

# Krisztian Palotas

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3312165/publications.pdf>

Version: 2024-02-01

80  
papers

2,165  
citations

318942

23  
h-index

263392

45  
g-index

80  
all docs

80  
docs citations

80  
times ranked

3375  
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct observation of trapped charges at ReSe <sub>2</sub> and graphene heterojunctions. Applied Surface Science, 2022, 579, 152187.	3.1	5
2	Tuning Ferromagnetism in a Single Layer of Fe above Room Temperature. Materials, 2022, 15, 1019.	1.3	1
3	Coexistence of antiferromagnetism and superconductivity in Mn/Nb(110). Physical Review B, 2022, 105, .	1.1	12
4	Higher-indexed Moiré patterns and surface states of MoTe <sub>2</sub> /graphene heterostructure grown by molecular beam epitaxy. Npj 2D Materials and Applications, 2022, 6, .	3.9	6
5	High-resolution tunneling spin transport characteristics of topologically distinct magnetic skyrmionic textures from theoretical calculations. Journal of Magnetism and Magnetic Materials, 2021, 519, 167440.	1.0	1
6	Spin-orbit coupling induced splitting of Yu-Shiba-Rusinov states in antiferromagnetic dimers. Nature Communications, 2021, 12, 2040.	5.8	48
7	Electronic and Magnetic Properties of Building Blocks of Mn and Fe Atomic Chains on Nb(110). Nanomaterials, 2021, 11, 1933.	1.9	7
8	On-surface synthesis of 2D COFs via molecular assembly directed photocycloadditions: a first-principles investigation. Journal of Physics Condensed Matter, 2021, 33, 475201.	0.7	0
9	Completing the picture of initial oxidation on copper. Applied Surface Science, 2021, 562, 150148.	3.1	12
10	Simulation of STM Images of Hematite $\alpha$ -Fe <sub>2</sub> O <sub>3</sub> (0001) Surfaces: Dependence on Distance and Bias. Journal of Physical Chemistry C, 2021, 125, 26711-26717.	1.5	3
11	Using the Ni <sub>2</sub> N dipole as a theoretical indicator for estimating the electrocatalytic performance of active sites in the nitrogen reduction reaction: single transition metal atoms embedded in two dimensional phthalocyanine. Journal of Materials Chemistry A, 2020, 8, 3598-3605.	5.2	47
12	Adsorption of Azobenzene on Hexagonal Boron Nitride Nanomesh Supported by Rh(111). Journal of Physical Chemistry C, 2020, 124, 14182-14194.	1.5	6
13	Atomic Structure and Work Function Modulations in Two-Dimensional Ultrathin Cu <sub>1</sub> Films on Cu(111) from First-Principles Calculations. Journal of Physical Chemistry C, 2020, 124, 16362-16370.	1.5	8
14	Selective transformation of ethanol to acetaldehyde catalyzed by Au/h-BN interface prepared on Rh(111) surface. Applied Catalysis A: General, 2020, 592, 117440.	2.2	10
15	Strain-induced stripe phase in charge-ordered single layer NbSe <sub>2</sub> . NPG Asia Materials, 2020, 12, .	3.8	9
16	Magnetism and in-gap states of 3d transition metal atoms on superconducting Re. Npj Quantum Materials, 2019, 4, .	1.8	29
17	Magnetic structure of monatomic Fe chains on Re(0001): Emergence of chiral multispin interactions. Physical Review B, 2019, 99, .	1.1	32
18	Growing Ultrathin Cu <sub>2</sub> O Films on Highly Crystalline Cu(111): A Closer Inspection from Microscopy and Theory. Journal of Physical Chemistry C, 2019, 123, 12716-12721.	1.5	14

#	ARTICLE	IF	CITATIONS
19	Polymorphic expressions of ultrathin oxidic layers of Mo on Au(111). <i>Nanoscale</i> , 2019, 11, 6023-6035.	2.8	8
20	Nitrogen-Doped Graphene on Copper: Edge-Guided Doping Process and Doping-Induced Variation of Local Work Function. <i>Journal of Physical Chemistry C</i> , 2019, 123, 8802-8812.	1.5	7
21	Coordination-Controlled C-C Coupling Products via <i>ortho</i> -Site C-H Activation. <i>ACS Nano</i> , 2019, 13, 1385-1393.	7.3	25
22	Subatomic-scale resolution with SPM: Co adatom on p(2 Å <sup>-1</sup> )Cu(110):O. <i>Nanotechnology</i> , 2019, 30, 095703.	1.3	2
23	Inducing skyrmions in ultrathin Fe films by hydrogen exposure. <i>Nature Communications</i> , 2018, 9, 1571.	5.8	40
24	Screened KKR. <i>Springer Proceedings in Physics</i> , 2018, , 381-386.	0.1	0
25	Magnetism of a Co monolayer on Pt(111) capped by overlayers of $5d$ elements: A spin-model study. <i>Physical Review B</i> , 2018, 97, .	1.1	2
26	Theory of high-resolution tunneling spin transport on a magnetic skyrmion. <i>Physical Review B</i> , 2018, 97, .	1.1	2
27	Atomic and electronic structure of the Si(331)-(12 Å <sup>-1</sup> ) surface. <i>Journal of Chemical Physics</i> , 2018, 149, 204702.	1.2	8
28	On the Structure of Ultrathin FeO Films on Ag(111). <i>Nanomaterials</i> , 2018, 8, 828.	1.9	9
29	High-resolution combined tunneling electron charge and spin transport theory of Néel and Bloch skyrmions. <i>Physical Review B</i> , 2018, 98, .	1.1	5
30	Magnetism and exchange-bias effect at the MnN/Fe interface. <i>Physical Review B</i> , 2018, 98, .	1.1	5
31	Au-Rh Surface Structures on Rh(111): DFT Insights into the Formation of an Ordered Surface Alloy. <i>Journal of Physical Chemistry C</i> , 2018, 122, 22435-22447.	1.5	5
32	Tailoring the hexagonal boron nitride nanomesh on Rh(111) with gold. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 15473-15485.	1.3	17
33	Toward tailoring Majorana bound states in artificially constructed magnetic atom chains on elemental superconductors. <i>Science Advances</i> , 2018, 4, eaar5251.	4.7	233
34	Atomistic Origins of Surface Defects in CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Perovskite and Their Electronic Structures. <i>ACS Nano</i> , 2017, 11, 2060-2065.	7.3	123
35	Formation and stability of metastable skyrmionic spin structures with various topologies in an ultrathin film. <i>Physical Review B</i> , 2017, 95, .	1.1	61
36	Spin-polarized scanning tunneling microscopy characteristics of skyrmionic spin structures exhibiting various topologies. <i>Physical Review B</i> , 2017, 96, .	1.1	9

#	ARTICLE	IF	CITATIONS
37	Domain-wall profiles in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML">\langle \text{mml:mrow}>\langle \text{mml:mi}>\text{Co}</\text{mml:mi}>\langle \text{mml:mi}>\langle \text{mml:mi}>\text{Pt}</\text{mml:mi}>\langle \text{mml:mi}>\text{Pt}</\text{mml:mi}></\text{mml:mrow}>/\text{Pt}(111)$ ultrathin films: Influence of the Dzyaloshinskii-Moriya interaction. Physical Review B, 2016, 94, .	1.1	20
38	Nanostructural adsorption of vanadium oxide on functionalized graphene: a DFT study. Physical Chemistry Chemical Physics, 2016, 18, 29208-29217.	1.3	8
39	Enhancement of the spin transfer torque efficiency in magnetic STM junctions. Physical Review B, 2016, 94, .	1.1	5
40	Structural, electronic and adsorption properties of Rh(111)/Mo(110) bimetallic catalyst: A DFT study. Applied Surface Science, 2016, 389, 1094-1103.	3.1	10
41	Complex magnetic phase diagram and skyrmion lifetime in an ultrathin film from atomistic simulations. Physical Review B, 2016, 93, .	1.1	65
42	Spilling of electronic states in Pb quantum wells. Physical Review B, 2016, 93, .	1.1	7
43	Oxygen vacancy induced surface stabilization: (110) terminated magnetite. Physical Review B, 2016, 94, .	1.1	12
44	Microscopic origin of chiral shape induction in achiral crystals. Nature Chemistry, 2016, 8, 326-330.	6.6	68
45	Chen's derivative rule revisited: Role of tip-orbital interference in STM. Physical Review B, 2015, 91, .	1.1	31
46	Preferential Adsorption of $\text{TiO}_2$ Nanostructures on Functionalized Single-Walled Carbon Nanotubes: A DFT Study. Journal of Physical Chemistry C, 2015, 119, 15085-15093.	1.5	18
47	Magnetic correlations beyond the Heisenberg model in an Fe monolayer on Rh(0001). Journal of Physics Condensed Matter, 2015, 27, 146003.	0.7	2
48	What is the orientation of the tip in a scanning tunneling microscope?. Progress in Surface Science, 2015, 90, 223-238.	3.8	18
49	Surface diffusion of Pb atoms on the Si(553)-Au surface in narrow quasi-one-dimensional channels. Physical Review B, 2014, 89, .	1.1	15
50	Contrast stability and $\tilde{\text{stripe}}^{\text{TM}}$ formation in scanning tunnelling microscopy imaging of highly oriented pyrolytic graphite: the role of STM-tip orientations. Journal of Physics Condensed Matter, 2014, 26, 485007.	0.7	8
51	Spin-correlations and magnetic structure in an Fe monolayer on 5d transition metal surfaces. Journal of Physics Condensed Matter, 2014, 26, 186001.	0.7	17
52	Three-dimensional Wentzel-Kramers-Brillouin approach for the simulation of scanning tunneling microscopy and spectroscopy. Frontiers of Physics, 2014, 9, 711-747.	2.4	14
53	Formation of magnetic skyrmions with tunable properties in PdFe bilayer deposited on Ir(111). Physical Review B, 2014, 90, .	1.1	76
54	STM contrast inversion of the Fe(110) surface. Applied Surface Science, 2014, 304, 65-72.	3.1	13

#	ARTICLE	IF	CITATIONS
55	Arbitrary tip orientation in STM simulations: 3D WKB theory and application to W(110). Journal of Physics Condensed Matter, 2013, 25, 445009.	0.7	11
56	Interaction of Titanium Oxide Nanostructures with Graphene and Functionalized Graphene Nanoribbons: A DFT Study. Journal of Physical Chemistry C, 2013, 117, 25424-25432.	1.5	32
57	Prediction of the bias voltage dependent magnetic contrast in spin-polarized scanning tunneling microscopy. Physical Review B, 2013, 87, .	1.1	10
58	The effect of a Pt impurity layer on the magnetocrystalline anisotropy of hexagonal close-packed Co: a first-principles study. Journal of Physics Condensed Matter, 2012, 24, 406001.	0.7	1
59	Theoretical study of magnetic domain walls through a cobalt nanocontact. Physical Review B, 2012, 86, .	1.1	6
60	Simulation of spin-polarized scanning tunneling spectroscopy on complex magnetic surfaces: Case of a Cr monolayer on Ag(111). Physical Review B, 2012, 85, .	1.1	13
61	Formation and destabilization of Ga interstitials in GaAsN: Experiment and theory. Physical Review B, 2012, 86, .	1.1	12
62	Orbital-dependent electron tunneling within the atom superposition approach: Theory and application to W(110). Physical Review B, 2012, 86, .	1.1	20
63	Higher-order contributions to the Rashba-Bychkov effect with application to the Bi/Ag(111) surface alloy. Physical Review B, 2012, 85, .	1.1	108
64	Simulation of spin-polarized scanning tunneling microscopy on complex magnetic surfaces: Case of a Cr monolayer on Ag(111). Physical Review B, 2011, 84, .	1.1	16
65	Theoretical study of the role of the tip in enhancing the sensitivity of differential conductance tunneling spectroscopy on magnetic surfaces. Physical Review B, 2011, 83, .	1.1	17
66	Structural, electronic, and magnetic properties of nanometer-sized iron-oxide atomic clusters: Comparison between GGA and $U$ . Physical Review B, 2010, 81, .	1.1	24
67	Adsorption of benzene, fluorobenzene and meta-fluorobenzene on Cu(110): A computational study. Journal of Computational Chemistry, 2008, 29, 1589-1595.	1.5	17
68	Role of Hydrogen in Giant Spin Polarization Observed on Magnetic Nanostructures. Physical Review Letters, 2008, 100, 026806.	2.9	24
69	Simulating adsorption of complex molecules using the linearity between interaction energies and tunnelling currents: the case of hexabenzocoronene on a Ag/Pt dislocation network. New Journal of Physics, 2007, 9, 393-393.	1.2	2
70	Detection of spin-states in Mn-doped gallium arsenide films. Nanotechnology, 2007, 18, 044006.	1.3	1
71	Conductance and Kondo Effect in a Controlled Single-Atom Contact. Physical Review Letters, 2007, 98, 016801.	2.9	161
72	Site- and Orientation-Selective Anchoring of a Prototypical Molecular Building Block. Journal of the American Chemical Society, 2007, 129, 5007-5011.	6.6	23

#	ARTICLE	IF	CITATIONS
73	Formation of a Regular Fullerene Nanochain Lattice. Journal of Physical Chemistry B, 2006, 110, 21394-21398.	1.2	87
74	Multiple scattering in a vacuum barrier obtained from real-space wavefunctions. Journal of Physics Condensed Matter, 2005, 17, 2705-2713.	0.7	92
75	Ab initio study of the electric transport in gold nanocontacts containing single impurities. Physical Review B, 2004, 70, .	1.1	18
76	First principles fully relativistic study on low energy magnetic excitations of thin films. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 304-305.	1.0	0
77	Electric transport in nanostructures: real space ab initio investigations. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 1594-1595.	1.0	1
78	Ab initio studies of electric transport in terms of the real space Kubo-Greenwood equation. Physical Review B, 2003, 67, .	1.1	16
79	First-principles relativistic study of spin waves in thin magnetic films. Physical Review B, 2003, 68, .	1.1	185
80	Ab initio calculation of the anisotropic magnetoresistance in Ni <sub>1-x</sub> Fe <sub>x</sub> bulk alloys. Physical Review B, 2003, 68, .	1.1	22