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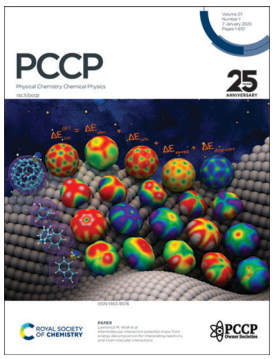
IN THIS ISSUE

ISSN 1463–9076 CODEN PPCPFQ 27(1) 1–610 (2025)



Cover
See Lawrence M. Wolf *et al.*, pp. 47–61.
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Inside cover
See Mizuki Kimura and Shinkoh Nanbu, pp. 62–76.
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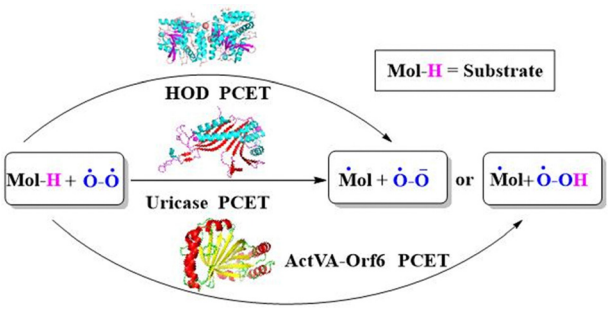
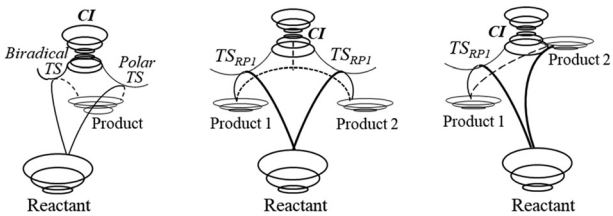
REVIEW



PERSPECTIVE



Three classes of molecular photoswitches

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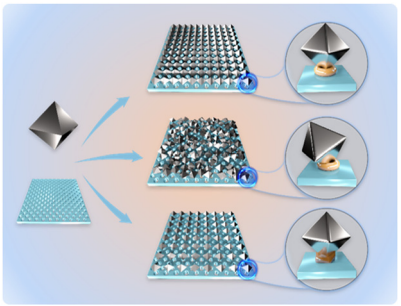

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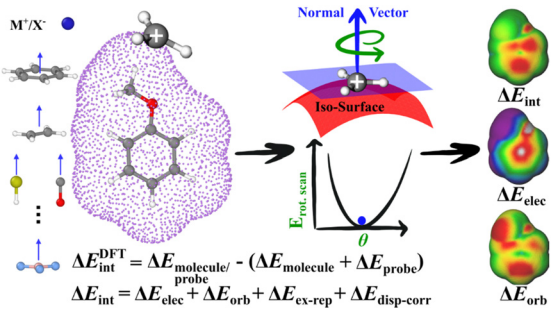

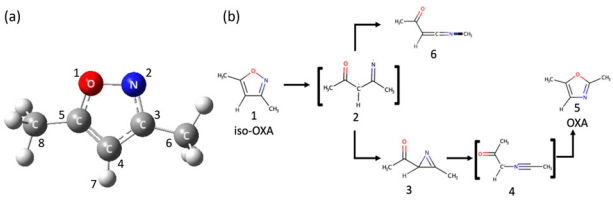

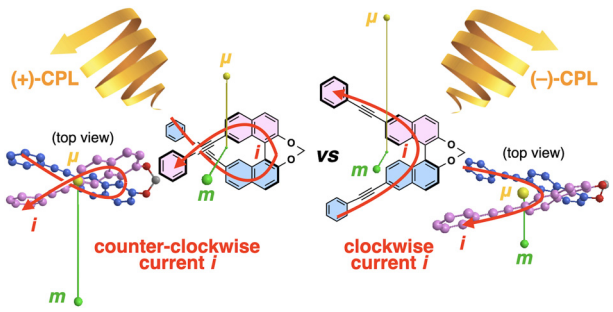

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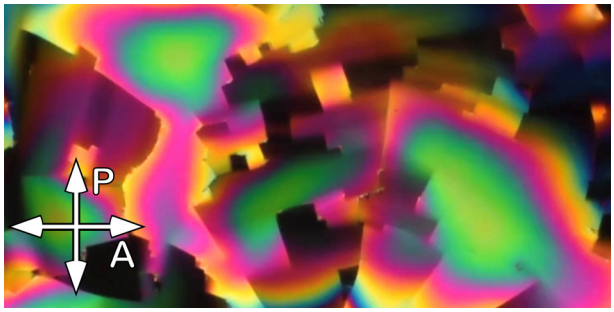

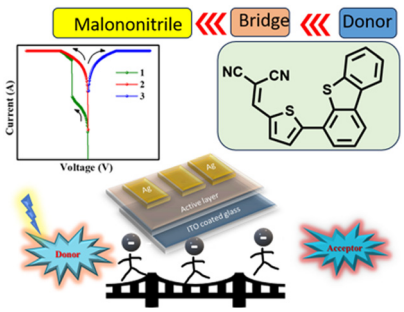

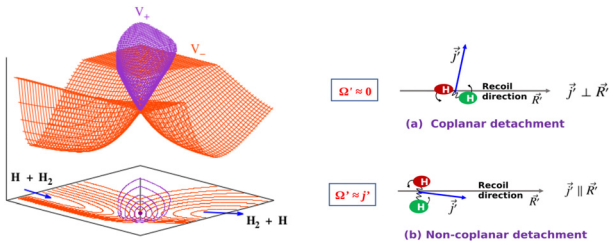

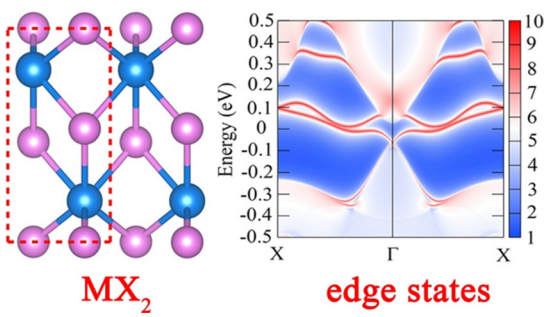

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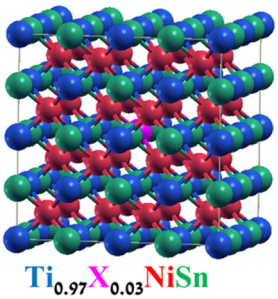

The effect of acceptor and donor doping on the electronic properties of the half-Heusler TiNiSn

Ronit Eshel,* David Fuks, Yaniv Gelbstein and Daniel Rabin

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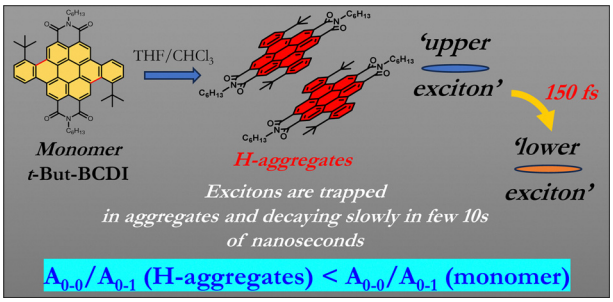

Unveiling emissive H-aggregates of benzocoronenediimide, their photophysics and ultrafast exciton dynamics

Swati J. N. Dixit, Rajib Ghosh* and Neeraj Agarwal*

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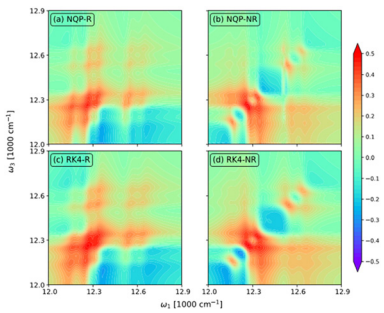

A non-Markovian neural quantum propagator and its application in the simulation of ultrafast nonlinear spectra

Jiaji Zhang* and Lipeng Chen*

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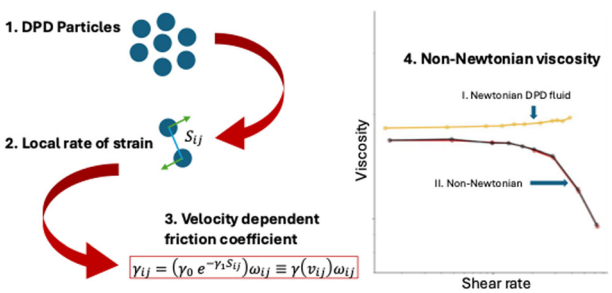

Non-Newtonian dynamics modelled with non-linear transport coefficients at the mesoscale by using dissipative particle dynamics

Ali Naseri, Clara Salueña Perez and Josep Bonet Avalos*

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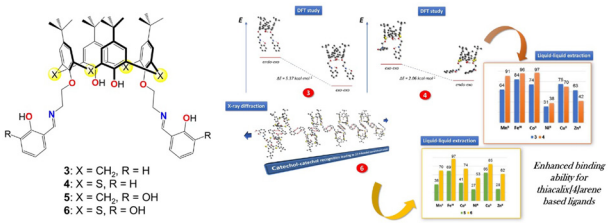

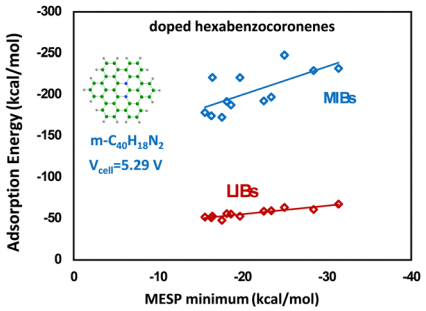

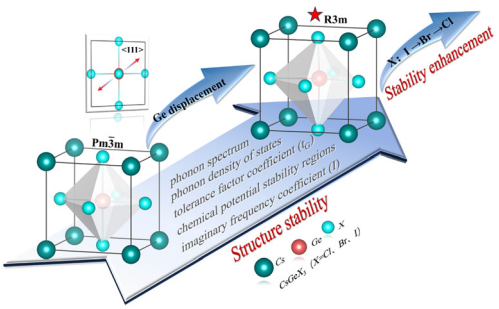

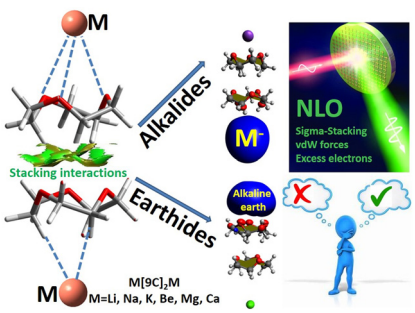

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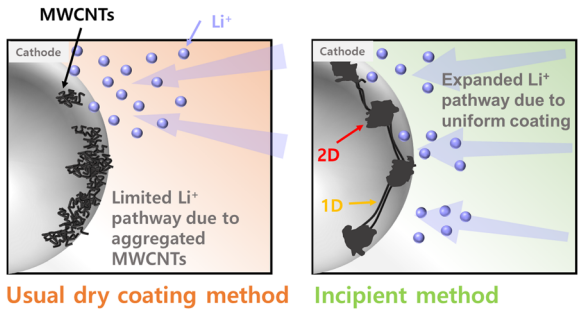

Superior conductive 1D and 2D network structured carbon-coated Ni-rich $Li_{1.05}Ni_{0.88}Co_{0.08}Mn_{0.04}O_2$ as high-ion-diffusion cathodes for lithium-ion batteries

Sungmin Na, Junwoo Park, Hyunjin An, Seonhwa Lee, Byongyong Yu* and Kwangjin Park*

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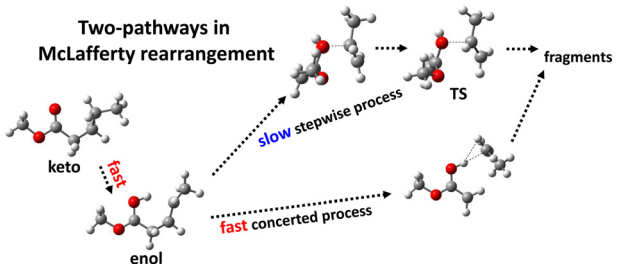

Comprehensive quantum chemical and mass spectrometric analysis of the McLafferty rearrangement of methyl valerate

Mitsuo Takayama,* Masahiro Hashimoto, Keijiro Ohshimo, Fuminori Misaizu, Masaaki Ubukata and Kenji Nagatomo

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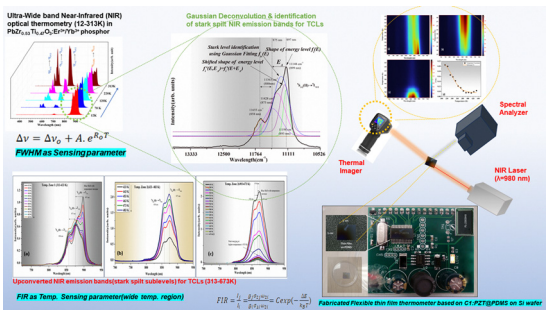

Ultra-wide band near-infrared (NIR) optical thermometry (12–673 K) performance enhanced by Stark sublevel splitting in Er^{3+} ions near the first biological window in the $PbZr_{0.53}Ti_{0.47}O_3:Er^{3+}/Yb^{3+}$ phosphor

Prasenjit Prasad Sukul,* Yadvendra Singh and Hendrik Swart

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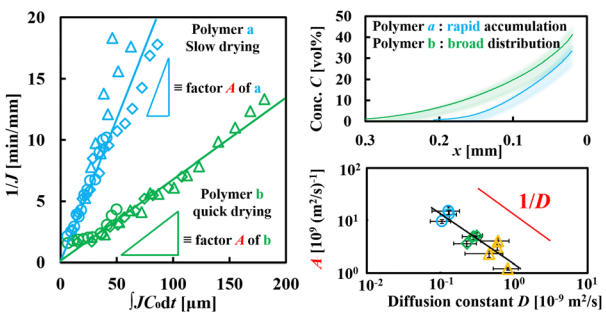

How does the polymer type affect the rate of water evaporation from polymer solutions?

Masahiko Tanaka and Susumu Inasawa*

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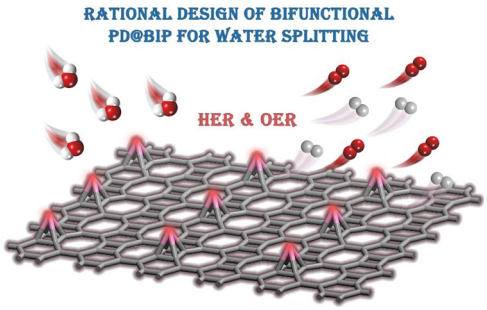

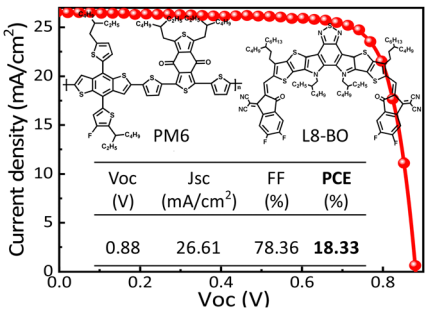

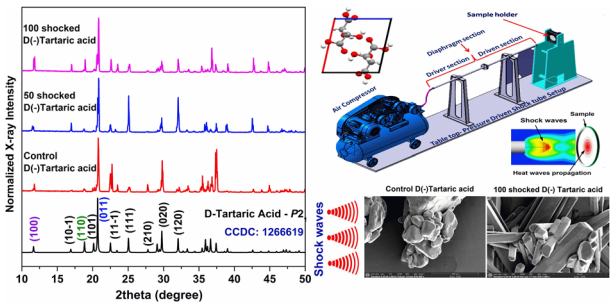

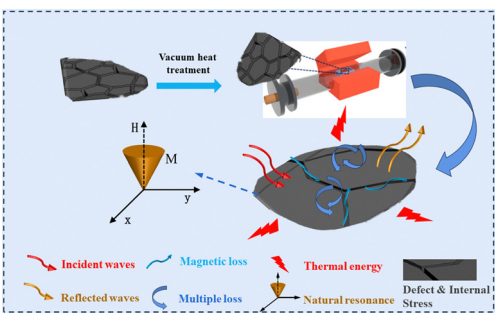

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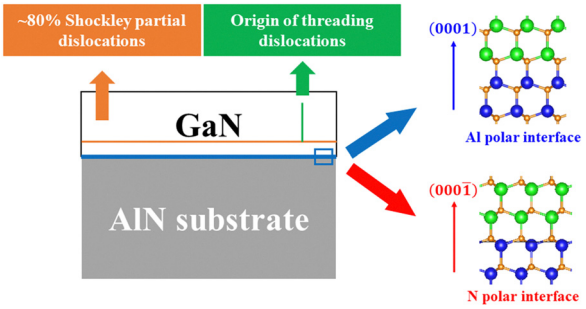

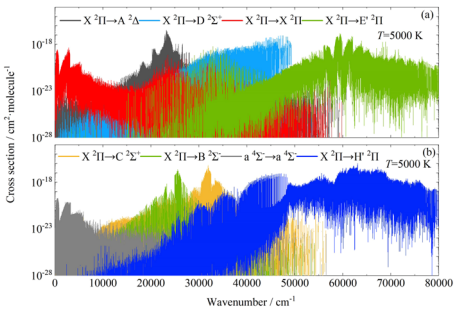

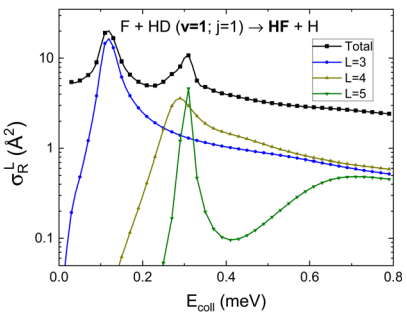

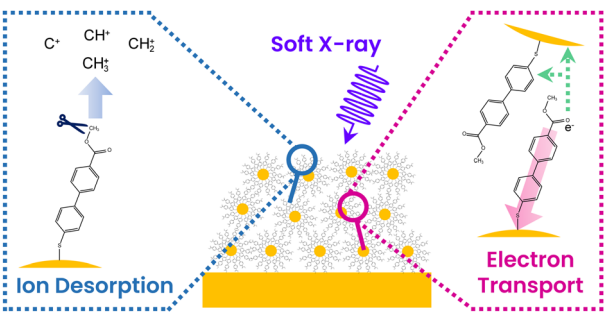

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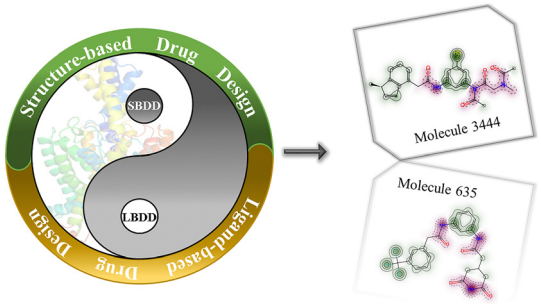

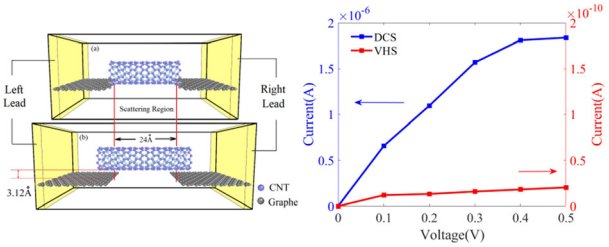

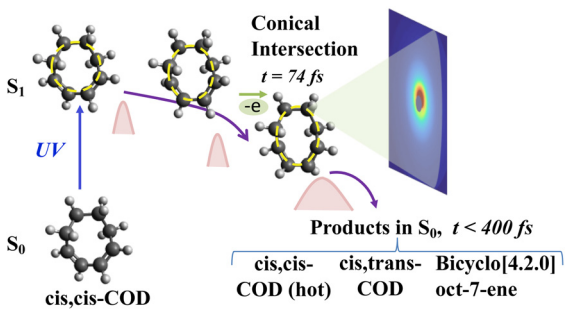

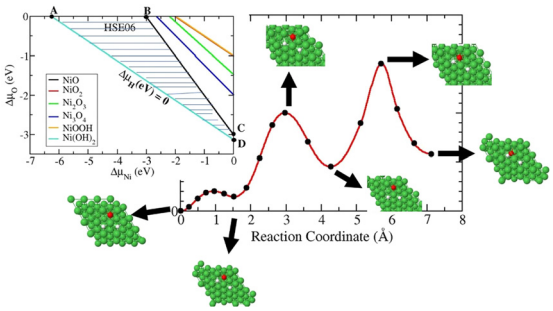

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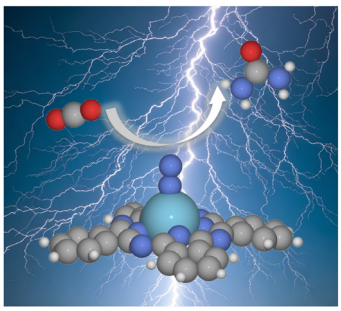

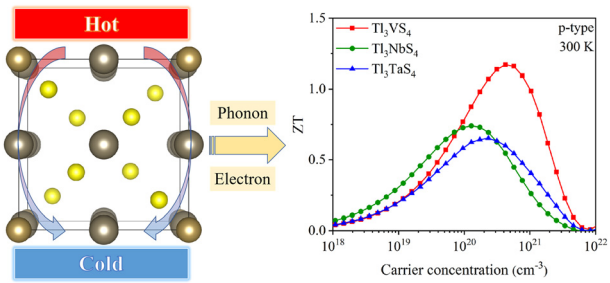

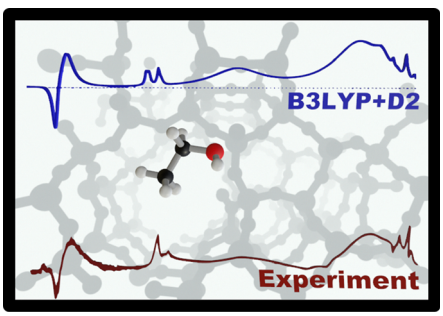

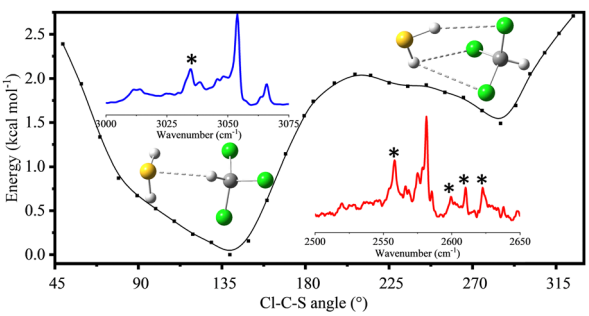

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CORRECTION

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Correction: Density functional theory study of crown ether–magnesium complexes: from a solvated ion to an ion trap

Katarina Ćeranić, Branislav Milovanović and Milena Petković*