

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CN2016/105993

## A. CLASSIFICATION OF SUBJECT MATTER

F42D 1/045 (2006.01) i

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

F42D, F42B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CNPAT, CNKI, EPODOC, WPI: 电子雷管, 起爆, 电容, 线圈, 三极管, 振荡电路, 滑动变阻器, 氛灯, 继电器, 开关, electronic, detonator, exploder, capacitor, coil, discharge, switch, oscillating, slide

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CN 2178346 Y (YU, Jingmo), 28 September 1994 (28.09.1994), description, page 1, line 13 to page 2, line 16, and figure 1	1-5
X	CN 204007347 U (ANSTEEL GROUP MINING CO., LTD.), 10 December 2014 (10.12.2014), description, paragraphs [0012]-[0015], and figure 1	1-5
X	CN 203928913 U (FANG, Yong), 05 November 2014 (05.11.2014), description, paragraphs [0017]-[0024], and figures 1-2	1-5
X	CN 101806562 A (CENTRAL SOUTH UNIVERSITY), 18 August 2010 (18.08.2010), description, paragraphs [0025]-[0040], and figures 1-6	1-5
A	US 5198612 A (TRACOR AEROSPACE INC.), 30 March 1993 (30.03.1993), entire document	1-5

Further documents are listed in the continuation of Box C.

See patent family annex.

<p>* Special categories of cited documents:</p> <p>“A” document defining the general state of the art which is not considered to be of particular relevance</p> <p>“E” earlier application or patent but published on or after the international filing date</p> <p>“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>“O” document referring to an oral disclosure, use, exhibition or other means</p> <p>“P” document published prior to the international filing date but later than the priority date claimed</p>	<p>“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>“&amp;” document member of the same patent family</p>
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Date of the actual completion of the international search 01 August 2017	Date of mailing of the international search report 18 August 2017
Name and mailing address of the ISA State Intellectual Property Office of the P. R. China No. 6, Xitucheng Road, Jimenqiao Haidian District, Beijing 100088, China Facsimile No. (86-10) 62019451	Authorized officer  LIU, Yong  Telephone No. (86-10) 010-62413712

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

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Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
CN 2178346 Y	28 September 1994	None	
CN 204007347 U	10 December 2014	None	
CN 203928913 U	05 November 2014	None	
CN 101806562 A	18 August 2010	CN 101806562 B	13 March 2013
US 5198612 A	30 March 1993	None	