

## D. Goossens: Refereed Publications:

### Book Chapters:

1. D.J.Goossens and T.R.Welberry, 'Diffuse Scattering from Molecular Crystals', pp 181-210 (book chapter), *Diffuse Scattering and the Fundamental Properties of Materials*, edited by Rozaliya I. Barabash, Gene E. Ice and Patrice E.A. Turchi. Momentum Press, 2009. Print ISBN: 978-1-60650-000-2. E-book ISBN: 978-1-60650-002-6

### Refereed Papers:

2. F. P. Marlton, D. J. Goossens, R. White and W. D. Hutchison, 'Rapid Microwave Synthesis and Structural Phase Diagram of  $Ln_xY_{1-x}MnO_3$ ' *Zeitschrift für Naturforschung B*. Accepted for publication, May 2014.
3. T.R.Welberry and D.J.Goossens, 'Nanoscale Order in Molecular Systems from Single Crystal Diffuse Scattering', *Aust. J. Chem.*, Accepted for publication, May 2014.
4. D.J.Goossens and R.E.Whitfield, 'Distinguishing Types of Disorder in Diffuse Scattering: A Numerical Simulation Study', *Metallurgical and Materials Transactions A*, **45** (2014) 152-161. DOI: 10.1007/s11661-013-1812-x
5. J.M.Hudspeth, D.J.Goossens and T.R.Welberry 'Approaches to modelling thermal diffuse scattering in triglycine sulphate,  $(NH_2CH_2COOH)_3.H_2SO_4$ ', *Journal of Applied Crystallography*, **47** (2014) 544-551. DOI:10.1107/S1600576713034547.
6. T.R.Welberry, D.J.Goossens and A.P.Heerdegen, 'Local order in wüstite using a Pair Distribution Function (PDF) approach', *Mineralogical Magazine*, **78** (2014) 373-385. DOI: 10.1180/minmag.2014.078.2.10
7. D.J.Goossens, C.J.Weekes, M.Avdeev and W.D.Hutchison, 'Crystal and Magnetic Structure of  $(1-x)BiFeO_3-xSrTiO_3$  ( $x = 0.2, 0.3, 0.4$  and  $0.8$ )', *Journal of Solid State Chemistry*, **207** (2013) 111-116. DOI: 10.1016/j.jssc.2013.09.024
8. D.J.Goossens, 'Local Ordering in Lead-based Relaxor Ferroelectrics', *Accounts of Chemical Research*, **46** (2013) 2597-2606. DOI: 10.1021/ar400073w
9. J.M. Hudspeth, D.J. Goossens, T.R. Welberry and M.J. Gutmann, 'Diffuse Scattering and the Mechanism for the Phase Transition in Triglycine Sulphate', *Journal of Materials Science*, **48** (2013) 6605-6612. DOI: 10.1007/s10853-013-7457-8
10. D.J.Goossens, 'Diffuse Scattering from Lead-containing Ferroelectric Perovskite Oxides', *ISRN Materials Science*, **2013** (2013) 17 pages, DOI: 10.1155/2013/107178
11. J. M. Hudspeth, D. J. Goossens, M. J. Gutmann and A. J. Studer, 'A neutron diffraction study of the phase transition of fully deuterated triglycine sulphate  $(ND_2CD_2COOD)_3.D_2SO_4$ ', *Crystal Research and Technology*, **48** (2013) 169-180, DOI: 10.1002/crat.201300061.
12. D.J.Goossens, S.Brazier-Hollins, D.R.James, W.D.Hutchison and J.R.Hester, 'Magnetic Structure and Glassiness in  $Fe_{0.5}Ni_{0.5}PS_3$ ', *Journal of Magnetism and Magnetic Materials*, **334** (2013) 82-86, DOI: 10.1016/j.jmmm.2013.01.023.
13. M. Paściak, A.P.Heerdegen, D.J.Goossens, R.E.Whitfield, A.Pietraszko and T.R.Welberry, 'Assessing local structure in  $PbZn_{1/3}Nb_{2/3}O_3$  using diffuse scattering and reverse Monte Carlo refinement' *Metallurgical and Materials Transactions A*, **44** (2013) 87-93. DOI: 10.1007/s11661-012-1475-z

14. W.D.Hutchison, D.J.Goossens, A.J.Studer and K.Nishimura, 'Magnetic Structure of TbNiAl<sub>4</sub> in Applied Field', *Australian Institute of Physics Congress*, 2012.
15. D. J. Goossens, L. S. F. Henderson, S. Trevena, J. M. Hudspeth, M. Avdeev and J. R. Hester, 'The crystal and magnetic structures of LaCa<sub>2</sub>Fe<sub>3-x</sub>M<sub>x</sub>O<sub>8</sub> (M = Al, Ga, In)', *Journal of Solid State Chemistry*, **196** (2012) 238-242. DOI: 10.1016/j.jssc.2012.06.029
16. W.D. Hutchison, D.J. Goossens, R.E. Whitfield, A.J. Studer, K. Nishimura and T. Mizushima, 'Field-induced incommensurate spin structure of TbNiAl<sub>4</sub>', *Phys. Rev. B*, **86** (2012) 014412. DOI:10.1103/PhysRevB.86.014412
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23. J.M.Hudspeth, G.A.Stewart, A.J.Studer and D.J.Goossens, 'Crystal and Magnetic Structures in Perovskite-related La<sub>1-x</sub>Ca<sub>x</sub>FeO<sub>3-x</sub> (x=0.2, 0.33)', *Journal of Physics and Chemistry of Solids*, **72** (2011) 1543-1547. DOI: 10.1016/j.jpics.2011.09.014
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