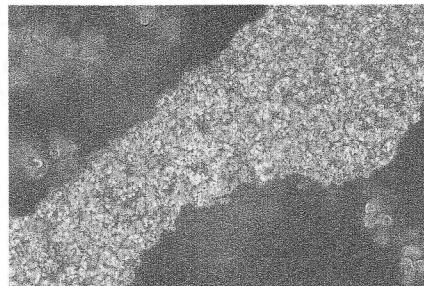


Mendeleev Communications

CONTENTS

FOCUS ARTICLE

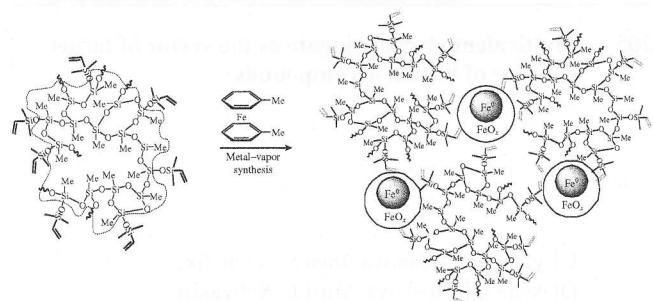
- 177 Nanostructured silver materials for noninvasive medical diagnostics by surface-enhanced Raman spectroscopy



Anna A. Semenova, Alexander P. Semenov,
Elena A. Gudilina, Galina T. Sinyukova,
Nadezhda A. Brazhe, Georgy V. Maksimov,
Eugene A. Goodilin

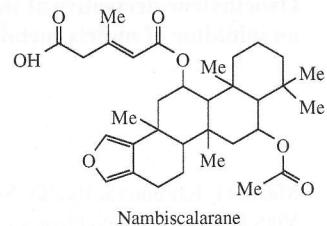
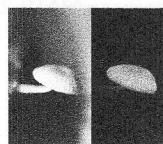
COMMUNICATIONS

- 187 Hybrid materials based on core-shell polyorganosilsesquioxanes modified with iron nanoparticles



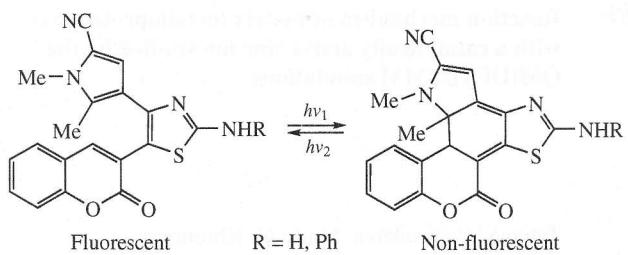
Alexander Yu. Vasil'kov, Dmitry A. Migulin,
Alexander V. Naumkin, Olga A. Belyakova,
Yan V. Zubavichus, Sergey S. Abramchuk,
Yuri V. Maksimov, Sergey V. Novichikhin,
Aziz M. Muzafarov

- 191 Nambiscalarane, a novel sesterterpenoid comprising a furan ring, and other secondary metabolites from bioluminescent fungus *Neonothopanus nambi*



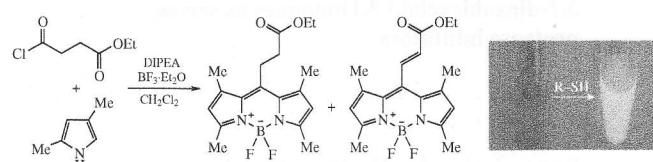
Aleksandra S. Tsarkova, Maxim A. Dubinnyi,
Mikhail S. Baranov, Anastasia D. Ogienko,
Ilia V. Yampolsky

- 193 Photochromic and fluorescent 5-coumarinyl-4-pyrrolithiazoles



Evgenii N. Shepelevko, Yurii V. Revinskii,
Karina S. Tikhomirova, Oganes G. Karamov,
Alexander D. Dubonosov, Vladimir A. Bren,
Vladimir I. Minkin

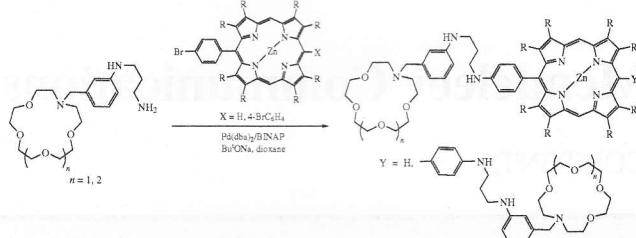
- 196 Synthesis, crystal structure and optical properties of a new meso-acrylate BODIPY dye



Alexey A. Pakhomov, Yuriy N. Kononevich,
Alexander A. Korlyukov, Vladimir I. Martynov,
Aziz M. Muzafarov

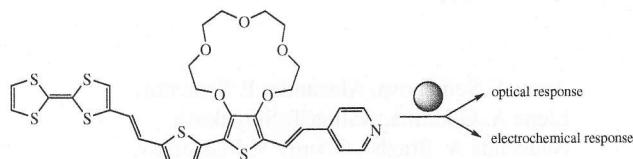
199 Catalytic amination in the synthesis of hybrid polymacrocycles comprising porphyrin and azacrown ether moieties

Alexei A. Yakushev, Alexei D. Averin,
Olga A. Maloshitskaya, Sergei A. Syrbu,
Oskar I. Koifman, Irina P. Beletskaya



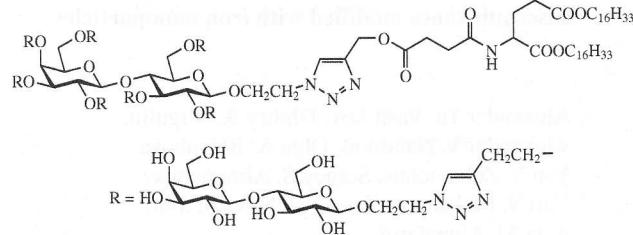
202 Multiparameter molecular sensor based on a compound containing tetrathiafulvalenium, thiophene and pyridine fragments

Elena V. Lukovskaya, Yulia A. Sotnikova,
Alla A. Bobyleva, Alexander V. Anisimov,
Yuri V. Fedorov, Anna A. Moiseeva,
Alexander V. Dolganov, Olga A. Fedorova



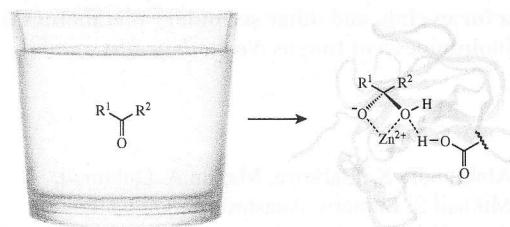
205 Multivalent glycoconjugate as the vector of target delivery of bioactive compounds

Ul'yan A. Budanova, Inga S. Shchelik,
Olesya O. Koloskova, Yuri L. Sebyakin



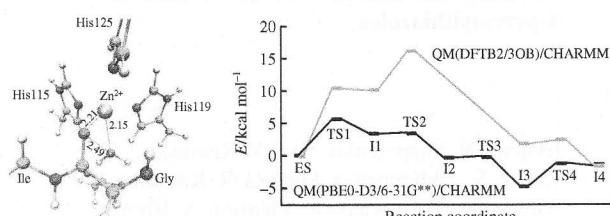
207 Oxoethylene derivative of the natural substrate as an inhibitor of matrix metalloproteinase MMP-2

Maria G. Khrenova, Ilya D. Solovyev,
Viatcheslav N. Azev, Grigory D. Lapshin,
Alexander P. Savitsky



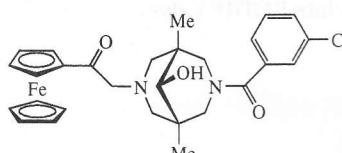
209 Reaction mechanism of matrix metalloproteinases with a catalytically active zinc ion studied by the QM(DFTB)/MM simulations

Tatiana Vasilevskaya, Maria G. Khrenova,
Alexander V. Nemukhin, Walter Thiel

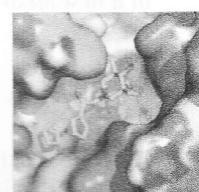


212 Computer modeling of ferrocene-substituted 3,7-diazabicyclo[3.3.1]nonanes as serine protease inhibitors

Sergey Z. Vatsadze, Dmitry A. Shulga,
Yulia D. Loginova, Irina A. Vatsadze, Li Wang,
Haojie Yu, Konstantin V. Kudryavtsev

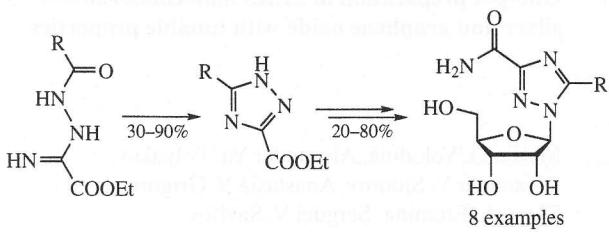


$E_{\text{vina}} = -11.0 \text{ kcal mol}^{-1}$; LE = 0.31
 $K_{\text{vina}} = 10 \text{ nM}$



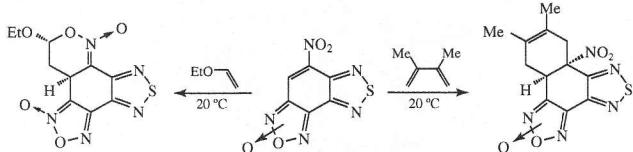
214 Novel 5-alkyl(aryl)-substituted ribavirine analogues: synthesis and antiviral evaluation

Mikhail V. Chudinov, Andrey V. Matveev,
Alexander N. Prutkov, Irina D. Konstantinova,
Ilja V. Fateev, Vladimir S. Prasolov, Olga A. Smirnova,
Alexander V. Ivanov, Georgy A. Galegov,
Petr G. Deryabin



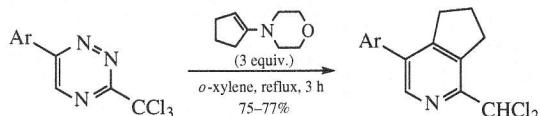
217 Synthesis of novel polycyclic heterosystems based on 5-nitro[1,2,5]thiadiazolo[3,4-e]benzofuroxan

Aleksei M. Starosotnikov, Maxim A. Bastrakov,
Alexander A. Pavlov, Ivan V. Fedyanin,
Igor L. Dalinger, Svyatoslav A. Shevelev



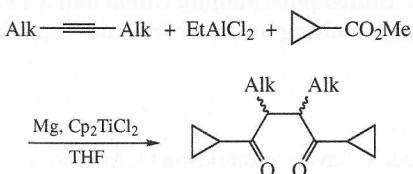
220 Convenient synthesis of α -dichloromethylpyridines from 3-trichloromethyl-1,2,4-triazines

Nikolay V. Chepchugov, Dmitry S. Kopchuk,
Igor S. Kovalev, Grigory V. Zyryanov,
Vladimir L. Rusinov, Oleg N. Chupakhin



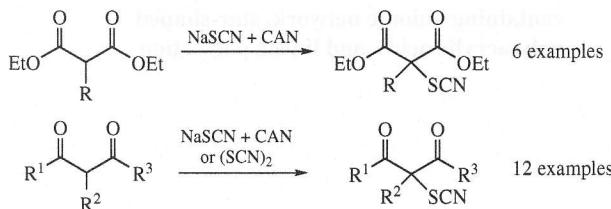
223 Effective one-pot synthesis of 2,3-dialkyl-1,4-dicyclopropylbutane-1,4-diones catalyzed by Cp₂TiCl₂

Leila O. Khafizova, Mariya G. Shaibakova,
Nuri M. Chobanov, Tat'yana V. Tyumkina,
Rinat R. Gubaiddullin, Natal'ya R. Popod'ko,
Usein M. Dzhemilev

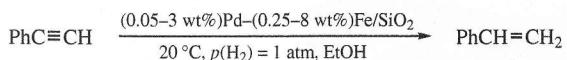


226 Difference in α -thiocyanation of malonates, β -oxo esters and β -diketones with sodium thiocyanate and cerium(IV) ammonium nitrate

Alexander O. Terent'ev, Mikhail Yu. Sharipov,
Alexey P. Glinuskin, Igor B. Krylov,
Darya V. Gaidarenko, Gennady I. Nikishin

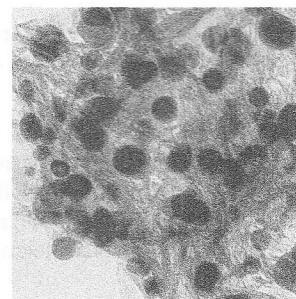


228 Liquid-phase hydrogenation of phenylacetylene to styrene on silica-supported Pd–Fe nanoparticles



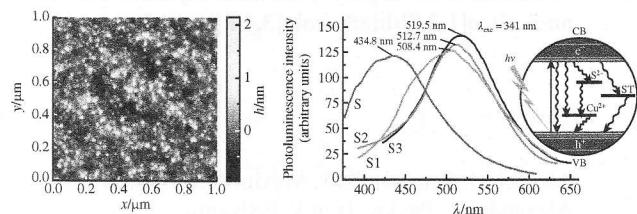
Anastasiya A. Shesterkina, Olga A. Kirichenko,
Ludmila M. Kozlova, Gennady I. Kapustin,
Igor V. Mishin, Anna A. Strelkova, Leonid M. Kustov

231 One-pot preparation of SERS nanocomposites of silver and graphene oxide with tunable properties



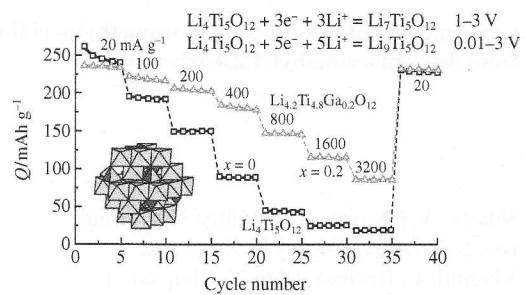
Mariia O. Volodina, Alexander Yu. Polyakov, Alexander V. Sidorov, Anastasia V. Grigorieva, Elena A. Eremina, Serguei V. Savilov, Eugene A. Goodilin

235 CuS nanoparticles synthesized by a facile chemical route under different pH conditions



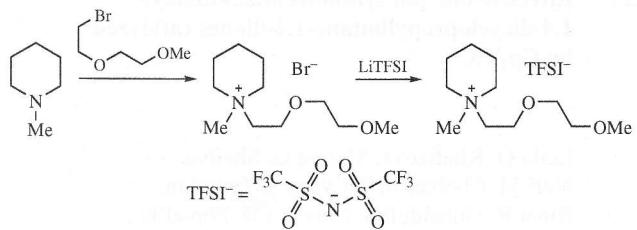
Zamin Q. Mamiyev, Narmina O. Balayeva

238 New high-capacity anode materials based on gallium-doped lithium titanate



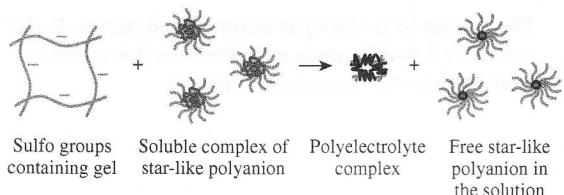
Tatiana L. Kulova, Yulia M. Kreshchenova, Anna A. Kuz'mina, Alexander M. Skundin, Irina A. Stenina, Andrey B. Yaroslavtsev

240 Stability of a high-voltage ionic liquid with a substituted piperidinium cation and a TFSI⁻ anion, promising for electrochemical applications

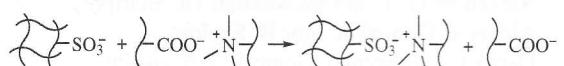


Serguei V. Savilov, Anastasiia O. Artemova, Anton S. Ivanov, Zexiang Shen, Sergei M. Aldoshin, Valery V. Lunin

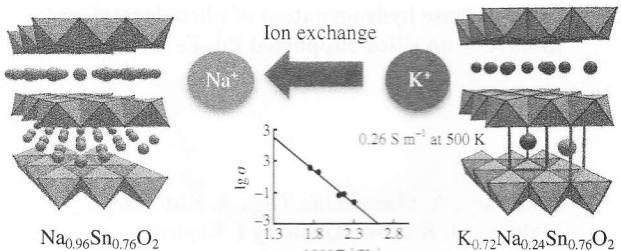
243 Substitution reaction in the ternary system containing anionic network, star-shaped poly(acrylic acid), and linear polycation



Tatiana V. Panova, Alexander B. Zelin

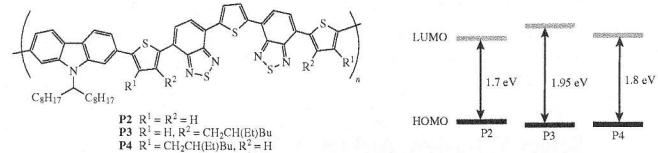


246 Ion exchange conversion of solid electrolyte, potassium sodiostannate, into isomorphous metastable sodium stannate



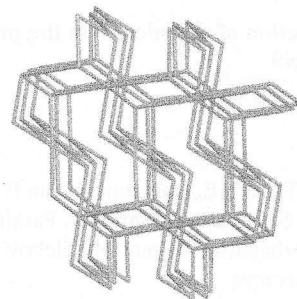
Vera V. Butova, Igor L. Shukhev

248 Design of highly soluble PCDTB TB-T type conjugated polymers for organic solar cells



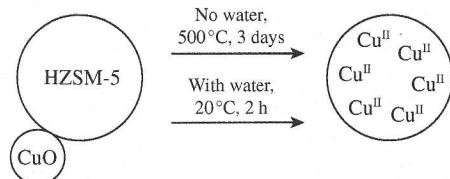
Alexander V. Akkuratov, Diana K. Susarova,
 Olga A. Mukhacheva, Pavel A. Troshin

251 Hydrothermal synthesis, crystal structure and magnetic properties of a new 3D Mn^{II} complex based on the flexible ligand 5-(4-pyridyl)-methoxyisophthalic acid



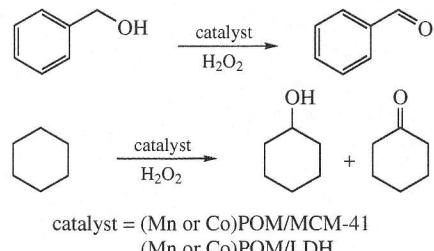
Zhaolin Tao, Jiehu Cui

254 Water as a key factor providing an easy migration/redistribution of Cu^{2+} species in CuO/HZSM-5



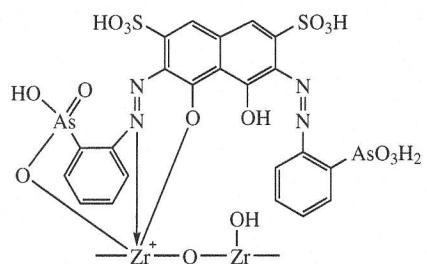
Alexei V. Kucherov

256 Mn- and Co-substituted polyoxotungstates on MCM-41 and layered double hydroxide as catalysts in the oxidation of benzyl alcohol and cyclohexane



Wimonrat Trakarnpruk

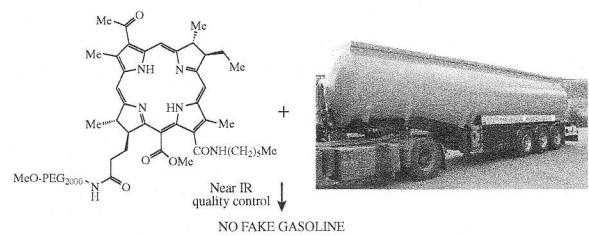
259 Surface modification of zirconia by Arsenazo III



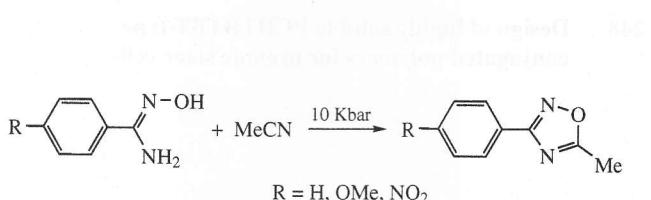
Tatyana I. Tikhomirova, Alexander V. Ivanov

261 Near IR spectroscopy of the solutions of a bacteriochlorin derivative as a quantitative method for the quality assurance of liquid products

Albert H. Kuptsov, Dmitry V. Yashunsky,
 Robin Ghosh, Volker Albrecht, Lina Bezdetnaya,
 Nikolay E. Nifantiev



264 Reaction of amidoximes with acetonitrile at high pressure



266 Photooxidation of arsenic(III) in the presence of fulvic acid

Wei Ding, Tamara E. Romanova, Ivan P. Pozdnyakov,
Victoria A. Salomatova, Marina V. Parkhats,
Boris M. Dzhagarov, Evgeni M. Glebov, Feng Wu,
Olga V. Shuvaeva

