

Using ancient and recent soil properties to design a conceptual hydrological response model D. Bouwer, P.A.L. Le Roux, J.J. van Tol and C.W. van Huyssteen	1
Comparing one- and two-dimensional EMI conductivity inverse modeling procedures for characterizing a two-layered soil T. Saey, P. De Smedt, S. Delefortrie, E. Van De Vijver and M. Van Meirvenne	12
Evaluation of atmospheric CO ₂ sequestration by alkaline soils through simultaneous enhanced carbonation and biomass production E. Maryol and C. Lin	24
Challenges in rapid soil quality assessment and opportunities presented by multivariate chemometric energy dispersive X-ray fluorescence and scattering spectroscopy M.I. Kaniu and K.H. Angeyo	32
Carbon dioxide and methane fluxes in variably-flooded riparian forests P.A. Jacinthe	41
Agronomic and environmental soil phosphorus tests for predicting potential phosphorus loss from Ontario soils Y.T. Wang, T.Q. Zhang, I.P. O'Halloran, Q.C. Hu, C.S. Tan, D. Speranzini, I. Macdonald and G. Patterson	51
In-situ measurement of free trace metal concentrations in a flooded paddy soil using the Donnan Membrane Technique Y. Pan, G.F. Koopmans, L.T.C. Bonten, J. Song, Y. Luo, E.J.M. Temminghoff and R.N.J. Comans	59
Phosphorus speciation of clay fractions from long-term fertility experiments in Sweden A.K. Eriksson, J.P. Gustafsson and D. Hesterberg	68
Investigation of clay mineralogy in a temperate acidic soil of a forest using X-ray diffraction profile modeling: Beyond the HIS and HIV description J.-C. Viennet, F. Hubert, E. Ferrage, E. Tertre, A. Legout and M.-P. Turpault	75
Simulation of soil water and salt transfer under mulched furrow irrigation with saline water L.-J. Chen, Q. Feng, F.-R. Li and C.-S. Li	87
Degraded land detection by soil particle composition derived from multispectral remote sensing data in the Otindag Sandy Lands of China J. Wu, Z. Li, Z. Gao, B. Wang, L. Bai, B. Sun, C. Li and X. Ding	97
Soil natural capital quantification by the stock adequacy method A. Hewitt, E. Dominati, T. Webb and T. Cuthill	107
Evaluation of field-scale variability of heavy metal sorption in soils by scale factors — Scaling approach and statistical analysis H. Xiao, J. Böttcher and J. Utermann	115
Redistribution of cadmium and lead fractions in contaminated soil samples due to experimental leaching C. Ash, V. Tejnecký, O. Šebek, J. Houška, A.T. Chala, P. Drahota and O. Drábek	126

(continued from back cover)

Accelerated foliar litter humification in forest gaps: Dual feedbacks of carbon sequestration during winter and the growing season in an alpine forest X. Ni, W. Yang, B. Tan, J. He, L. Xu, H. Li and F. Wu	136
Putting regional digital soil mapping into practice in Tropical Northern Australia M. Thomas, D. Clifford, R. Bartley, S. Philip, D. Brough, L. Gregory, R. Willis and M. Glover	145
A Quaternary soil chronosequence study on the terraces of the Alcanadre River (semiarid Ebro Basin, NE Spain) D. Badía, C. Martí, J. Casanova, T. Gillot, J.A. Cuchí, J. Palacio and R. Andrés	158
The effectiveness of soil conservation measures at a landscape scale in the West Usambara highlands, Tanzania J. Wickama, R. Masselink and G. Sterk	168
Potential of integrated field spectroscopy and spatial analysis for enhanced assessment of soil contamination: A prospective review A. Horta, B. Malone, U. Stockmann, B. Minasny, T.F.A. Bishop, A.B. McBratney, R. Pallasser and L. Pozza	180
Effects of land use change on soil splash erosion in the semi-arid region of Iran B. Khalili Moghadam, M. Jabarifar, M. Bagheri and E. Shahbazi	210
Temporal variations of the distribution of water-stable aggregates, microbial biomass and ergosterol in temperate grassland soils with different cultivation histories D. Linsler, F. Taube, D. Geisseler, R.G. Joergensen and B. Ludwig	221
Pyrogenic alterations of Podzols at the North-east European part of Russia: Morphology, carbon pools, PAH content A.A. Dymov and D.N. Gabov	230
Validation of digital soil maps at different spatial supports T.F.A. Bishop, A. Horta and S.B. Karunaratne	238
Climate vs. parent material — Which is the key of Stagnosol diversity in Croatia? V. Rubinić, L. Galović, S. Husnjak and G. Durn	250
Linking satellite derived LAI patterns with subsoil heterogeneity using large-scale ground-based electromagnetic induction measurements S. Rudolph, J. van der Kruk, C. von Hebel, M. Ali, M. Herbst, C. Montzka, S. Pätzold, D.A. Robinson, H. Vereecken and L. Weihermüller	262
The respiration of flocculent detrital organic matter (floc) is driven by phosphorus limitation and substrate quality in a subtropical wetland O. Pisani, L.J. Scinto, J.W. Munyon and R. Jaffé	272
Surveying the carbon pools of mountain soils: A comparison of physical fractionation and Rock-Eval pyrolysis A. Saenger, L. Cécillon, J. Poulencard, F. Bureau, S. De Daniéli, J.-M. Gonzalez and J.-J. Brun	279
Polyacrylamide and biopolymer effects on flocculation, aggregate stability, and water seepage in a silt loam R.D. Lentz	289
Nature of soil organo-mineral assemblage examined by sequential density fractionation with and without sonication: Is allophanic soil different? R. Wagai, M. Kajiura, M. Asano and S. Hiradate	295
Inverse estimation of soil hydraulic properties under oil palm trees N.S.A. Rashid, M. Askari, T. Tanaka, J. Simunek and M.Th. van Genuchten	306
Operationalizing digital soil mapping for nationwide updating of the 1: 50,000 soil map of the Netherlands B. Kempen, D.J. Brus and F. de Vries	313
Effect of land degradation on carbon and nitrogen pools in two soil types of a semi-arid landscape in West Africa S. Traoré, K. Ouattara, U. Ilstedt, M. Schmidt, A. Thiombiano, A. Malmer and G. Nyberg	330