

# Han-Ill Yoo

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5476362/publications.pdf>

Version: 2024-02-01

67  
papers

1,569  
citations

304743

22  
h-index

345221

36  
g-index

69  
all docs

69  
docs citations

69  
times ranked

1324  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Title is missing!. , 2002, 8, 5-36.  |      | 109       |
| 2  | Oxygen-vacancy-induced ferromagnetism in $\text{CeO}_2$ first principles. Physical Review B, 2009, 79, .   | 3.2  | 105       |
| 3  | Chemical diffusivity of $\text{BaTiO}_3$ . Solid State Ionics, 1999, 120, 141-153.   | 2.7  | 99        |
| 4  | Phase Stability and Oxygen Nonstoichiometry of Highly Oxygen-Deficient Perovskite-Type Oxides: A Case Study of $(\text{Ba,Sr})_{1-x}(\text{Co,Fe})_x\text{O}_{3-x}$ . Chemistry of Materials, 2012, 24, 269-274. | 6.7  | 83        |
| 5  | Iron-Excess Manganese Ferrite: Electrical Conductivity and Cation Distributions. Journal of the American Ceramic Society, 1987, 70, 388-392.   | 3.8  | 73        |
| 6  | Hydration and oxidation kinetics of a proton conductor oxide, $\text{SrCe}_{0.95}\text{Yb}_{0.05}\text{O}_{2.975}$ . Physical Chemistry Chemical Physics, 2008, 10, 974-982.                                     | 2.8  | 57        |
| 7  | Diffusion of Sr and Zr in $\text{BaTiO}_3$ single crystals. Solid State Sciences, 2008, 10, 725-734.   | 3.2  | 57        |
| 8  | Chemical Diffusivity of $\text{BaTiO}_3$ : IV, Acceptor-Doped Case. Journal of the American Ceramic Society, 2000, 83, 773-779.  | 3.8  | 55        |
| 9  | Two-Fold Diffusion Kinetics of Oxygen Re-Equilibration in Donor-Doped $\text{BaTiO}_3$ . Journal of the American Ceramic Society, 2005, 88, 617-623.   | 3.8  | 55        |
| 10 | Chemical diffusivity of $\text{BaTiO}_3$ : Defect chemical analysis. Physical Review B, 2000, 61, 3975-3982.   | 3.2  | 53        |
| 11 | Electrical Conductivity Relaxations and Chemical Diffusivities of $\text{BaCe}_{0.95}\text{Yb}_{0.05}\text{O}_{2.975}$ upon Hydration and Oxidation. Journal of the Electrochemical Society, 2009, 156, B66.     | 2.9  | 49        |
| 12 | Mass relaxation vs. electrical conductivity relaxation of a proton conducting oxide upon hydration and dehydration. Solid State Ionics, 2009, 180, 1443-1447.  | 2.7  | 43        |
| 13 | Defect-chemical analysis of the nonstoichiometry, conductivity and thermopower of $\text{La}_2\text{NiO}_{4+\delta}$ . Physical Chemistry Chemical Physics, 2010, 12, 4704.                                      | 2.8  | 40        |
| 14 | Conductivity relaxation patterns of mixed conductor oxides under a chemical potential gradient. Solid State Ionics, 2009, 180, 326-337.  | 2.7  | 35        |
| 15 | Correlation of the cationic effective charge of transport with the nonstoichiometry and the oxygen exponents in $\text{Ca}_2\text{O}$ . Journal of Physics and Chemistry of Solids, 1996, 57, 65-73.             | 4.0  | 33        |
| 16 | Electron-Ion Interference and Onsager Reciprocity in Mixed Ionic-Electronic Transport in $\text{TiO}_2$ . Physical Review Letters, 2006, 97, 255901.   | 7.8  | 33        |
| 17 | Alluaudite $\text{LiMnPO}_4$ : a new Mn-based positive electrode for Li rechargeable batteries. Journal of Materials Chemistry A, 2014, 2, 8632-8636.  | 10.3 | 32        |
| 18 | Electrical conductivity-defect structure correlation of variable-valence and fixed-valence acceptor-doped $\text{BaTiO}_3$ in quenched state. Physical Chemistry Chemical Physics, 2009, 11, 3115.               | 2.8  | 31        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Experimental determination of the Onsager coefficients of transport for $\text{Ce}_{0.8}\text{Pr}_{0.2}\text{O}_{2+\delta}$ . Physical Chemistry Chemical Physics, 2010, 12, 9637.   | 2.8 | 30        |
| 20 | Template route toward a novel nanostructured superionic conductor film; AgI nanorod/ $\beta$ - $\text{Al}_2\text{O}_3$ . Chemical Communications, 2001, , 2530-2531.   | 4.1 | 29        |
| 21 | Partial electronic conductivity and electrolytic domain of bilayer electrolyte $\text{Zr}_{0.84}\text{Y}_{0.16}\text{O}_{1.92}/\text{Ce}_{0.9}\text{Gd}_{0.1}\text{O}_{1.95}$ . Solid State Ionics, 2011, 195, 25-35.                              | 2.7 | 28        |
| 22 | Two-fold to-single-fold transition of the conductivity relaxation patterns of proton-conducting oxides upon hydration/dehydration. Solid State Ionics, 2013, 252, 132-139.   | 2.7 | 26        |
| 23 | Al-doped $\text{SrTiO}_3$ : Part II, unusual thermodynamic factor and chemical diffusivity. Solid State Ionics, 2007, 178, 1089-1094.  | 2.7 | 22        |
| 24 | Reassessment of conventional polarization technique to measure partial electronic conductivity of electrolytes. Solid State Ionics, 2010, 181, 724-729.  | 2.7 | 22        |
| 25 | Equal mobility of constituent cations in $\text{BaTiO}_3$ . Applied Physics Letters, 2008, 92, .   | 3.3 | 21        |
| 26 | Effect of acceptor size and hole degeneracy on oxygen nonstoichiometry of $\text{La}_2\text{NiO}_{4+\delta}$ . Solid State Ionics, 2013, 232, 129-137.   | 2.7 | 20        |
| 27 | Isothermal Onsager matrices and acceptor size effect on mass/charge transport properties of $\text{La}_{1.9-\text{A}}\text{A}_{0.1}\text{NiO}_{3.95+\delta}$ (A = Ca, Sr). Physical Chemistry Chemical Physics, 2014, 16, 16595-16605.             | 2.8 | 20        |
| 28 | Co-Doping Effect of Mn and Y on Charge and Mass Transport Properties of $\text{BaTiO}_3$ . Journal of Electroceramics, 2004, 13, 785-791.  | 2.0 | 19        |
| 29 | Thermoelectric behavior of a mixed ionic electronic conductor, $\text{Ce}_{1-x}\text{Gd}_x\text{O}_{2+\delta}$ . Physical Chemistry Chemical Physics, 2009, 11, 391-401.   | 2.8 | 19        |
| 30 | On the path-dependence of the open-cell voltage of a galvanic cell involving a ternary or multinary compound with multiple mobile ionic species under multiple chemical potential gradients. Physical Chemistry Chemical Physics, 2010, 12, 14699. | 2.8 | 17        |
| 31 | Compilation of all the isothermal mass/charge transport properties of the mixed conducting $\text{La}_2\text{NiO}_{4+\delta}$ at elevated temperatures. Physical Chemistry Chemical Physics, 2011, 13, 4651.                                       | 2.8 | 17        |
| 32 | Title is missing!. , 2001, 6, 61-74.   |     | 16        |
| 33 | P-Type Partial Conductivity of Donor(La)-Doped $\text{BaTiO}_3$ . , 2003, 10, 215-219.   |     | 15        |
| 34 | Hydration kinetics of proton-conducting zirconates upon a change of temperature in wet atmosphere. Solid State Ionics, 2010, 181, 1323-1327.   | 2.7 | 15        |
| 35 | Chemical diffusion in complex oxides with an emphasis on $\text{BaTiO}_3$ . Physical Chemistry Chemical Physics, 2003, 5, 2212-2218.   | 2.8 | 13        |
| 36 | Hydration of Proton-conducting $\text{BaCe}_{0.9}\text{Y}_{0.1}\text{O}_{3+\delta}$ by Decoupled Mass Transport. Scientific Reports, 2017, 7, 486.   | 3.3 | 13        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 37 | Cross Effect Between Ion and Electron Flows in $\text{Fe}_{3-x}\text{O}_4$ . Journal of Materials Research, 2002, 17, 1213-1219.  | 2.6 | 12        |
| 38 | Complete representation of isothermal mass and charge transport properties of mixed ionic-electronic conductor $\text{La}_2\text{NiO}_4$ . Physical Chemistry Chemical Physics, 2010, 12, 12951.                                    | 2.8 | 11        |
| 39 | Preparation of Asymmetric Tubular Oxygen Separation Membrane with Oxygen Permeable $\text{Pr}_2\text{Ni}_{0.75}\text{Cu}_{0.25}\text{Ga}_{0.05}\text{O}_4$ . International Journal of Applied Ceramic Technology, 2011, 8, 800-808. | 2.1 | 11        |
| 40 | On the origin of positive deviation of the defect structure of complex oxides. Solid State Ionics, 2012, 229, 59-73.  | 2.7 | 11        |
| 41 | Onsager coefficients of mixed ionic electronic conduction in oxides. Solid State Ionics, 2008, 179, 837-841.  | 2.7 | 10        |
| 42 | Concentration-cell measurement of proton transference number of $\text{SrCe}_{0.95}\text{Yb}_{0.05}\text{O}_3$ . Solid State Ionics, 2012, 213, 22-28.  | 2.7 | 10        |
| 43 | Partial conductivities and Onsager transport coefficient matrix of $\text{BaCo}_{0.70}\text{Fe}_{0.22}\text{Nb}_{0.08}\text{O}_3$ . Solid State Ionics, 2013, 241, 5-11.  | 2.7 | 10        |
| 44 | Isothermal transport properties and majority-type defects of $\text{BaCo}_{0.70}\text{Fe}_{0.22}\text{Nb}_{0.08}\text{O}_3$ . Physical Chemistry Chemical Physics, 2015, 17, 2598-2607.   | 2.8 | 8         |
| 45 | From Onsager to mixed ionic electronic conductors. Solid State Ionics, 2014, 262, 2-8.  | 2.7 | 7         |
| 46 | Unexpected thermoelectric behavior and immiscibility of the allegedly complete solid solution $\text{Sr}(\text{Ru}_{1-x}\text{Ti}_x)\text{O}_3$ . Physical Review B, 2014, 89, .  | 3.2 | 7         |
| 47 | Onsager Transport Coefficients of Mixed Ionic Electronic Conduction in $\text{CeO}_2$ . ECS Transactions, 2008, 13, 327-336.  | 0.5 | 6         |
| 48 | Semiconductor-to-insulator transition of undoped- $\text{BaTiO}_3$ in quenched state. Journal of Applied Physics, 2010, 107, .  | 2.5 | 6         |
| 49 | Experimental demonstration of the path- and time-dependence of open-circuit voltage of galvanic cells involving a multinary compound under multiple chemical potential gradients. Solid State Ionics, 2013, 235, 22-31.             | 2.7 | 6         |
| 50 | Electrotransport-induced unmixing and decomposition of ternary oxides. Journal of Applied Physics, 2015, 117, .   | 2.5 | 6         |
| 51 | A Chernia-Type Electrotransport Experiment in Magnetite, $\text{Fe}_{3-x}\text{O}_4$ . Electrochemistry, 2000, 68, 482-485.   | 1.4 | 6         |
| 52 | Chemical Diffusivity and Defect Chemistry of $\text{BaTiO}_3$ . Electrochemistry, 2000, 68, 415-422.  | 1.4 | 5         |
| 53 | Electrical transport properties of single-crystalline $\text{Mn-Zn}$ ferrous ferrite. Journal of Materials Research, 2001, 16, 774-777.   | 2.6 | 5         |
| 54 | Current-voltage characteristic of $\text{BaTiO}_3$ in its mixed n/p regime under oxygen potential gradients. Solid State Ionics, 2002, 150, 373-382.  | 2.7 | 5         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 55 | Nonstoichiometry and lattice parameter of $(\text{Mg}_{0.22}\text{Mn}_{0.07}\text{Fe}_{0.71})_{3}\text{FeO}_4$ ferrite. Journal of Materials Research, 1999, 14, 4070-4074.   | 2.6 | 4         |
| 56 | Thermomigration kinetics and a novel method to determine the chemical diffusivity of a mixed conductor. Solid State Ionics, 2017, 300, 212-218.   | 2.7 | 4         |
| 57 | Oxygen thermomigration in acceptor-doped perovskite. Physical Chemistry Chemical Physics, 2017, 19, 11120-11130.  | 2.8 | 4         |
| 58 | Insulation-resistance degradation kinetics of bulk $\text{BaTi}_{1-x}\text{Al}_{3/4}\text{O}_{3-x}$ and defect-chemical origin of acceptor-type(A) and doping-level( $x/4$ ) effect. Journal of Applied Physics, 2016, 120, . | 2.5 | 3         |
| 59 | On the kinetic decomposition voltage of ternary oxides. Physical Chemistry Chemical Physics, 2018, 20, 2396-2402.   | 2.8 | 3         |
| 60 | On the steady-state chemical potential profiles in bilayer solid electrolytes. Journal of Materials Research, 2012, 27, 1969-1974.  | 2.6 | 2         |
| 61 | Comment on "How to interpret Onsager cross terms in mixed ionic electronic conductors" by I. Riess, Phys. Chem. Chem. Phys., 2014,16, 22513. Physical Chemistry Chemical Physics, 2015, 17, 11103-11106.                      | 2.8 | 2         |
| 62 | FAILURE OF THE NERNST-EINSTEIN EQUATION IN MIXED CONDUCTOR COMPOUNDS. , 2000, , .   |     | 0         |
| 63 | Interference Effect between Electron and Ion Flows in Semiconducting $\text{Fe}_3\text{O}_4$ . Materials Research Society Symposia Proceedings, 2000, 658, 3251.  | 0.1 | 0         |
| 64 | ELECTRICAL CONDUCTION IN $\text{BaTiO}_3$ IN ITS MIXED n/p REGIME UNDER OXYGEN POTENTIAL GRADIENTS. , 2002, , .   |     | 0         |
| 65 | High Temperature Transport Properties and Reaction Kinetics of $(\text{Ce}_y\text{U}_{1-y})\text{O}_{2+x}$ . Journal of Nuclear Science and Technology, 2002, 39, 780-783.  | 1.3 | 0         |
| 66 | Mechanistic origin of the time-dependence of the open-circuit voltage of a galvanic cell involving a ternary or higher compound. Physical Chemistry Chemical Physics, 2021, 23, 15119-15126.                                  | 2.8 | 0         |
| 67 | Increasing Importance of Basic Knowledge in Solid State Electrochemistry. Electrochemistry, 2000, 68, 393-393.  | 1.4 | 0         |