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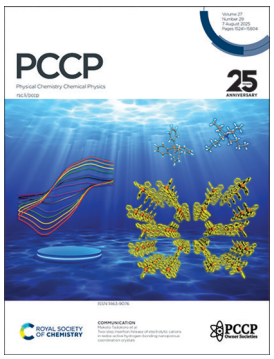

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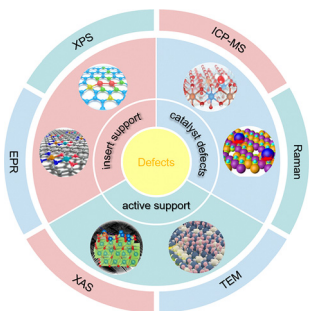
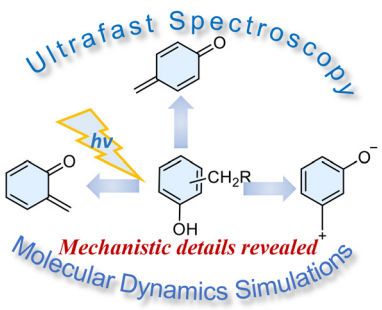
See Makoto Tadokoro *et al.*, pp. 15310–15313. Image reproduced by permission of Makoto Tadokoro from *Phys. Chem. Chem. Phys.*, 2025, **27**, 15310.

REVIEWS





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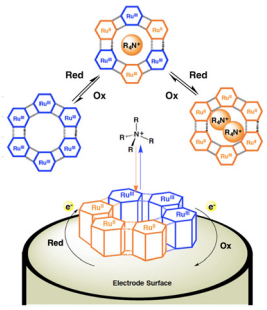

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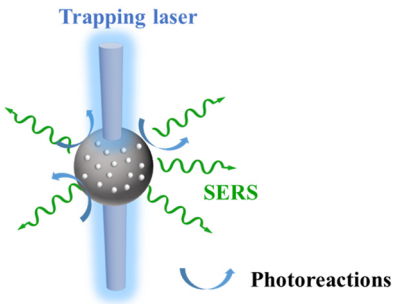

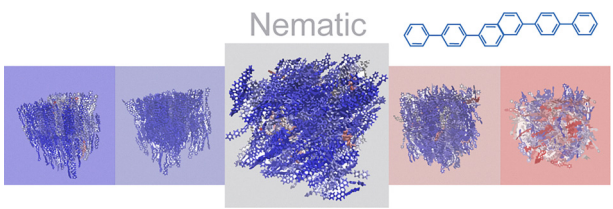

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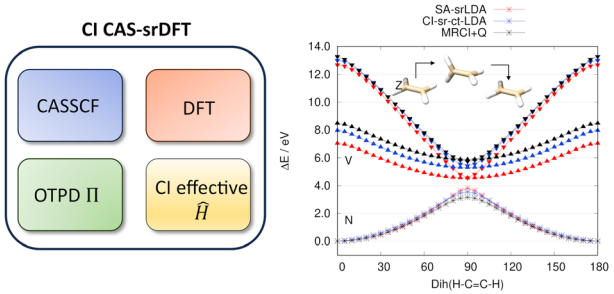

Excited-state methods based on state-averaged long-range CASSCF short-range DFT

Benjamin Helmich-Paris,* Erik Rosendahl Kjellgren and Hans Jørgen Aa. Jensen

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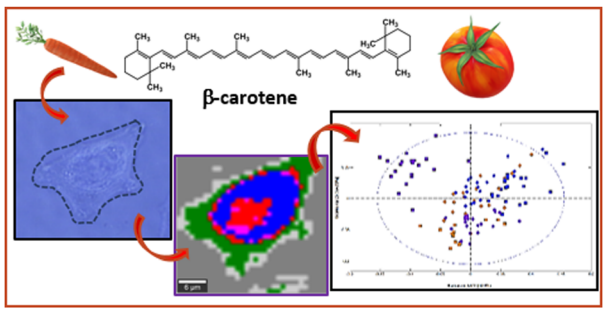

In vitro analysis of β-carotene supplementation: insights from Raman spectroscopy on brain, lung, and breast cancer cells

Karolina Jarczewska, Monika Kopeć and Jakub Maciej Surmacki*

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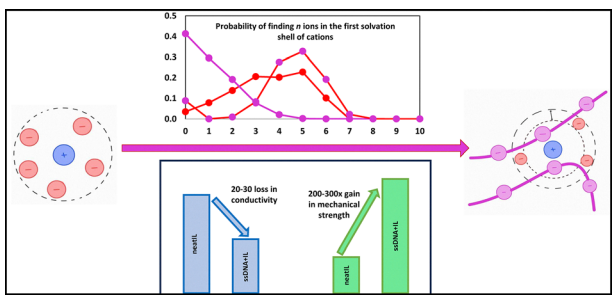

Molecular simulations of ssDNA/ssRNA in [BMIM][PF_6] ionic liquid: a novel biopolymer electrolyte for rechargeable battery applications

Akash K. Meel and Santosh Mogurampelly*

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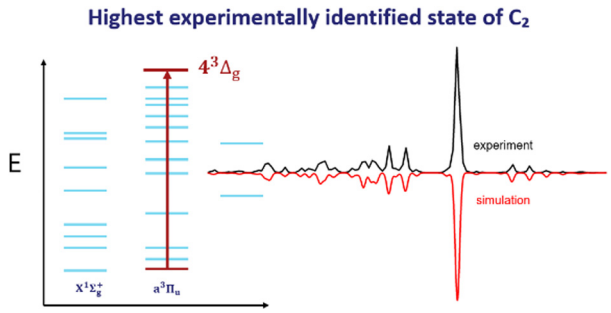

Experimental identification of the high-lying $4^3\Delta_g$ state of C_2 in the vacuum ultraviolet region

Di Li, Liying Ma, Tonghui Yin, Pan Jiang, Min Cheng* and Hong Gao*

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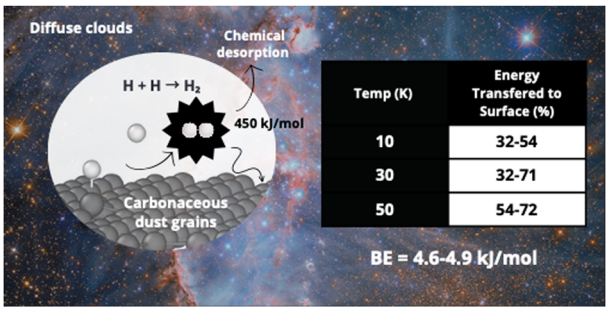

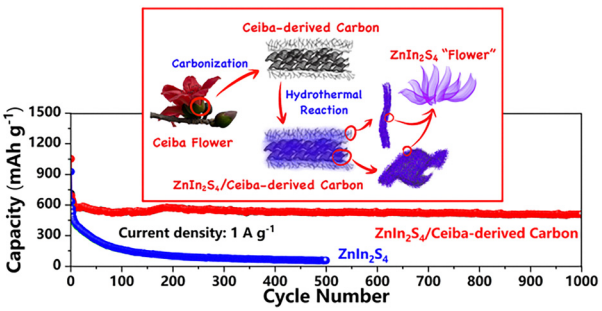

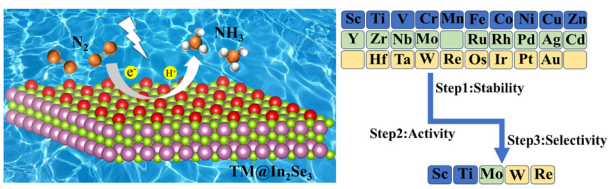

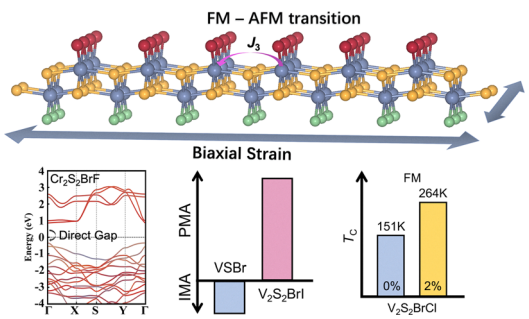

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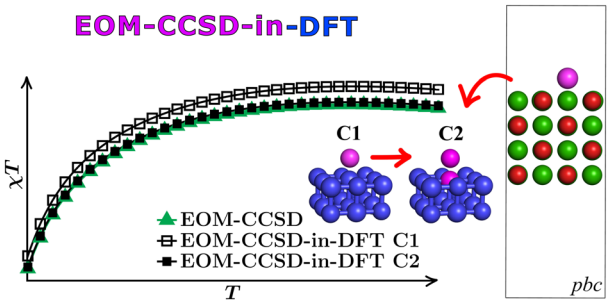
Quantum-embedded equation-of-motion coupled-cluster approach to single-atom magnets on surfaces

Maristella Alessio,* Tobias Schäfer, Thomas-C. Jagau and Andreas Grüneis



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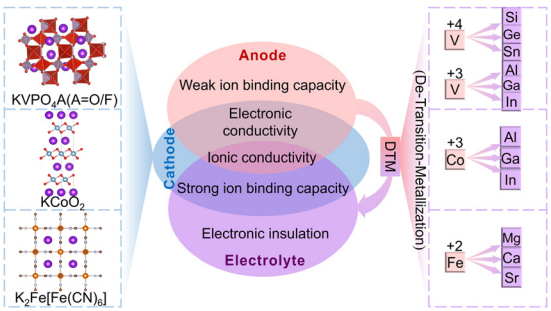
De-transition-metallization of cathode materials for constructing high-performance solid-state electrolytes in potassium-ion batteries

Mengqi Wu, Meitong Liu, Xiangyu Yao, Chenyang Jing, Dongxiao Kan* and Ruqian Lian*



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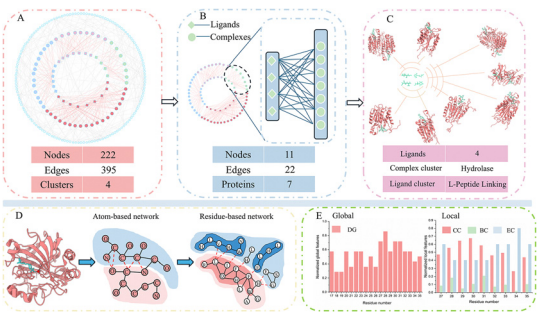
A multi-scale perspective on the scale-free nature of protein–ligand interaction networks

Zhongyi Wei, Chengwei Zeng, Chen Zhuo, Haoquan Liu, Jiaming Gao, Yuqing Zhao and Yunjie Zhao*



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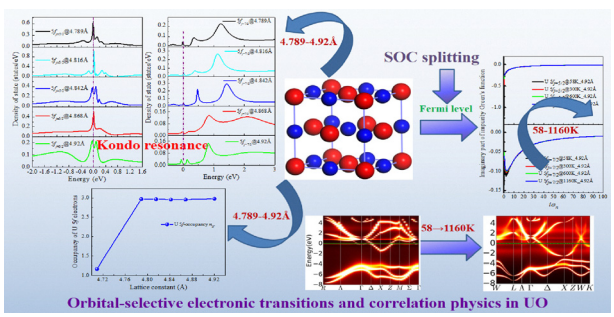
Spin–orbit-controlled correlation physics and orbital-selective electronic transitions in uranium monoxide revealed by many-body calculations

Ru-song Li,* Rong Guo,* Zheng Xie, Jin-tao Wang and Fei Wang



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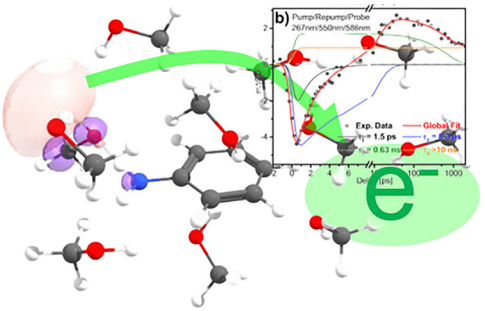

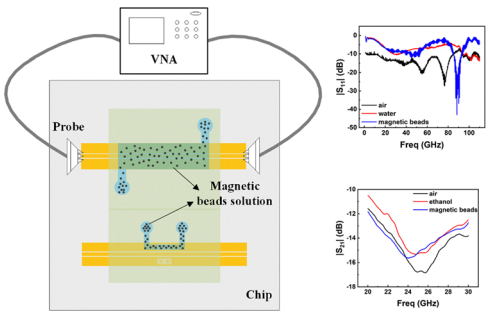

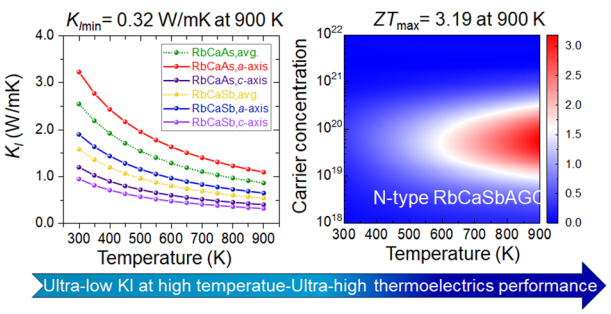

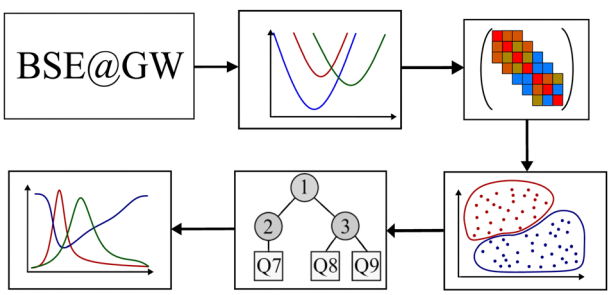

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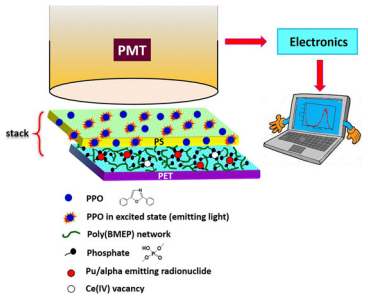

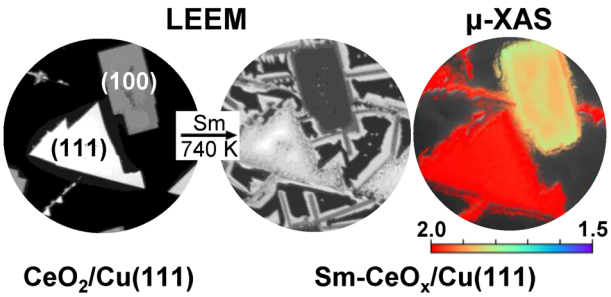

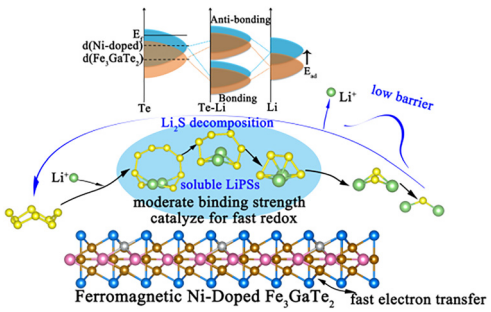

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