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Device physics of van der Waals heterojunction solar cells

DOI: 10.1038/s41699-018-0049-3

Npj 2D Materials and Applications, 2018, 2, .

Source: <https://exaly.com/paper-pdf/68797242/citation-report.pdf>

Version: 2024-04-24

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#	Paper	IF	Citations
82	Diverse Atomically Sharp Interfaces and Linear Dichroism of 1TReS ₂ -ReSe ₂ Lateral p-n Heterojunctions. <i>Advanced Functional Materials</i> , 2018 , 28, 1804696	15.6	35
81	Exciton physics and device application of two-dimensional transition metal dichalcogenide semiconductors. <i>Npj 2D Materials and Applications</i> , 2018 , 2,	8.8	267
80	Interlayer and intralayer excitons in MoS ₂ /WS ₂ and MoSe ₂ /WSe ₂ heterobilayers. <i>Physical Review B</i> , 2018 , 97,	3.3	54
79	Van der Waals heterostructures for optoelectronics: Progress and prospects. <i>Applied Materials Today</i> , 2019 , 16, 435-455	6.6	62
78	Retracted Article: Physics of excitons and their transport in two dimensional transition metal dichalcogenide semiconductors.. <i>RSC Advances</i> , 2019 , 9, 25439-25461	3.7	16
77	Hexagonal Boron Nitride for Surface Passivation of Two-Dimensional van der Waals Heterojunction Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 39765-39771	9.5	21
76	Charge Separation in Epitaxial SnS/MoS Vertical Heterojunctions Grown by Low-Temperature Pulsed MOCVD. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 40543-40550	9.5	11
75	Tunable electronic structures in BP/MoSSe van der Waals heterostructures by external electric field and strain. <i>Applied Surface Science</i> , 2019 , 497, 143809	6.7	45
74	Van der Waals Broken-Gap p-n Heterojunction Tunnel Diode Based on Black Phosphorus and Rhenium Disulfide. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 8266-8275	9.5	29
73	Defect-Mediated Charge-Carrier Trapping and Nonradiative Recombination in WSe Monolayers. <i>Journal of the American Chemical Society</i> , 2019 , 141, 10451-10461	16.4	48
72	Laser Annealing Improves the Photoelectrochemical Activity of Ultrathin MoSe Photoelectrodes. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 19207-19217	9.5	19
71	Hybrid metal nanoantenna 2D-material photovoltaic device. <i>Solar Energy Materials and Solar Cells</i> , 2019 , 200, 109918	6.4	5
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68	Radiation tolerance of two-dimensional material-based devices for space applications. <i>Nature Communications</i> , 2019 , 10, 1202	17.4	42
67	Probing Charge Carrier Transport and Recombination Pathways in Monolayer MoS/WS Heterojunction Photoelectrodes. <i>Nano Letters</i> , 2019 , 19, 9084-9094	11.5	15
66	A new metal transfer process for van der Waals contacts to vertical Schottky-junction transition metal dichalcogenide photovoltaics. <i>Science Advances</i> , 2019 , 5, eaax6061	14.3	40

65	Two-Terminal Multibit Optical Memory via van der Waals Heterostructure. <i>Advanced Materials</i> , 2019 , 31, e1807075	24	111
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62	Application in (Opto) Electronics. 2020 , 143-164		
61	Low frequency Raman study of interlayer couplings in WS ₂ /MoS ₂ van der Waals heterostructures. <i>Japanese Journal of Applied Physics</i> , 2020 , 59, 062004	1.4	3
60	Excitonic nature of dispersion of two-dimensional transition metal dichalcogenides and effect of annealing on excitons. <i>Journal of Physics: Conference Series</i> , 2020 , 1461, 012036	0.3	
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58	CMOS compatible novel integration solution for broad range tunable photodetection using phase-change material based heterostructures. <i>Scientific Reports</i> , 2020 , 10, 11131	4.9	6
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