

Cluster

Synthesis of Energetic Molecules

Editor: Ang Li

Guest editors: Haifeng Huang, Jun Yang

High heats of formation

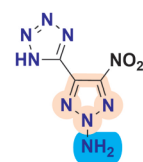


More hydrogen bonds



Introduce

N-NH₂



$\rho = 1.86 \text{ g cm}^{-3}$
 $T_d = 237 \text{ }^\circ\text{C}$
 $D_v = 8931 \text{ m s}^{-1}$
 $P = 32.2 \text{ GPa}$

Higher density
Higher decomposition temperature
Higher detonation performance

Introduction of an *N*-Amino Group onto 4-(Tetrazol-5-yl)-5-nitro-1,2,3-triazole: A Strategy for Enhancing the Density and Performance of Energetic Materials

X. Huang, P. Zhao, H. Huang, J. Yang

Synlett

Synlett 2024, 35, 1937–1946
DOI: 10.1055/s-0043-1763755

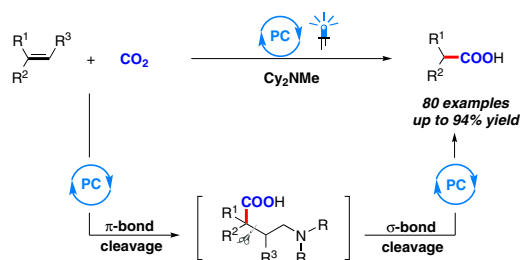
P.-F. Yuan
Q.-Y. Meng*

Institute of Chemistry, Chinese
Academy of Sciences, Beijing
and University of Chinese Academy
of Sciences, Beijing,
P. R. of China

Carboxylation of Alkenes with CO₂ via Photocatalytic Cleavage of C=C Double Bonds

Synfacts

1937



Synlett

Synlett 2024, 35, 1947–1953
DOI: 10.1055/a-2214-7484

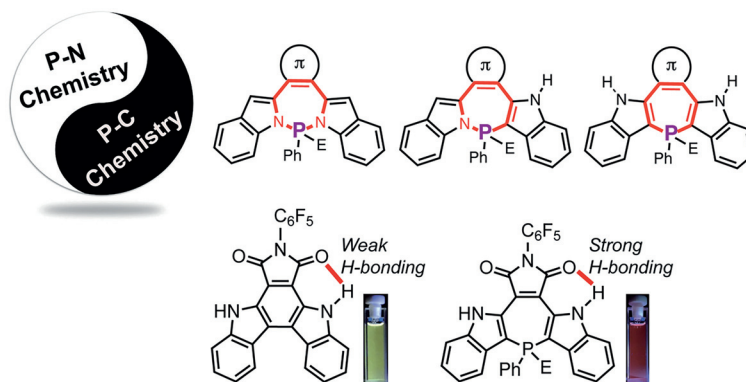
Z. Liu
Y. Ren*

ShanghaiTech University, P. R. of
China

Design of Indole-Functionalized Phosphepines towards New Organic Chromophores

Synfacts

1947



Synlett

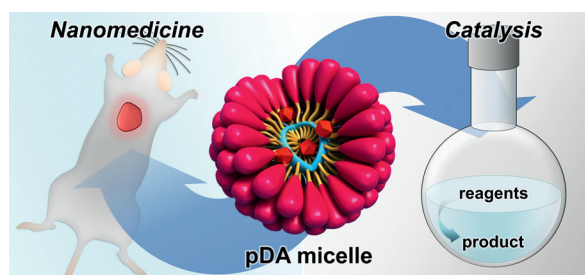
Polydiacetylene Micelles in Nanomedicine and Beyond

Account

Synlett 2024, 35, 1954–1964
DOI: 10.1055/a-2242-0479E. Gravel*
C. Demeese
E. Doris*

Université Paris-Saclay, France

1954



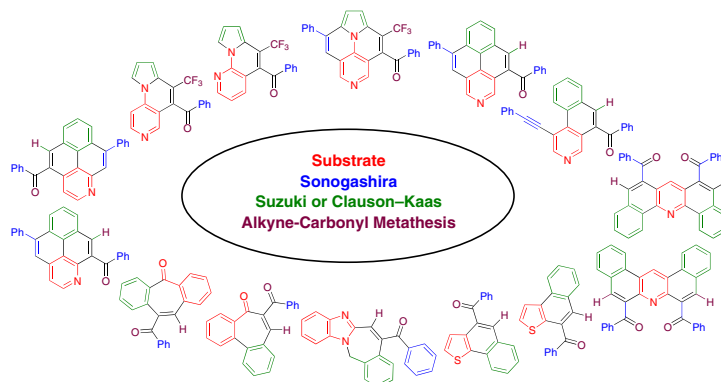
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Synthesis of Heterocycles by a C–C Cross-Coupling/Alkyne-Carbonyl-Metathesis Strategy

Account

Synlett 2024, 35, 1965–1975
DOI: 10.1055/s-0042-1751513P. Langer*
Universität Rostock, Germany

1965



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Cluster Preface: Synthesis of Energetic Molecules

Cluster

Synlett 2024, 35, 1976–1977
DOI: 10.1055/s-0042-1752720H. Huang*
J. Yang*Shanghai Institute of Organic
Chemistry, Chinese Academy of
Sciences, China

1976

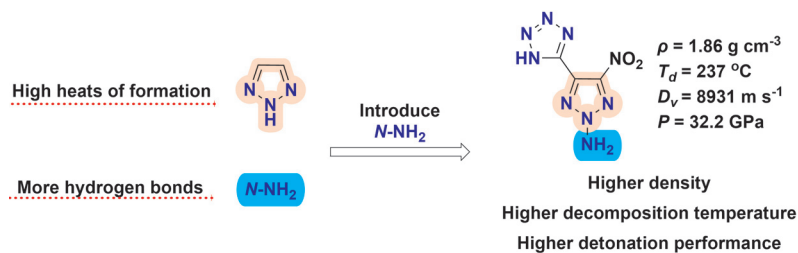


Synlett

Synlett 2024, 35, 1978–1984
DOI: 10.1055/a-2298-0282X. Huang
P. Zhao
H. Huang*
J. Yang*Shanghai Institute of Organic
Chemistry, P. R. of ChinaIntroduction of an *N*-Amino Group onto 4-(Tetrazol-5-yl)-5-nitro-1,2,3-triazole: A Strategy for Enhancing the Density and Performance of Energetic Materials

Letter

1978



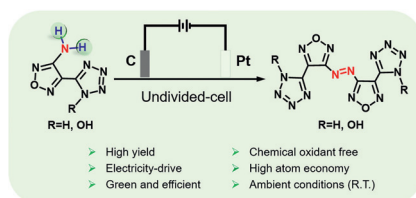
Synlett

Synlett 2024, 35, 1985–1988
DOI: 10.1055/a-2283-5829J. Zhang
Y. Song
W. Hao
R. Peng*
B. Jin*Southwest University of Science
and Technology, P. R. of China

Electrochemical Efficient Synthesis of Two Azo Energetic Compounds

Letter

1985



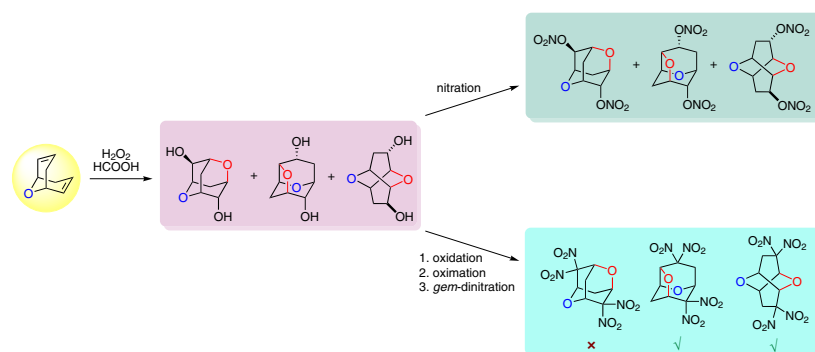
Synlett

Synlett 2024, 35, 1989–1996
DOI: 10.1055/a-2333-8774H. Li
Q. Zhou
J. Zhao
T. Hou
G. Wang
L. Zhu
B. Li
Y. Zhang*
J. Luo*Nanjing University of Science
and Technology, P. R. of China

Construction of Three Novel Oxygen-Containing Cagelike Frameworks and Synthesis of their Energetic Derivatives

Letter

1989

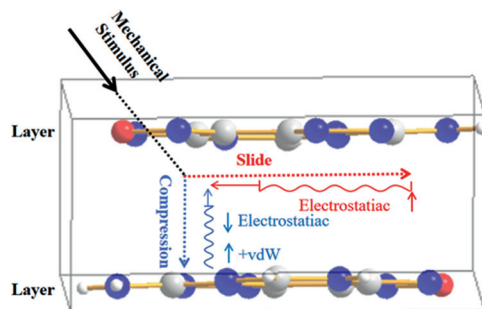


Synlett

Synlett 2024, 35, 1997–2002
DOI: 10.1055/s-0043-1775365S. Liu
Y. Qi
P.-c. Zhang*
Q. Lin*Nanjing University of Science
and Technology, P. R. of China
Academy of Military Sciences,
P. R. of ChinaA π -Stacked Highly Stable, Insensitive, Energy-Containing Material
with a Useful Planar Structure

Letter

1997



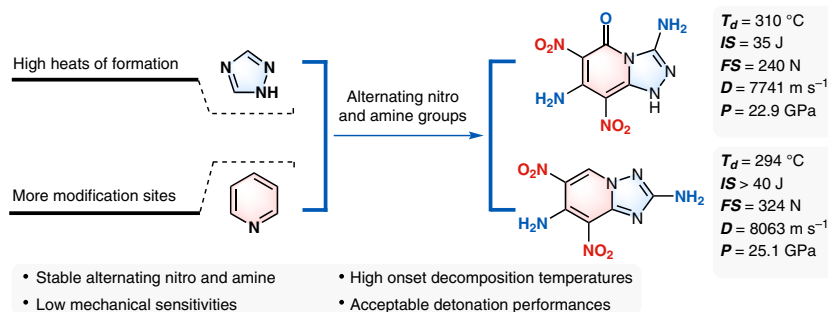
Synlett

Synlett 2024, 35, 2003–2009
DOI: 10.1055/s-0043-1763570Y. Ran
H. Xia
S. Song
K. Wang
Q. Zhang*Northwestern Polytechnical
University, Xi'an, P. R. of China

Thermostable Insensitive Energetic Materials Based on a Triazolopyridine Fused Framework with Alternating Nitro and Amine Groups

Letter

2003



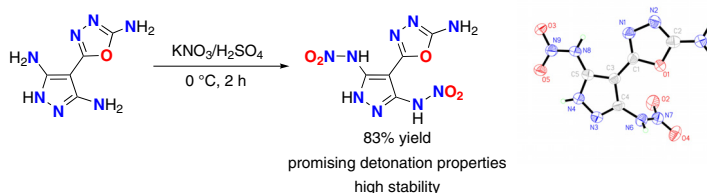
Synlett

Synlett 2024, 35, 2010–2014
DOI: 10.1055/a-2181-0453Z. Zeng
Z. Zhao
Z. Yin
M. Tang
Y. Liu
W. Huang
Y. Tang*Nanjing University of Science
and Technology, P. R. of China

Assembling Nitroamino and Amino Groups on a Pyrazolyl-1,3,4-Oxadiazole Framework for the Construction of High-Performance and Insensitive Energetic Materials

Letter

2010

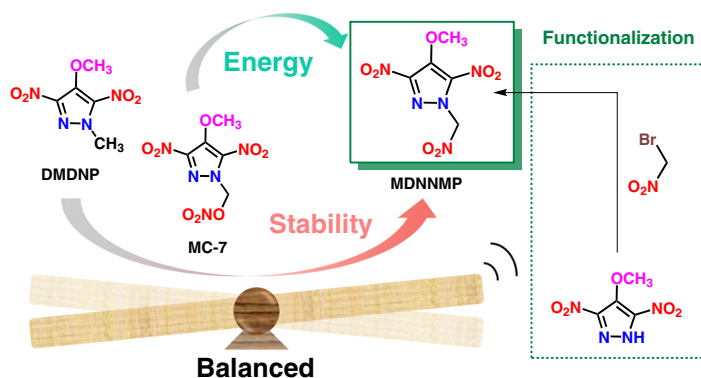


Synlett

Synlett 2024, 35, 2015–2021
DOI: 10.1055/a-2256-2800F. Chen
S. Song
Q. Zhang*
Y. Wang*China Academy of Engineering
Physics, P. R. of ChinaModification of an *N*-Methyl Group toward a New Energetic Melt-Castable Material with a Good Energy-Stability Balance

Letter

2015

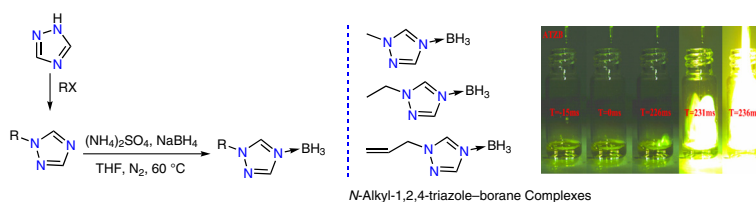


Synlett

Synlett 2024, 35, 2022–2026
DOI: 10.1055/a-2310-0707H. Jia
W. Ma
J. Chang
C. He*Beijing Institute of Technology,
P. R. of China*N*-Alkyl-1,2,4-triazole–Borane Complexes as High-Density Hypergolic Materials

Letter

2022

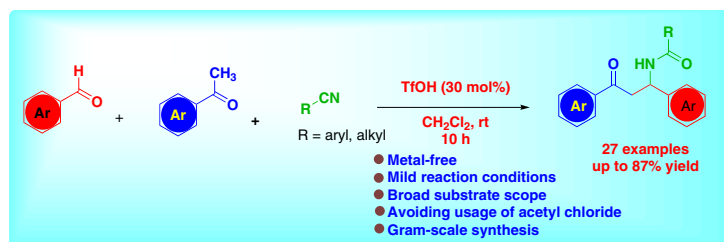
*N*-Alkyl-1,2,4-triazole–borane Complexes

Synlett

Synlett 2024, 35, 2027–2031
DOI: 10.1055/s-0042-1751579S. D. Kharat
P. B. Rupnarav
K. S. Pakhare
A. A. Khan
B. D. Rupanawar*
M. P. Shinde*Department of Chemistry, &
Central Research Laboratory ASC
College, India
Okinawa Institute of Science and
Technology Graduate University,
JapanTfOH-Catalyzed Facile Access for One-Pot Synthesis of β -Acylamino Ketones by Avoiding the Usage of Acetyl Chloride

Letter

2027



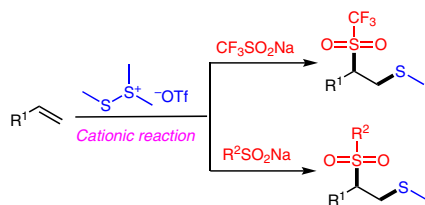
S. Shen
J. Gao
X. Luo
T. Wang
P. Liu
R. Yan*

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The Difunctionalization of Alkenes Completed by DMTSM and $\text{CF}_3\text{SO}_2\text{Na}$ without Metal Catalysts

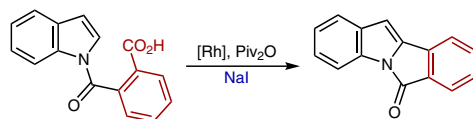
Letter

2032

H. Suzuki*
Y. Takemura
T. Matsuda*University of Fukui, Japan
Tokyo University of Science, JapanRhodium-Catalyzed Decarbonylative Intramolecular Arylation of 2-(1*H*-Indole-1-carbonyl)benzoic Acids

Letter

2037

Na*: suppression of the acylated byproduct formation
I: acceleration of C–H bond activation stepS. Wu
L. Micouin
E. Benedetti*

Université Paris Cité, France

Synthesis of Three-Dimensional Benzophenone Analogues Based on a [2.2]Paracyclophane Scaffold

Letter

2042

