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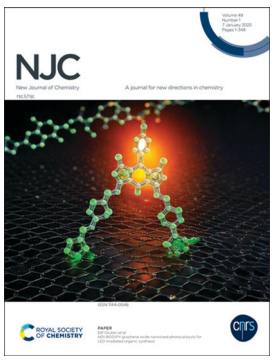
IN THIS ISSUE

ISSN 1144–0546 CODEN NJCHES 49(1) 1–348 (2025)



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COMMUNICATION

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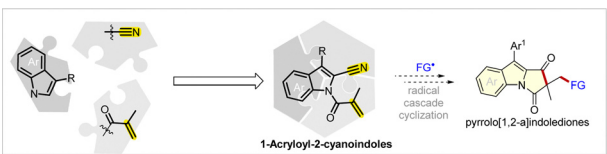
Construction of 1-acryloyl-2-cyanoindoles: unveiling their potential in radical cascade cyclization

Wei Luo, Anxiang Huang, Zhong Chen* and Bing Yu*



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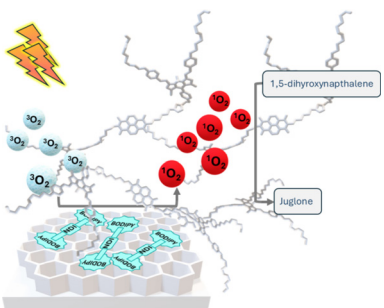
NDI-BODIPY-graphene oxide nanosized photocatalysts for LED irradiated organic synthesis

Hande Eserci Gürbüz, Ezel Öztürk Gündüz, Ümmügülsüm Büyükpolat and Elif Okutan*



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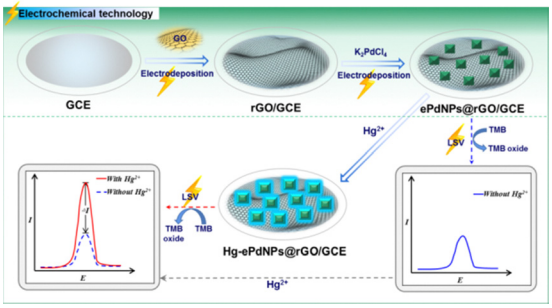
A highly selective mercury ion electrochemical detection based on the enhancement of oxidase-like activity by mercury on electrodeposited palladium nanoparticles@reduced graphene oxide

Zhiguang Liu, Miaomiao Li, Xiaofang Zheng, Xiaolin Jia and Yujing Guo*



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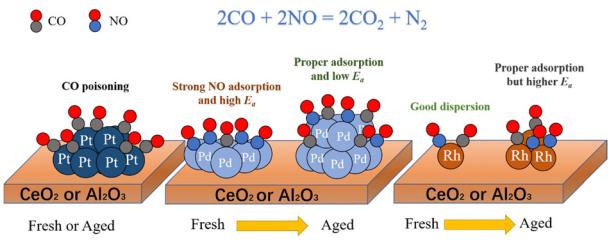
Unraveling the nature of platinum group metal catalysts' performance in NO reduction by CO: difference and relevance

Jinshi Dong,* Shengtong Li, Hongli Yang, Ting Li, Yu Song, Jiaqiang Yang* and Qianqian Jin*



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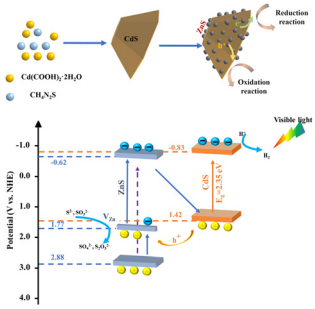
Heterojunctions of ZnS with Zn vacancies and hexagonal CdS pyramids for photocatalytic hydrogen production

Nannan Li, Kai An, Haojie Liu, Xu Guo, Lijun Yang* and Xiaoze Du



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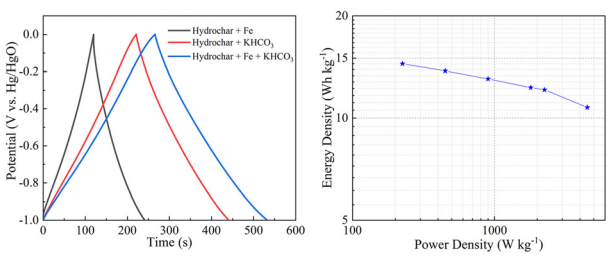
Mild chemical-activated hydrothermal porous carbon derived from durian peel biomass for an electrochemical supercapacitor

Liujie Wang, Xueji Ma, Zhihua Ma,* Pengfa Li and Wenbo Li



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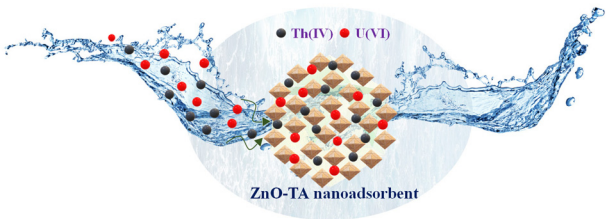

Remobilization of ZnO–TA nanoadsorbent for U(VI) and Th(IV) extraction: adsorption optimization through the Box–Behnken design model

Manish Sharma, Priya Sharma, Payal Taneja, Vikash Chandra Janu and Ragini Gupta*

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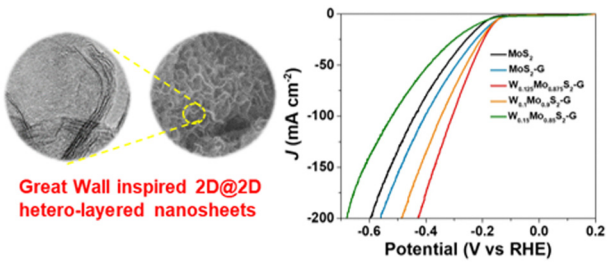

Great wall structure inspired 2D@2D hetero-layered W-doped MoS_2 for an enhanced hydrogen evolution reaction

Sainan Ma, Qing Yan,* Huiqin Gui, Ruiqin Gao, Luohuan Zhang, Xiaojing Bai* and Kui Cheng*

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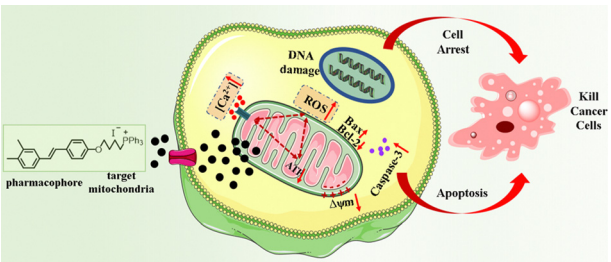

Mitochondria targeting combined with methyl modification of novel resveratrol derivatives enhances anti-tumor activity

Jiang-Nan Wang, Mei-Nuo Chen, Chang Gao, Yi-Zhuo Yue, Zi-Yan Wang, Xiao-Lei Zhang, Yan-Fei Kang* and Zhen-Hui Xin*

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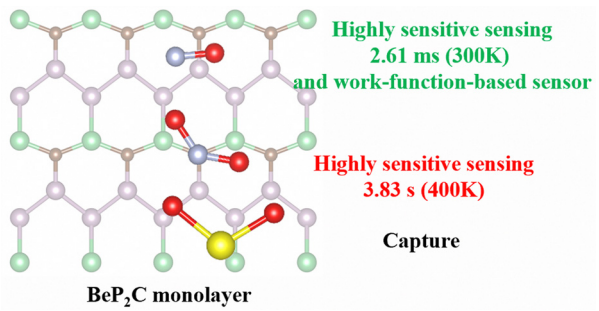

Selective highly sensitive gas sensing by using the BeP_2C monolayer: a theoretical study

Xiaobo Yuan, Weiyu Xie,* Yongliang Yong, Lu Xu and Daoxiong Wu*

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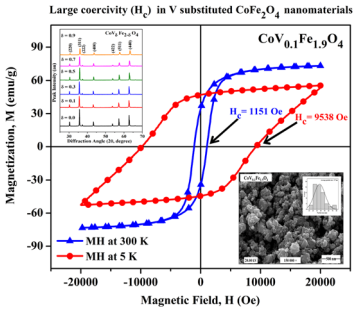
Structural characterization and tuning of magnetic properties of $CoV_{\delta}Fe_{2-\delta}O_4$ ($0.0 \leq \delta \leq 0.9$) nanomaterials synthesized *via* a modified sol–gel autocombustion method

Anagha B. Patil and Rabi N. Panda*



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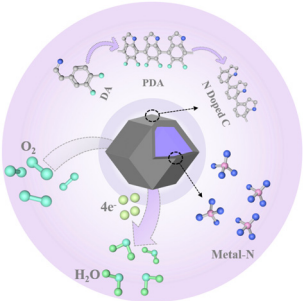
Enhancing the activity and stability of Fe/Co-based nitrogen-doped carbon with richer nitrogen and metal-N active sites towards oxygen reduction reactions

Zeqi Wu and Zhenlu Zhao*



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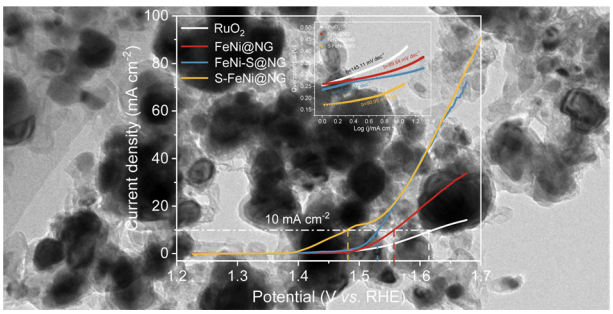
N-doped graphene encapsulated FeNi core–shell with S defects for the oxygen evolution reaction

Rumeng Feng, Lu Chen, Liping Huang,* Haihong Wu, Yuanyu Ge, Jiani Xu,* Min Zeng and Wenyao Li*



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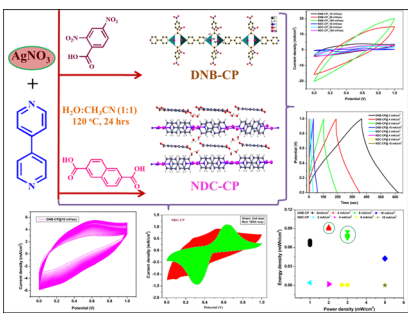
Insight into the diversity of dimensionality in silver-based coordination polymers for enhanced supercapacitor performance

Rupali Kaur, Neeraj Yadav, Laxman Gouda and Amanpreet Kaur Jassal*



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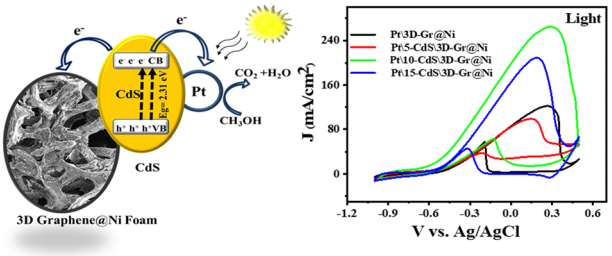

An efficient visible light-driven double-well-based Pt/CdS/3D-graphene heterostructure for electrocatalytic and photo-electrocatalytic methanol oxidation

Habib Ullah, Muqaddas Fatima Mumtaz, Asad Mumtaz,* Hina Sajid, Sani Zahra, Sabahat Sardar, Uzma Naz, Qamir Ullah Niazi, Shahid Iqbal, Syed Farooq Adil, Mohammad Rafe Hatshan, Mujeeb Khan, Jaweria Ambreen, Muhammad Imran Irshad and Muhammad Ahmad

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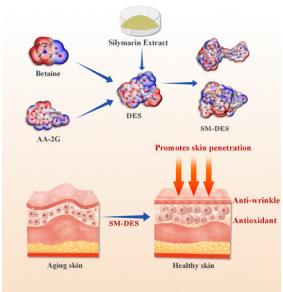

Enhancement of silymarin solubility and bioactivities using betaine/ascorbyl glucoside DES

Yuanbin Li, Yi Wu, Haowei Chen, Bao Han, Bo Ruan, Xiaoyu Zhong, Shanshan Li, Yifan Chen, Tao Peng, Jiaheng Zhang* and Fang Wang*

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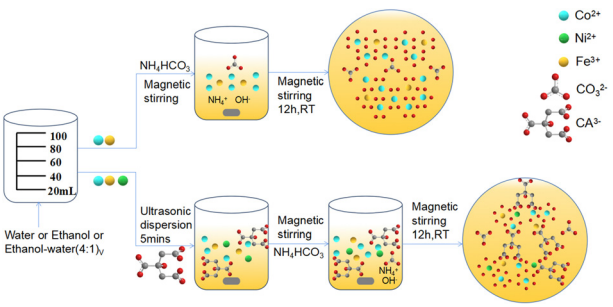

One-step preparation of amorphous citrate-chelated CoNiFe trimetallic hydroxides for the oxygen evolution reaction

Jiaqi Zhou, Yuhong Zhang, Tianrui Yu, Mingxin Feng, Tong Wang, Chuangyi Tong, Zewu Zhang, Jiehua Bao* and Yuming Zhou*

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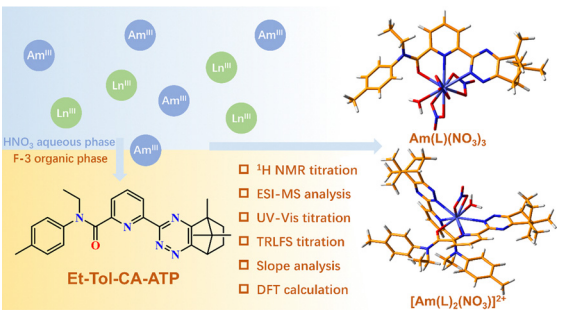

Selective separation and complexation of trivalent actinides and lanthanides using an unsymmetric pyridine-derived triazinyl and amide extractant

Chenchen Zhu, Yuxiao Guo, Xiao Yang, Xiaofan Yang, Shihui Wang, Chao Xu, Chengliang Xiao* and Lei Xu*

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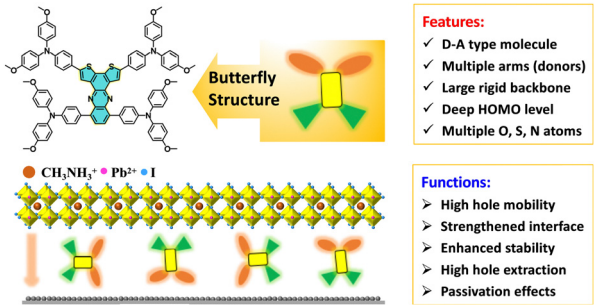
Efficient interfacial optimization of NiO_x-based perovskite solar cells *via* a butterfly-structured semiconductor

Zhihui Wang,* Zhe Wang, Zhaolong Ma, Ruifeng Chen, Ting Wang, Jiali Kang, Guang Hu* and Xueping Zong*



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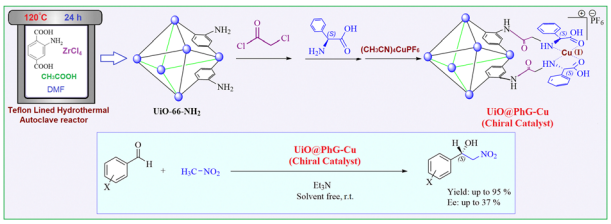
Copper complex of phenylglycine-functionalized UiO-66-NH_2: a chiral MOF catalyst for enantioselective Henry reaction

Khadijeh Rasolinia, Hamid Arvinnezhad and Saadi Samadi*



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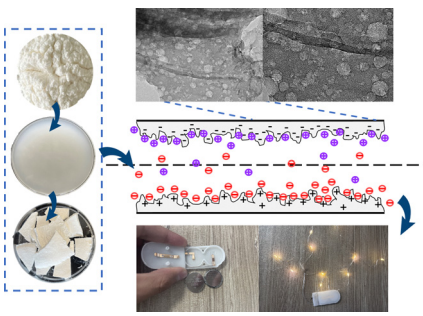
Cellulose-based activated carbon aerogels as electrode materials for high capacitance performance supercapacitors

Kai Yang, Xinfeng Huang, Yuchun Zhang* and Peng Fu*



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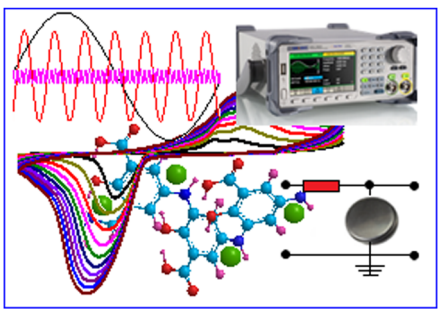
UV-assisted synthesis of an Ag-poly (aminosalicylic acid) hybrid system for an asymmetric supercapacitor and its application as a low pass filter

Pooja Kumari, Chandan Saha, Sarit K Ghosh, Venkata K Perla, Harishchandra Singh and Kaushik Mallick*



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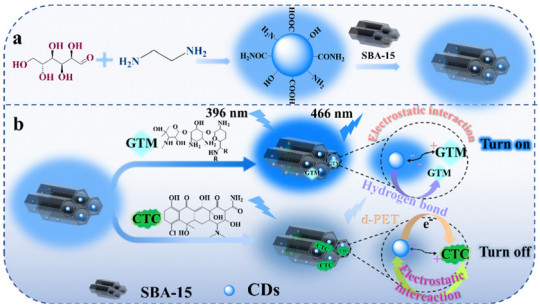

A carbon quantum dot@mesoporous silicon composite-based fluorescent probe for chlortetracycline hydrochloride and gentamicin

Lina Gao and Jing Wang*

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Benzimidazole-based low-sensitivity and heat-resistant energetic materials: design and synthesis

Ying Liang, Xian-Kun Hu, Zhang-Lei Yang, Miao-Miao Liu, Yao Zhang, Jin-Ting Wu, Jian-Guo Zhang, Ting-Xing Zhao,* Shan-Hu Sun* and Shu-Min Wang*

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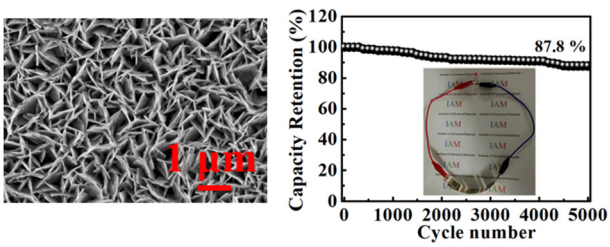

Electrodeposition of ultrathin NiBDC lamellar arrays as a novel binder-free electrode for flexible all-solid-state supercapacitors

Yue Feng, Mingji Wu, Haiyan Zhu, Huirong Bao, Cheng Wang, Xiujing Lin, Ruiqing Liu* and Xiaomiao Feng*

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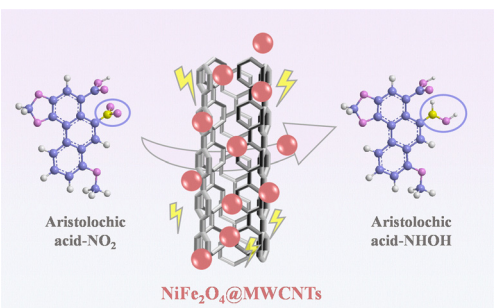

Carbon nanotube supported spherical NiFe-spinel heterostructure for sensitive electrochemical detection of aristolochic acid

Hongmei Jiang, Mei Zhang, Wenjun Liu, Jinyu Guan, Qinyi Cao, Jun Fang, Hao Yao, Xia Wang,* Jun Zhong* and Xiaoying Liu*

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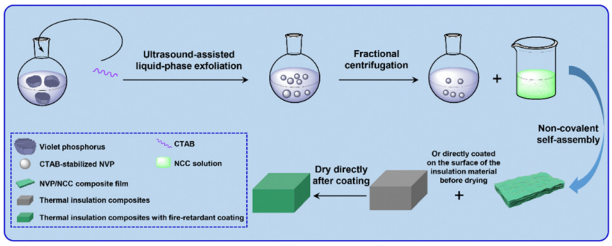
Nano-violet phosphorus/nano-crystalline cellulose composite films for fire-retardant coatings

Lihui Zhang, Ting Du, Bingjia Wang, Yiping Tang, Changji Yin, Zixi Chang, Chunbao Du,* Yuan Cheng* and Gang Zhang*



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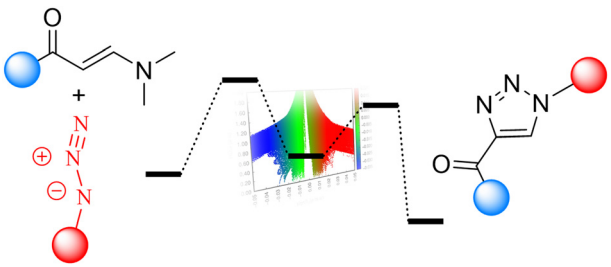
Computational studies of the metal-free [3+2] cycloaddition reaction of azide with enaminone for the synthesis of 1,2,3-triazoles

Mohammad Abd Al-Hakim Badawi,* Maram Dagher, Abdullah Yahya Abdullah Alzahrani, Ali A. Khairbek and Renjith Thomas*



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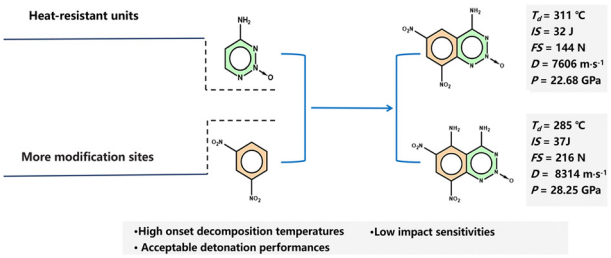
4-Amino-1,2,3-triazine 2-oxide: a promising structural unit for the design and synthesis of novel energetic materials with good thermal stability and low impact sensitivity

Ziwu Cai, Junhao Shi, Qian Yu, Tianyu Jiang and Wenquan Zhang*



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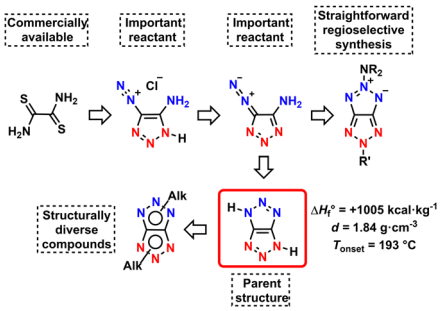
Parent 1,4-dihydro-[1,2,3]triazolo[4,5-*d*]-[1,2,3]triazole and its derivatives as precursors for the design of promising high energy density materials

Agata N. Kuznetsova, Nikita E. Leonov, Oleg V. Anikin, Michael S. Klenov,* Aleksandr M. Churakov,* Yurii A. Strelenko, Roman A. Novikov, Ivan V. Fedyanin, Alla N. Pivkina, Tatiana S. Kon'kova, Valery P. Sinditskii, Anastasia D. Smirnova and Vladimir A. Tartakovsky



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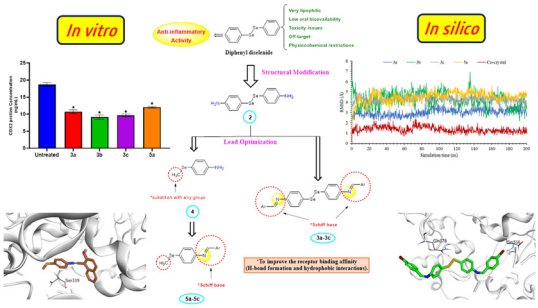

Unveiling the anti-inflammatory potential of organoselenium Schiff bases: computational and *in vitro* studies

Saad Shaaban,* Tarek A. Yousef, Hanan A Althikrallah, Yasair S. Al-Faiyz, Ibrahim Elghamry, Marwa Sharaky, Radwan Alnajjar and Ahmed A. Al-Karmalawy*

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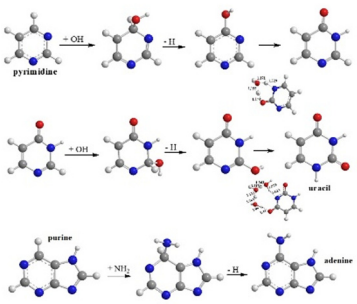

Functionalization of pyrimidine and purine into RNA bases in water/ammonia ices *via* radical substitution reactions

Anatoliy A. Nikolayev, Mikhail M. Evseev, Vladislav S. Krasnoukhov, Alina A. Kuznetsova, Pavel P. Pivovarov, Denis P. Porfiriev, Alexander M. Mebel* and Ralf I. Kaiser*

EXPRESSION OF CONCERN

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Expression of concern: Phytic acid-doped poly-*N*-phenylglycine potato peels for removal of anionic dyes: investigation of adsorption parameters

Kahina Bouhadjra, Alexandre Barras, Wahiba Lemlikchi, Ahmed Addad, Manash R. Das, Mohammed A. Amin, Sabine Szunerits and Rabah Boukherroub*

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