**Сведения об официальном оппоненте**

|  |  |
| --- | --- |
| Ф.И.О. | Паращук Дмитрий Юрьевич |
| Ученая степень. | Доктор физико-математических наук |
| Отрасль науки, по которой защищена диссертация. | Физика |
| Полное и сокращенное наименование организации, являющейся основным местом работы. | Федеральное государственное бюджетное образовательное учреждение высшего образования «Московский государственный университет имени М.В. Ломоносова» |
| Должность | руководитель лаборатории органической электроники |
| Электронная почта | paras@physics.msu.ru |
| Список основных публикаций по теме диссертации в рецензируемых научных изданиях за последние 5 лет (не более 15).  | 1. Kharlanov O.G., Maslennikov D.R., Feldman E.V., Abashev G.G., Borshchev O.V., Ponomarenko S.A., Vender M.V., **Paraschuk D.Yu.**, Sosorev, A.Yu. Spectroscopic Assessment of Charge Carrier Mobility in Crystalline Organic Semiconductors. // Advanced Electronic Materials. – 2021. – V. 7, N. 12. – Art.№ 2100579. DOI: 10.1002/aelm.202100579.
2. Kalinichenko N.K., Balakirev D.O., Savchenko P.S., Mannanov A.L., Peregudova S.M., **Paraschuk D.Yu.**, Ponomarenko S.A., Luponosov Yu.N. Effects of electron-withdrawing group and π-conjugation length in donor-acceptor oligothiophenes on their properties and performance in non-fullerene organic solar cells. // Dyes and Pigments. – 2021. – V. 194. – Art.№ 109592. DOI: 10.1016/j.dyepig.2021.109592.
3. Solodukhin A.N., Luponosov Yu.N., Mannanov A.L., Savchenko P.S., Bakirov A.V., Shcherbina M.A., Chvalun S.N., **Paraschuk D.Yu.**, Ponomarenko S.A. Branched Electron-Donor Core Effect in D-π-A Star-Shaped Small Molecules on Their Properties and Performance in Single-Component and Bulk-Heterojunction Organic Solar Cells. // Energies. – 2021. – V. 14, N. 12. – Art.№ 3596. DOI: 10.3390/en14123596.
4. Vladimirova Yu.V., Mannanov A.L., Luponosov Yu.N., Ponomarenko S.A., **Paraschuk D.Yu.**, Zadkov V. N. Effect of SiO2 nanoparticles embedded in the electrode layer on the efficiency of organic solar cells. // Optical Materials Express. – 2021. – V. 11, N. 5. – P. 1537-1545. DOI: 10.1364/OME.422227.
5. Trukhanov V.A., Dominskiy D.I., Parashchuk O.D., Feldman E.V., Surin N.M., Svidchenko E.A., Skorotetcky M.S., Borshchev O.V., **Paraschuk D.Yu.**, Sosorev, A.Yu. Impact of N-substitution on structural, electronic, optical, and vibrational properties of a thiophene–phenylene co-oligomer. // RSC Advances. – 2020. – V. 10, N. 47. – P. 28128–28138. DOI: 10.1039/d0ra03343j.
6. Gavrik, A.Yu., Mannanov A.L., Tsarev S.A., Bruevich V.V., Trukhanov V.A., Chernikov Yu.A., Savchenko P.S., Gvozdkova J.D., Solodukhin A.N., Troshin P.A., Ponomarenko S.A., **Paraschuk D.Yu.** Spectral technique for accurate efficiency measurements of emerging solar cells. // Solar Energy. – 2020. – V. 206. – P. 770–777. DOI: 10.1016/j.solener.2020.06.015.
7. Nuraliev M.K., Parashchuk O.D., Tukachev N. V., Repeev Yu.A., Maslennikov D.R., Borshchev O. V., Vainer Yu.G., **Paraschuk D.Yu.**, Sosorev A.Yu. Toward probing of the local electron–phonon interaction in small-molecule organic semiconductors with Raman spectroscopy. // J. Chem. Phys. – 2020. – V. 153, N. 17. – Art. № 174303. DOI: 10.1063/5.0023754.
8. Brotsman V.A., Rybalchenko A.V., Zubov D.N., **Paraschuk, D.Yu.**, Goryunkov, A.A. Double-caged fullerene acceptors: effect of alkyl chain length on photovoltaic performance. // Journal of Materials Chemistry C. – 2019. – V. 7. – P. 3278-3285. DOI: 10.1039/c8tc05971c.
9. Sosorev A.Yu., Nuraliev M.K., Feldman E.V., Maslennikov D.R., Borshchev O.V., Skorotetcky M.S., Surin N.M., Kazantsev M.S., Ponomarenko S.A., **Paraschuk D.Yu.** Impact of terminal substituents on electronic, vibrational and optical properties of thiophene-phenylene co-oligomers. // Physical Chemistry Chemical Physics. – 2019. – V. 21. – P. 11578-11588. DOI: 10.1039/c9cp00910h.
10. Topchiy M.A., Dzhevakov P.B., Kirilenko N.Yu., Rzhevskiy S.A., Ageshina A.A., Khrustalev V.N., **Paraschuk D.Yu.**, Bermeshev M.V., Nechaev M.S., Asachenko A.F. Cyclometallated 1,2,3-triazol-5-ylidene iridium(III) complexes: synthesis, structure, and photoluminescence properties. // Mendeleev Communications. – 2019. – V. 29, N. 2. – P. 128–131. DOI: 10.1016/j.mencom.2019.03.002.
11. Mannanov A.A., Bruevich V.V., Feldman E.V., Trukhanov V.A., Pshenichnikov M.S., **Paraschuk D.Yu.** Real-Time Tracking of Polymer Crystallization Dynamics in Organic Bulk Heterojunctions by Raman Microscopy. // J. Phys. Chem. C. – 2018. – V. 122, N. 34. – P. 19289–19297. DOI: 10.1021/acs.jpcc.8b03136.
12. Sosorev A.Yu., Maslennikov D.R., Chernyshov I.Yu., Dominskiy D.I., Bruevich V.V., Vener M.V., **Paraschuk D.Yu.** Relationship between electron–phonon interaction and low-frequency Raman anisotropy in high-mobility organic semiconductors. // Phys. Chem. Chem. Phys. – 2018. – V. 20, N. 28. – P. 18912–18918. DOI: 10.1039/C8CP03232G.
 |