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09/331779
ents or copy thereof.

To the Assistant Commissioner for Patents: 1

101129072

1. Name of conveying party(ies): Anton Bretfeld; Harald Frank; Jiang Zhang

Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies):
Name: Dynamit Nobel GmbH Explosivstoff-und Systemtechnik
Internal Address:

Street Address: Kaiserstrasse 1, D-53840 Troisdorf, Germany
City: Country: Zip:

Additional name(s) & address(es) attached? Yes No

3. Nature of conveyance:
 Assignment Merger
 Security Agreement Change of Name
 Other _____
Execution Date: August 2, 1999

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s) US Serial No.
09/331,779, filed June 24, 1999

B. Patent No.(s)

Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:
Name: ANTONELLI, TERRY, STOUT & KRAUS, LLP
Internal Address:

Street Address: 1300 North Seventeenth Street Suite 1800
City: Arlington, State: Virginia Zip: 22209

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41)\$40.00
 Enclosed
 Any deficiencies may be charged to deposit account
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8. Deposit account number: 01-2135

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9. Statement and signature.
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Alan E. Schiavelli _____
Name of Person Signing Signature Date 8-11-99
Attorney Registration No. 32,087

Total number of pages including cover sheet, attachments, and document: 2

OMB No. 0651-0011 (exp. 4/94)

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PATENT
REEL: 010190 FRAME: 0189

ASSIGNMENT

For good and valuable consideration, the sufficiency and receipt of which is hereby acknowledged, as a below named inventor, I hereby sell and assign to Dynamit Nobel GmbH Explosivstoff-und Systemtechnik of Kaiserstrasse 1, D-53840 Troisdorf, Germany its successors and assigns or other legal representatives all my rights, title and interest, in and for the United States of America, in and to

Ignition Element, In Particular For Pyrotechnic Mixtures

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, Serial No. 09/331,779 filed June 24, 1999, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said Dynamit Nobel GmbH Explosivstoff-und Systemtechnik, its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Dynamit Nobel GmbH Explosivstoff-und Systemtechnik.

- | | (Full Name) | (Signature) |
|---|-------------|-------------|
| 1) Date <u>04-08-02</u> Inventor <u>Anton BRETfeld</u> <u>Anton B-retfeld</u>
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| 2) Date <u>49-08-02</u> Inventor <u>Harald Frank</u> <u>Harald Frank</u>
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| 3) Date <u>99-08-02</u> Inventor <u>Jiang Zhang</u> <u>Jiang Zhang</u>
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| 4) Date _____ Inventor _____
Residence _____ Citizenship _____
Post Office Address _____ | | |
| 5) Date _____ Inventor _____
Residence _____ Citizenship _____
Post Office Address _____ | | |

Witness(es)

- All) _____ 2) [Signature] _____ 4) _____
 1) [Signature] _____ 3) [Signature] _____ 5) _____