both mobile and stationary fuel cell applications.

| Keywords in a single text box         | 11201508802Y in search results?   |
|---------------------------------------|---|
| Abstract: state-of-the-art            | Yes.  |
| Abstract: state-of-the-art commercial | Yes, because "commercial" appears immediately next to "state-of-the-art". |
| Abstract: state-of-the-art catalysts  | No, because there is a word between "state-of-the-art" and "catalysts".   |



# Proximity Search based on sequence of words

The sequence of the words entered in a single text box impacts the search results.

#### **Example:**

Abstract for 11201909981U: A fluid-flow measuring ball valve includes a housing and a ball having an orifice. The ball is moved between an open position allowing fluid flow through the orifice and a closed position preventing fluid flow. A first ultrasonic transducer is positioned in the housing upstream of the ball. A second ultrasonic transducer is positioned in the housing downstream of the ball and both are aligned to send and receive pulses. First and second acoustic reflectors are aligned with the transducers to transmit and reflect ultrasonic signals in at least one direction through the ball orifice when the ball is in an open position. The controller determines the fluid velocity based on measured speed of Sound and calculates the volume of fluid through the orifice based on the measured fluid velocity and cross-sectional area.

| Keywords                                   | 11201909981U in Search Results?  |
|--|--|
| Abstract (single text box): velocity sound | Yes, because they are only 5 words apart.  |
| Abstract (single text box): sound velocity | No, because "velocity" comes before "sound" in the abstract. Swapping<br>two keywords consumes 2 word counts in the proximity logic, and the<br>system interprets this as 7 words apart. |



#### Stemming Search – How it works

When the stemming option is toggled on, the system reduces the keywords to their base form and retrieves search results that match the exact word, as well as variations of the base word.

| Keywords    | Examples of results   |
|-------------|---|
| electrical  | An <mark>electrical</mark> outlet/socket device (11202007477T)<br>controlling an <mark>electric</mark> aircraft (10201406643Y)<br>providing <mark>electricity</mark> ; a light (10201603267X)<br>The <mark>electrically</mark> -conductive layer (11202253116X) |
| cancer cell | nonpermissive cancer cell to a permissive (11202202105T)<br>viability of cancer cells including (11201805341R)<br>number of cancerous cell lines (2010057438)<br>pre-cancerous cellular growth abnormality, and cells (2000021568)                              |



### Accented, Symbols, Superscript and Subscript Characters

Patents Abstract Search supports the following:

- Greek characters such as  $\alpha$ ,  $\beta$ ,  $\gamma$  and  $\theta$ .  $\alpha$  is mapped to alpha,  $\beta$  to beta,  $\gamma$  to gamma and  $\theta$  to theta.
- Subscript and superscript numbers 0 to 9.
- Symbols + = ( ).

12

- Subscript alphabets: a, e, h, i, j, k, l, m, n, o, p, r, s, t, u, v and x.
- Superscript alphabets: a to z.
- Accented characters such as é, ü, and ñ. é is mapped to e, ü to u, and ñ to n.

| Keywords                  | Examples of results   |
|---------------------------|---|
| αβcell<br>alpha beta cell | for the <mark>alpha beta</mark> T <mark>cell</mark> receptor (11201603193P)<br>binding to an α/β T cell receptor (11202308045S)<br>isolated <mark>alpha</mark> and <mark>beta</mark> chains of a T- <mark>cell</mark> receptor (10202301479T)(5 words apart)  |
| R <sup>1</sup> a<br>R1A   | ring A, ring B, R1a, R1b, R2, R3, (10202007787R)<br>wherein R <sup>1</sup> , R <sup>1a</sup> , R <sup>2</sup> , R <sup>3</sup> and R <sup>5</sup> are defined (11202307265S)<br>wherein R <sub>1a</sub> , R <sub>1</sub> b, R <sub>1</sub> c, R <sub>1</sub> d (11201704686U)<br>and R <sup>1</sup> a is a single bond when(2000064881) |
| Café<br>cafe              | authentic flavor of <mark>cafe</mark> latte (11202114294S)<br>theater, a café/a coffee shop (11201506503Y)  |



OFFICIAL (OPEN) / NON-SENSITIVE