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کاربرد کامپوزیت های انرژی زا در ساخت مهمات

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kcal/mol

M42

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(Azide)

alkyl diisocyanate

polyol

3,3,5,7,7- Pentanitro – 5- aza – 1

9-nonane diisocyanate

2- nitraza -1, 4, butane – diisocyanate

2,5- dinitraza – 1,6 – hexane diisocyanate

nitroethyl methacrylate

dinitropropyl acrylate

trinitroethyl acrylate

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azo

UV

acrylates

(GAP)

Glycidyl azide polymer

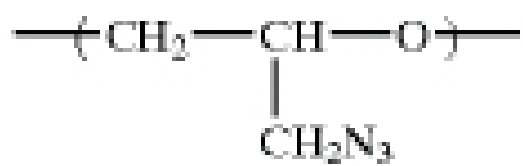
(GAP)

polyacetylenic polyallyls polyvinyl ether

() GAP

polyol

GAP



GAP (

B

A

Wet winding

1,3 dipolar

GAP .

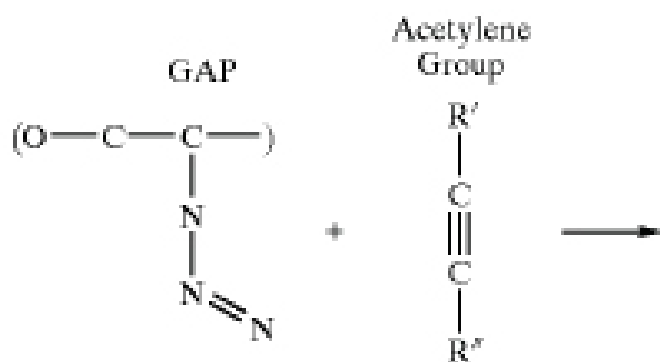
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triazoline

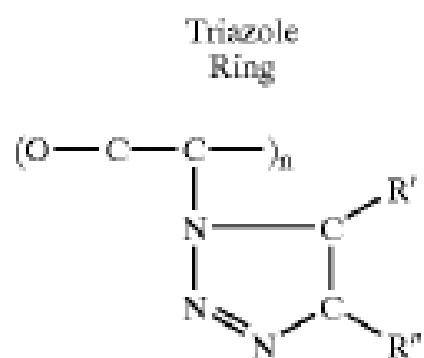
cyclo – addition

GAP

triazoline



Scheme 2



GAP

triazoline

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Triazoline

triazoline

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Schiff's

triazoline

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Schiff's

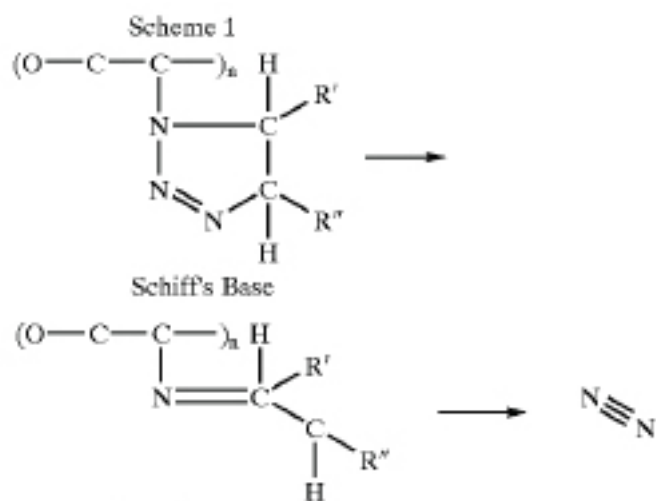
triazole

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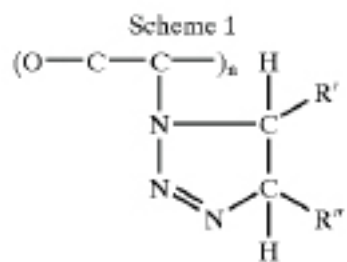
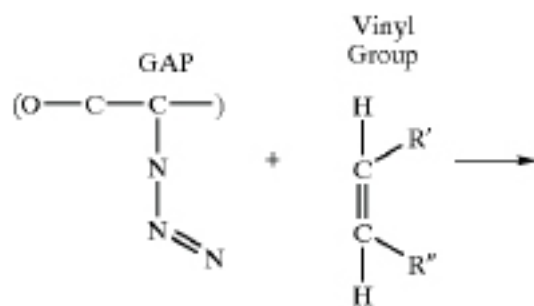
GAP

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triazoline



Schiff's **triazoline** (



GAP **triazoline** (

GAP GAP

: GAP

GAP

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glycidyl azide

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GAP

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azide

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GAP

R_6

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triazole

triazoline

0.5/1.5 0.5/1 GAP

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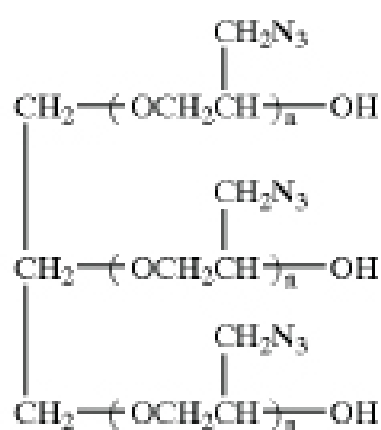
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1. Solid nitramines
2. ammonium perchlorates
3. ammonium nitrates

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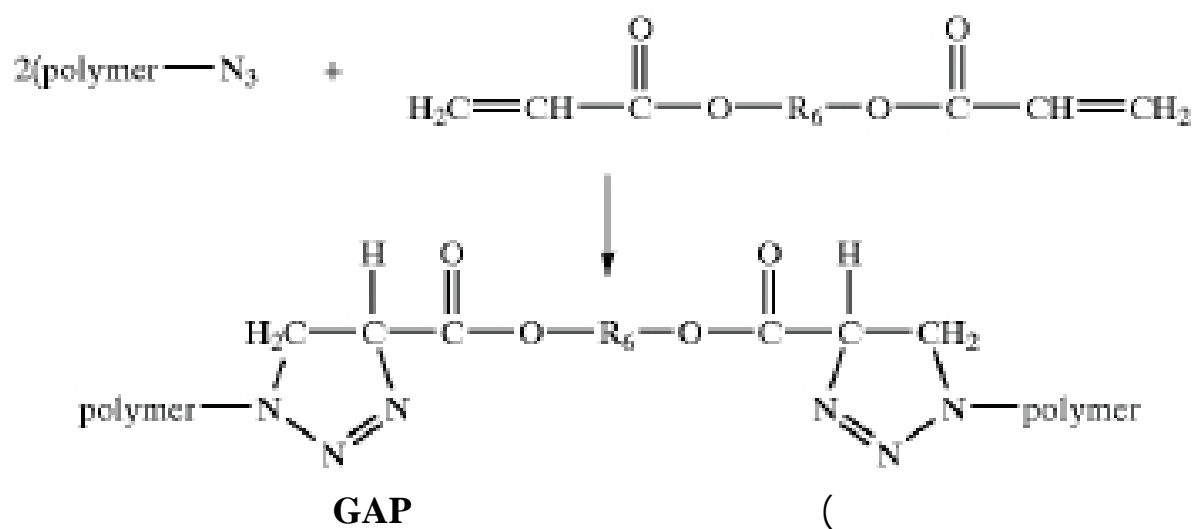
Nitramine

1. trimethylene trinitramine (RDX)
2. tetramethylene tetranitramine (HMX)
3. nitroguanidine (NQ)
4. ammonium dinitramide (AND)
5. pentaerythritol tetranitrate (PETN)



$n=20-45$.

glycidyl azide (



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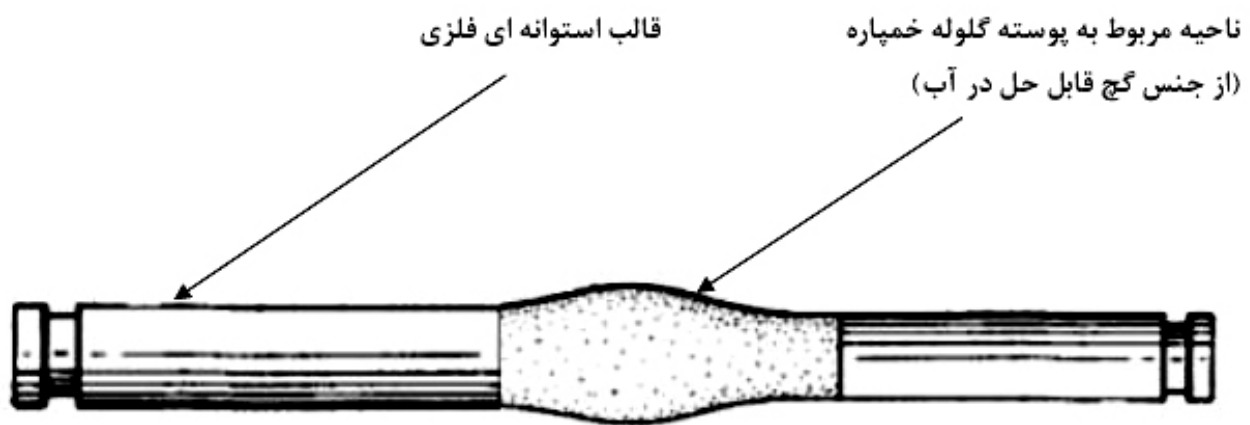
(filament winding)

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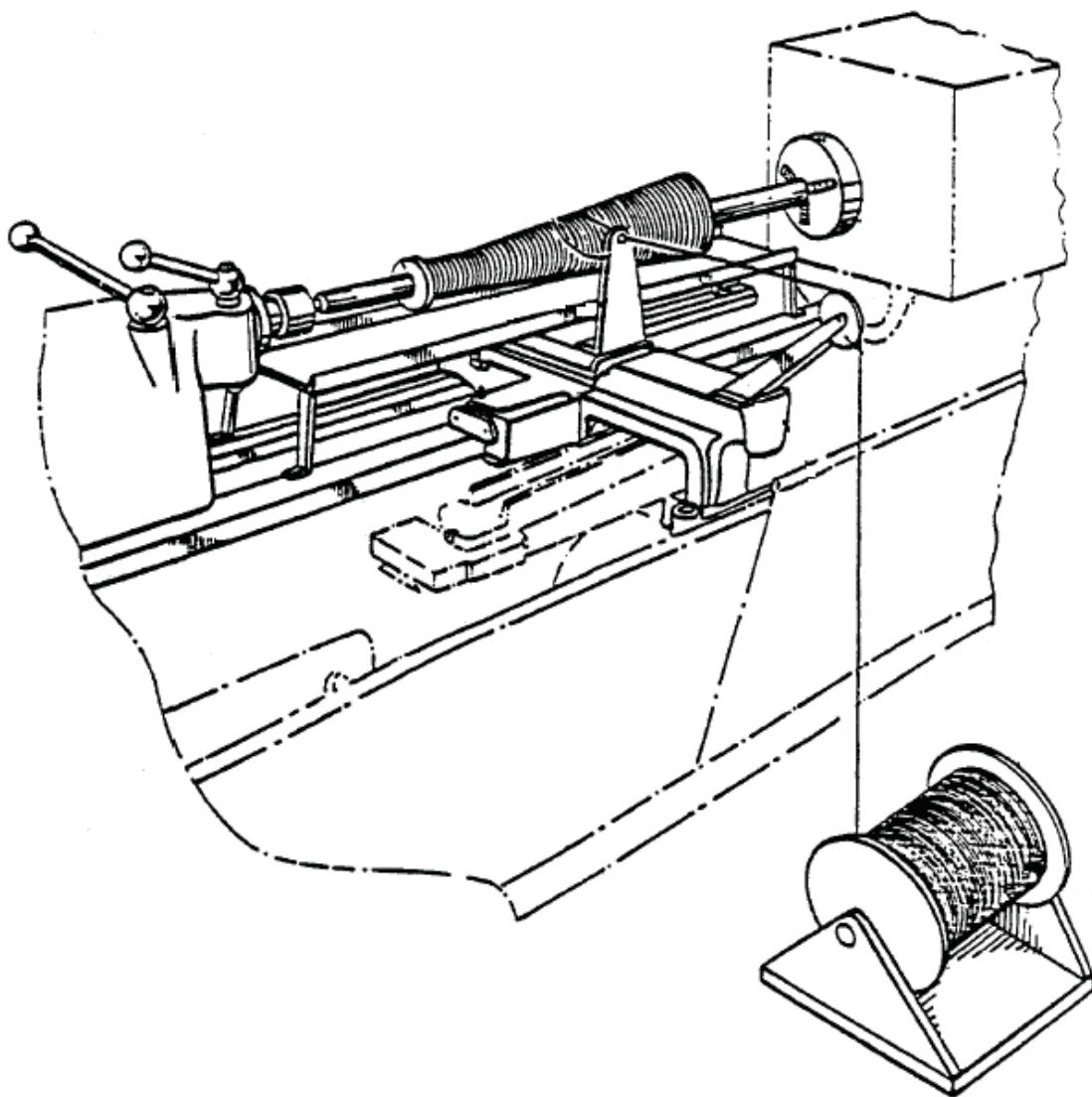


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(filament winding)

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