

# Dr. Thomas Gernon

---

## publications

### ten significant papers

July 2022 peer reviewed papers=65, total citations=1701, h=24.

Spencer, C.J., Davies, N.S., **Gernon, T.M.**, Wang, X., McMahon, W.J., Morrell, T.R.I., Hincks, T.K., Pufahl, P.K., Brasier, A., Seraine, M. & Lu, G.-M., accepted, in press, 2022. *Composition of continental crust altered by the emergence of land plants*. **Nature Geoscience**.

**Gernon, T.M.**, Barr, R., Fitton, J.G., Hincks, T.K., Keir, D., Longman, J., Merdith, A., Mitchell, R.N. & Palmer, M.R., 2022. *Transient mobilization of subcrustal carbon coincident with Palaeocene–Eocene Thermal Maximum*. **Nature Geoscience** doi: [0.1038/s41561-022-00967-6](https://doi.org/10.1038/s41561-022-00967-6). See News Feature: Voosen, P., 2022. *Hidden carbon layer may have sparked ancient bout of global warming*, **Science**, 377 (6601), 12–13 doi: [10.1126/science.add6369](https://doi.org/10.1126/science.add6369).

Longman, J., Mills, B.J.W., Manners, H.R., **Gernon, T.M.** & Palmer, M., 2021. *Late Ordovician climate change and extinctions driven by elevated volcanic nutrient supply*. **Nature Geoscience** 14, p. 924–929; doi: [10.1038/s41561-021-00855-5](https://doi.org/10.1038/s41561-021-00855-5).

**Gernon, T.M.**, Hincks, T.K., Merdith, A., Rohling, E.J., Palmer, M.R., Foster, G.L., Bataille, C.P. & Müller, R.D., 2021. *Global chemical weathering dominated by continental arcs since the mid-Palaeozoic*. **Nature Geoscience** 14, p. 690–696; doi: [10.1038/s41561-021-00806-0](https://doi.org/10.1038/s41561-021-00806-0).

Mitchell, R.N.<sup>‡</sup>, **Gernon, T.M.**<sup>‡</sup>, Cox, G.M., Nordsvan, A.R., Kirscher, U., Xuan, C., Liu, Y., Liu, X. & He, X., 2021. *Orbital forcing of ice sheets during snowball Earth*. **Nature Communications** 12, 4187; doi: [10.1038/s41467-021-24439](https://doi.org/10.1038/s41467-021-24439). <sup>‡</sup>Contributed equally.

Mazrouei, S., Ghent, R.R., Bottke, W.F., Parker, A.H. & **Gernon, T.M.**, 2019. *Earth and Moon impact flux increased at the end of the Paleozoic*, *Science* 363, p. 253–257; doi: [10.1126/science.aar4058](https://doi.org/10.1126/science.aar4058). Associated Perspective: Koeberl, C., 2019. *When Earth got pummeled*. **Science** 363 (6424), p. 224–225; doi: [10.1126/science.aav8480](https://doi.org/10.1126/science.aav8480); and News Feature: Voosen, P., 2019. *Moon's craters reveal recent spike in outer space impacts on Earth*, *Science*, doi: [10.1126/science.aaw7085](https://doi.org/10.1126/science.aaw7085).

Keller, C.B., Husson, J.M., Mitchell, R.N., Bottke, W.F., **Gernon, T.M.**, Boehnke, P., Bell, E.A., Swanson-Hysell, N.L. & Peters, S.E., 2019. *Neoproterozoic glacial origin of the Great Unconformity*. **Proceedings of the National Academy of Sciences** 116 (4), p. 1136–1145; doi: [10.1073/pnas.1804350116](https://doi.org/10.1073/pnas.1804350116). News and Views: Chakravorty, A. (2019), *Did global glaciation cause the Great Unconformity?* *Eos*, 100, doi: [10.1029/2019EO120289](https://doi.org/10.1029/2019EO120289).

Hincks, T.K., Aspinall, W., Cooke, R. & **Gernon, T.M.**<sup>‡</sup>, 2018. *Oklahoma's induced seismicity strongly linked to wastewater injection depth*. **Science** 359, p. 1251–1255; doi: [10.1126/science.aap7911](https://doi.org/10.1126/science.aap7911). <sup>‡</sup>Gernon is corresponding author.

**Gernon, T.M.**, Hincks, T.K., Tyrrell, T., Rohling, E.J. & Palmer, M.R., 2016. *Snowball Earth ocean chemistry driven by extensive ridge volcanism during Rodinia breakup*. **Nature Geoscience** 9, p. 242–248; doi: [10.1038/ngeo2632](https://doi.org/10.1038/ngeo2632). Associated News & Views feature: Fairchild, I. J., 2016. *Ocean chemistry: Neoproterozoic glass-bleeding*. *Nature Geoscience* 9, p. 192–193; doi: [10.1038/ngeo2643](https://doi.org/10.1038/ngeo2643).

**Gernon, T.M.**, Brown, R.J., Tait, M.A. & Hincks, T.K., 2012. *The origin of pelletal lapilli in explosive kimberlite eruptions*. **Nature Communications**, 3 (832), p. 1–7, doi: [10.1038/ncomms1842](https://doi.org/10.1038/ncomms1842).

### other reviewed papers

Longman, J., Palmer, M.R., **Gernon, T.M.**, Manners, H.R. & Jones, M.T., 2022. *Subaerial volcanism is a potentially major contributor to oceanic iron and manganese cycles*. **Nature Communications Earth & Environment** 3 (60), p. 1–8; doi: [10.1038/s43247-022-00389-7](https://doi.org/10.1038/s43247-022-00389-7).

Lan, Z., Mitchell, R.N., **Gernon, T. M.** & Nordsvan, A.R., 2022. *Did an asteroid impact cause temporary warming during snowball Earth?* *Earth and Planetary Science Letters*, 581, 117407. doi: [10.1016/j.epsl.2022.117407](https://doi.org/10.1016/j.epsl.2022.117407).

Callow, B., Falcon-Suarez, I., Bull, J.M., **Gernon, T. M.**, Ruffell, S., Grippa, A. & Hurst, A., 2021. *Permeability heterogeneity of sandstone intrusion fluid-escape systems, Panoche Hills, California: Implications for sedimentary basins globally*. *Sedimentology*, doi: [10.1111/sed.12997](https://doi.org/10.1111/sed.12997).

- Longman, J., **Gernon, T.M.**, Palmer, M.R. & Manners, H.R., 2021. *Tephra deposition and bonding with reactive oxides enhances burial of organic carbon in the Bering Sea*. *Global Biogeochemical Cycles* 35 (11), e2021GB007140. doi: [10.1029/2021GB007140](https://doi.org/10.1029/2021GB007140).
- Longman, J., **Gernon, T.M.**, Palmer, M.R., Jones, M.T., Stokke, E.W. & Svensen, H.H., 2021. *Marine diagenesis of tephra aided the Paleocene-Eocene Thermal Maximum termination*. *Earth and Planetary Science Letters* 571, 117101, doi: [10.1016/j.epsl.2021.117101](https://doi.org/10.1016/j.epsl.2021.117101).
- Gernon, T.M.**, 2020. *A sabbatical reboot*. *Science* 370 (6517), p. 738; doi: [10.1126/science.370.6517.738](https://doi.org/10.1126/science.370.6517.738).
- Watts, E.J., **Gernon, T.M.**, Taylor, R.N., Keir, D., Siegburg, M., Jarman, J., Pagli, C. & Gioncada, A., 2020. *Evolution of the Alu-Dalafilla and Borale volcanoes, Afar, Ethiopia*. *Journal of Volcanology and Geothermal Research* 408, 107094; doi: [10.1016/j.jvolgeores.2020.107094](https://doi.org/10.1016/j.jvolgeores.2020.107094).
- Longman, J., Palmer, M.R. & **Gernon, T.M.**, 2020. *Viability of greenhouse gas removal via artificial addition of volcanic ash to the ocean*. *Anthropocene* 32, 100264; doi: [10.1016/j.ancene.2020.100264](https://doi.org/10.1016/j.ancene.2020.100264).
- Siegburg, M., Bull, J.M., Nixon, C.W., Keir, D., **Gernon, T.M.**, Corti, G., Abebe, B., Sanderson, D.J. and Ayele, A., 2020. *Quantitative Constraints on Faulting and Fault Slip Rates in the Northern Main Ethiopian Rift*. *Tectonics* 39, e2019TC006046; doi: [10.1029/2019TC006046](https://doi.org/10.1029/2019TC006046).
- Haddock, D., Many, S., Brown, R. J., Jones, T., Wadsworth, F., Dobson, K. & **Gernon, T.M.**, 2020. *Syn-eruptive agglutination of kimberlite volcanic ash*. *Volcanica* 3(1), p. 169–182; doi: [10.30909/vol.03.01.169182](https://doi.org/10.30909/vol.03.01.169182).
- Taylor, R.N., Davilla-Harris, P., Branney, M., Farley, E.M.R., **Gernon, T.M.** & Palmer, M.R., 2020. *Dynamics of a chemically pulsing mantle plume*. *Earth and Planetary Science Letters* 537, 116182; doi: [10.1016/j.epsl.2020.116182](https://doi.org/10.1016/j.epsl.2020.116182).
- Mazrouei, S., Ghent, R.R., Bottke, W.F., Parker, A.H. & **Gernon, T.M.**, 2019. *Response to Comment on “Earth and Moon impact flux increased at the end of the Paleozoic”*, *Science*; doi: [10.1126/science.aaw9895](https://doi.org/10.1126/science.aaw9895).
- Hicks, S., Verdon, J., Baptie, B., Luckett, R., Mildon, Z., **Gernon, T.M.**, 2019. *A shallow earthquake swarm close to hydrocarbon activities: discriminating between natural and induced causes for the 2018–19 Surrey, UK earthquake sequence*. *Seismological Research Letters* 90 (6), p. 2095–2110; doi: [10.1785/0220190125](https://doi.org/10.1785/0220190125).
- Mitchell, R.N., **Gernon, T.M.**, Nordsvan, A., Cox, G.M., Li, Z.X. & Hoffman, P.F., 2019. *Hit or miss: Glacial incisions of snowball Earth*. *Terra Nova* 31 (4), p. 381–389; doi: [10.1111/ter.12400](https://doi.org/10.1111/ter.12400).
- Longman, J., Palmer, M., **Gernon, T.M.** & Manners, H., 2019. *The role of tephra in enhancing organic carbon preservation in marine sediments*. *Earth-Science Reviews* 192, p. 480–490; doi: [10.1016/j.earscirev.2019.03.018](https://doi.org/10.1016/j.earscirev.2019.03.018).
- Elliott, H.A., **Gernon, T.M.**, Roberts, S., Boyce, A. & Hewson, C., 2019. *Diatremes act as fluid conduits for Zn-Pb mineralization in the SW Irish Orefield*. *Economic Geology* 114 (1), p. 117–125; doi: [10.5382/econ-geo.2019.4622](https://doi.org/10.5382/econ-geo.2019.4622).
- Gernon, T.M.**, Sparks, R.S.J., Field, M., Ogilvie-Harris, R., Schumacher, J., & Brooker, R., 2019, in press. *Comment on: “Petrography of Snap Lake kimberlite dyke (Northwest Territories, Canada) and its interaction with country rock granitoids”*. *Journal of Petrology*, egy118; doi: [10.1093/petrology/egy118](https://doi.org/10.1093/petrology/egy118).
- Illsley-Kemp, F, Bull, J., Keir, D., Gerya, T., Pagli, C., **Gernon, T.M.**, Ayele, A., Goitom, B., Hammond, J.O.S. & Kendall, J.M., 2018. *Initiation of a proto-transform fault prior to seafloor spreading*. *Geochemistry, Geophysics, Geosystems* 10, p. 1–13; doi: [10.1029/2018GC007947](https://doi.org/10.1029/2018GC007947).
- Cox, G., Isakson, V., Hoffman, P., **Gernon, T.M.**, Schmitz, M., Shahin, S., Collins, A., Preiss, W., Blades, M., Mitchell, R.N., Nordsvan, A., 2018. *South Australian U-Pb zircon (CA-ID-TIMS) age supports globally synchronous Sturtian deglaciation*. *Precambrian Research* 315, p. 257–263; doi: [10.1016/j.precamres.2018.07.007](https://doi.org/10.1016/j.precamres.2018.07.007).
- Illsley-Kemp, F, Keir, D., Bull, J., **Gernon, T.M.**, Ebinger, C., Ayele, A., Hammond, J.O.S., Kendall, J.M. & Goitom, B., 2018. *Seismicity during continental breakup in the Red Sea rift of Northern Afar*. *Journal of Geophysical Research—Solid Earth* 123, p. 2345–2362; doi: [10.1002/2017JB014902](https://doi.org/10.1002/2017JB014902).
- Hatter, S., Palmer, M.R., **Gernon, T.M.**, Taylor, R.N., Cole, P.D., Barfod, D. & Coussens, M., 2018. *The evolution of the Silver Hills volcanic centre, and revised  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology of Montserrat, Lesser Antilles*. *Geochemistry, Geophysics, Geosystems* 19, p. 1–26; doi: [10.1002/2017GC007053](https://doi.org/10.1002/2017GC007053).
- Siegburg, M., **Gernon, T.M.**, Bull, J., Keir, D., Barfod, D.N., Taylor, R., Abebe, B. & Ayele, A., 2018. *Geological evolution of the Boset-Bericha Volcanic Complex, Main Ethiopian Rift:  $^{40}\text{Ar}/^{39}\text{Ar}$  evidence for episodic Pleistocene to Holocene volcanism*. *Journal of Volcanology and Geothermal Research* 351, p. 115–133; doi.org/[10.1016/j.jvolgeores.2017.12.014](https://doi.org/10.1016/j.jvolgeores.2017.12.014).

- Illsley-Kemp, F, Savage, M.K., Keir, D., Hirschberg, H.P., Bull, J., **Gernon, T.M.**, Hammond, J.O.S., Kendall, J.M., Ayele, A. & Goitom, B., 2017. *Extension and stress during continental breakup: Seismic anisotropy of the crust in Northern Afar*. Earth and Planetary Science Letters 477, p. 41–51; doi: [10.1016/j.epsl.2017.08.014](https://doi.org/10.1016/j.epsl.2017.08.014).
- Coussens, M., Cassidy, M., Watt, S.F., Jutzeler, M., Talling, P.J., Barfod, D., **Gernon, T.M.**, Taylor, R.N., Hatter, S., Palmer, M.R. & Montserrat Volcano Observatory, 2017. *Long-term changes in explosive and effusive behaviour at andesitic arc volcanoes: chronostratigraphy of the Centre Hills Volcano, Montserrat*. Journal of Volcanology and Geothermal Research 333–334, p. 15–35; doi: [10.1016/j.jvolgeores.2017.01.003](https://doi.org/10.1016/j.jvolgeores.2017.01.003).
- Illsley-Kemp, F, Keir, D., Bull, J., Ayele, A., Hammond, J., Kendall, J.M., Gallacher, R., **Gernon, T.M.**, & Goitom, B., 2017. *Local earthquake magnitude scale and b-Value for the Danakil region of Northern Afar*. Bulletin of the Seismological Society of America 107 (2), p. 521–531; doi: [10.1785/0120150253](https://doi.org/10.1785/0120150253).
- Gernon, T.M.**, Upton, B.G.J., Ugra, R., Yücel, C., Taylor, R.N. & Elliott, H.A., 2016. *Complex subvolcanic magma plumbing system of an alkali basaltic maar-diatreme volcano (Elie Ness, Fife, Scotland)*. Lithos 264, p. 70–85; doi: [10.1016/j.lithos.2016.08.001](https://doi.org/10.1016/j.lithos.2016.08.001).
- Coussens, M., Wall-Palmer, D., Talling, P.J., Watt, S.F., Cassidy, M., Jutzeler, M., Clare, M.A., Hunt, J.E., Manga, M., **Gernon, T.M.**, Palmer, M.R., Hatter, S., Boudon, G., Endo, D., Fujinawa, A., Hatfield, R., Hornbach, M.J., Ishizuka, O., Kataoka, K., Le Friant, A., Maeno, F., McCanta, M., Stinton, A.J., 2016. *On the relationship between eruptive activity, flank collapse and sea-level at volcanic islands: a long-term (>1 Ma) record offshore Montserrat, Lesser Antilles*. Geochemistry, Geophysics, Geosystems 17 (7), p. 2591–2611; doi: [10.1002/2015GC006053](https://doi.org/10.1002/2015GC006053).
- Emeana, C.J., Hughes, T.J., Dix, J.K., **Gernon, T.M.**, Henstock, T.J., Pilgrim, J.A., & Thompson, C.E.L., 2016. *The thermal regime around buried submarine high-voltage cables*. Geophysical Journal International 206 (2), 1051–1064; doi: [10.1093/gji/ggw195](https://doi.org/10.1093/gji/ggw195).
- Palmer, M.R., Hatter, S.J., **Gernon, T.M.**, Taylor, R.N., Cassidy, M., Johnson, P., LeFriant, A. & Ishizuka, O., 2016. *A 2.4 Ma Plinian eruption of Basse-Terre, Guadeloupe: Evidence from the marine sediment record*. Geology 44 (52), p. 123–126; doi: [10.1130/G37193.1](https://doi.org/10.1130/G37193.1).
- Coussens, M.F., Wall-Palmer, D., Talling, P.J., Watt, S.F.L., Hatter, S.J., Cassidy, M., Clare, M., Jutzeler, M., Hatfield, R., McCanta, M., Kataoka, K.S., Endo, D., Palmer, M.R., Stinton, A., Fujinawa, A., Boudon, G., Le Friant, A., Ishizuka, O., **Gernon, T.M.**, Adachi, T., Aljahdali, M., Breikreuz, C., Fraas, A.J., Hornbach, M.J., Lebas, E., Lafuerza, S., Maeno, F., Manga, M., Martinez-Colon, M., McManus, J., Morgan, S., Saito, T., Slagle, A., Subramanyam, K.S.V., Tamura, Y., Trofimovs, J., Villemant, B., Wang, F., & the Expedition 340 Scientists, 2016. *Synthesis: stratigraphy and age control for IODP Sites U1394, U1395 and U1396 offshore Montserrat in the Lesser Antilles*. In Le Friant, A., Ishizuka, O., Stroncik, N.A., and the Expedition 340 Scientists, Proceedings of the Integrated Ocean Drilling Program, 340, doi: [10.2204/iodp.proc.340.204.2016](https://doi.org/10.2204/iodp.proc.340.204.2016).
- Cassidy, M., Watt, S.F., Talling, P.J., Palmer, M.R., Edmonds M., Jutzeler, M., Wall-Palmer, D., Manga, M., Coussens, M., **Gernon, T.M.**, Taylor, R.N., Michalik, A., Inglis, E., Breikreuz, C., Le Friant, A., Ishizuka, O., Boudon, G., McCanta, M.C., Adachi, T., Hornbach, M.J., Colas, S.L., Endo, D., Fujinawa, A., Kataoka, K.S., Maeno, F., Tamura, Y., Wang, F. & Shipboard Science Party, 2015. *Rapid onset of mafic magmatism facilitated by volcanic edifice collapse*. Geophysical Research Letters 42, p. 1–8; doi: [10.1002/2015GL064519](https://doi.org/10.1002/2015GL064519).
- Cevatoglu, M., Bull, J.M., Vardy, M.E., **Gernon, T.M.**, Wright, I.C. & Long, D., 2015. *Gas migration pathways, controlling mechanisms and changes in sediment physical properties observed in a controlled sub-seabed CO<sub>2</sub> release experiment*. International Journal of Greenhouse Gas Control, Special Issue on Quantifying and Monitoring Potential Ecosystem Impacts of Geological Carbon Storage 38, p. 26–43, doi: [10.1016/j.ijggc.2015.03.005](https://doi.org/10.1016/j.ijggc.2015.03.005).
- Gernon, T.M.**, Spence, S., Trueman, C., Taylor, R.N., Rohling, E.J., Hatter, S.J. & Harding, I.C., 2015. *Emplacement of the Cabezo María lamproite volcano (Miocene, SE Spain)*. Bulletin of Volcanology 77 (52), p. 1–13; doi: [10.1007/s00445-015-0934-y](https://doi.org/10.1007/s00445-015-0934-y).
- Elliott, H.A., **Gernon, T.M.**, Roberts, S. & Hewson, C., 2015. *Basaltic maar-diatreme volcanism in the Lower Carboniferous of the Limerick Basin (southern Ireland)*. Bulletin of Volcanology 77 (37), p. 1–22, doi: [10.1007/s00445-015-0922-2](https://doi.org/10.1007/s00445-015-0922-2).
- Cassidy, M., Edmonds, M., Watt, S.F., Palmer, M.R. & **Gernon, T.M.**, 2015. *Origin of basalts by hybridisation in andesite-dominated arcs*. Journal of Petrology 56 (2), p. 325–346; doi: [10.1093/petrology/egv002](https://doi.org/10.1093/petrology/egv002).
- Blackford, J., Stahl, H., Bull, J., Berges, B., Cevatoglu, M., Lichtschlag, A., Connelly, D., James, R., Kita,

- J., Long, D., Naylor, M., Shitashima, K., Smith, D., Taylor, P., Wright, I., Akhurst, M., Chen, B., **Gernon, T.M.**, Hauton, C., Hayashi, M., Kaieda, H., Leighton, T., Sato, T., Sayer, M., Suzumura, M., Tait, K., Vardy, M., White, P. & Widdicombe, S., 2014. *Detection and impacts of leakage from sub-seafloor carbon dioxide storage*. *Nature Climate Change*, 4, p. 1011-1016, doi: [10.1038/nclimate2381](https://doi.org/10.1038/nclimate2381).
- Campeny, M., Mangas, J., Melgarejo, J. C., Bambi, A., Alfonso, P., **Gernon, T.M.** & Manuel, J., 2014. *The Catanda extrusive carbonatites (Kwanza Sul, Angola): an example of explosive carbonatitic volcanism*. *Bulletin of Volcanology* 76 (818), p. 1–15; doi: [10.1007/s00445-014-0818-6](https://doi.org/10.1007/s00445-014-0818-6).
- Cassidy, M., Trofimovs, J., Watt, S.F.L., Palmer, M.R., Taylor, R.N., **Gernon, T.M.**, Talling, P. & Le Friant, A., 2014. *Multi-stage collapse events in the South Soufrière Hills, Montserrat as recorded in marine sediment cores*. In: Wadge, G., Robertson, R. & Voight, B. (eds.) *The Eruption of the Soufrière Hills Volcano, Montserrat from 2000 to 2010*. Geological Society of London, Memoirs, 39, p. 381–395, doi: [10.1144/M39.20](https://doi.org/10.1144/M39.20).
- Gernon, T.M.**, Upton, B.G.J. & Hincks, T.K., 2013. *Eruptive history of an alkali-basaltic diatreme from Elie Ness, Fife, Scotland*. *Bulletin of Volcanology* 75 (704), p. 1–19; doi: [10.1007/s00445-013-0704-7](https://doi.org/10.1007/s00445-013-0704-7).
- Stock, M.J., Taylor, R.N. & **Gernon, T.M.**, 2012. *Triggering of major eruptions recorded by actively forming cumulates*. *Scientific Reports* 2, 731, p. 1–6; doi: [10.1038/srep00731](https://doi.org/10.1038/srep00731). **Gernon, T.M.** & Gilbertson, M.A., 2012. *Segregation of particles in a tapered fluidized bed*. *Powder Technology*, 231, p. 88–101, doi: [10.1016/j.powtec.2012.07.053](https://doi.org/10.1016/j.powtec.2012.07.053).
- Gernon, T.M.**, Field, M. & Sparks, R.S.J., 2012. *Geology of the Snap Lake kimberlite intrusion, NW Territories, Canada: Field observations and their interpretation*. *Journal of the Geological Society*, 169 (1), p. 1–16, doi: [10.1144/0016-76492011-056](https://doi.org/10.1144/0016-76492011-056).
- Gernon, T.M.**, Fontana, G., Field, M., Sparks, R.S.J., Brown, R.J. & MacNiocail, C., 2009c. *Pyroclastic flow deposits from a kimberlite eruption: the Orapa South Crater, Botswana*. *Lithos*, 112 (S1), p. 566–578, doi: [10.1016/j.lithos.2009.04.016](https://doi.org/10.1016/j.lithos.2009.04.016).
- Field, M., **Gernon, T.M.**, Mock, A., Walters, A., Sparks, R.S.J. & Jerram, D.A., 2009. *Variations of olivine abundance and grain size in the Snap Lake kimberlite intrusion, Northwest Territories Canada: A possible proxy for diamonds*. *Lithos*, 112 (S1), p. 23–35, doi: [10.1016/j.lithos.2009.04.019](https://doi.org/10.1016/j.lithos.2009.04.019).
- Gernon, T.M.**, Gilbertson, M.A., Sparks, R.S.J. & Field, M., 2009b. *The role of gas-fluidisation in the formation of massive volcanoclastic kimberlite*. *Lithos*, 112 (S1), p. 439–451, doi: [10.1016/j.lithos.2009.04.011](https://doi.org/10.1016/j.lithos.2009.04.011).
- Gernon, T.M.**, Field, M. & Sparks, R.S.J., 2009a. *Depositional processes in a kimberlite crater: the Upper Cretaceous Orapa South Pipe (Botswana)*. *Sedimentology*, 56 (2), p. 623–643, doi: [10.1111/j.1365-3091.2008.00989.x](https://doi.org/10.1111/j.1365-3091.2008.00989.x).
- Brown, R.J., Field, M., **Gernon, T.M.**, Gilbertson, M.A. & Sparks, R.S.J., 2008. *Problems with an in-vent column collapse model for the emplacement of massive volcanoclastic kimberlite*. *Journal of Volcanology and Geothermal Research*, 178 (4), p. 847–850, doi: [10.1016/j.jvolgeores.2008.06.002](https://doi.org/10.1016/j.jvolgeores.2008.06.002).
- Gernon, T.M.**, Gilbertson, M.A., Sparks, R.S.J. & Field, M., 2008b. *Gas-fluidisation in an experimental tapered bed: insights into processes in diverging volcanic conduits*. *Journal of Volcanology and Geothermal Research*, 174 (1-3), p. 49–56, doi: [10.1016/j.jvolgeores.2007.12.034](https://doi.org/10.1016/j.jvolgeores.2007.12.034). Article featured in *Nature* (2008), *Research Highlights, Geology: Pipe dream find*, 451, p. 502, doi: [10.1038/451502a](https://doi.org/10.1038/451502a).
- Gernon, T.M.**, Sparks, R.S.J. & Field, M., 2008a. *Degassing structures in volcanoclastic kimberlite: examples from southern African kimberlite pipes*. *Journal of Volcanology and Geothermal Research*, 174 (1-3), p. 186–194, doi: [10.1016/j.jvolgeores.2007.12.035](https://doi.org/10.1016/j.jvolgeores.2007.12.035).
- Brown, R.J., **Gernon, T.M.**, Stiefenhofer, J. & Field, M., 2008. *Geological constraints on the eruption of the Jwaneng Centre kimberlite pipe, Botswana*. *Journal of Volcanology and Geothermal Research*, 174 (1-3), p. 195–208, doi: [10.1016/j.jvolgeores.2007.12.032](https://doi.org/10.1016/j.jvolgeores.2007.12.032).
- Gernon, T.M.** & Peck, S., 2007. *Mapping past and future patterns of European urbanisation*. *Journal of Maps*, v2007, p. 88–97, doi: [10.1080/jom.2007.9710830](https://doi.org/10.1080/jom.2007.9710830).
- Walters, A.L., Phillips, J.C., Brown, R.J., Field, M., **Gernon, T.M.**, Stripp, G. & Sparks, R.S.J., 2006. *The role of fluidisation in the formation of volcanoclastic kimberlite: grain size observations and experimental investigation*. *Journal of Volcanology and Geothermal Research*, 155 (1-2), p. 119–137, doi: [10.1016/j.jvolgeores.2006.02.005](https://doi.org/10.1016/j.jvolgeores.2006.02.005).

**refereed  
conference  
papers**

Dix, J.K., Hughes, T.J., Emeana, C.J., Pilgrim, J.A., Henstock, T.J., **Gernon, T.M.**, Thompson, C.E.L., Vardy, M.E., 2017. *Substrate Controls on the Life-Time Performance of Marine HV Cables*. 8th International Conference on Offshore Site Investigation Geotechnics, 88 (107), p. 88–107, doi: [10.3723/OSIG17.088](https://doi.org/10.3723/OSIG17.088).

Hughes, T.J., Henstock, T.J., Dix, J.K., Pilgrim, J.A., **Gernon, T.M.** & Thompson, C.E.L., 2015. *Effect of sediment properties on the thermal performance of submarine HV cables*. IEEE Transactions on Power Delivery 30 (6), p. 2443-2450; doi: [10.1109/TPWRD.2015.2398351](https://doi.org/10.1109/TPWRD.2015.2398351).

**Gernon, T.M.**, Gilbertson, M.A. & Sparks, R.S.J., 2010. *Particle segregation in tapered fluidized beds*. In Kim, S.D., Kang, Y., Lee, J.K. and Seo, Y.C. (eds), Fluidization XIII: New Paradigm in Fluidization Engineering, RP6, p. 677–684, ISBN 978-0-918902-57-3.

**Gernon, T.M.**, Gilbertson, M.A., Sparks, R.S.J. & Field, M., 2007. *Tapered fluidized beds and the role of fluidization in mineral emplacement*. In Berruti, F., Bi, X. and Pugsley, T. (eds), Fluidization XII: New Horizons in Fluidization Engineering, RP4, p. 545–552, ISBN 978-0-918902-57-3.

**Other  
publications**

Harder, M., Pittari, A., Moss, S. & **Gernon, T.M.**, 2007. *Conference News: 2006 Kimberlite Emplacement Workshop*. Elements Magazine (Mineralogical Society of America), 3(2), p.127, ISSN 1811-5209.

Gernon, T.M., 2000. *The geography and mathematics of Europe's urban centres*. The Irish Scientist Millennium Year Book, Samton Ltd., Dublin, No. 8, p.236, ISBN 1 898 706 20 4.

Gernon, T.M., 1999. *Geomorphology of river valleys in Louth*. The Irish Scientist 1999 Year Book, Samton Ltd., Dublin, No. 7, p.212, ISBN 1 898 706 18 2.