

Publications

ISI

Martius, G.G.S.; Wießner, A.; Stottmeister, U. (1996) Degradation efficiency and molecular size alteration during the aerobic microbial treatment of lignite pyrolysis deposit water, Applied Microbiology and Biotechnology, 1996, 45: 692-699

Wießner, A.; Remmler, M.; Kuschk, P.; Stottmeister, U. (1998) The treatment of a deposited lignite pyrolysis wastewater by adsorption using activated carbon and activated coke, Colloids Surfaces A: Physicochem. Eng. Aspects, pp. 139 91-97

Wießner, A.; Kuschk, P.; Stottmeister, U.; Struckmann, D.; Jank, M. (1999) Treating a lignite pyrolysis wastewater in a constructed subsurface flow wetland, Wat. Res. Vol. 33 No. 5, pp. 1296-1302

Kappelmeyer, U.; Wießner, A.; Kuschk, P.; Kästner, M. (2001) Planted Fixed Bed Reactor- eine universelle Testeinheit für bewachsene Bodenfilter. Chemie- Ingenieur- Technik (73) 11/2001, S. 1472- 1477

Wießner, A., Kuschk, P., Kästner, M., and Stottmeister, U. (2002) Abilities of helophyte species to release oxygen into rhizosphere with varying redox conditions in laboratory-scale hydroponic systems, International Journal of Phytoremediation Vol. 4, No. 1, pp. 1- 15

Wießner, A., Kuschk, P., Stottmeister, U. (2002) Oxygen release by roots of *Typha latifolia* and *Juncus effusus* in laboratory hydroponic systems, Acta Biotechnologica 22, 1- 2, 209- 216

Kappelmeyer, U., Wießner, A., Kuschk, P., Kästner, M. (2002) Operation of a Universal Test Unit for Planted Soil Filters- Planted Fixed Bed Reactor, Eng. Life Sci. (2) 10, pp. 311- 315

Vainshtein, M., Kuschk, P., Mattusch, J., Vatsurina, A., Wießner, A. (2003) Model experiments on the microbial removal of chromium from contaminated groundwater, Water Research 37, 1401- 1405

Kuschk, P., Wießner, A., Kappelmeyer, U., Weißbrodt, E., Kästner, M., Stottmeister, U. (2003) Annual cycle of nitrogen removal by a pilot-scale Subsurface Horizontal Flow in a Constructed Wetland under moderate climate, Water Research 37, 4236- 4242

Stottmeister, U., Wießner, A., Kuschk, P., Kappelmeyer, U., Kästner, M., Bederski, O., Müller, R.A., Moormann, H. (2004) Effects of Plants and Microorganisms in Constructed Wetlands for Wastewater Treatment, Biotechnology Advances 22, 1- 2, 93- 117

Kosolapov, D.B., Kuschk, P., Vainshtein, M.B., Vatsurina, A.V., Wießner, A., Kästner, M., Müller, R.A. (2004) Microbial Processes of Heavy Metal Removal from Carbon-Deficient Effluents in Constructed Wetlands, Engineering in Life Science 4, 403- 411

Wießner, A., Kappelmeyer, U., Kuschk, P., Kästner, M. (2005) Influence of the redox condition dynamics on the removal efficiency of a laboratory-scale constructed wetland, Water Research 39, 248- 256

S. Buddawong, P. Kuschk, J. Mattusch, A. Wiessner, and U. Stottmeister (2005) Removal of arsenic and zinc in different laboratory model wetland systems, Eng. Life Sci. 5, No. 3, 247-252

A. Wiessner, U. Kappelmeyer, P. Kuschk, M. Kästner (2005)
Sulphate reduction and the removal of carbon and ammonia in a laboratory-scale constructed wetland, Water Research 39, 4643-4650

A. Vatsourina, M. Vainshtein, P. Kuschk, A. Wiessner, D. Kosolapov, M. Kaestner (2005)
Anaerobic co-reduction of chromate and nitrate by bacterial culture of *Staphylococcus epidermidis* L-02, Journal of Industrial Microbiology and Biotechnology 32(9), 409-414

A. Wiessner, P. Kuschk, S. Buddawong, U. Stottmeister, M. Kästner (2006) Effectiveness of various small-scale constructed wetland designs for the removal of iron and zinc from acid mine drainage under field conditions, Eng. Life Science , 584-592

P. Kuschk, A. Wiessner, S. Buddawong, U. Stottmeister, M. Kästner (2006) Effectiveness of differently designed small-scale constructed wetlands to decrease the acidity of acid mine drainage under field conditions, Eng. Life Science 6 (4), 394-398

A.E. Gonzalias, P. Kuschk, A. Wiessner, M. Jank, M. Kästner, H. Köser (2007) Treatment of artificial sulphide containing wastewater in planted and unplanted subsurface horizontal flow laboratory-scale constructed wetlands, Ecological Engineering 31, 259-268.

A. Wiessner, P. Kuschk, M. Jechorek, H. Seidel, M. Kästner (2007) Sulphur transformation and deposition in the rhizosphere of *Juncus effusus* in a laboratory-scale constructed wetland. Environ Pollution 155, 125-131.

H. Gruber, A. Wiessner, P. Kuschk, M. Kästner, K.-J. Appenroth (2008) Physiological responses of *Juncus effusus* (rush) to exposure to chromium and its relevance for wastewater treatment in constructed wetlands, Int. J. Phytorem. 10(2), 79-90.

M. Braeckeveldt, G. Mirschel, A. Wiessner, M. Rueckert, N. Reiche, C. Vogt, A. Schultz H. Paschke, P. Kuschk, M. Kaestner (2008) Treatment of chlorobenzene-contaminated groundwater in a pilot-scale constructed wetland, Ecological Engineering 33, 45-53

A. Wiessner, A. E. Gonzalias, M. Kästner, and P. Kuschk (2008) Effects of sulphur cycle processes on ammonia removal in a laboratory-scale constructed wetland planted with *Juncus effusus*, Ecological Engineering, accepted.

books

Stottmeister, U.; Kuschk, P.; Wießner, A.; Weißbrodt, E.; Martius, G.; Becker, P.M.; Eismann, F.; Kotte, H. (1997) Altlastenprobleme der Carbochemie in Nordwestsachsen: Entstehung, Ausmaß und erste Sanierungskonzepte In: Knorr, C.; v. Schell, T.: Mikrobieller Schadstoffabbau, Vieweg-Verlag Wiesbaden, pp. 357-375

Stottmeister, U.; Kuschk, P.; Weißbrodt, E.; Martius, G.; Wießner, A.; Becker, P.M.; Kopinke, F.-D.; Pörschmann, J.; Eismann, F. (1997)

Altlasten aus der Carbochemie im mitteldeutschen Raum: Dimensionen, Besonderheiten und Sanierungsstrategien. In „Umwelt und Chemie“, GDCh-Monographie Bd. 8, Herausgeber: E. Bayer, K. Ballschmiter, H. Behret, F.H. Frimmel, W. Merz und U. Obst, VCH-Verlag, pp. 185-199

Kuschk, P.; Wießner, A.; Stottmeister, U. (1999) Biological Processes in Wetland Systems for Wastewater Treatment, Biotechnology, Wiley-VCH, Contents of Volume 11a, pp. 242-251

Kuschk, P., Wießner, A. (2003) Abwasserbehandlung in Pflanzenkläranlagen In: Stottmeister U. Biotechnologie zur Umweltentlastung, Teubner Stuttgart, Teubner- Reihe Umwelt, pp. 182- 192

A. Wiessner, P. Kuschk, U. Kappelmeyer, M. Kästner, O. Bederski, R. A. Müller (2006) Influence of helophytes on the redox reactions in their rhizosphere, In: Phytoremediation and Rhizoremediation, M. Mackova, D. N. Dowling, T. Macek (Eds.), In: Focus on Biotechnology 9A (millennial series), M. Hoffmann, J. Anne (Series eds.), Springer, Heidelberg, Germany, ISBN-10: 1-4020-4952-8, 69-82.

proceedings

Stottmeister, U.; Weißbrodt, E.; Becker, P.M.; Kuschk, P.; Kopinke, F.-D.; Pörschmann, J.; Seidel, H.; Wießner, A.; Lebelt, I.; Ondruschka, J.: (1997) „Soft“ Remediation Strategies: Examples for Activation of Microbiological Self Cleaning Potencies in Contaminated Water, Sediment and Soil Global Environ. Biotechnol. Proc. Int. Symp. Int. Soc. Environ Biotechnol., 3

Stottmeister, U.; Weißbrodt, E.; Becker, P.M.; Pörschmann, J.; Kopinke, F.-D.; Martius, G.G.M.; Wießner, A.; Kennedy, C. (1998) Analysis, behaviour and fate of a lignite pyrolysis wastewater deposit Contaminated Soil'98, Thomas Telford, London, pp. 113-121

Stottmeister, U., Wießner, A., Kuschk, P. (1998) Experimental determination of oxygen input into the rhizosphere by helophytes. International Workshop Innovative Potential of Advanced Biological Systems for Remediation, Technical University Hamburg-Harburg, March 2-4, pp. 93-96

U. Kappelmeyer, P. Kuschk, A. Wießner, and M. Kastner (2001) Planted Fixed-Bed Reactor - A Universal Test System for ConstructedWetlands.In: Leeson, Andrea Foote, Eric Banks, Katherine Magar, Victor S. (Eds.).Phytoremediation, Wetlands, and Sediments - 6(5), ISBN 1-57477-115-9, Battelle, Columbus, USA

U. Stottmeister, S., Buddhawong, P. Kuschk, A. Wiessner, J. Mattusch (2006) Constructed wetlands and their performance for treatment of water contaminated with arsenic and heavy metals, Proceedings of the NATO Advanced Research Workshop, Krakow, Poland, 27 June-1 July 2005. In: Twardowska, Irena, Allen, Herbert E., Häggblom, Max H. (Eds.). Viable Methods of Soil and Water Pollution Monitoring, Protection and Remediation. Springer, Dordrecht, Netherlands, ISBN 101-4020-4727-4, 417-432.

others

Wießner, A.; Kuschk, P.; Weißbrodt, E.; Stottmeister, U. Pörschmann, J.; Kopinke, F.-D. (1993) Charakterisierung des Wassers und des Sedimentes einer Braunkohle-Schwelwasserdeponie, Wasser Abwasser Praxis 6/93, 375-379

Wießner, A. (1994) Wachstum von *Ectothiorhodospira shaposhnikovii* und mikrobielle Oxidation anorganischer Schwefelverbindungen im Hinblick auf die mikrobielle Reinigung H₂S-belasteter Medien, BioEngineering 3/94, 10. Jg., 21-27

Kuschk, P.; Wießner, A.; Martius, G.; Weißbrodt, E.; Stottmeister, U. (1994) Untersuchungen zur Sanierung wäßriger Altlasten der Braunkohlepyrolyseindustrie Energieanwendung, Energie- und Umweltschutz, 43. Jg., Heft 8, August 1994, 309-312

Wießner, A.; Kuschk, P.; Martius, G.; Eismann, F.; Zehnsdorf, A.; Weißbrodt, E.; Stottmeister, U (1994) Abbaubarkeit von Schadstoffen im Braunkohlepyrolyse-Altwasser Wasser Abwasser Praxis 4/94, 44-48

Stottmeister, U.; Kuschk, P.; Weißbrodt, E.; Becker, P.M.; Martius, G.; Wießner, A. (1997) Ökotechnische Sanierungsstrategien für carbochemische Altlasten
In: Beiträge zur Wirtschaftsregion Leipzig-Halle, Regionale Festschrift zum Deutschen Ingenieurtag 1997 in Leipzig

Kuschk, P., Braun, P., Möder, M., Wießner, A., Müller, J., Kästner, M., Müller, R.A. (2003) Elimination von Nonylphenolen und Bisphenol A in Teich- und Pflanzenkläranlagen, Wasser Abwasser 144 (4), 297- 301