

References

Allard, P., 1982, Stable isotope composition of hydrogen, carbon and sulphur in magmatic gases from rift and island arc volcanoes, *Bull. Vulcanol.*, 45-3.

Allard, P., 1983, The origin of hydrogen, carbon, sulphur, nitrogen and rare gases in volcanic exhalations: Evidence from isotope geochemistry, In: Tazieff, H., Sabroux, J. C. (eds.), *Forecasting Volcanic Events*, Elsevier Amsterdam, pp 337-386.

Arsadi, E.M., D.S. Widarto, S. Nishimura, T. Mogi, 1995a, Resistivity structure beneath active volcano case study at Sakurajima and Merapi volcanoes, *Proceedings of Merapi decade volcano international workshop, 75th Anniversary of the Volcanological Survey of Indonesia*, Sahid Garden Hotel, Yogyakarta-Indonesia, October 5 – 9, 1995.

Arsadi, E.M., S. Suparka, S. Nishimura, 1995b, Subsurface structure of Merapi inferred from magnetotelluric, gravimetric and geomagnetic surveys, *Proceedings of Merapi decade volcano international workshop, 75th Anniversary of the Volcanological Survey of Indonesia*, Sahid Garden Hotel, Yogyakarta-Indonesia, October 5 – 9, 1995.

Beauducel, F. and F.H. Cornet, 1999, Collection and three-dimensional modelling of GPS and tilt data at Merapi Volcano, Java, *Journal of Geophysical Research*, Vol. 104, No. B1, 725-736.

Belikov, M. V., 1987, Approximation of the external potentials of bodies rotation (translation from Russia): Synopsis of C. Sc Degree Thesis on Physical-Mathematical Science, Institute of Theoretical Astronomy of the USSR Academy of Science, Leningrad State University, U.S.S.R.

Bemmelen, R.W. Van, 1949, *The Geology of Indonesia*, Vol. IA, General Geology, Government Printing Office, The Hague, Amsterdam.

Berrino, G. and G. Corrado, 1991, Gravity changes and volcanic dynamics, *Cahier du Centre Européen de Geodynamique et de Seismologie*, Vol. 4, Proc. of the Workshop Instrumentation applied to Volcanic Areas. Oct. 1-3, 1990, Walferdange, Luxembourg, 305-323.

Berthommier, P.-C., 1990, Étude volcanologique du Merapi (Centre-Java): Téphrostratigraphie et chronologie–produits éruptifs, Thèse de Doctorat, Université Blaise Pascal, Clermont-Ferrand, France.

Bowie, W., 1917, *Investigations of gravity and isostasy*. U.S. Coast and Geodetic Survey, Spec. Publ. No. 40, Washington.

Brown, G.C. and H. Rymer, 1991, Microgravity monitoring at active volcanoes: A review of theory and practice, Vol. 4, Proc. of the Workshop Instrumentation applied to Volcanic Areas. Oct. 1-3, 1990, Walferdange, Luxembourg, 279-304.

Cassinis, G., 1930, Sur l'adoption d'une formule internationale pour la pesanteur normale. Bull. Geod. No. 26, 40-49, 1930.

Decker, R., and B. Decker, 1989, Volcanoes, W. H. Freeman and Company, New York.

Dehlinger, P., 1978, Marine gravity, Elsevier Scientific Publishing Company.

DMA, 1987, Department of Defense World Geodetic System 1984, DMA Techn. Rep. 8350.2.

Dvorak, J.J., Pardyanto, L., Matahelumual, J., 1984, Scientific results of the VSI-USGS cooperative volcanological program; January 1982 to June 1982, Report OF 84-0020, U.S. Geol. Surv., Hawaii Volcanoes National Park, HI, United States, 58 pp, 1984.

Firdaus, 1996, Efek kelengkungan topografi pada reduksi data gaya berat: studi kasus gunung Merapi, Thesis S-2, UGM, Yogyakarta.

Forsberg, R., 1984, A study of terrain reductions, density anomalies and geophysical inversion methods in gravity field modeling, Reports of the Department of Geodetic Science and Surveying, No. 355, Ohio State University.

Friedel, S. and S. Byrdina, 2001, Electrical resistivity and self-potential measurements at Merapi Volcano, Volcanism and natural hazards in the Indonesian archipelago; results and perspectives, December 5 to 6, 2001, Clermont Ferrand, France.

Friedel, S., I. Brunner, F. Jacobs, C. Rücker, 1999, New result from DC resistivity imaging along the flanks of Merapi volcano, 2. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft

Friedel, S., F. Jacobs, Ch. Flechsig, C. Reißmann, I. Brunner, 1998, Large-scale DC resistivity imaging at Merapi volcano, 1. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft

Gauthier, P.J., M. Condomines, M.F. Le Cloarec, 2001, Fractionation of short-lived u-series isotopes during magma degassing: A geochemical tool to unravel eruptive processes at Merapi Volcano, Indonesia, Volcanism and natural hazards in the Indonesian archipelago result and perspectives, December 5 to 6, 2001, Clermont-Ferrand, France.

Gerlach, T.M., 1982, Interpretation of the Merapi field gas chromatograph data, Bull. Volcanol., 45-3, pp 249-251.

Gerstenecker, C., 1999, FELDAUS, Ein Programmpaket zur Auswertung von Gravimetermessungen, Institute of Physical Geodesy, Darmstadt University of Technology, Darmstadt.

Gerstenecker, C., I. Suyanto, 2000, Gravity mapping of Merapi and Merbabu, Indonesia, Proceedings of the workshop: High precision gravity measurements with application to geodynamics and second GGP workshop, Conseil De L'Europe, Cahiers du Centre Europeen de Géodynamique et de Séismologie, Edited by B. Ducarme and J. Barthélemy, Luxembourg.

Gerstenecker, C., G. Läufer, B. Snitil, and B. Wrobel, 1998, Digital elevation models for Mount Merapi, 1. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft

Gerstenecker, C., G. Läufer, B. Snitil, and B. Wrobel, 1999, Digital elevation models for Mount Merapi, 2. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft

Gerstenecker, C., G. Läufer, D. Steineck, and B. Wrobel, 2001, Generation of a digital elevation model and orthophoto of Merapi and Merbabu, Central Java, Indonesia using photogrammetric and SAR images, Volcanism and natural hazards in the Indonesian archipelago; results and perspectives, December 5 to 6, 2001, Clermont- Ferrand, France.

Gerstenecker, C., G. Jentzsch, G. Läufer, I. Suyanto, A. Weise, 2001, Gravity changes observed at Merapi, Indonesia between 1997 and 2000, Volcanism and natural hazards in the Indonesian archipelago; results and perspectives, December 5 to 6, 2001, Clermont Ferrand, France.

Gerstenecker, C., G. Jentzsch, G. Läufer, B. Snitil, I. Suyanto, A. Weise, 2000, Repetition network and digital elevation models at mount Merapi, Proceedings of the workshop: High precision gravity measurements with application to geodynamics and second GGP workshop, Conseil De L'Europe, Cahiers du Centre Europeen de Géodynamique et de Séismologie, Edited by B. Ducarme and J. Barthélemy, Luxembourg.

Gerstenecker, C., R. Heinrich, G. Jentzsch, D. Kracke, G. Läufer, I. Suyanto, A. Weise, 1998, Microgravity at Merapi Volcano: Results of the first two Campaigns, 1. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft

Gertisser, 2001, Gunung Merapi (Java, Indonesia): Eruptionsgeschichte und magmatische Evolution eines Hochrisiko-Vulkans, Ph.D. Thesis, Universität Freiburg, Germany, 382 pp.

Gertisser, R. and J. Keller, 1998, The Holocene volcanic activity and magmatic evolution of Merapi Volcano, Central Java: Constraints from stratigraphic, chronologic and geochemical data, 1. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft e. V.

Gertisser, R. and J. Keller, 2001, Eruptive history and magmatic evolution of Merapi Volcano (Java, Indonesia): Inference from new radiocarbon age determinations and geochemical and isotopic compositions of lava and pyroclastic

rocks, Volcanism and natural hazards in the Indonesian archipelago result and perspectives, December 5 to 6, 2001, Clermont-Ferrand, France.

Goßler, J., 1999, Teleseismic observations at Merapi Volcano, Indonesia, 2. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft

Hanselman, D. and B.Littlefield, 1995, The student edition of MATLAB: version 4: user's guide: with tutorial, The Math Works, Inc., published by Prentice Hall, Inc., A Simon & Schuster Company, Englewood Cliffs, New Jersey 07632.

Held, A., 2002, 3D Visualisierung des Vulkans Merapi, Diplom thesis, Darmstadt University of Technology, 99 pp.

Helmert, F. R., 1901, Der normale Theil der Schwerkraft im Meeresniveau. Sitz. Ber. Kgl. Preuß. Akad. d. Wiss.sch. zu Berlin, 328-336, 1901.

Hubbert, M.K., 1984, Gravitational terrain effect of two-dimensional topographic features, *Geophysics*, 13:226-258.

International Association of Geodesy, 1971, Geodetic Reference System 1967, Bull. Geod., Publ. Spec. No. 3, Paris.

Jentsch, G., 2000, Arbeitsbericht, Untersuchung säkularer Schwereänderungen am Merapi, Java: Ursachen und Wirkungen, Institut für Geowissenschaften Lehrstuhl für Angewandte Geophysik, Friedrich-Schiller- Universität Jena.

Jousset P., 1996, Microgravimetrie et gravimetrie en volcanologie: methodologie et application au volcan Merapi, Java, Indonesie, These de Doctorat de Geophysique Interne – Univ. Paris.

Kadir, W.G.A, 1985, Analisa gaya berat anomali udara bebas gunung Merapi dan sekitarnya, Thesis, Fisika terpakai FMIPA UGM, Yogyakarta.

Kavalieris, I., 1994, High Au, Ag, Mo, Pb, and W content in fumarolic deposits at Merapi Volcano, Central Java, Indonesia, *Journal of Geochemical Exploration* 50, 479-491.

Le Guern, F., Bernard, A., 1982, A new method for sampling and analyzing sublimates, applications to Merapi Volcano, Java, *Journal of Volcanol. Geotherm. Res.*, 12, 133-146.

Le Guern, F., A. Nohl, P. Bicocchi, 1982a, Field measurements of volcanic gases Vulcano Island (Italy), Kilauea (Hawaii, USA), Merapi (Java, Indonesia), *Bull. Volcanol.*, 45-3, pp 229-233.

Le Guern, F., T.M. Gerlach, A. Nohl, 1982b, Field gas chromatograph analyses of gas from a glowing dome at Merapi Volcano, Java, Indonesia, 1997, 1978, 1979, *J. Volcanol. Geotherm. Res.*, 14, 223-245.

- Le Guern, F., Cheynet, B., Faivre-Pierret, R.X.**, 1993, Characterization and modeling of the complete volcanic gas phase, *Geochemical Journal*, Vol. 27, pp 323-336.
- Lewi, E.**, 1997, Modeling and inversion of high precision gravity data, Verlag der Bayerischen Akademie der Wissenschaften in Kommission bei C.H. Beck'schen Verlagsbuchhandlung, München.
- Lillie, R. J.**, 1999, Whole earth geophysics: an introductory textbook for geologists and geophysicists, Prentice-Hall, Inc., Simon & Schuster/A Viacom Company, Upper Saddle River. New Jersey 07458.
- Lühr, B.G., N. Maercklin, W. Rabbel, U. Wegler**, 1998, Active seismic measurement at the Merapi volcano , Java, Indonesia, 1. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft
- Märcklin, N., C. Riedel, W. Rabbel, U. Wegler, B.G. Lühr, J. Zschau**, 1999, Structural investigation of Mt. Merapi by an active seismic experiment, 2. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft
- Menke W.**, 1984, Geophysical data analysis: discrete inverse theory, Academic Press, Inc., Orlando, Florida.
- Moritz, H.**, 1984, Geodetic reference system 1980: Bulletin Geodesique, Vol. 58, No. 3, pp 388-398.
- Müller, M., A. Hördt, F.M. Neubauer**, 1998, The LOTEM survey on Mt. Merapi 1998 – first insights into the 3D resistivity structure, 1. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft
- Müller, M., A. Hördt, F.M. Neubauer**, 1999, A LOTEM survey at Merapi Volcano 1998, 2. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft
- Nagy D.**, 1966, The prism method for terrain corrections using digital computers. *Pure and Applied Geophysics*, 63:31-39.
- Nettleton, L. L.**, 1971, Elementary gravity and magnetic for geologists and seismologists, Monograph series, Society of Exploration Geophysicists.
- Ohrnberger, M., J. Wassermann, J. Gossler, E.N. Budi**, 1999, Continuous automatic monitoring of Mt. Merapi's seismicity, 2. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft
- Priatna**, 1996, Geochemical study of Merapi Volcano Indonesia, Volcanological Survey of Indonesia, Bandung, Indonesia, 21 pp.

Purbawinata, M.A., A. Ratdomopurbo, I.K. Sinulingga, S. Sumarti, Suharno (Ed.), 1997, Merapi Volcano – A Guide Book, Volcanological Survey of Indonesia, Bandung, Indonesia, 64 pp.

Ratdomopurbo, A., 2001, Seismicity of Gunung Merapi, Volcanism and natural hazards in the Indonesian archipelago; results and perspectives, December 5 to 6, 2001, Clermont-Ferrand, France.

Ratdomopurbo, A. und Poupinet, G., 1995, Monitoring a temporal change of seismic velocity in a volcano: application to the 1992 eruption of Mt. Merapi (Indonesia). *Geophysical Research Letters*, 22(7), 775-778.

Rebscher, D., M. Westerhaus, A. Körner, W. Welle, Subandriyo, A. Brodscholl, H. J. Kümpel, J. Zschau, 1999, Indonesian-German multi parameter stations at Merapi Volcano, 2. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft

Ritter, A., 1999, Modellierung der Untergrundstruktur des Merapi-Merbabu Vulkankomplexes, Diplom thesis, Darmstadt University of Technology, 95 pp.

Ritter, O., A. Hoffman-Rothe, A. Müller, S. Drip, E.M. Arsadi, A. Mahfi, I. Nurnusanto, S. Byrdina, F. Echternach, V. Haak, 1998, A magnetotelluric profile across Central Java, Indonesia, *Geophysical Research Letter*, 25, 4265-4268.

Robert C., Weast, Ph.D., 1970, Handbook of table for mathematics, fourth edition, the chemical rubber co., 18901 Cranwood Parkway, Cleveland, Ohio 44128.

Sarkowi, 1998, Pengukuran gravitasi dan analisis anomali Bouguer lengkap gunung Merapi studi kasus survei 1997, Thesis S-2, UGM Yogyakarta.

Schmidt, R.G. and H. R. Shaw, 1972, Atlas of Volcanic Phenomena, U.S. Geological Survey, 1972.

Sidik, M., 1989, Penyelidikan kakas gravitasi di gunung Merapi-Merbabu dan sekitarnya, Skripsi, Jurusan Fisika FMIPA UGM, Yogyakarta.

Snitil, B., C. Gerstenecker, G. Jentzsch, G. Läufer, A. Setiawan, A. Weise, 1999, Gravity and GPS measurements on Mt. Merapi, 2. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft

Spieler, O. and D.B. Dingwell, 1998, Experimental fragmentation of Merapi andesite, in Decade Volcanoes under Investigation, 1. Merapi-Galeras Workshop Potsdam, 25. Juni 1998, Deutsche Geophysikalische Gesellschaft

Suganda, O.K., K. Ishahira, B. Voit, K.D. Young, Subandriyo, 1995, Strain components changes in association with the 1992 eruption of Merapi Volcano, Indonesia, Proceedings of Merapi decade volcano international workshop, 75th Anniversary of the Volcanological Survey of Indonesia, Sahid Garden Hotel, Yogyakarta-Indonesia, October 5 – 9, 1995.

Supriadi, S., D. Sutarno, L. Hendrajaya, D. Santoso, 1999, Controlled-source audiomagnetotellurics (CSAMT) surveys at Merapi Volcano, 2. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft

Symonds, R.B., 1993, Scanning electron microscope observations of sublimates from Merapi Volcano, Indonesia, *Geochemical Journal*, Vol. 26, pp 337-350.

Symonds, R.B., Rose W.J., Reed M.N., Lichte F.E., Finnegan D.K., 1987, Volatilization, transport and sublimation of metallic and non metallic elements in high temperature gases at Merapi Volcano, Indonesia, *Geochemica et Cosmochimica Acta*, 51:8, pp 2083-2101.

Talwani, M., 1973, Computer usage in the computation of gravity anomalies. In: B.A. Bolt (Editor), *Methods in Computational Physics*, 13. Academic Press, New York, N.Y., pp. 343-389.

Telford, W. M., L. P. Geldart, R.E. Sheriff, D.A. Keys, 1981, *Applied geophysics*: Cambridge, New York, U.S.A.

Torge, W., 1989, *Gravimetry*: de-Gruyter, Berlin; New York.

Untung, M. and Y. Sato, 1978, Gravity and geological studies in Java, Indonesia, Geological Survey of Indonesia and Geological Survey of Japan, A joint research program on regional tectonics of Southeast Asia Institute for transfer of industrial technology project.

Vitter, G., M. Henault, M. Halbwachs, J.C. Sabroux, 1997, Continuous measurements of temperature and oxygen fugacity in Merapi fumarolic fields: Application to the geochemical surveillance of the volcanic activity, Merapi Decade Volcano International Workshop II, UNESCO-VSI, Yogyakarta, Program and Abstract, p 29.

Wahyudi, 1986, *Penyeledikan gaya berat pada gunung Merapi*, Thesis, Jurusan Fisika-FMIPA, UGM, Yogyakarta.

Wegler, U., B.-U. Lühr, J. Zschau, N. Maercklin, C. Riedel, W. Rabbel, 1999, Multiple seismic scattering effect at Mount Merapi – Active seismic measurements help to explain complex earthquakes signal of strato volcanos, 2. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft

Westerhaus, M., D. Rebscher, W. Welle, A. Brodscholl, A. Pfaff, A. Körner, M. Nandaka, 1998, Deformation measurement at the flanks of Merapi Volcano, 1. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft

Yokoyama, I., I. Suryo B. Nazahar, 1970, Volcanological Survey of Indonesian Volcanoes, Pt. 4, A Gravity Survey in Central Java, Earthquake Res. Inst. Bull. 48, 317-329.

Young, K.B., 2000, Private communication

Zimmer, M. and J. Erzinger, 1998, Geochemical monitoring on Merapi Volcano, Indonesia, 1. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft

Zimmer, M., J. Erzinger, Y. Sulisty, 1999, Continuous chromatographic gas measurements on Merapi Volcano, Indonesia, 2. Merapi-Galeras Workshop, Decade Volcanoes under Investigation, Deutsche Geophysikalische Gesellschaft