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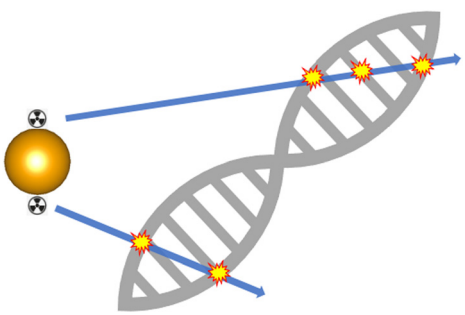
TUTORIAL REVIEW



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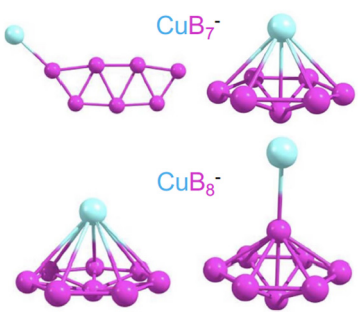

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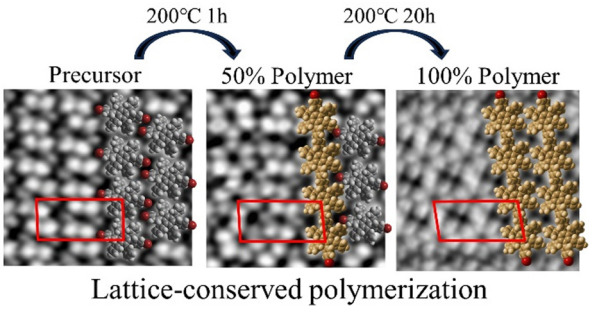

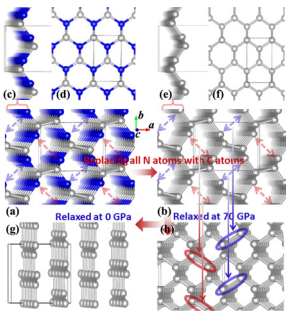

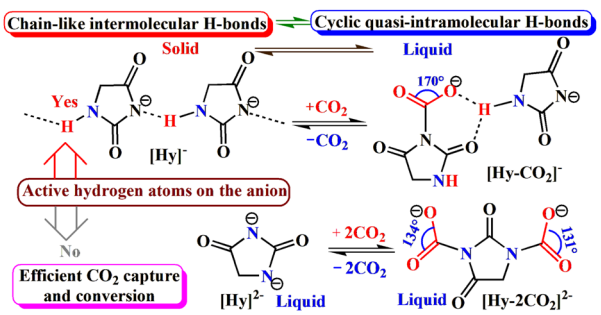

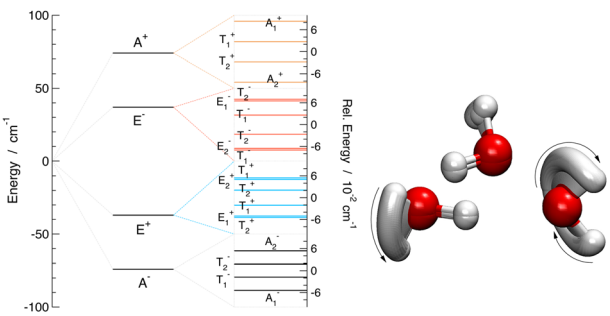

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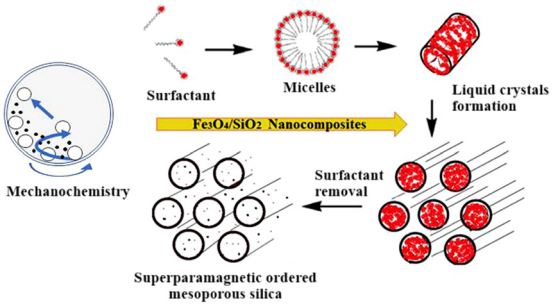
13020

Combining high energy ball milling and liquid crystal templating method to prepare magnetic ordered mesoporous silica. A physico-chemical investigation

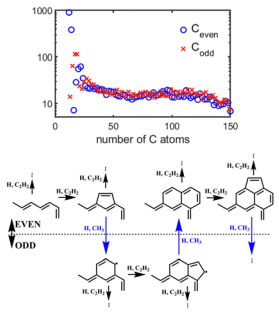
Alessandra Scano,* Edmond Magner, Martina Pilloni, Luciano Atzori, Marzia Fantauzzi, Sawssen Slimani, Davide Peddis, Gonzalo Garcia Fuentes and Guido Ennas



13034

Phenalenyl growth reactions and implications for prenucleation chemistry of aromatics in flames

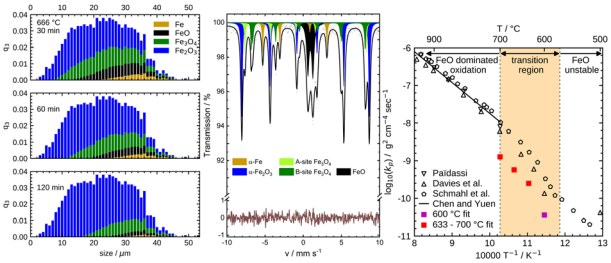
Michael Frenklach,* Ahren W. Jasper and Alexander M. Mebel*



13049

Exploring the oxidation behavior of undiluted and diluted iron particles for energy storage: Mössbauer spectroscopic analysis and kinetic modeling

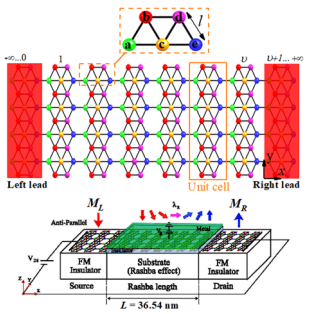
Jonas Spielmann, Daniel Braig, Antonia Streck, Tobias Gustmann, Carola Kuhn, Felix Reinauer, Alexandr Kurnosov, Oliver Leubner, Vasily Potapkin, Christian Hasse, Olaf Deutschmann, Bastian J. M. Etzold, Arne Scholtissek* and Ulrike I. Kramm*



13061

Ultrafast switching in spin field-effect transistors based on borophene nanoribbons

Farzaneh Ghasemzadeh, Mohsen Farokhnezhad* and Mahdi Esmaeilzadeh*



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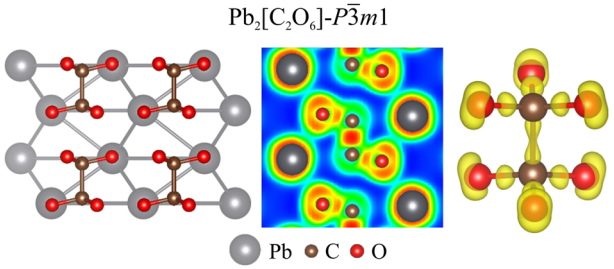
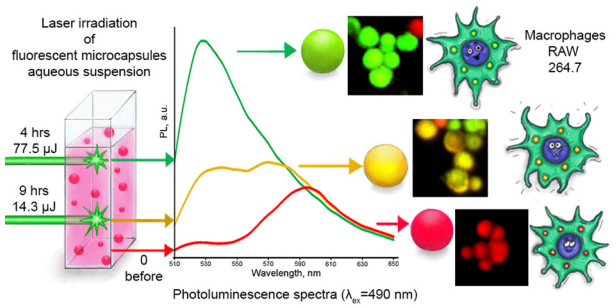
13070



$Pb_2[C_2O_6]$-$P\bar{3}m1$: new insights into the high-pressure behavior of carbonates

Maksim V. Banaev,* Dinara N. Sagatova,* Nursultan E. Sagatov and Pavel N. Gavryushkin

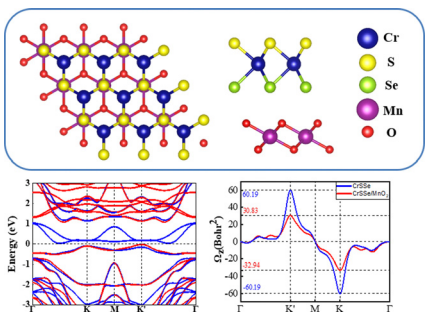
13078



Effect of photoconversion conditions on the spectral and cytotoxic properties of photoconvertible fluorescent polymer markers

Polina A. Demina,* Oleg V. Grishin, Sergey N. Malakhov, Olesya I. Timaeva, Elizaveta S. Kulikova, Timofey E. Pylaev, Mariia S. Saveleva and Irina Yu. Goryacheva

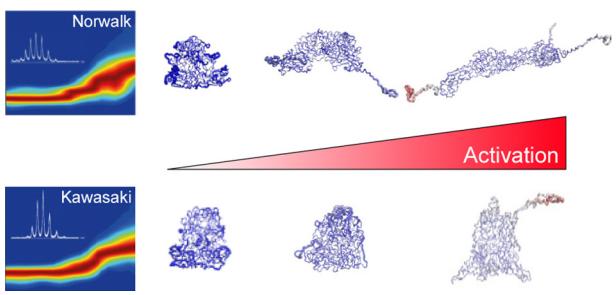
13087



Enhancement and modulation of valley polarization in Janus CrSSe with internal and external electric fields

Runxian Jiao, Qingyuan Wei, Lichuan Zhang, Yuee Xie, Jingjing He,* Yangbo Zhou,* Lei Shen and Jiaren Yuan*

13094



Collision induced unfolding and molecular dynamics simulations of norovirus capsid dimers reveal strain-specific stability profiles

Maxim N. Brodmerkel, Lars Thiede, Emiliano De Santis, Charlotte Uetrecht, Carl Caleman and Erik G. Marklund*

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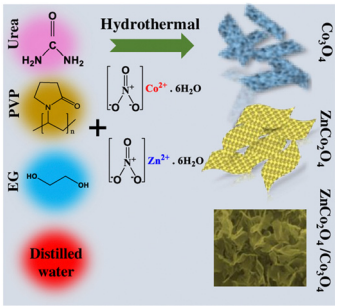

Synergistic effect between $ZnCo_2O_4$ and Co_3O_4 induces superior electrochemical performance as anodes for lithium-ion batteries

Anubha Tomar, Zulkifli, Jay Singh, Satendra Pal Singh, Jaekook Kim* and Alok Kumar Rai*

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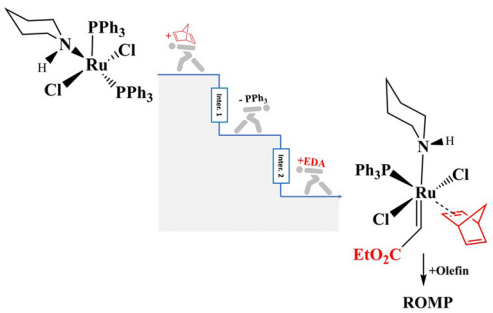

Structural and thermodynamic insights into the coordination preference of norbornadiene with the initiator complex $[RuCl_2(PPh_3)_2(piperidine)]$ in polymerization *via* olefin metathesis

José Antonio de Sousa, José Luiz da Silva Sá, José Walkimar de Mesquita Carneiro and José Milton Elias de Matos*

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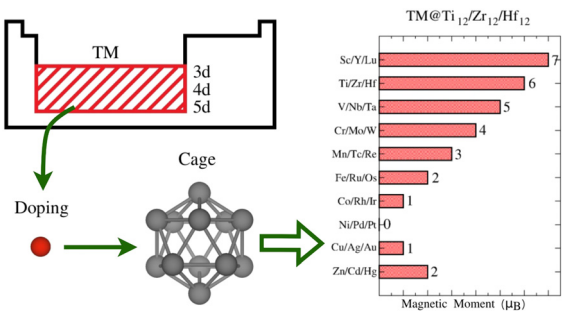

Cage doping of Ti, Zr, and Hf-based 13-atom nanoclusters: two sides of the same coin

Maurício J. Piotrowski,* João Marcos T. Palheta and René Fournier*

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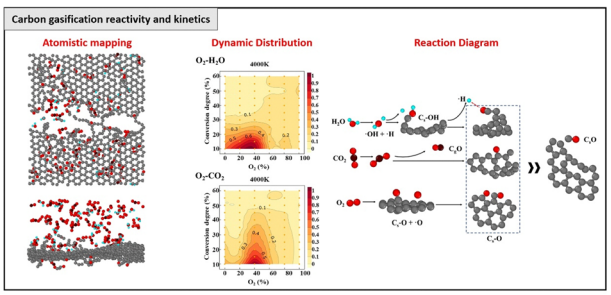

Interactions of graphene with oxidants in a mixed atmosphere: synergistic effects of O_2/H_2O and O_2/CO_2 on gasification reactivity and kinetics

Zeng Liang, Rita Khanna, Kejiang Li,* Yunfei Ma, Yuri Konyukhov, Yushan Bu, Jianliang Zhang and Alberto N. Conejo

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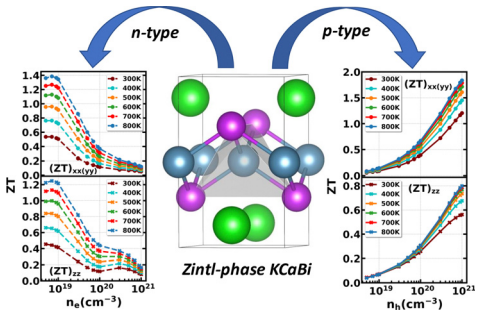

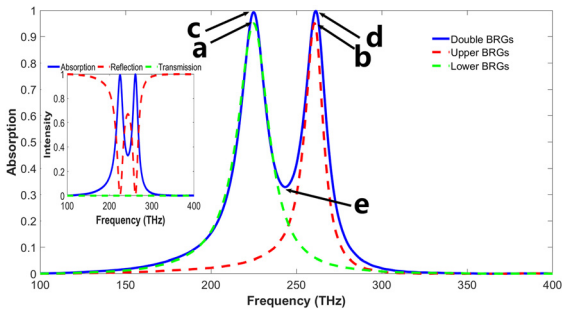

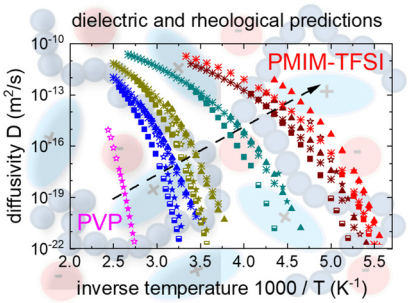

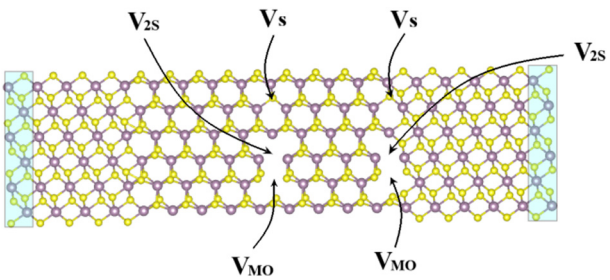

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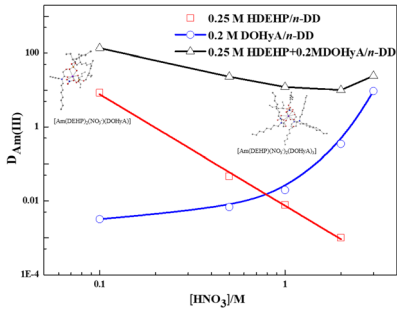

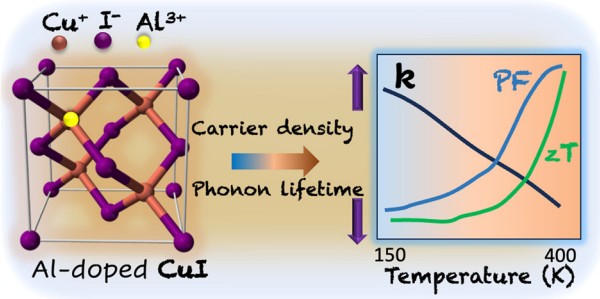

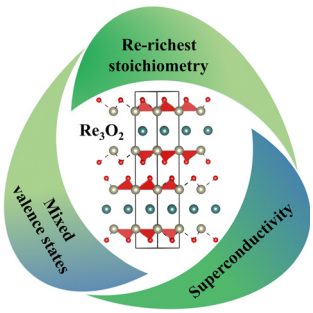

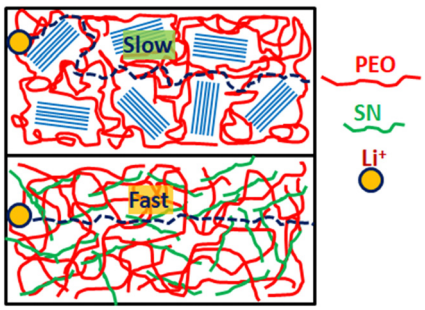

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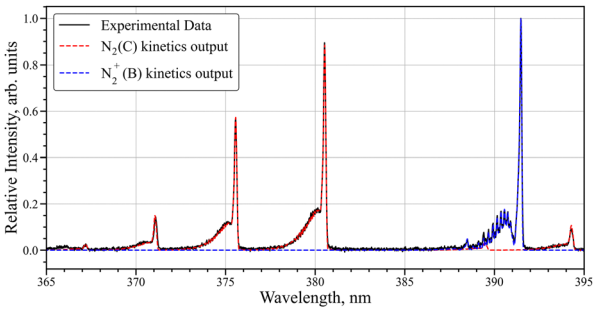

Spectral analysis and kinetic modeling of radioluminescence in air and nitrogen

E. R. Jans,* T. Casey, G. J. Marshall, C. M. Murzyn, S. S. Harilal, B. S. McDonald and R. K. Harrison

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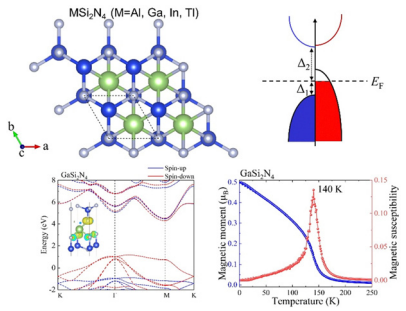
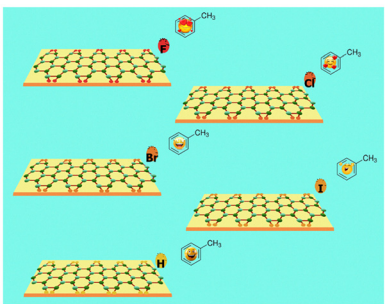


Two-dimensional half-metals MSi_2N_4 (M = Al, Ga, In, Tl) with intrinsic p-type ferromagnetism and ultrawide bandgaps

Yi-min Ding,* Yiqi Huo, Gaojing Fang, Luo Yan, Yu Wu* and Liujiang Zhou*

13335



Investigating the enhancement of lung cancer sensing: the effect of edge halogenation in armchair stanene nanoribbons

Maedeh Mashhadbani and Edris Faizabadi*

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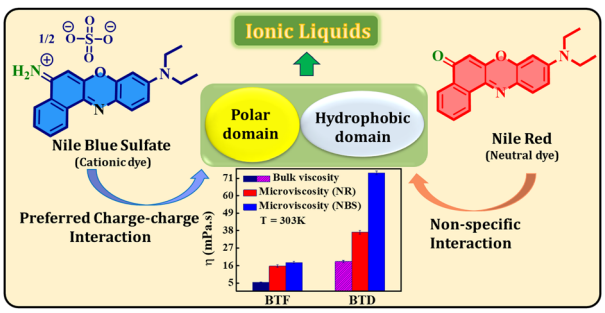

Probing the heterogeneity of molecular level organization of ionic liquids: a comparative study using neutral Nile red and cationic Nile blue sulfate as fluorescent probes for butyrolactam-based protic ionic liquids

Bignya Rani Dash, Ramesh L. Gardas* and Ashok Kumar Mishra*

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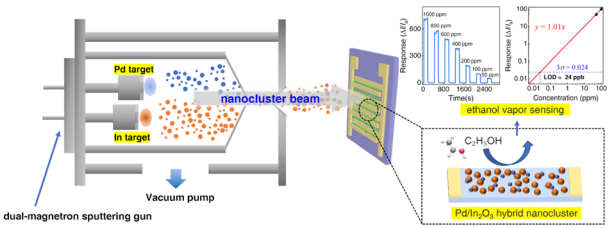
Development of Pd/In_2O_3 hybrid nanoclusters to optimize ethanol vapor sensing

Bo Xie, Jian Sun, Aoxue Zhang, Haoyu Qian, Xibing Mao, Yingzhu Li, Wenjing Yan, Changjiang Zhou, Hui-Min Wen, Shengjie Xia, Min Han, Paolo Milani and Peng Mao*



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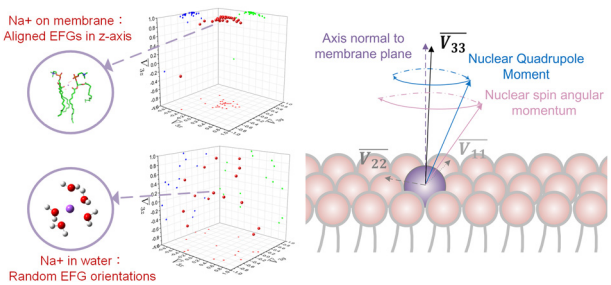
Nuclear spin alignment of sodium ions *via* electric field gradients in phospholipid membranes

Yu Zheng and Quansheng Ren*



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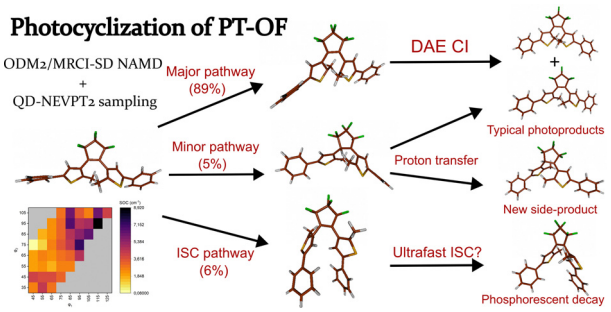
New insights into the photocyclization reaction of a popular diarylethene switch: a nonadiabatic molecular dynamics study

Mikołaj Martyka and Joanna Jankowska*



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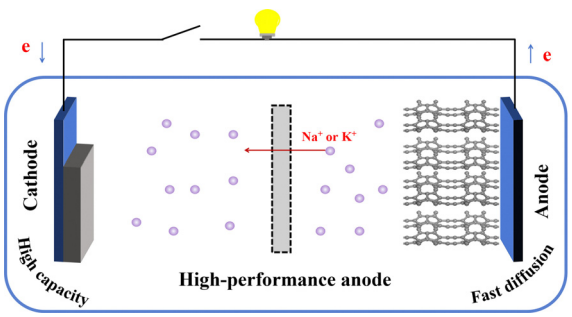
Two-dimensional monolayer $C_{5\text{-}10\text{-}16}$: a metallic carbon allotrope as an anode material for high-performance sodium/potassium-ion batteries

Wen-Chun Wang, Ya-Qun Dai, Tian-Le Zhao, Xiao-Juan Ye,* Xiao-Hong Zheng, Ran Jia and Chun-Sheng Liu*



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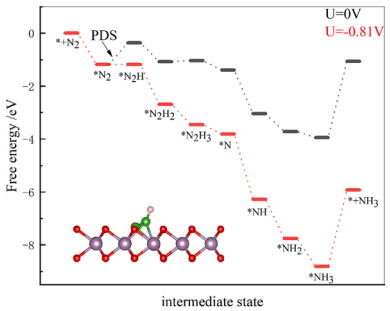

Theoretical study of the nitrogen reduction reaction catalyzed by a B-doped MoO_2 six-membered ring

Shaona Chen, Demiao Fang, Zhangyu Zhou, Zhongxu Dai* and Jinjin Shi*

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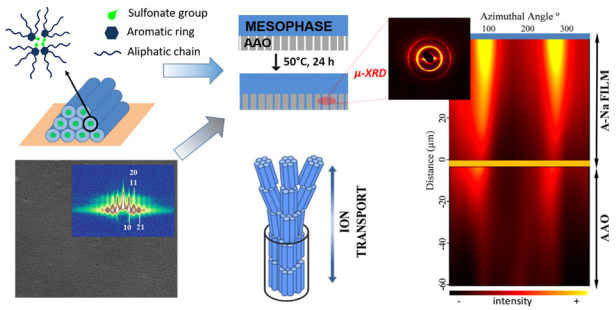

Homeotropic orientation of an ion-channel forming mesophase induced by nanotemplate wetting

Jaime J. Hernandez,* Denis V. Anokhin, Martin Rosenthal, Xiaomin Zhu and Dimitri A. Ivanov*

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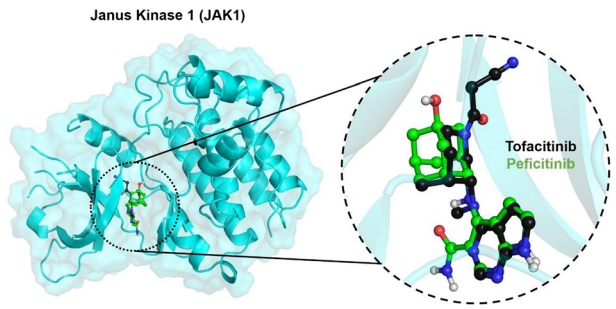

Tofacitinib and peficitinib inhibitors of Janus kinase for autoimmune disease treatment: a quantum biochemistry approach

Jackson L. Amaral,* Naiara C. Lucredi, Victor L. B. França, Samuel J. M. Santos, Francisco F. Maia Jr, Pablo A. Morais, Pedro F. N. Souza, Jurandir F. Comar and Valder N. Freire

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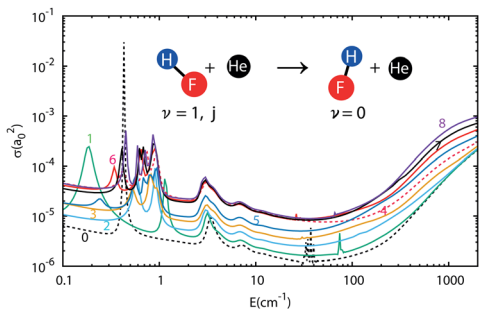

Quantum study of the rovibrational relaxation of HF by collision with ^{4}He on a new potential energy surface

Otoniel Denis-Alpizar,* Alexandre Zanchet* and Thierry Stoecklin*

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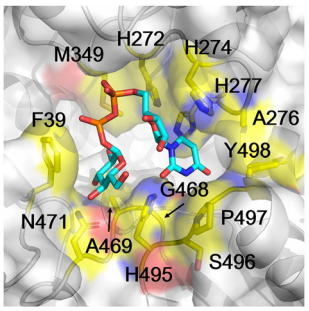

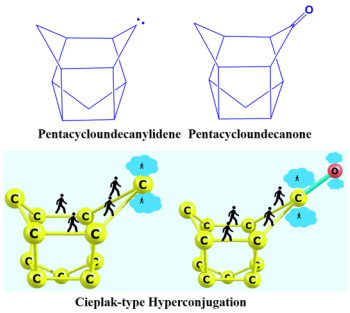

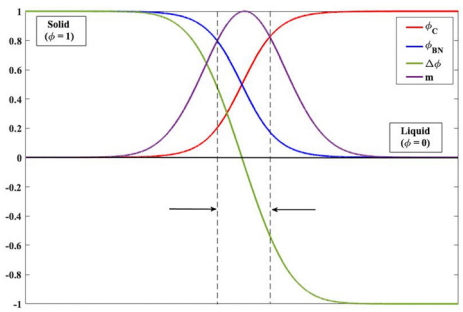

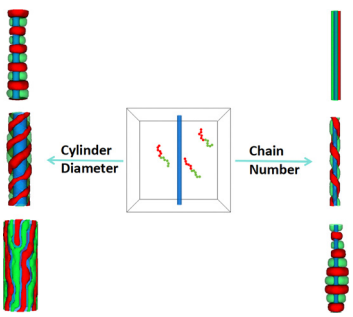

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