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Zaposlenja

2011- danas Viši znan. suradnik, Institut za fiziku, Zagreb

2008- 2011 Znan. suradnik, Institut za fiziku, Zagreb

2006- 2007 Marie Curie ITN Fellowship, Laboratoire de Physique des Solides, University of Paris XI

1998- 2007 Asistent, Institut za fiziku, Zagreb

Obrazovanje

2004 *Collective electronic states of the new quasi-one-dimensional materials*, Doktorat, fizika kondenzirane materije, PMF, Sveučilište u Zagrebu

1998 *Nelinearna vodljivost vala gustoće spina u Bechgaardovim solima* Diplomski rad iz fizike, PMF, Sveučilište u Zagrebu

Voditeljstvo i suradnja na projektima

BICRO-PoC 2016, Hrvatska (01.06.2016.-30.05.2017.)

Projekt: QuartzNano-Senzori za kvarcnu mikrovagu unaprijeđeni na nanoskali

Suvoditelj na projektu: NanoporeArray-lonskom mikroprobom ocrtane matrice nanopora u 2D materijalima

Znanstveni Centar Izvrsnosti, Centar za napredne materijale i senzore,, Hrvatska (10.11.2014.-10.11.2019.) Voditelj skupine za eksperimentalne tehnike u Jedinici za grafen i 2D materijale

Unity through Knowledge Fund, Hrvatska

Projekt: *Confined DNA*, 15.10.2013.-14.10.2015, potpora: 1.5 mil. Kn;

Suradnik: A. Rađenović, EPFL, Lausanne, CH

Projekt: *Protein assisted DNA monolayer self assembly*, 01.09.2008. – 31.08.2010., potpora: 0.4 mil. Kn;

Suradnik: A.S. Smith, Uni Erlangen-Nurnernberg, DE

Bilateralni projekti Austrija-Hrvatska (01.01.2014-31.12.2015):

Projekt: *Investigation of molecular ligand-receptor recognition tuned by cryoprotectants*

Suradnik: A. Ebner, Johannes Kepler University, Linz

Projekt: *Tuning the interaction in lipid multibilayers by ions: When does a multivalent ion become a polyion?* Suradnik: G. Pabst, University of Graz

Mentorstvo

Doktorat: D. Grgičin (*Dinamika i struktura otopina soli deoksiribonukleinske kiseline: utjecaj valencije protuiona*, 14/07/2015) Doktorati u izradi: I. Delač Marion, od 10/2011 (područje istraživanja *Hibridne strukture: biomakromolekule deponirane na modernim 2D materijalima*)

Diplomanti: D. Pichler (*Dielektrična i strukturna svojstva vodenih otopina iona magnezija i deoksiribonukleinske kiseline*), 30/05/2017.; F. Poljak, (Kompleksi lipida i DNK, 22/02/2016); I. Nikić (*Istraživanje mikroskopijom atomskih sila DNK molekula deponiranih na dobro definiranim površinama*, 28/02/2014), M. Sorić (*Denaturacija DNK praćena UV-spektrofotometrijom i konduktometrijom*, 20/12/2012), A. Sučić (*Konformacije biopolielektrolita* 19/12/2012), D. Vurnek (*Manning kondenzacija na DNK fragmentima sa monovalentnim i divalentnim protuionima* 27/09/2012), A. Vidak (*Električna vodljivost vodenih otopina natrij polistiren sulfonata* 26/07/2010) Diplomski rad u izradi: Luka Vanjur, Nanopore

Profesionalne i organizacijske aktivnosti

- Voditeljstvo konstrukcije, planiranja, postavljanja, opremanja svih laboratorija za eksperimentalno istraživanje u fizici meke tvari na Institutu za fiziku, Zagreb. Upravljanje kontinuiranim procesom redizajna, unaprijeđenja i nabave opreme. Uspostavljeni laboratoriji za: dielektričnu/impedancijsku spektroskopiju, meke tanke filmove (QCM-D), lasersku mikro/spektroskopiju (FCS), površinske probe (AFM, STM), biokemijski laboratorij (wet-lab)

- Recenzent za Horizon2020, Phys.Rev.Lett., Phys.Rev. B, Polymer Int., Carbon, Macromolecules; HrZZ

- Predstavnik Hrvatske u COST Action CA15126: *“Between Atom and Cell: Integrating Molecular Biophysics Approaches for Biology and Healthcare (MOBIEU)” 2016-2020*

2012-danas Voditelj, *“Greta Pifat-Mrzljak Međunarodna Škola Biofizike”*

2010-danas Tajnik, *Hrvatsko biofizičko društvo*

2009-danas sunositelj (sa S. Tomić) kolegij Dielektrična spektroskopija PDS Biofizika, PMF, Zagreb

2008-danas (su)organizator Xmas Biophysics Workshop

2009-danas (su)organizator EMBO Conference Series *“Physics of Cells”*

2011: Član OO 7. ZS HFD, Primošten

2010: Član OO 41st International Physics Olympiad, Zagreb

2009: Organizator, Otvoreni dan, Institute of physics, Zagreb

Seminari i pozvana predavanja

2017: Inovacijski kontroling: 8. KONTROLING KONFERENCIJA: Instrumenti kontrolinga, The Westin, Zagreb

2016: *Static conformation and dynamics of polyelectrolytes: measuring the manning condensation coefficient*, Regional Biophysics Congress 2016, Trieste, Italija

2014: *Nanotehnologija*, Tribina Hrvatsko bioetičko društvo, Filozofski fakultet, Zagreb

2014: *Static conformation and dynamics of polyelectrolytes*, National University of Singapore

2014: *Static conformation and dynamics of polyelectrolytes*, Biophysical Chemistry Seminar, University of Melbourne, Australia

2014: *Static conformation and dynamics of polyelectrolytes*, ANSTO Sydney, Australia

2013: *Diffusion of nanoparticles probes the mesh formed by the biopolyelectrolytes* Nanobiotechnology Workshop, Joint Research Centre of the European Commission, Ispra, Italija

2011: *Electrical transport in polyelectrolytes*, Croatian Physical Society Congress

2010: *Electrical transport in polyelectrolytes*, Croatian Biophysical Society Seminar

2010: *Free and bound charge in a polyelectrolyte: sodium hyaluronate semidilute solutions*, From Solid State to Biophysics V, Dubrovnik, Croatia

2010: *DNA conformations and counterion condensation*, University of Erlangen-Nuernberg, Germany

2008: Seminar Hrvatskog Mikroskopijskog Društva: *Pakiranje DNK s proteinima*

2006: Tokyo University, Tokyo, Japan & Gakushuin University, Tokyo, Japan: *The phase diagrams of chains and ladders of (La,Y,Sr,Ca)₁₄Cu₂₄O₄₁*

2006: Tokyo University, Tokyo, Japan & Kyoto University, Kyoto, Japan: *Fundamental length scales in aqueous Na-DNA*

Znanstveni radovi u časopisima CC baze

h-index=10, 400+ citata

<https://scholar.google.hr/citations?user=vV6TTMwAAAAJ&hl=hr&oi=ao>

22	J. Feng, Ke Liu, M. Graf, M. Lihter, R. Bulushev, D. Dumcenco, D. Alexander, D. Krasnozhan, T. Vuletić , A. Kis, A. Radenovic, <i>Electrochemical reaction in single layer MoS₂: nanopores opened atom by atom</i> , Nano Letters 15 , 3431 (2015)	IF=12.9
21	I. Delač Marion, D. Grgičin, K. Salamon, S. Bernstorff, T. Vuletić , <i>Polyelectrolyte Composite: Hyaluronic Acid Mixture with DNA</i> , Macromolecules 48 , 2686 (2015)	5.9
20	K. Salamon, D. Aumiler, G. Pabst, T. Vuletić , <i>Probing the mesh formed by the semirigid polyelectrolytes</i> , Macromolecules 46 , 1107 (2013)	5.9
19	A. Horvatić, I. Dodig, T. Vuletić , D. Pavoković, L. Bindila, A. Butorac, M. Cindrić, <i>A comparison between enhanced MALDI in-source decay by ammonium persulfate and N- or C-terminal derivatization methods for detailed peptide structure determination</i> , Analytical Chemistry 85 , 3940-3947 (2013)	5.9
18	T. Vuletić , S. Dolanski Babić, D. Grgičin, D. Aumiler, J. Raedler, F. Livolant and S. Tomić, <i>Manning free counterions fraction for a rod-like polyion - short DNA fragments in very low salt</i> , Phys. Rev. E 83 , 041803 (2011)	2.3
17	T. Vuletić , S. Dolanski Babić, D. Grgičin, T. Ivek, S. Tomić, and R. Podgornik, <i>Structure and dynamics of hyaluronic acid semidilute solutions: A dielectric spectroscopy study</i> , Phys. Rev. E 82 , 011922 (2010).	2.3
16	T. Ivek, T. Vuletić , S. Tomić, A. Akrap, H. Berger and L. Forró, <i>Collective Charge Excitations below the Metal-to-Insulator Transition in BaVS₃</i> , Phys. Rev. B 78 , 035110 (2008).	3.7
15	T. Ivek, T. Vuletić , B. Korin-Hamzić, O. Milat, S. Tomić, B. Gorshunov, M. Dressel, J. Akimitsu, Y. Sugiyama, C. Hess and B. Büchner, <i>Crossover in charge transport from one-dimensional copper-oxygen chains to two-dimensional ladders in (La,Y)_y(Sr,Ca)_{14-y}Cu₂₄O₄₁</i> , Phys. Rev. B 78 , 205105 (2008)	3.7
14	S. Tomić, T. Ivek, T. Vuletić , S. Krča, F. Livolant and R. Podgornik, <i>Short-fragment Na-DNA dilute aqueous solutions: fundamental length scales and screening</i> , Eur. Phys. Lett. 81 , 68003 (2008).	2.2
13	S. Tomić, S. Dolanski Babić, T. Vuletić , S. Krča, D. Ivanković, L. Griparić and R. Podgornik, <i>Dielectric relaxation of DNA aqueous solutions</i> , Phys. Rev. E 75 , 021905 (2007).	2.3

12	T.Vuletić , T. Ivek, B.Korin-Hamzić, S.Tomić, B.Gorshunov, M.Dressel and J.Akimitsu, <i>The Spin-Ladder and Spin-Chain System (La,Y,Sr,Ca)₁₄Cu₂₄O₄₁: Electronic Phases, Charge and Spin Dynamics</i> , Physics Reports 428 , 169 (2006).	22.4
11	S. Tomić, T. Vuletić , S. Dolanski Babić, S. Krča, D. Ivanković, L. Griparić, S. Tomić, R. Podgornik, <i>Screening and fundamental length scales in semidilute Na-DNA aqueous solutions</i> , Phys. Rev. Lett 97 , 098303 (2006).	7.4
10	P. Zornoza, K. Petukhov, M. Dressel, N. Biškup, T.Vuletić and S. Tomić, <i>Anisotropy and Field-Dependence of the Spin-Density-Wave Dynamics in the Quasi One-Dimensional Conductor (TMTSF)₂PF₆</i> Eur. Phys. J. B 46 , 223 (2005).	1.6
09	T.Vuletić , T. Ivek, B.Korin-Hamzić, S.Tomić, B.Gorshunov, P.Haas, M.Dressel, J.Akimitsu, T. Sasaki and T.Nagata, <i>Anisotropic Charge Modulation in the Ladder Planes of Sr_{14-x}Ca_xCu₂₄O₄₁ by calcium doping</i> , Phys. Rev. B 71 , 012508 (2005).	3.7
08	M. Pinterić, T. Vuletić , M. Lončarić, K. Petukhov, B. Gorshunov, J. U. von Schütz, S. Tomić and M. Dressel, <i>Mott–Peierls phase in deuterated copper-DCNQI systems: a comprehensive study of longitudinal and transverse conductivity and ageing effects</i> , J. Phys.: Condens. Matter 15 , 7351 (2003).	1.9
07	T.Vuletić , B.Korin-Hamzić, S.Tomić, B.Gorshunov, P.Haas, T.Rôôm, M.Dressel, J.Akimitsu and T.Nagata, <i>Suppression of the charge-density wave state in Sr₁₄Cu₂₄O₄₁ by calcium doping</i> , Phys. Rev. Lett 90 , 257002 (2003).	7.4
06	T. Vuletić , B. Korin-Hamzić, S. Tomić, B. Gorshunov, P. Haas, M. Dressel, J. Akimitsu, T. Sasaki, T. Nagata, <i>Variable-range hopping conductivity in the copper-oxygen chains of La₃Sr₃Ca₈Cu₂₄O₄₁</i> , Phys. Rev. B 67 , 184521 (2003).	3.7
05	B. Gorshunov, P. Haas, T. Room, M. Dressel, T. Vuletić , B. Korin-Hamzić, S.Tomić, J. Akimitsu, T. Nagata, <i>Charge Density Wave formation in Sr₁₄Cu₂₄O₄₁</i> , Phys. Rev. B 66 , 060508 (2002).	3.7
04	T. Vuletić , P. Auban-Senzier, C. Pasquier, S. Tomić, D. Jérôme, M. Héritier and K. Bechgaard, <i>Coexistence of Superconductivity and Spin Density Wave orderings in the organic superconductor (TMTSF)₂PF₆</i> , Eur. Phys. J. B 25 , 319 (2002).	1.6
03	M. Pinterić, T. Vuletić , S. Tomić and J.U. von Schütz, <i>Complex low-frequency dielectric relaxation of the charge-density wave state in the (2,5(OCH₃)₂DCNQI)₂Li</i> , Eur. Phys. J. B 22 , 335 (2001).	1.6
02	T. Vuletić , C. Pasquier, P. Auban-Senzier, S. Tomić, D. Jérôme, K. Maki and K. Bechgaard, <i>Influence of quantum Hall effect on linear and nonlinear conductivity in the FISDW states of the organic conductor (TMTSF)₂PF₆</i> , Eur. Phys. J. B 21 , 53 (2001).	1.6
01	M. Pinterić, T. Vuletić , M. Lončarić, S. Tomić and J.U. von Schütz, <i>Low frequency dielectric spectroscopy of the Peierls-Mott insulating state in the deuterated copper-DCNQI systems</i> , Eur. Phys. J. B 16 , 487 (2000).	1.6

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S. Tomić, D. Grgičin, T. Ivek, T. Vuletić , S. Dolanski Babić and R. Podgornik, <i>Dynamics and structure of biopolyelectrolytes in repulsion regime characterized by dielectric spectroscopy</i> , Physica B: Condensed Matter 407 , 1958-1963 (2012)	1.1
T. Vuletić , T. Ivek, B.Korin-Hamzić, S.Tomić, B.Gorshunov, M.Dressel, C. Hess, B. Büchner and J.Akimitsu, <i>Phase diagrams of $(La,Y,Sr,Ca)_{14}Cu_{24}O_{41}$: switching between the ladders and the chains</i> , J. Phys. IV France 131 , 299 (2005).	0.3
C. Pasquier, P. Auban-Senzier, T. Vuletić , S. Tomić, M. Héritier, D. Jérôme, <i>Coexistence of superconductivity and spin density wave orderings in Bechgaard and Fabre salts</i> , J. Phys. IV France 12 , Pr9-197 (2002).	0.3
S. Tomić, T. Vuletić , M. Pinterić, B.Korin-Hamzić, <i>Modalities of Self-Organized Charge Response in Low Dimensional Systems</i> , J. Phys. IV France 12 , Pr9-211 (2002).	0.3
T. Vuletić , M. Pinterić, M. Lončarić, S. Tomić and J.U. von Schütz, <i>Non-ohmic electrical transport in the Peierls-Mott state of deuterated copper-DCNQI systems</i> , Synth. Metals 120 , 1001 (2001).	2.2
S. Tomić, M. Pinterić, T. Vuletić , J.U. von Schütz and D. Schweitzer, <i>Low-frequency dielectric spectroscopy of commensurate density waves</i> , Synth. Metals 120 , 695 (2001).	2.2
T. Vuletić , D. Herman, N. Biškup, M. Pinterić, A. Omerzu, S. Tomić and M. Nasagawa, <i>Single-particle and spin-density wave charge dynamics in $(TMTSF)_2PF_6$ and $(TMTSF)_2AsF_6$: A comparative overview</i> , J. Phys. IV France 9 , Pr10-275 (1999).	0.3
N. Biškup, T. Vuletić , D. Herman, S. Tomić, M. Nagasawa and K. Bechgaard, <i>Low Frequency Dielectric Response in Spin Density Wave Phase of Bechgaard Salts</i> , Synth. Metals 103 , 2052 (1999).	2.2

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S. Tomić, D. Grgičin, T. Ivek, S. Dolanski Babić, T. Vuletić , G. Pabst and R. Podgornik, <i>Dynamics and Structure of Biopolyelectrolytes characterized by Dielectric Spectroscopy</i> , Macromolecular Symposia 305 , 43-54 (2011) Online ISSN: 1521-3900
O. Milat, K. Salamon, S. Tomić, T. Vuletić and T. Ivek. <i>Commensurate superstructures in the $[(Ca/Sr)_2Cu_2O_3][CuO_2]_{x \approx \sqrt{2}}$ composite crystal //</i> Proceedings 10th Multinational Congress on Microscopy 2011 / Falcieri, Elisabetta (ur.). Urbino : Societa Italiana Scienze Microscopiche (SISM), 2011. 41-42

O. Milat, K. Salamon, S. Tomić, T. Vuletić and T. Ivek, *Diffraction analysis of incommensurate modulation in "chain-ladder" composite crystal (Sr/Ca)₁₄Cu₂₄O₄₁*, 209-210, 14th European Microscopy Congress EMC2008, Aachen, Germany, 1-5 September 2008 ([Springer-Verlag Berlin](#) ISBN 978-3-540-85154-7, 2008)

Zbornici radova međunarodnih skupova

Physics of Cells: from the Edge to the Heart – PhysCell 2009 / the First meeting of the European Molecular Biology Organization Conference Series on Cell Biophysics, Primošten, Croatia, September 6-13, 2009, edited by A.S. Smith, **T. Vuletić**, K. Sengupta, L. Limozin, L. Vonna, T. Franosch (Institut za fiziku, Zagreb, 2009) – Book of Abstracts.

The 11th Greta Pifat Mrzljak International School of Biophysics: Biomolecular Complexes and Assemblies Sep30-Oct9 2012. edited by Hozić, Amela; **Vuletić, Tomislav** (Institut Ruđer Bošković, Hrvatsko biofizičko društvo, Zagreb, 2012) – Book of Abstracts. ISBN: 978-953-6690-95-4

The 12th Greta Pifat Mrzljak International School of Biophysics: Biomolecular Complexes and Assemblies Sep27-Oct6 2014. edited by Hozić, Amela; **Vuletić, Tomislav** (Institut Ruđer Bošković, Hrvatsko biofizičko društvo, Zagreb, 2014) – Book of Abstracts. ISBN: 978-953-7941-02-4

The 13th Greta Pifat Mrzljak International School of Biophysics: ABC of Physics of Life Sep01-10 2016. edited by Marion, Sanjin; Delač Marion, Ida; Maltar-Strmečki, Nadica; Josef-Golubić, Sanja; **Vuletić, Tomislav** (Institut za fiziku, Hrvatsko biofizičko društvo, Zagreb, 2016) – Book of Abstracts. ISBN: 978-953-7666-14-9