# Richard M Ibberson

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 116 papers | 5,648 citations | 87888 38 h-index | 79698 73 g-index |
| 127 all docs | 127 docs citations | 127 times ranked | 6045 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Crystal structure and bonding of ordered C60. Nature, 1991, 353, 147-149. | 27.8 | 959 |
| 2 | Formation of isomorphic Ir3+ and Ir4+ octamers and spin dimerization in the spinel CuIr2S4. Nature, 2002, 416, 155-158. | 27.8 | 315 |
| 3 | Structure and superconductivity of LiFeAs. Chemical Communications, 2008, , 5918. | 4.1 | 278 |
| 4 | Neutron and X-ray single-crystal study of the AlPdMn icosahedral phase. Journal of Physics Condensed Matter, 1992, 4, 10149-10168. | 1.8 | 258 |
| 5 | Charge Ordering as Alternative to Jahn-Teller Distortion. Physical Review Letters, 2007, 98, . | 7.8 | 241 |
| 6 | The heat capacity of solid C60. Solid State Communications, 1992, 83, 711-715. | 1.9 | 181 |
| 7 | Investigation of the unusual magnetic spiral arrangement in BiFeO3. Physica B: Condensed Matter, 1992, 180-181, 117-118. | 2.7 | 146 |
| 8 | Structural behavior, crystal chemistry, and phase transitions in substituted leucite; high-resolution neutron powder diffraction studies. American Mineralogist, 1997, 82, 16-29. | 1.9 | 117 |
| 9 | Spin gap in Tl2Ru2O7 and the possible formation of Haldane chains in three-dimensional crystals. Nature Materials, 2006, 5, 471-476. | 27.5 | 109 |
| 10 | Lithium location in NASICON-type Li+ conductors by neutron diffraction. I. Triclinic ÃŽÂ±Ã¢Â€Â²-LiZr2(PO4)3. Solid State Ionics, 1999, 123, 173-180. | 2.7 | 104 |
| 11 | Low-Temperature Oxygen Migration and Negative Thermal Expansion in ZrW2-xMoxO8. Journal of the American Chemical Society, 2000, 122, 8694-8699. | 13.7 | 88 |
| 12 | Structural origins of the differing grain conductivity values in BaZr0.9Y0.1O2.95 and indication of novel approach to counter defect association. Journal of Materials Chemistry, 2008, 18, 3414. | 6.7 | 88 |
| 13 | Nitrogen atom location in rhombohedral and hexagonal RE2Fe17Nxcompounds. Journal of Physics Condensed Matter, 1991, 3, 1219-1226. | 1.8 | 86 |
| 14 | Cation Ordering, Domain Growth, and Zinc Loss in the Microwave Dielectric Oxide Ba3ZnTa2O9-Î´. Chemistry of Materials, 2003, 15, 586-597. | 6.7 | 85 |
| 15 | Temperature- and Pressure-Induced Proton Transfer in the 1:1 Adduct Formed between Squaric Acid and 4,4â€²-Bipyridine. Journal of the American Chemical Society, 2009, 131, 3884-3893. | 13.7 | 82 |
| 16 | Isotopic Polymorphism in Pyridine. Angewandte Chemie - International Edition, 2009, 48, 755-757. | 13.8 | 81 |
| 17 | Structural Characterization of the Redox Behavior in Copper-Exchanged Sodium Zeolite Y by High-Resolution Powder Neutron Diffraction. Chemistry of Materials, 2002, 14, 590-602. | 6.7 | 74 |
| 18 | High-resolution neutron powder diffraction studies of the structure of CsDSO4. Acta Crystallographica Section B: Structural Science, 1991, 47, 161-166. | 1.8 | 71 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | The influence of pressure and temperature on the crystal structure of acetone. Chemical Communications, 1999, , 751-752. | 4.1 | 70 |
| 20 | Distortion of Host Lattice in Clathrate Hydrate as a Function of Guest Molecule and Temperature. Journal of Physical Chemistry A, 2000, 104, 10623-10630. | 2.5 | 68 |
| 21 | Ba8ZnTa6O24: a high-Q microwave dielectric from a potentially diverse homologous series. Applied Physics Letters, 2003, 82, 4537-4539. | 3.3 | 68 |
| 22 | Is Deuterium Always Smaller than Protium?. Angewandte Chemie - International Edition, 2008, 47, 4208-4210. | 13.8 | 66 |
| 23 | Design and performance of the new supermirror guide on HRPD at ISIS. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 600, 47-49. | 1.6 | 64 |
| 24 | Structure of the Trimethylaluminum Dimer As Determined by Powder Neutron Diffraction at Low Temperature. Organometallics, 2000, 19, 4398-4401. | 2.3 | 61 |
| 25 | Does the modulated magnetic structure of BiFeO3change at low temperatures?. Journal of Physics Condensed Matter, 2006, 18, 2069-2075. | 1.8 | 61 |
| 26 | Orbital Degeneracy Removed by Charge Order in Triangular Antiferromagnet<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>AgNiO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2007, 99, 157204. | 7.8 | 58 |
| 27 | The crystal structure of methane phase III. Journal of Chemical Physics, 2003, 119, 1586-1589. | 3.0 | 51 |
| 28 | Cation site ordering in phengite 3T from the Dora-Maira massif (western Alps): a variable-temperature neutron powder diffraction study. European Journal of Mineralogy, 1997, 9, 1183-1190. | 1.3 | 51 |
| 29 | High-pressure, low-temperature structural studies of orientationally ordered C60. Journal of Physics Condensed Matter, 1993, 5, 7923-7928. | 1.8 | 50 |
| 30 | Extensive lithium disorder in Li1.5Fe0.5Ti1.5(PO4)3Nasicon by neutron diffraction, and the Li1+xFexTi2â^'x(PO4)3phase diagram. Journal of Materials Chemistry, 2004, 14, 835-839. | 6.7 | 50 |
| 31 | On the preferential site occupation of Fe in RFe4Al8and related compounds. Journal of Physics Condensed Matter, 1990, 2, 1677-1681. | 1.8 | 49 |
| 32 | Cuboctahedral oxygen clusters in U3O7. Journal of Nuclear Materials, 2003, 322, 87-89. | 2.7 | 48 |
| 33 | Tetragonal superstructure and thermal history of Li0.3La0.567TiO3 (LLTO) solid electrolyte by neutron diffraction. Journal of Materials Chemistry, 2007, 17, 1300. | 6.7 | 48 |
| 34 | Orderâ€"Disorder and Mobility of Li+ in the Î²â€²- and Î²-LiZr2(PO4)3 Ionic Conductors: A Neutron Diffraction Study. Journal of Solid State Chemistry, 2000, 152, 340-347. | 2.9 | 46 |
| 35 | On the preferential site occupation of T â‰¡ Cr or Mn in rare earth compounds of the type RT4Al8. Journal of the Less Common Metals, 1990, 166, 329-334. | 0.8 | 43 |
| 36 | Crystal structure, microwave dielectric properties and AC conductivity of B-cation deficient hexagonal perovskites La5MxTi4â€"xO15 (x = 0.5, 1; M = Zn, Mg, Ga, Al). Journal of Materials Chemistry, 2006, 16, 1038. | 6.7 | 43 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Ordering and quality factor in 0.95BaZn1/3Ta2/3O3â€“0.05SrGa1/2Ta1/2O3 production resonators. Journal of the European Ceramic Society, 2003, 23, 3021-3034. | 5.7 | 42 |
| 38 | Solid Phases of Cyclopentane:â€‰ Combined Experimental and Simulation Study. Journal of Physical Chemistry B, 2008, 112, 3746-3758. | 2.6 | 39 |
| 39 | The crystal structure analysis of deuterated benzene and deuterated nitromethane by pulsed-neutron powder diffraction: a comparison with single crystal neutron diffraction analysis. Physica B: Condensed Matter, 1992, 180-181, 597-600. | 2.7 | 38 |
| 40 | Neutron Diffraction Studies of U4O9: Comparison with EXAFS Results. Inorganic Chemistry, 2006, 45, 8408-8413. | 4.0 | 37 |
| 41 | A neutron-diffraction study of tetrahydrofuran and acetone clathrate hydrates. Physica B: Condensed Matter, 1995, 213-214, 405-407. | 2.7 | 36 |
| 42 | Oxygen Vacancy Ordering Phenomena in the Mixed-Conducting Hexagonal Perovskite Ba7Y2Mn3Ti2O20. Chemistry of Materials, 2007, 19, 2884-2893. | 6.7 | 36 |
| 43 | Charge disproportionation and collinear magnetic order in the frustrated triangular antiferromagnet<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>AgNiO</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> Physical Review B, 2008, 77, . | 3.2 | 35 |
| 44 | In situ neutron diffraction studies of single crystals and powders during microwave irradiation. Faraday Discussions, 2003, 122, 363-379. | 3.2 | 34 |
| 45 | Ba8CoNb6O24: A d0 Dielectric Oxide Host Containing Ordered d7 Cation Layers 1.88 nm Apart. Angewandte Chemie - International Edition, 2005, 44, 7733-7736. | 13.8 | 33 |
| 46 | Comparison of the crystal structure of the heavy-fermion materials CeCoIn 5 , CeRhIn 5 and CeIrIn 5. Applied Physics A: Materials Science and Processing, 2002, 74, s895-s897. | 2.3 | 32 |
| 47 | In Situ Measurement of Cation Order and Domain Growth in an Electroceramic. Chemistry of Materials, 2003, 15, 2527-2533. | 6.7 | 32 |
| 48 | Polymorphism in cyclohexanol. Acta Crystallographica Section B: Structural Science, 2008, 64, 573-582. | 1.8 | 32 |
| 49 | Structure of Ce2RhIn8: an example of complementary use of high-resolution neutron powder diffraction and reciprocal-space mapping to study complex materials. Acta Crystallographica Section B: Structural Science, 2006, 62, 173-189. | 1.8 | 30 |
| 50 | The magnetic and structural transitions in CrN and (CrMo)N. Physica B: Condensed Matter, 1992, 180-181, 329-332. | 2.7 | 29 |
| 51 | New 10-Layer Hexagonal Perovskites: Relationship between Cation and Vacancy Ordering and Microwave Dielectric Loss. Chemistry of Materials, 2006, 18, 6227-6238. | 6.7 | 28 |
| 52 | ExtSym: a program to aid space-group determination from powder diffraction data. Journal of Applied Crystallography, 2008, 41, 1177-1181. | 4.5 | 27 |
| 53 | Spin glass behavior in frustrated quantum spin system CuAl<sub>2</sub>O<sub>4</sub>with a possible orbital liquid state. Journal of Physics Condensed Matter, 2017, 29, 13LT01. | 1.8 | 27 |
| 54 | Ab-initio structure determination of Î²-La2WO6. Journal of Solid State Chemistry, 2009, 182, 209-214. | 2.9 | 26 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Neutron diffraction study on hydrogen bond structure in K3H(SeO4)2and K3D(SeO4)2crystals. Journal of Physics Condensed Matter, 2000, 12, 8559-8565. | 1.8 | 24 |
| 56 | Probing the vortex state ofPrRu4Sb12through muon spin rotation and relaxation. Physical Review B, 2005, 72, . | 3.2 | 24 |
| 57 | The ab initio crystal structure determination of Î±-malonic acid from neutron powder diffraction data. Chemical Physics Letters, 1993, 201, 75-78. | 2.6 | 23 |
| 58 | A neutron powder diffraction study of Fe and Ni distributions in synthetic pentlandite and violarite using 60Ni isotope. American Mineralogist, 2006, 91, 1442-1447. | 1.9 | 23 |
| 59 | Polymeric fullerene chains in RbC60 and KC60. Chemical Physics Letters, 2001, 347, 13-22. | 2.6 | 22 |
| 60 | Single-crystal X-ray and neutron powder diffraction investigation of the phase transition in tetrachlorobenzene. Acta Crystallographica Section B: Structural Science, 2006, 62, 287-295. | 1.8 | 21 |
| 61 | Crystal Structures and Glassy Phase Transition Behavior of Cyclohexene. Crystal Growth and Design, 2008, 8, 512-518. | 3.0 | 20 |
| 62 | Optimization ofÂ6LiF:ZnS(Ag) scintillator light yield using GEANT4. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 892, 59-69. | 1.6 | 20 |
| 63 | The Crystal Structures of the Binary Mixed Valence Compound Bi(III)3Bi(V)O7 and Isotypic Bi3SbO7 as Determined by High Resolution X-Ray and Neutron Powder Diffraction. Journal of Solid State Chemistry, 2002, 163, 332-339. | 2.9 | 19 |
| 64 | Structure determination of Î±-La6W2O15. Journal of Solid State Chemistry, 2010, 183, 1297-1302. | 2.9 | 19 |
| 65 | Powder diffraction study on solid ozone. Solid State Sciences, 2001, 3, 195-202. | 3.2 | 18 |
| 66 | Structure and Phase Behavior of the Expandedâ€Metal Compound <sup>7</sup>Li(ND<sub>3</sub>)<sub>4</sub>. Angewandte Chemie - International Edition, 2009, 48, 1435-1438. | 13.8 | 18 |
| 67 | Variable temperature neutron powder diffraction study to determine the magnetic interactions in Sr2LnRuO6(Ln = Ho and Tb). Journal of Physics Condensed Matter, 2004, 16, 7611-7624. | 1.8 | 17 |
| 68 | The effect of temperature and pressure on the crystal structure of piperidine. Chemistry Central Journal, 2015, 9, 18. | 2.6 | 17 |
| 69 | An inelastic neutron scattering spectroscopic investigation of the adsorption of ethene and propene on carbon. Physical Chemistry Chemical Physics, 2000, 2, 4447-4451. | 2.8 | 16 |
| 70 | Neutron diffraction investigation of Si site preference in RENi10Si2 compounds. Solid State Communications, 1991, 78, 473-476. | 1.9 | 15 |
| 71 | The crystal structures of m -xylene and p -xylene, C 8 D 10 , at 4.5 K. Journal of Molecular Structure, 2000, 524, 121-128. | 3.6 | 15 |
| 72 | Phase inhomogeneities and lattice expansion nearTcin the Mg11B2superconductor. Journal of Physics Condensed Matter, 2001, 13, L795-L802. | 1.8 | 15 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Orderâ"Disorder of the Hydronium Ion and Low-Temperature Phase Transition of (H3O)Zr2(PO4)3 NASICON by Neutron Diffraction. Journal of Physical Chemistry B, 2002, 106, 11916-11921. | 2.6 | 15 |
| 74 | High-Temperature Processing of Ba<sub>3</sub>ZnTa<sub>2</sub>O<sub>9</sub>:â€‰ an In situ Study Using Synchrotron X-ray Powder Diffraction. Chemistry of Materials, 2007, 19, 4731-4740. | 6.7 | 15 |
| 75 | Cation ordering/disordering kinetics in Ba3CoNb2O9: An in situ study using synchrotron x-ray powder diffraction. Applied Physics Letters, 2007, 91, 222901. | 3.3 | 15 |
| 76 | Accurate molecular structures of chlorothiazide and hydrochlorothiazide by joint refinement against powder neutron and X-ray diffraction data. Acta Crystallographica Section B: Structural Science, 2008, 64, 101-107. | 1.8 | 15 |
| 77 | Neutron scattering study of crystal structure and proton diffusion in protonic conductors with hydrogen bonds. Physica B: Condensed Matter, 1991, 174, 268-271. | 2.7 | 14 |
| 78 | Neutron scattering studies of phase segregation in Pr0.7Ca0.3MnO3. Physica B: Condensed Matter, 2000, 276-278, 551-553. | 2.7 | 14 |
| 79 | Deprotonation and order-disorder reactions as a function of temperature in a phengite 3T (Cima Pal,) Tj ETQq1 1 0.784314 rgBT /Ove<br>2003, 15, 357-363. | 1.3 | 14 |
| 80 | Orderâ€"disorder transition in monoclinic sulfur: a precise structural study by high-resolution neutron powder diffraction. Acta Crystallographica Section B: Structural Science, 2006, 62, 953-959. | 1.8 | 14 |
| 81 | Solid-state structures of the covalent hydrides germane and stannane. Acta Crystallographica Section B: Structural Science, 2008, 64, 312-317. | 1.8 | 14 |
| 82 | High-resolution time-of-flight measurements of the lattice parameter and thermal expansion of the icosahedral phase Al62Cu25.5Fe12.5. Journal of Applied Crystallography, 1994, 27, 1010-1014. | 4.5 | 13 |
| 83 | Accurate determination of hydrogen atom positions in Î±-toluene by neutron powder diffraction. Journal of the Chemical Society Chemical Communications, 1992, , 1438-1439. | 2.0 | 12 |
| 84 | A strong isotope effect in the phase transition behaviour of ammonium hexachlorotellurate. Physica B: Condensed Matter, 1992, 180-181, 594-596. | 2.7 | 12 |
| 85 | Time-of-flight neutron diffraction study on the cryolite type phases of Li6NBr3. Journal of Alloys and Compounds, 1997, 261, 123-131. | 5.5 | 11 |
| 86 | Processing control of phase separation, cation ordering, and the dielectric properties of Ba3(Co0.6Zn0.4)Nb2O9. Applied Physics Letters, 2007, 91, 142906. | 3.3 | 11 |
| 87 | Alloxanâ€"a new low-temperature phase determined by neutron powder diffraction. CrystEngComm, 2008, 10, 465. | 2.6 | 11 |
| 88 | The lattice evolution of the spin-Peierls material CuGeO3 studied by neutron scattering. Physica B: Condensed Matter, 1995, 213-214, 288-290. | 2.7 | 10 |
| 89 | The low-temperature orthorhombic structure of YCu. Journal of Physics Condensed Matter, 1993, 5, L39-L42. | 1.8 | 9 |
| 90 | Charge ordering in Ag2BiO3. Solid State Sciences, 2006, 8, 267-276. | 3.2 | 9 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | A novel isomorphic phase transition in Î²-pyrochlore oxide KOs2O6: a study using high resolution neutron powder diffraction. Journal of Physics Condensed Matter, 2010, 22, 015403. | 1.8 | 9 |
| 92 | The crystal structure determination of dimethylsulphide by high-resolution neutron powder diffraction. Journal of Molecular Structure, 1997, 415, 259-266. | 3.6 | 8 |
| 93 | Crystal structures and phase behaviour of acetaldehyde-d4: a study by high-resolution neutron powder diffraction and calorimetry. Journal of Molecular Structure, 2000, 520, 265-272. | 3.6 | 8 |
| 94 | Neutron powder and ab initio structure of ortho-xylene: the influence of crystal packing on phenyl ring geometry at 2 K. Chemical Communications, 2000, , 539-540. | 4.1 | 8 |
| 95 | The low-temperature phase III structure and phase transition behaviour of cyclohexanone. Acta Crystallographica Section B: Structural Science, 2006, 62, 592-598. | 1.8 | 8 |
| 96 | Selection of silicon photomultipliers for a<sup>6</sup>LiF:ZnS(Ag) scintillator based cold neutron detector. Journal of Physics Communications, 2018, 2, 045009. | 1.2 | 8 |
| 97 | Neutron powder diffraction studies of dimethyl sulfoxide. Acta Crystallographica Section C: Crystal Structure Communications, 2005, 61, o571-o573. | 0.4 | 7 |
| 98 | Experimental characterization of the Advanced Liquid Hydrogen Cold Neutron Source spectrum of the NBSR reactor at the NIST Center for Neutron Research. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 792, 15-27. | 1.6 | 7 |
| 99 | Evaluation of a position sensitive neutron detector based on Li 6 Gd(BO 3 ) 3 scintillator. , 2002, , . | | 6 |
| 100 | In Situ Neutron and X-Ray Powder Diffraction Study of Cation Ordering and Domain Growth in the Dielectric Ceramic Ba3ZnTa2O9-Sr2GaTaO6. Journal of the American Ceramic Society, 2006, 89, 1827-1833. | 3.8 | 6 |
| 101 | Temperature-dependent crystal structure analysis of methyl iodide by high-resolution neutron powder diffraction. Zeitschrift FÃ¼r Kristallographie, 2007, 222, 416-419. | 1.1 | 6 |
| 102 | High resolution neutron powder diffraction investigation of the low temperature crystal structure of molecular iodine (I2). Physica B: Condensed Matter, 1992, 180-181, 639-641. | 2.7 | 5 |
| 103 | Structure determination and phase transition behaviour of dimethyl sulfate. Acta Crystallographica Section B: Structural Science, 2006, 62, 280-286. | 1.8 | 5 |
| 104 | The crystal structures and phase behaviour of cyclohexene oxide. Chemical Physics Letters, 2006, 423, 454-458. | 2.6 | 5 |
| 105 | Polychromatic energy-dispersive neutron diffraction at a continuous source. Journal of Applied Crystallography, 2013, 46, 1347-1352. | 4.5 | 5 |
| 106 | Structural transformation in Tb0.1Y0.9Cu. Physica B: Condensed Matter, 1992, 180-181, 354-356. | 2.7 | 4 |
| 107 | Neutron powder diffraction study of perdeuterodimethyl sulfone. Acta Crystallographica Section C: Crystal Structure Communications, 2007, 63, o292-o294. | 0.4 | 4 |
| 108 | Neutron diffraction investigation of V site preference in RCo10V2 compounds. Journal of Alloys and Compounds, 1993, 196, L1-L2. | 5.5 | 3 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Does the modulated magnetic structure of BiFeO3change at low temperatures?. Journal of Physics Condensed Matter, 2011, 23, 279501. | 1.8 | 3 |
| 110 | The crystal structure of 4-methyl pyridine at 4.5 K. Zeitschrift Fur Kristallographie - Crystalline Materials, 1990, 193, 243-250. | 0.8 | 2 |
| 111 | The crystal structure of $gamma$-phase p-dichlorobenzene at low temperature and high pressure by high-resolution neutron powder diffraction. Journal of Physics Condensed Matter, 2002, 14, 7287-7295. | 1.8 | 2 |
| 112 | Neutorn powder diffraction. , 2006, , 88-97. | | 2 |
| 113 | Critical phenomenon in a molecular-ionic crystal (CD3ND3)2 [SnCl6]. Physica B: Condensed Matter, 1995, 213-214, 414-416. | 2.7 | 1 |
| 114 | Neutron scattering study of K1â^'x(NH4)xH2PO4 mixed crystals. Physica B: Condensed Matter, 1995, 213-214, 390-392. | 2.7 | 0 |
| 115 | Phase transitions of scandium triacetate. Physica B: Condensed Matter, 1995, 213-214, 402-404. | 2.7 | 0 |
| 116 | Orderâ€"Disorder of the Hydronium Ion and Low-Temperature Phase Transition of (H3O)Zr2(PO4)3 NASICON by Neutron Diffraction.. ChemInform, 2003, 34, no. | 0.0 | 0 |