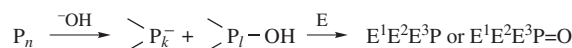


Mendeleev Communications

CONTENTS

FOCUS ARTICLE

- 295 **Elemental phosphorus in strongly basic media as phosphorylating reagent: a dawn of halogen-free ‘green’ organophosphorus chemistry**

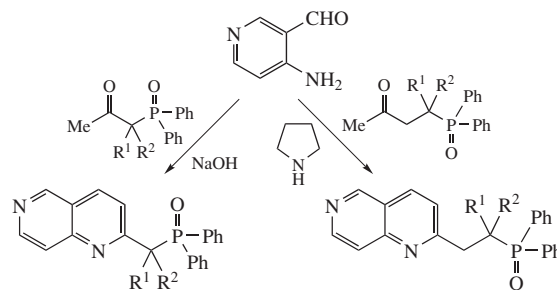


E = H⁺, alkenes, acetylenes, organic halides, oxiranes
 E¹, E², E³ = H, residue of electrophile

Boris A. Trofimov, Nina K. Gusarova

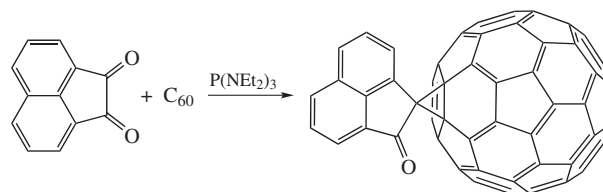
COMMUNICATIONS

- 303 **Friedländer reaction in the synthesis of 2-(phosphoryl)alkyl-substituted 1,6-naphthyridines**



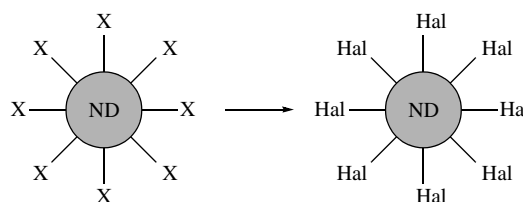
Pavel S. Lempert, Georgy V. Bodrin,
 Andrey I. Belyakov, Pavel V. Petrovskii,
 Anna V. Vologzhanina, Edward E. Nifant'ev

- 306 **Fullerene C₆₀ as an effective trap of acenaphthenone carbene generated in the reaction of acenaphthene-quinone with hexaethyltriaminophosphine**



Irina P. Romanova, Andrei V. Bogdanov,
 Vladimir F. Mironov, Olga A. Larionova,
 Shamil K. Latypov, Alsu A. Balandina,
 Dmitry G. Yakhvarov, Oleg G. Sinyashin

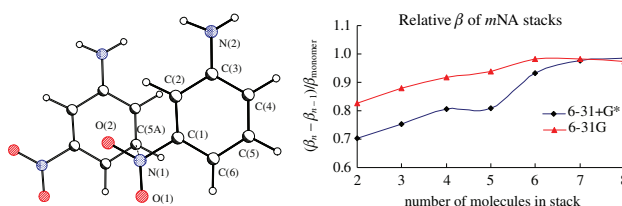
- 309 **Halogenation of detonation-synthesised nanodiamond surfaces**



ND = nanodiamond
 Hal = Cl, F

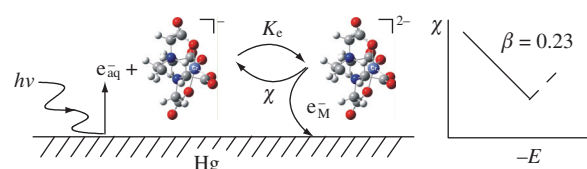
Georgii V. Lisichkin, Inna I. Kulakova,
 Yurii A. Gerasimov, Alexey V. Karpukhin,
 Ruslan Yu. Yakovlev

- 311 **Computational search for nonlinear optical materials: are polarization functions important in the hyperpolarizability predictions of molecules and aggregates?**



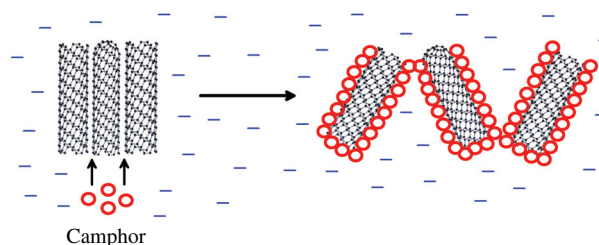
Kyrill Yu. Suponitsky, Artem E. Masunov,
 Mikhail Yu. Antipin

314 **Reliable rate constant determination for heterogeneous electron transfer: CrEDTA-**



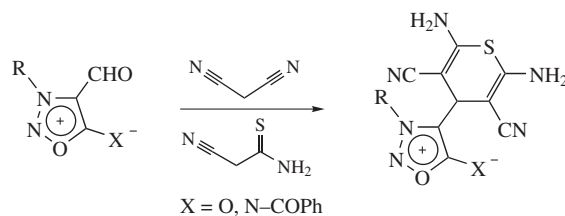
Alexander S. Kotkin, Alexander G. Krivenko,
Galina N. Botukhova, Galina A. Tsirlina

317 **Effect of organic adsorbates on the electrochemical behaviour of carbon nanostructures**



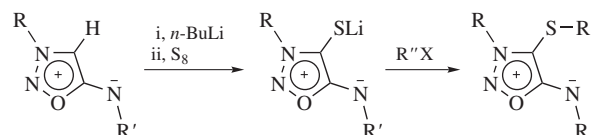
Alexander G. Krivenko, Natal'ya S. Komarova,
Elena V. Stenina, Liana N. Sviridova

320 **4*H*-Thiopyrans bearing a mesoionic ring**



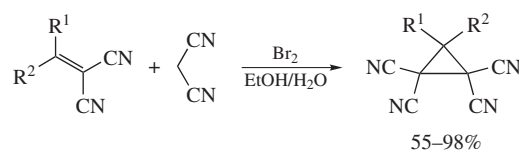
Ilya A. Cherepanov, Evgeny D. Savin,
Natal'ya G. Frolova, Maria O. Shishkova,
Ivan A. Godovikov, Kyrill Yu. Suponitsky,
Konstantin A. Lyssenko, Valery N. Kalinin

322 **4-Thio derivatives of sydnone imines**



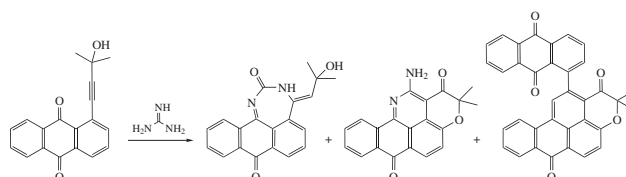
Ilya A. Cherepanov, Sergey N. Lebedev,
Alina S. Samarskaya, Ivan A. Godovikov,
Yulia V. Nelyubina, Valery N. Kalinin

324 **One-pot cascade assembling of 3-substituted tetracyanocyclopropanes from alkylidenemalononitriles and malononitrile by the only bromine direct action**



Anatolii N. Vereshchagin, Michail N. Elinson,
Nikita O. Stepanov, Gennady I. Nikishin

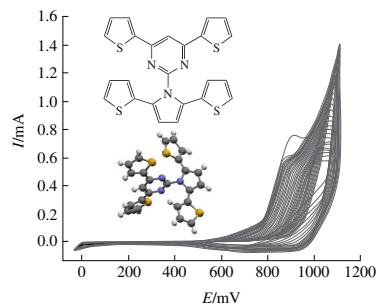
326 **Multichannel reaction of 1-(3'-hydroxy-3'-methylbutynyl)-9,10-anthraquinone with guanidine**



Denis S. Baranov, Sergei F. Vasilevsky,
Victor I. Mamatyuk, Yurii V. Gatilov

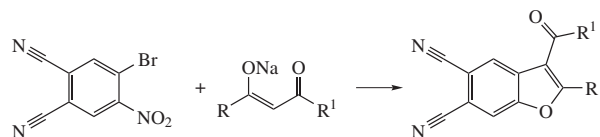
329 **New pyrimidines incorporating thiophene and pyrrole moieties: synthesis and electrochemical polymerization**

Anastasiya Yu. Bushueva, Elena V. Shklyayeva,
Georgii G. Abashev



332 **Synthesis of 5,6-dicyanobenzofurans based on 4-bromo-5-nitrophthalonitrile**

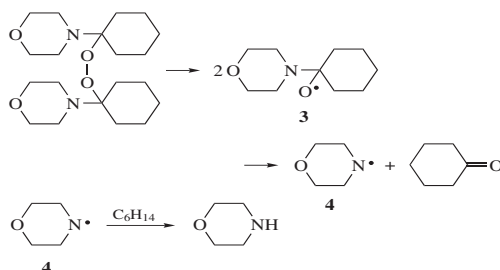
Sergei I. Filimonov, Zhanna V. Chirkova,
Igor G. Abramov, Alexander S. Shashkov,
Sergey I. Firgang, Galina A. Stashina



R = Me, Ph
R¹ = Me, OEt, 4-MeOC₆H₄, 4-MeC₆H₄, 2-thienyl

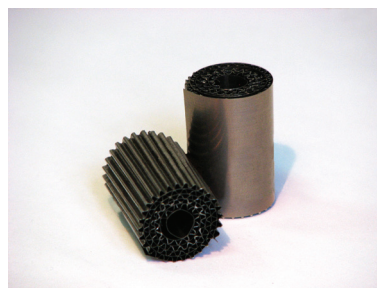
334 **Synthesis, structure and thermal decomposition of cycloalkanone enamine peroxides**

Evgenii K. Starostin, Victor N. Khrustalev,
Mikhail Yu. Antipin, Andrei V. Lalov



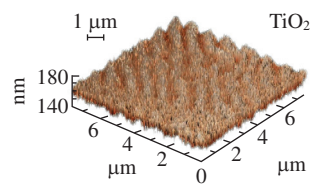
337 **Comparison of activities of bulk and monolith Mn-Na₂WO₄/SiO₂ catalysts in oxidative coupling of methane**

Alexander A. Greish, Lev M. Glukhov,
Elena D. Finashina, Leonid M. Kustov,
Jae-Suk Sung, Ko-Yeon Choo, Tae-Hwan Kim



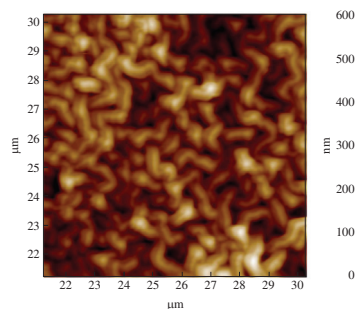
340 **Sol-gel synthesis of titanium dioxide-based films possessing highly ordered channel structures**

Alexander V. Vinogradov, Alexander V. Agafonov,
Vladimir V. Vinogradov



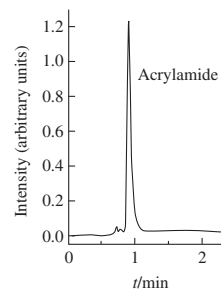
342 **Relaxation of supramolecular structures in polydimethylsiloxane films**

Vladimir S. Solovjev, Boris O. Volodkin,
Alexey V. Volkov, Nikolai L. Kazansky



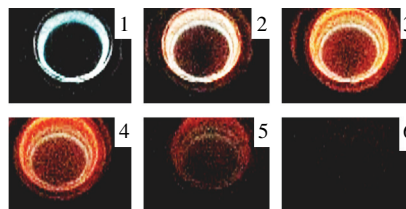
344 **Solid phase extraction–ultra performance liquid chromatography for the determination of acrylamide in mainstream cigarette smoke**

Shan-ling Xie, Kai Wang, Rui-zhi Zhu,
Xiong-wei Zhu, Wan-zhi Wei



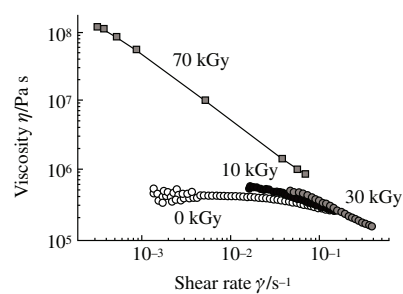
346 **Investigation into self-ignition in chain oxidation of hydrogen, natural gas and isobutene by means of high-speed colour cinematography**

Nikolai M. Rubtsov, Boris S. Seplyarskii,
Victor I. Chernysh, Georgii I. Tsvetkov



350 **Radiation-induced gel formation in a siloxane block copolymer in the presence of octamethylcyclotetrasiloxane**

Lidiya N. Pankratova, Igor Yu. Shchapin,
Elizaveta V. Saenko, Nikolai A. Tikhonov,
Valentin V. Makhlyarchuk, Boris G. Zavin,
Lidiya I. Kuteinikova



352 **Annual Author Index**