



# Technical Search Report

Patent examiner: Åsa Fohlin

Our ref: 178116

Date of search:

Your ref: Case Study

Your guide through the patents of the world.

**PRV** InterPat  
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## Technical Search

For the commission a technical search in agreement with Your request has been made by one or more of PRV's (Swedish Patent and Registration Office) patent examiners. The search has been performed in a selection of relevant international databases (listed below).

The report contains categorized references to the most relevant patent publications and/or non-patent literature (NPL) documents found in the search, together with comments. Cited patents are attached, but due to the Copy Right law the NPL documents, if any, will only be presented with bibliographic data in the electronic report.

Please note that PRV does not give any opinion on patentability, validity or infringement in this type of search report.

We can help you to identify the current status of patents and patent applications in most countries. The search clarifies if a patent is valid or not in what geographical area.

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## Scope of the search

The search has focused on the following:

The search has been directed towards finding a ball-point pen with the following technical characteristics:

- 1) The pen has a lamp arranged on it, in order to enable writing in the dark.
- 2) The lamp is a light emitting diode (LED).
- 3) The inventor is based in Asia.

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## Search history

Used keywords and classes:

IPC classes:

- \* B43K7/00 - ball-point pens
- \* B43K5/00 - pens with ink reservoirs in holders
- \* B43K29/10 - combinations of writing implements with illuminating devices

USPC classes:

- \* 362/118 - ILLUMINATION; Pen or pencil

Search words (truncations are not included, for the sake of clarity):

- \* ball-point pen
- \* light, lighting, lamp, illumination, illuminating, light emitting diode, LED, diode

During the evaluation of the documents the inventor's location was taken into account.

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## Summary of the result

The patent examiner's comments:

Although no document disclosing a ball-point pen exactly corresponding to that in your description has been found, the search revealed a number of documents which are considered to be of particular relevance, and which are hence labeled "1". These documents disclose ball point pens including the technical characteristics listed under "Scope of the search".

A more detailed search in the databases used (see below), and possibly others (e.g. full text databases), would be needed for an exhaustive coverage of the technical field as such.

If there are any questions regarding the result, please do not hesitate to contact the examiner.

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## The following databases have been used:

### Patent databases

EPODOC

World Patent Index

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## Result

The following documents are considered to be relevant. They are categorized according to the codes:

1 = Document of particular interest

2 = Document defining general state of the art

3 = Document referred to for other reasons

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## Patent Literature

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Aspect	Patent number	Applicant	Class	Relevance
new_ball-point pen	<a href="#">US2006285317</a>	INT WRITING IN	B43K	1
new_ball-point pen	<a href="#">US6129473</a>	HSU M SHU M	B43K	1
new_ball-point pen	<a href="#">US2007223214</a>	YEN M	F21V	2
new_ball-point pen	<a href="#">US6283662</a>	SAKURA COLOR P	B05C	3

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## Patent Literature

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Aspect	Relevance	Patent number	Class
new_ball-point pen	1	<a href="#">US2006285317</a>	B43K29/10; F21V33/00

### Applicant

INT WRITING INSTR CORP LIN T

### Title

Pen with light source for performing decorative functions, has lighting device with end pins electrically connected and disconnected by pressing on press-on turning device and switching on and off LED

### Comments

A telescopic tool pen with an illumination device (a light emitting diode, LED) (claim 1). Not mentioning a ball-point, but it can be assumed from the figures, (figure 1).

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Aspect	Relevance	Patent number	Class
new_ball-point pen	1	<a href="#">US6129473</a>	B43K29/10

### Applicant

HSU M SHU M

### Title

Pen for children, has illuminating modules which generate light that travels from protective seat top end to movable seat bottom end such that light from bottom end is refracted by inner wall of case

### Comments

An illuminated writing instrument, illuminated by an ultraviolet light emitting diode (claim 1). The writing instrument is preferably a ball-point pen (paragraph [0012] and figure 1).

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<b>Aspect</b>	<b>Relevance</b>	<b>Patent number</b>	<b>Class</b>
new_ball-point pen	2	<a href="#">US2007223214</a>	F21V33/00

**Applicant**

YEN M

**Title**

Telescopic tool pen for writing purpose, has lamp holder installed on mounting seat of telescopic pipe, and light emitting diode with two electrodes installed on holder, where light emitting diode illuminates location of accessory

**Comments**

An illuminating ball-point pen (claim 1). Not mentioning the use of light emitting diodes (LED).

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<b>Aspect</b>	<b>Relevance</b>	<b>Patent number</b>	<b>Class</b>
new_ball-point pen	3	<a href="#">US6283662</a>	B05C17/00; B43K1/08; B43K5/18 (+4)

**Applicant**

SAKURA COLOR PROD CORP SAKURA KUREPASU KK

**Title**

Ink applicator having ink back-flow prevention mechanism

**Comments**

An illuminating writing instrument (claim 1). The writing instrument may be a ball-point pen (refer to column 4, lines 7-9). Not mentioning the use of light emitting diodes (LED).

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## **Non-Patent Literature (NPL)**

The NPL documentation is protected by Copyright law. In the electronic report it is presented with bibliographic data only. Printed abstracts and references will be sent by postage.

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