

Marie Edmonds

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EDUCATION

- 2002 PhD, Volcanology, Earth Sciences Department, University of Cambridge, UK
Supervisors: Prof David Pyle, Prof Clive Oppenheimer
Thesis: Sulfur and chlorine degassing at the Soufrière Hills Volcano, Montserrat
- 1997 Bachelor of Arts, Geological Sciences, University of Cambridge, 1st class

EMPLOYMENT

- 2015 – Reader, Earth Sciences Department, University of Cambridge, UK
- 2007 – 2015 Lecturer, Earth Sciences Department, University of Cambridge, UK
- 2007 – Fellow and trustee, Queens' College, Cambridge, UK
- 2006 – 2007 Reader, School of Environmental Sciences, University of East Anglia, UK
- 2004 – 2006 Mendenhall Fellow, United States Geological Survey, USA
- 2002 – 2004 Volcanologist, British Geological Survey, UK

FELLOWSHIPS AND HONOURS

- 2019 Thermo-Fisher Scientific Volcanic & Magmatic Studies Group Award
- 2017 Wager Medal (International Association Volcanology & Chemistry Earth's Interior)
- 2013 William Smith Fund, Geological Society of London
- 2004 – 2006 Mendenhall Fellowship, United States Geological Survey
- 2004 NERC Fellowship
- 2004 Royal Society Dorothy Hodgkin Fellowship
- 2003 USGS Mendenhall Fellowship
- 1997 Mineralogical Society Prize for Mineralogy and Petrology, U. Cambridge
- 1996, 1997 Jesus College Scholarship Prizes, Cambridge

SERVICE

- 2018 – 2022 Editor, Geochemistry, Geophysics, Geosystems, American Geophysical Union
- 2017 – 2021 External Examiner, Geology Undergraduate Degree, Durham University
- 2017 – 2021 Chair, Panel A, Natural Environment Research Council, UK
- 2017 – 2019 Volcanology, Geochemistry Petrology Secretary, American Geophysical Union
- 2017 Reviewer for National Academy of Sciences, *ERUPT* report
- 2016 – 2017 Member AGU VGP Section Awards Committee
- 2016 – 2018 Member NERC Training Advisory Board and DTP-2 Working Group
- 2014 – 2018 Chair NERC Ion Microprobe Facility steering committee, UK
- 2014 – 2019 Co-chair, Reservoirs and Fluxes Directorate, Deep Carbon Observatory
- 2016 – 2019 Chair, Synthesis Group 2019, Deep Carbon Observatory
- 2015 – 2018 Science Secretary, Geological Society of London
- 2013 – 2018 Elected Member of Council, Geological Society of London
- 2014 – Peer Review College, NERC
- 2007 – Editorial Board, Journal Volcanological Geothermal Research
- 2012 – 2014 Member NERC Ion Probe Facility Steering Committee
- 2008 – 2012 Member Volcanic and Magmatic Studies Group Committee
- 2004 – 2007 Member David Perlman AGU Award Committee for Journalism in Science
- 2002 – 2004 Member Scientific Advisory Committee, UK Foreign Office

RECENT INVITED TALKS

- 2019 Invitations accepted for seminars at: Lyons, Berkeley, ETH Zurich.
2018 Gave seminars at: Oxford Earth Sciences, UCL, Rice University
2017 Fall AGU, invited talk “Sulfides and metal budgets of basaltic eruptions”
IAVCEI meeting, Portland, USA, invited talk “Volcanic metal outgassing”
Gave seminars at: Camborne School of Mines, University of Leeds.
2016 Fall AGU, invited talk, “Exsolved vapor in magma reservoirs”
Seminar, University of St Andrews, UK
Invited talk, Subduction Zone Observatory, Iris Workshop, Idaho

RESEARCH GRANTS

- 2018 A.P. Sloan Foundation, \$145k, PI *Chair DCO Synthesis Group 2019*
2017 A.P. Sloan Foundation, \$1,718k, Co-I (funds/Carnegie), *DCO Reservoirs & Fluxes*
2016 A.P. Sloan Foundation, \$99k, PI *Chair DCO Synthesis Group 2019*
2015 A.P. Sloan Foundation, \$1,250k Co-I (funds/Carnegie), *DCO Reservoirs & Fluxes*
Isaac Newton Trust, £30k, *Remote sensing of volcanic eruptions*
NERC urgency grant, Co-I, £65k, *Source of the sulfur plume from Holuhraun*
2014-2019 NERC large grant, non-lead PI, £3.2M, *Rift Volcanism*, w/studentship, 5 years
2014-2019 NERC, Co-I, COMET, £3M, 5-year programme, *Earth Observation*
2014 NERC large grant, non-lead PI, £3.2M, *Rift Volcanism*, w/studentship, 5 years
NERC, Co-I, COMET, £3M, 5-year programme, *Earth Observation*
2014 A.P. Sloan Foundation, PI, \$20k, *Novel gas sensors*
2011 Isaac Newton Trust, PI, £16k, *Validation of OMI SO₂ measurements*
NERC standard grant, Co-I, £240k, *Volatile budget Laki Eruption*, with postdoc
NERC grant, PI, £65k, *H⁺ in pyroxenes to quantify magma degassing*
2010 NERC grant, PI, £75k, *Carbon output of the Siberian Traps, Russia*
2009 Royal Society grant, PI, £15k, *to install CO₂ gas sensors in Montserrat*
2008 NERC grant, PI, £50k, *The 2008 summit eruption of Kilauea Volcano*

SUPERVISION OF PHD STUDENTS AND POSTDOCTORAL RESEARCHERS

PhD students (*current*)

- 2018 – *Nicholas Barber, Gates Scholarship*
2017 – *Penny Weiser, NERC*
Emily Mason, EPSRC
Alex Gutai, NERC
2016 – *Julia Woitischek, NERC*
2015 – *Fiona Iddon, NERC (Riftvolc)*
2014 – *Euan Mutch, NERC*
2013 –2018 Lois Salem, NERC
2012 –2016 Svetlana Sibik, Trinity Hall scholarship
2010 –2014 David Neave, NERC, now PDRA, Universitat Hannover
2009 –2013 Brendan McCormick, NERC, now PDRA, University of Cambridge
2009 –2013 Isobel Sides, NERC Cambridge – now Energy Consultant, Halliburton, Oxford.

Postdoctoral researchers

- 2016 –2017 Emma Liu, Deep Carbon Observatory, Sloan Foundation
2016 –2019 Brendan McCormick, NERC/BGS/Isaac Newton Trust
2011 –2013 Margaret Hartley, NERC
2010 –2011 Jian Yang, Isaac Newton Trust
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ORGANISATION OF SCIENTIFIC MEETINGS

- 2017 Convener, *Factory Earth* Fermor Meeting, Geological Society of London
- 2017 Theo Murphy Royal Society Meeting *Magma reservoir architecture & dynamics*
- 2017 Scientific Organising Committee, IAVCEI, 2017 Portland General Assembly
- 2009-2017 Convener or chair for various sessions: at Fall AGU, Goldschmidt, EMC

INSTITUTIONAL POSITIONS AND RESPONSIBILITIES

- 2017 – Graduate Tutor, Queens' College
- 2017 – University of Cambridge REF 2021 Advisory Group
- 2017 – Deputy Senior Tutor, Queens' College
- 2016 – Research Committee, Department of Earth Sciences
- 2012 – Head of Field Safety, Department of Earth Sciences
- 2010 – Section Head Electron Microprobe, Department of Earth Sciences
- 2009 –2015 Faculty Board and Degree Committee

MEMBERSHIP SCIENTIFIC SOCIETIES

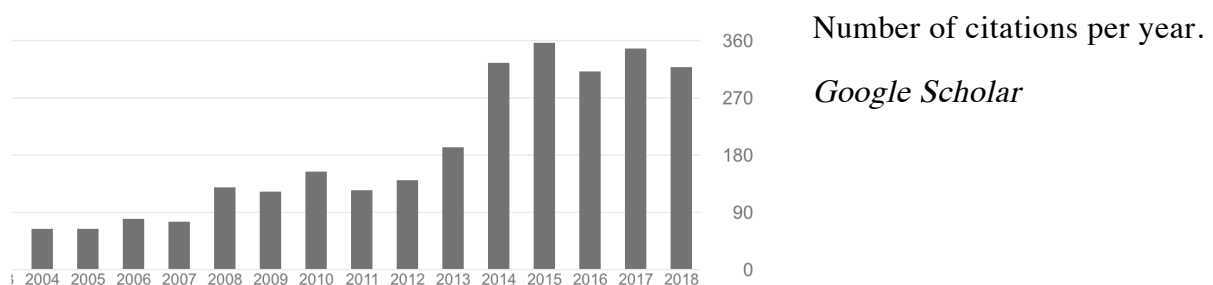
- 2004 – International Association of Volcanology and Chemistry of the Earth's Interior
- 2014 – Geochemical Society
- 2004 – American Geophysical Union
- 2014 – Fellow, Geological Society of London

BOOKS, EDITORSHIPS AND POPULAR ARTICLES

- Guest Editor, *Catastrophic perturbations to Earth's Volatiles*, Elements Magazine, September 2019.
- Fischer, R., A. Aiuppa, M. Edmonds (Guest editors), Carbon degassing from Volcanoes, 2017-2019. Geochemistry, Geophysics, Geosystems special theme.
- Edmonds, M., K. Cashman, M. Holness, M. Jackson (Guest Editors), 2019. Special issue of the Philosophical Transactions of the Royal Society A, Following the Theo Murphy Royal Society Meeting *Magma reservoir architecture and dynamics*, December 2017.
- Edmonds, M. and C. Manning, 2017. *The Deep Carbon Observatory: Synthesizing mountains of data*. Research Project update report, EOS, AGU Publications.
- Guest Editor, *Sulfides*, Elements Magazine, April 2017.
- G. Zellmer, M. Edmonds and S. Straub (Guest Editors), Geological Society Special Publication, 2014. *The Role of Volatiles in the Genesis, Evolution and Eruption of Arc Magmas*.
- Co-author two chapters in the Encyclopaedia of Volcanoes, Second Edition, 2014, *Hawaiian and Strombolian Eruptions*, with co-authors B. Houghton, S. Vergnolle, J. Taddeucci and M. James; and *Volatiles in Magmas* with co-authors P. Wallace, T. Plank, E. Hauri.

PEER-REVIEWED PUBLICATIONS

See detailed publications list (next page). Total number of accepted papers: 86; Number in prep/review: 14; H-index 30, i10-index 55, total number of citations 2924.



Peer-reviewed publications

Group PhD students and postdoctoral researchers underlined.

All publications listed here have been uploaded at openaccess.cam.ac.uk.

85. **2019 *in press***, M. Edmonds, K.V. Cashman, M.B. Holness, M. Jackson. Architecture and dynamics of magma reservoirs. Philosophical Transactions Series A, Special Issue '*Architecture and dynamics of magma reservoirs*' Eds. M. Edmonds, K. V. Cashman, M. Holness, M. Jackson. Royal Society. Citations 0.

84. **2019 *in press***, White, R.S.W., M. Edmonds, J. Maclennan, T. Greenfield and T. Agustsdottir. Melt Movement Through the Icelandic Crust. Philosophical Transactions Series A, Special Issue '*Architecture and dynamics of magma reservoirs*' Eds. M. Edmonds, K. V. Cashman, M. Holness, M. Jackson. Royal Society. Citations 0.

83. **2018**, Edmonds, M., E. Liu, T. Mather. A distinct metal fingerprint in arc volcanic emissions. Nature Geoscience 11, 10, 790-794. Citations 0.

82. **2018 *in press***, Edmonds, M., A.W. Woods. Exsolved volatiles in magma reservoirs. Journal of Volcanology and Geothermal Research (Invited Review Article). Citations 0.

81. **2018**, Hamlyn, J., T.J. Wright, R.J. Walters, C. Pagli, E. Sansosti, F. Casu, S. Pepe, M. Edmonds, B. M. Kilbride, D. Keir, J. Neuberg, C. Oppenheimer. What causes subsidence following the 2011 eruption at Nabro (Eritrea)? Progress in Earth and Planetary Science 5, 1, 31. Citations 0.

80. **2018 *in press***, Liu, E., K. Wood, E. Mason, M. Edmonds, A. Aiuppa, G. Giudice, M. Bitetto, V. Francofonte, T. Richardson, S. Burrow, T. Pering, T. C. Wilkes, A. J. S. McGonigle, G. Velasquez. Short timescale degassing dynamics in a very young plume revealed by proximal Unmanned Aerial System (UAS) measurements at Volcan Villarrica, Chile. Geochemistry, Geophysics, Geosystems. Citations 0.

79. **2018 *in press***, Muller, C., J. Biggs, S. K. Ebmeier, P. Mothes, P. B. Palacios, P. Jarrin, M. Edmonds, M. Ruiz. Temporal Evolution of the Magmatic System at Tungurahua Volcano, Ecuador, detected by geodetic observations. J. Volcanological Geothermal Research. Citations 0.

78. **2018 *accepted and in press***, McCormick Kilbride, B., G. Wadge, M. Edmonds. Multi-year satellite observations of sulfur dioxide gas emissions and lava extrusion at Bagana volcano, Papua New Guinea. Frontiers. Citations 0.

77. **2018**, Liu, E.J., K.V. Cashman, A.C. Rust, M. Edmonds. Insights into the dynamics of mafic magmatic-hydromagmatic eruptions from volatile degassing behaviour: The Hverfjall Fires, Iceland. Journal of Volcanological and Geothermal Research, 358, 228-240. Citations 0.

76. **2018**, Wadge G., B.M. Kilbride, M. Edmonds, R.W. Johnson Persistent growth of a young andesite lava cone: Bagana volcano, Papua New Guinea. Journal of Volcanology and Geothermal Research, 356, 304-15. Citations 0.

75. **2018**, Plail, M., M. Edmonds, A.W. Woods, J. Barclay, M. Humphreys, R.A. Herd, T. Christopher. Mafic enclaves record syn-eruptive basalt intrusion and mixing. Earth and Planetary Science Letters 484, 30–40. Citations 2.

74. **2017**, Hartley, M.E., O. Shorttle, J. Maclennan, Y. Moussallam, M. Edmonds. Olivine-hosted melt inclusions as an archive of redox heterogeneity in magmatic systems. Earth and Planetary Science Letters 479, 192-205. Citations 4.

73. **2017**, Ilyinskaya, E., A. Schmidt, T. Mather, F. Pope, C. Witham, P. Baxter, Þ. Jóhannsson, S. Barsotti, M. Pfeffer, A. Singh, P. Sanderson, B. Bergsson, B. McCormick, A. Donovan, N. Peters, M. Edmonds. Understanding the environmental impacts of large fissure eruptions: Aerosol

and gas emissions from the 2014–2015 Holuhraun eruption (Iceland). *Earth and Planetary Science Letters* 472, 309-322. Citations 7.

72. **2017**, Mason, E., M. Edmonds, A.V.T Turchyn. Remobilization of crustal carbon may dominate volcanic arc emissions. *Science* 357, 6348, 290-294. Citations 15.

71. **2017**, Neave, D. A., M. E. Hartley, J. Maclennan, M. Edmonds, T. Thordarson. Volatile and light lithophile elements in high-anorthite plagioclase-hosted melt inclusions from Iceland. *Geochimica et Cosmochimica Acta* 205, 100–118. Citations 4.

70. **2017**, Edmonds, M., P. Wallace. Volatiles and exsolved vapor in volcanic systems. *Elements*, 13, 1, 29-34. Citations 10.

69. **2017**, Edmonds, M., T.A. Mather. Volcanic sulfides and outgassing. *Elements*, 13, 2, 105-10. Citations 5.

68. **2017**, Hughes, E., D.A. Neave, K. Dobson, M. Edmonds. How to fragment peralkaline rhyolites: Observations of pumice using combined 2D and 3D imaging. *Journal of Volcanology and Geothermal Research* 336, 179–191. Citations 6.

67. **2016**, McCormick, B., M. Edmonds, J. Biggs. Observing eruptions of gas-rich compressible magmas from space. *Nature Communications*, 7. Citations 9.

66. **2016**, Moussallam, Y., M. Edmonds, N. Peters, E. Gennaro, I. Sides, B. Scaillet, C. Oppenheimer. The impact of volatile degassing on the oxidation state of basaltic magmas; a case study at Kilauea volcano. *Earth and Planetary Science Letters* 450, 317-25. Citations 13.

65. **2016**, Hayer, C., G. Wadge, M. Edmonds, T. Christopher. Sensitivity of OMI SO₂ measurements to variable eruptive behaviour at Soufrière Hills Volcano, Montserrat. *Journal of Volcanology and Geothermal Research* 312, 1-10. Citations 6.

64. **2016**, Robertson, E.J. Biggs, M. Edmonds, T. Fischer, G. Kianji, W. Koros. Diffuse degassing at Longonot volcano, Kenya: Implications for CO₂ flux in continental rifts. *Journal of Volcanology and Geothermal Research*, 327, 208-22. Citations 5.

63. **2016**, Edmonds, M., M. Humphreys, E.H. Hauri and S. Kohn. Extensive, water-rich magma reservoir beneath southern Montserrat. *Invited Research Article, Lithos* 252, 216-33. Citations 9.

62. **2016**, Hartley, M.E., D.J. Morgan, J. Maclennan, M. Edmonds, T. Thordarson. Tracking timescales of short-term precursors to large basaltic fissure eruptions through Fe-Mg diffusion in olivine. *Earth and Planetary Science Letters* 439, 58-70. Citations 17.

61. **2016**, Rae, A., M. Edmonds, J. Maclennan, B. Houghton. Time scales of magma transport and mixing at Kilauea Volcano, Hawai'i. *Geology*, 44, 6, 463-6. Citations 14.

60. **2016**, Humphreys, M., M. Edmonds, M. Kloecking. The validity of plagioclase-melt geothermometry for decompression-driven magma crystallisation. *American Mineralogist* 101, 4, 769-79. Citations 3.

59. **2016**, Houghton, B.F., J. Taddeucci, H.M. Gonnermann, M. Pistolesi, M.R. Patrick, D. Andronico, T.R. Orr, D.A. Swanson, M. Edmonds, R.J. Carey. Stronger or longer: Discriminating between Hawaiian and Strombolian eruption styles. *Geology*, 44, 2, 163-166. Citations 7.

58. **2015**, Edmonds, M. Flotation of magmatic minerals. *Geology* 43, 7, 655-656. Citations 4.

57. **2015**, Edmonds, M., S. Michnovich, J. Grattan, 2015. Volcanic gases, silent killers. *Advances in Volcanology, Observing the Volcano World: Volcano Crisis Communication*. Editors C. Fearnley, W. McGuire, G. Jolly. Springer, pp. 1-19.

56. **2015**, Hartley, M., D. Neave, J. Maclennan, M. Edmonds. Diffusive over-hydration of olivine-hosted melt inclusions. *Earth and Planetary Science Letters* 425, 168-178. Citations 18.

55. **2015**, Cassidy, M., S.F.L. Watt, P.J. Talling, M.R. Palmer, M. Edmonds, D. Wall-Palmer, M. Jutzeler, M. Coussens, T. Gernon, R.N. Taylor, E. Inglis, J. Hunt, A. Le Friant, O. Ishizuka. Rapid onset of mafic magmatism facilitated by volcanic edifice collapse. *Geophysical Research Letters* 42, 12, 4778-85. Citations 12.
54. **2015**, Shorttle, O., Y. Moussallam, M. Hartley, J. Maclennan, M. Edmonds, B. Murton. Fe-XANES analyses of Reykjanes Ridge basalts: Implications for oceanic crust's role in the solid Earth oxygen cycle. *Earth and Planetary Science Letters* 427:272-85. Citations 14.
53. **2015**, Sibik, S., M. Edmonds, J. Maclennan, H. Svensen. Magmas erupted during the main pulse of Siberian Traps volcanism were volatile-poor. *J. Petrology*. 56, 11, 2089–2116. Citations 5.
52. **2015**, Christopher, T.E., J. Blundy, K. Cashman, P. Cole, M. Edmonds, P. Smith, R.S.J. Sparks, A. Stinton. Crustal-scale degassing due to magma system destabilisation and magma-gas decoupling at Soufrière Hills Volcano, Montserrat. *Geochemistry, Geophysics, Geosystems*, 16, 9, 2797-2811. Citations 39.
51. **2015**, Humphreys, M., M. Edmonds, T. Christopher, V. Hards. Discussion on 'Magma storage region processes of the Soufrière Hills Volcano, Montserrat'. J.D Devine and M. Rutherford In: *The eruption of Soufriere Hills Montserrat from 2000 to 2010*. Eds G. Wadge, R. Robertson, B. Voight. Geological Society, London, Memoirs, 39, pp. 2014-140. Citations 2.
50. **2015**, Edmonds, M., Partitioning of light lithophile elements in basalts on Earth and application to Mars. *Earth and Planetary Science Letters* 411, 142-150. Citations 7.
49. **2015**, Zellmer, G.F., M. Edmonds, S.M. Straub. Volatiles in subduction zone magmatism. In: *The Role of Volatiles in the Genesis, Evolution and Eruption of Arc Magmas*. Eds G. Zellmer, M. Edmonds, S. Straub. Geological Society of London Special Publication 410, SP410-13. Citations 22.
48. **2015**, Cassidy, M., M. Edmonds, S. Watt, T. Christopher. Origin of basalts by hybridisation in andesite-dominated arcs. *Journal of Petrology*, 56, 2, 325-346. Citations 13.
47. **2015**, Edmonds, M., I. Sides, J. Maclennan, B. Houghton, D. Swanson. Insights into mixing, fractionation and degassing of primitive melts at Kīlauea Volcano, Hawai'i. In: *Hawaiian volcanoes, from source to surface*. Eds: M. Poland, R. Carey, D. Weiss. AGU Monograph Series, pp. 538. Citations 5.
46. **2014**, Donovan, A., V. Tsanev, C. Oppenheimer, M. Edmonds. Reactive halogens (BrO and OCIO) detected in the plume of Soufrière Hills Volcano during an eruption hiatus. *Geochemistry, Geophysics, Geosystems*, 15, 8, 3346-3363. Citations 8.
45. **2014**, Christopher, T., M. Edmonds, B. Taisne, H. Odbert, A. Costa, V. Hards, G. Wadge. Periodic sulphur dioxide degassing from the Soufrière Hills Volcano related to deep magma supply. In: *The Role of Volatiles in the Genesis, Evolution and Eruption of Arc Magmas*. Eds G. Zellmer, M. Edmonds. Geological Society of London Special Publication 410, SP410-11. Citations 5.
44. **2014**, Edmonds, M., A. Brett, M. Humphreys, A. Woods, R.A. Herd. Magnetite-bubble aggregates at mixing interfaces in andesite magma bodies. In: *The Role of Volatiles in the Genesis, Evolution and Eruption of Arc Magmas*. Eds G. Zellmer and M. Edmonds. Geological Society of London Special Publication 410, SP410-7. Citations 10.
43. **2014**, Neave, D., J. Maclennan, M. Edmonds, T. Thordarson. Crystal storage and transfer in basaltic systems: The Skuggafjöll eruption, Iceland. *Journal of Petrology* 55, 12, 2311-46. Citations 14.
42. **2014**, Hartley, M., J. Maclennan, M. Edmonds, T. Thordarson, 2014. Reconstructing the deep CO₂ degassing behaviour of large basaltic fissure eruptions. *Earth and Planetary Science Letters*

393, 120-131. Citations 64.

41. **2014**, Neave, D., J. Maclennan, M. Edmonds, T. Thordarson. Melt mixing causes negative correlation of trace element enrichment and CO₂ content prior to an Icelandic eruption. *Earth and Planetary Science Letters* 400, 272-283. Citations 20.

40. **2014**, Plail, M., M. Edmonds, M. C. S. Humphreys, J. Barclay, R. A. Herd. Geochemical evidence for relict degassing pathways preserved in andesite. *Earth and Planetary Science Letters* 386, 21-33. Citations 18.

39. **2014**, Sides, I., M. Edmonds, J. Maclennan, B. Houghton, D. Swanson. Eruption style at Kīlauea Volcano in Hawai'i linked to primary melt composition. *Nature Geoscience*, 7, 6, 464. Citations 30.

38. **2014**, Sides, I., M. Edmonds, J. Maclennan, B. Houghton, D. Swanson. Magma mixing and high fountaining during the 1959 Kīlauea Iki eruption, Hawai'i. *Earth and Planetary Science Letters* 400, 102-112. Citations 19.

37. **2014**, McCormick, B., M. Herzog, J. Yang, M. Edmonds, T. A. Mather, S. A. Carn, S. Hidalgo, B. Langmann. A comparison of satellite- and ground-based measurements of SO₂ emissions from Tungurahua volcano, Ecuador. *Journal of Geophysical Research Atmospheres* 119, 7, 4264–4285. Citations 24.

36. **2014**, Plail, M., J. Barclay, M.C.S. Humphreys, M. Edmonds, R. Herd, T. Christopher. Characterization of mafic enclaves in the erupted products of Soufrière Hills Volcano, Montserrat, 2009 to 2010. In: *The eruption of Soufriere Hills Montserrat from 2000 to 2010*. Eds G. Wadge, R. Robertson, B. Voight. Geological Society, London, *Memoirs*, 39, 1, 343-360. Citations 16.

35. **2014**, Edmonds, M., M.C.S. Humphreys, E.H. Hauri, R.A. Herd, G. Wadge, H. Rawson, R. Ledden, M. Plail, J. Barclay, A. Aiuppa, T. Christopher, G. Giudice, R. Guida. Pre-eruptive vapour and its role in controlling eruption style and longevity at Soufrière Hills Volcano. In: *The eruption of Soufriere Hills Montserrat from 2000 to 2010*. Eds G. Wadge, R. Robertson, B. Voight. Geological Society, London, *Memoirs* 39, 1, 291-315. Citations 22.

34. **2013**, Yallup, C., M. Edmonds, A.V. Turchyn. Sulphur degassing due to contact metamorphism during flood basalt eruptions. *Geochimica Cosmochimica Acta* 120, 263-279. Citations 9.

33. **2013**, Edmonds, M., I.R. Sides, D. Swanson, C. Werner, R.S. Martin, T.A. Mather, R.A. Herd, R.L. Jones, M.I. Mead, G. Sawyer, T. Roberts, A.J. Sutton, T. Elias. Magma storage, transport and degassing during the 2008-10 summit eruption at Kīlauea Volcano, Hawai'i. *Geochimica Cosmochimica Acta* 123, 284-301. Citations 32.

32. **2013**, Parks, M.M., S. Caliro, G. Chiodini, D. M. Pyle, T.A. Mather, K. Berlo, M. Edmonds, J. Biggs, P. Nomikou, C. Raptakis. Distinguishing contributions to diffuse CO₂ emissions in volcanic areas from magmatic degassing and thermal decarbonation using soil gas ²²²Rn- δ^{13} C systematics: Application to Santorini volcano, Greece. *Earth and Planetary Science Letters* 377-378, 180-190. Citations 40.

31. **2013**, McCormick, B. T., M. Edmonds, T.A. Mather, R. Champion, C.S.L. Hayer, H.E. Thomas, S.A. Carn. Volcano monitoring applications of the Ozone Monitoring Instrument (OMI). Special Publication of the Geological Society of London, 380, 259-291. Citations 29.

30. **2013**, Humphreys, M.C.S., M. Edmonds, J. Barclay, M. Plail, D. Parkes, T. Christopher. A new method to quantify the real supply of mafic components to a hybrid andesite. *Contributions to Mineralogy and Petrology*, 165, 1, 191-215. Citations 17.

29. **2012**, McCormick, B. T., M. Edmonds, T.A. Mather, S.A. Carn. First synoptic analysis of

volcanic degassing in Papua New Guinea. *Geochemistry, Geophysics, Geosystems*, 13, Q03008, 21 PP, doi:10.1029/2011GC003945. Citations 28.

28. **2012**, Mather, T. M., M.L.I. Witt, D.M. Pyle, B.M. Quayle, A. Aiuppa, E. Bagnato, R.S. Martin, K.W.W. Sims, M. Edmonds, A.J. Sutton, E. Ilyinskaya. Halogens and trace metal emissions from the ongoing 2008 summit eruption of Kīlauea volcano, Hawaii. *Geochimica Cosmochimica Acta* 83, 292-323. Citations 59.

27. **2012**, Neave, D., R. A. Herd, G. Fabbro, C. Petrone, M. Edmonds. Melting, differentiation and degassing at Pantelleria Volcano. *Journal of Petrology*, 53, 3, 637-663. Citations 42.

26. **2011**, Wallace, P.J., M. Edmonds. The Sulfur Budget in Magmas: Evidence from Melt Inclusions, Submarine Glasses, and Volcanic Gas Emissions. *Reviews in Mineralogy and Geochemistry*, 73, 1, 215-246. Citations 128.

25. **2011**, Johnston, F.K.B., A.V. Turchyn, M. Edmonds. Decarbonation efficiency in subduction zones: Implications for warm Cretaceous climates. *Earth Planetary Science Letters* 303, 143–152. Citations 51.

24. **2010**, Edmonds, M., A. Aiuppa, M. Humphreys, R. Moretti, G. Giudice, R. S. Martin, R. A. Herd, and T. Christopher. Excess volatiles supplied by mingling of mafic magma at an andesite arc volcano. *Geochem. Geophys. Geosyst.*, doi:10.1029/2009GC002781. Citations 66.

23. **2010**, Humphreys, M.C.S., Edmonds, M., Christopher, T., Hards, V., Magma hybridisation and diffusive exchange recorded in heterogeneous glasses from Soufrière Hills Volcano, Montserrat. *Geophys. Res. Lett.*, 37, doi:10.1029/2009GL041926. Citations 38.

22. **2010**, Christopher, T., M. Edmonds, M. C. S. Humphreys, R. A. Herd. Volcanic gas emissions from Soufrière Hills Volcano, Montserrat 1995–2009, with implications for mafic magma supply and degassing. *Geophysical Research Letters*, 37, 19. Citations 57.

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