# Hyun-Joo Koo

## List of Publications by Year in Descending Order



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| 77 papers | 1,843 citations | 23 h-index | 41 g-index |
| 85 ext. papers | 2,072 ext. citations | 4.9 avg, IF | 4.68 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 77 | Absence of Spin Frustration in the Kagom Layers of Cu2+ Ions in Volborthite Cu3V2O7(OH)2 2H2O and Observation of the Suppression and Re-Entrance of Specific Heat Anomalies in Volborthite under an External Magnetic Field. *Condensed Matter*, **2022**, 7, 24 | 1.8 | |
| 76 | Factors Governing the Propagation Direction and Spin-Rotation Plane of Noncollinear Magnetic Structures: A Helix vs Cycloid in Doubly Ordered Perovskites NaYMnWO and NaYNiWO. *Inorganic Chemistry*, **2021**, 60, 15124-15127 | 5.1 | 0 |
| 75 | Unusual Spin Exchanges Mediated by the Molecular Anion PS: Theoretical Analyses of the Magnetic Ground States, Magnetic Anisotropy and Spin Exchanges of MPS (M = Mn, Fe, Co, Ni). *Molecules*, **2021**, 26, | 4.8 | 2 |
| 74 | Spin Exchanges Between Transition Metal Ions Governed by the Ligand p-Orbitals in Their Magnetic Orbitals. *Molecules*, **2021**, 26, | 4.8 | 8 |
| 73 | Orbital Magnetic Moments of the High-Spin Co Ions at Axially-Elongated Octahedral Sites: Unquenched as Reported from Experiment or Quenched as Predicted by Theory?. *Inorganic Chemistry*, **2020**, 59, 18319-18324 | 5.1 | 2 |
| 72 | Synthesis of the Elusive = / Star Structure: A Possible Quantum Spin Liquid Candidate. *Journal of the American Chemical Society*, **2020**, 142, 5013-5016 | 16.4 | 2 |
| 71 | Intralayer ferromagnetism between S=52 ions in MnBi2Te4: Role of empty Bi p states. *Physical Review B*, **2020**, 101, | 3.3 | 6 |
| 70 | On Ferro- and Antiferro-Spin-Density Waves Describing the Incommensurate Magnetic Structure of NaYNiWO. *Inorganic Chemistry*, **2020**, 59, 17856-17859 | 5.1 | 5 |
| 69 | Reply to Comment on Oxygen-Vacancy-Induced Midgap States Responsible for the Fluorescence and the Long-Lasting Phosphorescence of the Inverse Spinel Mg(Mg,Sn)O4 *Chemistry of Materials*, **2020**, 32, 7568-7568 | 9.6 | |
| 68 | Electronic and Structural Factors Controlling the Spin Orientations of Magnetic Ions. *Inorganic Chemistry*, **2019**, 58, 11854-11874 | 5.1 | 19 |
| 67 | The Conceptual Dilemma of the One-Electron Picture in Describing the Uniaxial Magnetism at Linear Coordination Sites. *European Journal of Inorganic Chemistry*, **2019**, 2019, 2630-2634 | 2.3 | 3 |
| 66 | Synthesis and Characterization of Sodium-Iron Antimonate NaFeSbO: One-Dimensional Antiferromagnetic Chain Compound with a Spin-Glass Ground State. *Inorganic Chemistry*, **2019**, 58, 11333-11350 | 5.1 | 6 |
| 65 | Effect of Nonmagnetic Ion Deficiency on Magnetic Structure: Density Functional Study of SrMnOCuTe, SrMOCuTe (M = Co, Mn), and the Oxide-Hydrides SrVOH, SrVOH, and SrVOH. *Inorganic Chemistry*, **2019**, 58, 14769-14776 | 5.1 | 1 |
| 64 | Efficient Non-Catalytic Carboxylation of Diamines to Cyclic Ureas Using 2-Pyrrolidone as a Solvent and a Promoter. *Advanced Synthesis and Catalysis*, **2019**, 361, 297-306 | 5.6 | 13 |
| 63 | Oxygen-Vacancy-Induced Midgap States Responsible for the Fluorescence and the Long-Lasting Phosphorescence of the Inverse Spinel Mg(Mg,Sn)O4. *Chemistry of Materials*, **2017**, 29, 1069-1075 | 9.6 | 23 |
| 62 | Structural and Magnetic Properties of the Trirutile-type 1D-Heisenberg Anti-Ferromagnet CuTaO. *Inorganic Chemistry*, **2017**, 56, 6318-6329 | 5.1 | 11 |
| 61 | Single-Domain Ferromagnet of Noncentrosymmetric Uniaxial Magnetic Ions and Magnetoelectric Interaction. *Angewandte Chemie - International Edition*, **2017**, 56, 10196-10199 | 16.4 | |

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| 60 | Group of Quantum Bits Acting as a Bit Using a Single-Domain Ferromagnet of Uniaxial Magnetic Ions. *ChemPhysChem*, **2017**, 18, 2147-2150 | 3.2 | 1 |
| 59 | Crucial Role of Site Disorder and Frustration in Unusual Magnetic Properties of Quasi-2D Triangular Lattice Antimonate Na4FeSbO6. *Applied Magnetic Resonance*, **2015**, 46, 1121-1145 | 0.8 | 8 |
| 58 | On Why the Two Polymorphs of NaFePO4 Exhibit Widely Different Magnetic Structures: Density Functional Analysis. *Inorganic Chemistry*, **2015**, 54, 4966-71 | 5.1 | 11 |
| 57 | Prediction of Spin Orientations in Terms of HOMO-LUMO Interactions Using Spin-Orbit Coupling as Perturbation. *Accounts of Chemical Research*, **2015**, 48, 3080-7 | 24.3 | 56 |
| 56 | Density functional investigation of why Ba2BiFeS5 and Ba2SbFeS5 differ in their magnetic properties. *Journal of Magnetism and Magnetic Materials*, **2014**, 360, 152-156 | 2.8 | |
| 55 | Strongly correlated one-dimensional magnetic behavior of NiTa2O6. *Physical Review B*, **2014**, 89, | 3.3 | 21 |
| 54 | Spin exchange and magnetic dipole-dipole interactions leading to the magnetic superstructures of MAs2O6 (M = Mn, Co, Ni). *Inorganic Chemistry*, **2014**, 53, 3812-7 | 5.1 | 10 |
| 53 | Simultaneous presence of two different magnetic structures in a single-crystalline solid? Hydrogen-distribution-dependent magnetism. *Inorganic Chemistry*, **2014**, 53, 10800-2 | 5.1 | |
| 52 | Most spin-1/2 transition-metal ions do have single ion anisotropy. *Journal of Chemical Physics*, **2014**, 141, 124113 | 3.9 | 20 |
| 51 | Dimethylammonium copper formate [(CH3)2NH2]Cu(HCOO)3: A metal-organic framework with quasi-one-dimensional antiferromagnetism and magnetostriction. *Physical Review B*, **2013**, 87, | 3.3 | 54 |
| 50 | Magnetic properties and energy-mapping analysis. *Dalton Transactions*, **2013**, 42, 823-53 | 4.3 | 215 |
| 49 | Spin-Peierls distortions in TiPO4. *Physical Review B*, **2013**, 88, | 3.3 | 13 |
| 48 | On the cause for the no spin-gap behavior of the triangular spin tube system CsCrF4. *Journal of Magnetism and Magnetic Materials*, **2012**, 324, 2806-2808 | 2.8 | 10 |
| 47 | A Genuine Two-Dimensional Ising Ferromagnet with Magnetically Driven Re-entrant Transition. *Angewandte Chemie*, **2012**, 124, 11915-11919 | 3.6 | 11 |
| 46 | A genuine two-dimensional Ising ferromagnet with magnetically driven re-entrant transition. *Angewandte Chemie - International Edition*, **2012**, 51, 11745-9 | 16.4 | 45 |
| 45 | On the long-range magnetic order and the preferred spin orientation of the layered magnetic oxides Sr2MnSi2O7 and Ba2MnGe2O7. *Solid State Communications*, **2012**, 152, 1116-1118 | 1.6 | 3 |
| 44 | Investigation of the spin exchange interactions and the magnetic structure of the high-temperature multiferroic CuBr2. *Physical Review B*, **2012**, 86, | 3.3 | 24 |
| 43 | Density functional investigation of the magnetic superstructure of Cu2MnSnS4. *Solid State Communications*, **2012**, 152, 1683-1685 | 1.6 | 9 |

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| 42 | Density functional analysis of the magnetic structures of Sr2MGe2O7 (M=Mn, Co). *Journal of Magnetism and Magnetic Materials*, **2012**, 324, 3716-3718 | 2.8 | 3 |
| 41 | Analysis of the magnetic structure of the manganese oxychalcogenides R2Mn2Se2O (R=LaO, BaF) by density functional calculations. *Journal of Magnetism and Magnetic Materials*, **2012**, 324, 3859-3862 | 2.8 | 5 |
| 40 | Non-Idle-Spin Behavior and Field-Induced Magnetic Transitions of the Triple Chain Magnet Cu3(OH)4SO4. *Journal of the Physical Society of Japan*, **2012**, 81, 063704 | 1.5 | 5 |
| 39 | On the nature of the spin frustration in the CuO2 ribbon chains of LiCuVO4: crystal structure determination at 1.6 K, magnetic susceptibility analysis, and density functional evaluation of the spin exchange constants. *Inorganic Chemistry*, **2011**, 50, 3582-8 | 5.1 | 28 |
| 38 | Finite magnetization plateau from a two-dimensional antiferromagnet: density functional analysis of the magnetic structure of Cu3(P2O6OH)2. *Inorganic Chemistry*, **2010**, 49, 9253-6 | 5.1 | 12 |
| 37 | Spin dimer and mapping analyses of the magnetic properties of VO(CH3CO2)2 and VO(OCH2CH2O). *Solid State Sciences*, **2010**, 12, 685-690 | 3.4 | 6 |
| 36 | Determination of Strongly Interacting Spin Exchange Path and Spin Lattice Model of (VO)2(H2O){O3P-(CH2)3-PO3}?2H2O on the Basis of Spin Dimer Analysis. *Bulletin of the Korean Chemical Society*, **2010**, 31, 1665-1668 | 1.2 | |
| 35 | Density functional investigation of the magnetic properties of PbMBO4 (M=Cr, Mn, Fe). *Solid State Communications*, **2009**, 149, 602-604 | 1.6 | 12 |
| 34 | Two-leg spin ladder model for Ag2VOP2O7 from mapping analysis based on first principles density functional calculations. *Solid State Communications*, **2009**, 149, 847-851 | 1.6 | 1 |
| 33 | Effect of magnetic dipole-dipole interactions on the spin orientation and magnetic ordering of the spin-ladder compound Sr3Fe2O5. *Inorganic Chemistry*, **2009**, 48, 9051-3 | 5.1 | 41 |
| 32 | Analysis of the spin lattice model for the spin-gapped layered compounds Na(3)Cu(2)SbO(6) and Na(2)Cu(2)TeO(6) on the basis of electronic structure calculations. *Inorganic Chemistry*, **2008**, 47, 128-33 | 5.1 | 43 |
| 31 | Determination of the spin-lattice relevant for the quaternary magnetic oxide Bi4Cu3V2O14 on the basis of tight-binding and density functional calculations. *Inorganic Chemistry*, **2008**, 47, 4779-84 | 5.1 | 39 |
| 30 | Investigation of the Vanadyl Bond Ordering and Analysis of the Spin Exchange Interactions in Pb2V3O9 and Pb2As2VO9. *Chemistry of Materials*, **2008**, 20, 6929-6938 | 9.6 | 11 |
| 29 | On the correct spin lattice for the spin-gapped magnetic solid NH4CuPO4H2O. *Journal of Solid State Chemistry*, **2008**, 181, 276-281 | 3.3 | 12 |
| 28 | On the relevance of an antiferromagnetic dimer model for the spin-gapped magnetic solids Cu(terpy)Mo2O7 and Cu(OH)(p-pyc)H2O. *Inorganic Chemistry*, **2007**, 46, 2498-502 | 5.1 | 2 |
| 27 | Spin dimer analysis of the magnetic structures of A2V3O9 (A=Ba, Sr) and Na9V14O35: Importance of the V4+?O?V4+ super-superexchange interactions mediated by the OV5+O bridges. *Solid State Sciences*, **2007**, 9, 824-832 | 3.4 | 8 |
| 26 | Comparison of the spin exchange interactions in PbCu2(PO4)2 and SrCu2(PO4)2 on the basis of spin dimer analysis. *Solid State Sciences*, **2007**, 9, 955-960 | 3.4 | 4 |
| 25 | Importance of the O-M-O bridges (M = V5+, Mo6+) for the spin-exchange interactions in the magnetic oxides of Cu2+ ions bridged by MO4 tetrahedra: spin-lattice models of Rb2Cu2(MoO4)3, BaCu2V2O8, and KBa3Ca4Cu3V7O28. *Inorganic Chemistry*, **2006**, 45, 4440-7 | 5.1 | 29 |

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| 24 | Spin dimer analysis of the magnetic structures of Ba3Cr2O8, Ba3Mn2O8, Na4FeO4, and Ba2CoO4 with a three-dimensional network of isolated MO4 (M = Cr, Mn, Fe, Co) tetrahedra. *Inorganic Chemistry*, **2006**, 45, 10743-9 | 5.1 | 21 |
| 23 | Importance of supersuperexchange interactions in determining the dimensionality of magnetic properties. Determination of strongly interacting spin exchange paths in A(2)Cu(PO(4))(2) (A = Ba, Sr), ACuP(2)O(7) (Ba, Ca, Sr, Pb), CaCuGe(2)O(6), and Cu(2)UO(2)(PO(4))(2) on the basis of qualitative spin dimer analysis. *Inorganic Chemistry*, **2005**, 44, 4359-65 | 5.1 | 40 |
| 22 | Investigation of the crystal structure and the structural and magnetic properties of SrCu2(PO4)2. *Inorganic Chemistry*, **2005**, 44, 6632-40 | 5.1 | 48 |
| 21 | Analysis of the spin exchange interactions and the ordered magnetic structures of lithium transition metal phosphates LiMPO4 (M = Mn, Fe, Co, Ni) with the olivine structure. *Inorganic Chemistry*, **2005**, 44, 2407-13 | 5.1 | 92 |
| 20 | Spin dimer, electronic band structure and classical spin analyses of spin exchange interactions and ordered magnetic structures of magnetic solids. *Solid State Sciences*, **2005**, 7, 827-852 | 3.4 | 50 |
| 19 | Investigation of the incommensurate and commensurate magnetic superstructures of LiCuVO4 and CuO on the basis of the isotropic spin exchange and classical spin approximations. *Inorganic Chemistry*, **2004**, 43, 4026-35 | 5.1 | 38 |
| 18 | Investigation of the spin exchange interactions and magnetic Structures of the CrVO4-type transition metal phosphates, sulfates, and vanadates by spin dimer analysis. *Inorganic Chemistry*, **2003**, 42, 5932-7 | 5.1 | 19 |
| 17 | Cu(HCO2)2L {L = pyrazine, 4,4?-bipyridine}: employing the formate anion as a building block in three-dimensional coordination polymers. *Dalton Transactions*, **2003**, 2905-2911 | 4.3 | 53 |
| 16 | Spin exchange interactions and magnetic structures of extended magnetic solids with localized spins: theoretical descriptions on formal, quantitative and qualitative levels. *Journal of Solid State Chemistry*, **2003**, 176, 417-481 | 3.3 | 254 |
| 15 | Analysis of the spin exchange interactions of ferromagnetic CdVO3 in terms of first principles and qualitative electronic structure calculations. *Journal of Solid State Chemistry*, **2003**, 175, 341-347 | 3.3 | 18 |
| 14 | Interpretation of the magnetic structures of Cu2Te2O5X2 (X = Cl, Br) and Ca3.1Cu0.9RuO6 on the basis of electronic structure considerations: cases for strong super-superexchange interactions involving Cu2+ ions. *Inorganic Chemistry*, **2003**, 42, 3898-906 | 5.1 | 50 |
| 13 | Magnetic superstructures of cupric oxide CuO as ordered arrangements of one-dimensional antiferromagnetic chains. *Inorganic Chemistry*, **2003**, 42, 1187-92 | 5.1 | 23 |
| 12 | Spin dimer analysis of the three-dimensional antiferromagnetic ordering in the quaternary manganese sulfides BaLn2MnS5 (Ln=La, Ce, Pr). *Journal of Solid State Chemistry*, **2002**, 169, 143-148 | 3.3 | 5 |
| 11 | Flux growth of vanadyl pyrophosphate, (VO)(2)P(2)O(7), and spin dimer analysis of the spin exchange interactions of (VO)(2)P(2)O(7) and vanadyl hydrogen phosphate, VO(HPO(4)).0.5H(2)O. *Inorganic Chemistry*, **2002**, 41, 4664-72 | 5.1 | 77 |
| 10 | A two-dimensional radical salt based upon BEDT-TTF and the dimeric, magnetic anion [Fe(tdas)2]22□(BEDT-TTF)2[Fe(tdas)2](tdas = 1,2,5-thiadiazole-3,4-dithiolate). *Journal of Materials Chemistry*, **2002**, 12, 3570-3577 | | 20 |
| 9 | Spin dimer analysis of the anisotropic spin exchange interactions in the distorted wolframite-type oxides CuWO4, CuMoO4-III, and Cu(Mo(0.25)W0.75)O4. *Inorganic Chemistry*, **2001**, 40, 2161-9 | 5.1 | 38 |
| 8 | Crystal structure, physical properties and electronic structure of a new organic conductor □-(BEDT-TTF)2SF5CHFCF2SO3. *Journal of Materials Chemistry*, **2001**, 11, 2008-2013 | | 40 |
| 7 | Theoretical Analyses of Spin Exchange Interactions in Extended Magnetic Solids Containing Several Unpaired Spins per Spin Site. *Materials Research Society Symposia Proceedings*, **2000**, 658, 531 | | |

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| 6 | Spin Dimer Analysis of the Spin Exchange Interactions of the Vanadium Oxides AV4O9 (A=Ca, Sr, Cs2, NH2(CH2)4NH2). *Journal of Solid State Chemistry*, **2000**, 153, 263-269 | 3.3 | 21 |
| 5 | Analysis of the spin exchange interactions in the three phases of vanadium pyrophosphate, (VO)2P2O7, in terms of spin-orbital interaction energy. *Inorganic Chemistry*, **2000**, 39, 3599-604 | 5.1 | 34 |
| 4 | Electron Counting Scheme Relevant for Late Transition Metal Compounds with Weakly Electronegative Ligands. Electronic Band Structure Study of Phosphosilicides PtSi3P2 and NiSi2P3 *Inorganic Chemistry*, **1999**, 38, 340-345 | 5.1 | 19 |
| 3 | Analysis of Bonding and d-Electron Count in the Transition-Metal Carbides and Transition-Metal-Silicide Carbides with Discrete Linear M-C-M Units (M = Cr, Fe, Re) by Electronic Structure Calculations. *Inorganic Chemistry*, **1999**, 38, 2204-2210 | 5.1 | 5 |
| 2 | A copper-based 2D hybrid perovskite solar absorber as a potential eco-friendly alternative to lead halide perovskites. *Journal of Materials Chemistry C*, | 7.1 | 2 |
| 1 | Nanosession: Mott Insulators and Transitions115-122 | | 1 |