

## KAYNAKLAR

- Abu-Orf, M.M., Griffin, P., Dentel, S.K. (2001) Chemical and physical pretreatment of ATAD biosolids for dewatering, *Water Science and Technology*, 44, 10, 309-314.
- Abdel-Sabour, M.F., Mordvedt, J.J. and Kelsoe, J.J. 1988. Cd-Zn interactions in plants and extractable Cd and Zn fractions in soil. *Soil Sci.* 145: 424-431.
- ACWA (2008) Oregon Association of Clean Water Agencies and Energy Trust of Oregon. Final Energy Independence Project, Kennedy/Jenks Consultants, Portland OR, USA.
- Adams, M.L., Zhao, F.J., McGrath, S.P., Nisholson, F.A., chambers, B.J. 2007. Predicting Cadmium Concentrations in Wheat and Barley Grain Using Soil Properties. *J.of environ. Quality*. Vol. 33 No. 2, p. 532-541.
- Adriano, D.C. 1986. Trace elements in the terrestrial environment. Springer Verlag, New York.
- Aggelides, S.M., Londra, P.A. (2000) Effect of compost produced from town wastes and sewage sludge on the physical properties of a loamy and a clay soil, *Bioresource Technology*, 71: 253-259.
- Ahmed, H., Fawy, H.A., Abdel-Hady, E.S. 2010. Study of sewage sludge use in agriculture and its effect on plant and soil. *Agriculture And Biology Journal of North America*, 1(5), 1044-1049
- Ahn, H.K., Richard, T.L. ve Choi, H.L. (2007). Mass and thermal balance during composting of a poultry manure - wood shavings mixture at different aeration rates. *Process Biochem.*, 42, 215–223.
- Ahn, K.H., Yeom, I.T., Park, K.Y., Maeng, S.K., Lee, Y., Song, K.-G., Hwang, J.H. (2002) Reduction of sludge by ozone treatment and production of carbon source for denitrification, *Water Sci. Technol.*, 46 (10), 121–125.
- Ailincăi, A., Jitareanu, G., Tsadilas, C.D., Ailancăi, D., Zbant, M. and Balan, A. 2009. Effect of municipal sewage sludge on winter rape and soybean production. *Cercetări Agronomice în Moldova*. Vol. XLII, No. 3, 139.
- Ailincăi, C., Jitareanu, G., Ailincăi, D. and Balan, A. 2010. Influence of some organic residues on wheat and maize yield and eroded soil fertility. *Cercetări Agronomice în Moldova*. Vol. XLIII, No. 1, 141.

- Ailincăi, C., Jităreanu, G., Bucur, D., Ailincăi, D. 2012. Soil Quality and Crop Yields, After Utilization of Sewage Sludge on Agricultural Land, in the Moldavian Plain, Romania. *Cercetari Agronomice in Moldova*. Volume 45, Issue 1, Pages 5–18, ISSN (Online) 2067-1865.
- Akdeniz, H., Keskin, B., Bozkurt, M. A. 2009. Yield and metal concentration in garden burnet (*Sanguisorba minor scop. Bunyan 80*) from application of sewage. *J. Anim. Vet. Adv.*, 8, 694-701.
- Åkerlund, A. (2008) Evaluation of a disintegration technique for increased biogas production from excess activated sludge, MSc Thesis, Swedish University, Uppsala, Sweden.
- Akın B. (2008) Waste activated sludge disintegration in an ultrasonic batch reactor, *Clean*, 36 (4), 60–365.
- Aksu, T. 2008. Isparta Belediyesi Atık Su Arıtma Tesisinde Oluşan Çamurun Bertaraf Stratejilerinin Araştırılması, Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü Yüksek Lisans Tezi, 2008.
- Aktaş, M. 1995. Bitki besleme ve toprak verimliliği. A.Ü. Ziraat Fakültesi Yayınları, Yayın No: 1514, Ders Kitabı 467, Ankara.
- Akyarlı, A. Şahin, H. (2005) Arıtma çamurunun bertarafında kireç kullanımı. I. Ulusal Arıtma Çamurları Sempozyumu, 191-200, İzmir.
- Al Zoubi, M.M., Arslan, A., Abdelgawad, G., Pejon, N., Tabbaa M., Jouzdan, O. (2008) The effect of sewage sludge on productivity of a crop rotation of wheat, maize and vetch) and heavy metals accumulation in soil and plant in aleppo governorate, *American-Eurasian J. Agric. & Environ. Sci.*, 3, 4: 618-625. ISSN 1818-6769.
- Albiach, R., Canet, R., Pomares, F. and Ingelmo, F. 2001. Organic matter components, aggregate stability and biological activity in a horticultural soil fertilized with different rates of two sewage sludges during ten years. *Biores. Technol.*, 77, 109–114.
- Alloway B.J. and Jackson A.P. 1991. The behaviour of heavy metals in sewage sludge amended soils. *The science of the total environment*, 100; 151-176. Elsevier Science Publishers B.V. Amsterdam.
- Alloway, B.J. 1990. *Heavy Metals in Soils*. John Wiley & Sons, 1 Wiley Drive, Somerset, New Jersey.
- Alloway B.J. 1995. *Heavy metals in soils*. Blackie, London. pp; 122-152.

Alloway,B.J. 1993.Heavy Metals in Soils .Blackie Academic, Great Britain.

Alloway B.J. and Jackson A.P. (1991) The behaviour of heavy metals in sewage sludge amended soils, *The Science Of The Total Environment*, 100: 151-176. Elsevier Science Publishers B.V. Amsterdam.

Altınbaş, Ü., Yağmur, B., Gördüren, F. ve Yılmaz, N. 2004. İzmir Büyükşehir Belediyesi Atıksu Arıtma Tesisi Atıklarının Tarımda Kullanılma Olanakları Üzerine Araştırmalar. Ege Üniversitesi Ziraat Fakültesi Toprak Bölümü-Büyükşehir Belediyesi İZSU Genel Müdürlüğü, İzmir.

Anderson, A.C., Parkin, P.I. ve Campbell, C.D. (2008) DNA- and RNA-derived assessments of fungal community composition in soil amended with sewage sludge rich in cadmium, copper and zinc, *Soil Biology & Biochemistry*, 40, 2358–2365.

Andreadakis A.D., Mamals D., Gavalaki E., Kampylafka S. (2002) Sludge utilisation in agriculture: possibilities and prospects in Greece, *Water Science Technology*, 10, 46, 231-8.

Andriakis, A.D., Mamais, D., Gavalaki, E. Ve Kampylafka, S. (2002) Sludge utilization in agriculture: possibilities and prospects in Greece, *Water Science and Technology*, v.46, n. 10, pp. 231-238.

Angın, İ. ve Yağanoğlu, A. V. 2009. Arıtma Çamurlarının Fiziksel ve Kimyasal Toprak Düzenleyicisi olarak Kullanımı. *Ekoloji*, 19, 73, 39-47.

Angın, İ., Yağanoğlu, A. V. 2012. Effects of Sewage Sludge Application on Yield, Yield Parameters and Heavy Metal Content of Barley Grown under Arid Climatic Conditions . *International J. of Agriculture and Biology*, 14, 811-815.

Angın, İ., Yağanoğlu, A.V. 2011. Effects of sewage sludge application on some physical and chemical properties of a soil affected by wind erosion. *J. Agr. Sci. Tech.*, 13, 757-768.

Anonim, 1971. Gediz Ovası Toprakları. Topraksu Genel Müdürlüğü Yayınları No: 222, Ankara.

Anonim, 1983. Land Application of Municipal Sludge Proces Design Manual, EPA-625/1-83-016, October 1983.

Anonim, 2009. Menemen 2008 Hidrometeorolojik rasat verileri yıllığı. Menemen Toprak ve Su Kaynakları Araştırma Enstitüsü Müdürlüğü Yayınları. Dönemler ortalaması Yayın No: 237, Teknik Yayın No: 47 Menemen- İzmir.

Anonim, 2010a. Atıkların Düzenli Depolanmasına Dair Yönetmelik, 2010. Resmi Gazete Tarihi: 26.03.2010, Resmi Gazete Sayısı: 27533.

Anonim, 2010b. Evsel Ve Kentsel Arıtma Çamurlarının Toprakta Kullanılmasına Dair Yönetmelik. Resmi Gazete, 03 Ağustos 2010, Sayı: 27661.

Anonim. 2012. Polatlı Tarım İşletmesi Müdürlüğü 1999-2012 yılları arası toplam ve ekilişe düşen yağış miktarları. Polatlı TİGEM veri istasyonu, Ankara.

Anonymous .2010. Evsel ve kentsel arıtma çamurlarının toprakta kullanılmasına dair yönetmelik. Resmi Gazete, 03 Ağustos 2010, Sayı: 27661.

Antolin, M.C., Pascaul, I., Garcia,C., Polo,A.and Sanchez-Diaz, M.2005.Growth, yield and solute content of barley in soils treated with sewage sludge under semiarid Mediterranean conditions .Field Crops Res,94,224–237.

Antoniadis, V.and Alloway, B.J. 2001. Availability of Cd, Ni and Zn to ryegrass in sewage sludge-treated soils at different temperatures. Water, Air, and Soil Pollution, 132,201-214.

APHA, AWWA and WPCF, 2006. Standard Methods for the Examination of Water and Wastewater, 21st ed. American Public Health Association, Washington,D.C.

APHA. Standard Methods for the Examination of Water and Wastewater. American Public Health Association, American Waster Works Association and Water Pollution Control Federation: Washington, DC, 2005.

Appels L., Dewil R., Baeyens J. (2008) Ultrasonically enhanced anaerobic digestion of sludge, International Journal of Sustainable Engineering, 2, 1, 94-104.

Appels, L., Degreève, J., Van der Bruggen, B., Van Impe, J., Dewil, R. (2010) Influence of low temperature thermal pre-treatment on sludge solubilisation, heavy metal release and anaerobic digestion,Bioresource technology, 101 (15), 5743-5748.

Apul, G. O., Sanin F. D. (2009) Municipal sludge minimization: Evaluation of ultrasonic and acidic pretreatment methods and their subsequent effects on anaerobik digestion, Master Thesis.

Apul, O. G., Doğan, I., Köksoy, G. T. ve Sanin, F. D. (2007) Çamurun kimyasal ve termo-kimyasal önartım yöntemlerinin anaerobik özümleyici üzerine etkileri, 7. Ulusal Çevre Mühendisliği Kongresi, 634-644, 24-27 Ekim, İzmir.

Apul, O.G., Sanin, F.D. (2010) Ultrasonic pretreatment and subsequent anaerobic digestion under different operational conditions, Bioresource Technology 101, 8984–8992.

Arden, D. A. (1977) The agricultural use of sewage sludge in R. C. Loehr (ed.) Land as a waste management alternative. Springer Verlag. Berlin; 583-603.

Arıtma Çamurlarının Tarımda Kullanılması Sırasında Doğanın ve Toprağın Korunmasına Yönelik Arıtma Çamuru Direktifi (86/278/EEC), Council Directive of 12 June 1986 on the Protection of the Environment, and in particular of the Soil, when Sewage Sludge is used in Agriculture.

Arjona, B. T. ve Cisneros, R. T. (2005) Analysis of drying technologies for wastewater treatment plant sludge as an alternative source of energy, Solid Waste Technology and Management.

Arlabosse, P. ve Chitu, T. (2007) Identification of the limiting mechanism in contact drying of agitated sewage sludge. Drying Technology, 25, 557–567.

Arnesen, A. K. M., Singh, B.R. 1999. Plant uptake and DTPA-ekstraktabilite of Cd, Cu and Ni in a Norwegian alum shale soil as effected by previous addition of diary and pig manures and peat. Can. J. Soil Sci., 531-539.

Astals, S., Venegas, C., Peces, M., Jofre, J., Lucena, F., Mata-Alvarez, J., (2012) Balancing hygienization and anaerobic digestion of raw sewage sludge, Water Research, 46, 6218-6227.

Aşık, B.B. ve Katkat, A.V. 2010. Evaluation of Wastewater Sludge for Possible Agricultural Use. Environmental Engineering and Management Journal. 9 (6): 819-826.

Aşık, B.B. ve Katkat, A.V., 2008. Araştırma ve Deneme Metodları (II. Baskı). Atatürk Üni. Yayınları No: 697, Zir. Fak. No: 305, Ders Kitapları Serisi No: 57, Erzurum.

Aşık, B.B. ve Katkat, A.V., 2004. Gıda sanayi arıtma tesisi atığının (arıtma çamuru) tarımsal alanlarda kullanım olanakları. Uludağ Üni. Zir. Fak. Derg., 18 (2): 59-71.

Aşık, B.B., Katkat, A.V., Aydınalp C. ve Bıyıklı, M. (2010) Arıtma çamurlarının tarımsal özellikleri ve ağır metal içerikleri. 5. Ulusal Bitki Besleme ve Gübre Kongresi, 15-17 Eylül 2010, Ege Üni., İzmir.

Atchley, S.H. and Clark, J.B. 1979. Variability of temperature, pH, and moisture in aerobic composting process, Applied Environmental Microbiology, 38, 1040–1044.

Atık Çerçeve Direktifi (2006/12/EC), the Council Directive of 5 April 2006 on Waste.

Atık Çerçeve Direktifi (2008/98/EC), the Council Directive of 19 November 2008 on Waste and Repealing Certain Directives.

Atık Çerçeve Direktifi (75/442/EC), the Council Directive of 15 July 1975 on Waste.

Atık Yönetimi Genel Esaslarına İlişkin Yönetmelik (2008), Resmi Gazete, 05.07.2008/26927, Çevre ve Orman Bakanlığı, Ankara.

Atıkların Düzenli Depolanması Direktifi (99/31/EC), Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste, Official Journal of the European Communities.

Atıkların Düzenli Depolama Direktifi (99/31/EC), Council Directive of 26 April 1999 on the Landfill of Waste.

Atıkların Düzenli Depolanmasına Dair Yönetmelik (2010), Resmi Gazete, 26.03.2010/27533, Çevre ve Orman Bakanlığı, Ankara.

Atıkların Ek Yakıt Olarak Kullanılmasında Uyulacak Genel Kurallar Hakkında Tebliğ (2010), Resmi Gazete, 25.07.2010 /24853, Çevre ve Orman Bakanlığı, Ankara.

Atıkların Yakılmasına İlişkin Direktif (2000/76/EC), Directive of the European Parliament and of 4 December 2000 on the Incineration of Waste.

Atıksu Arıtma Çamurunun Kullanımı ve/veya Bertarafı için Yol Haritasının Belirlenmesi “Guidelines for the Utilisation and Disposal of Wastewater Sludge Volume 1: Selection of Management Options.

Atıksu Arıtma Tesisleri Teknik Usuller Tebliği (2010), Resmi Gazete, 20.03.2010/27527, Çevre ve Orman Bakanlığı, Ankara.

ATV-131 (2000), Dimensioning of Single Stage Activated Sludge Plants. GFA Publishing Company of ATV-DVWK Water, Wastewater and Waste, Hennef, Germany.

Avrupa Birliği Çevre Genel Müdürlüğü (2010) “Çamur konulu Çalışma Dökümanı (Working Document on Sludge) 3. Taslak”, <http://ec.europa.eu/environment/waste/sludge/workingdoc3.htm>, April, Brüksel.

Avrupa Birliği Çevre Komisyonu (2010) “Arıtma Çamurunun Toprakta Kullanılmasının Çevresel, Ekonomik ve Sosyal Etkileri Final Raporu -Bölüm 3”, Proje Ara Raporu, [http://ec.europa.eu/environment/waste/sludge/pdf/part\\_iii\\_report.pdf](http://ec.europa.eu/environment/waste/sludge/pdf/part_iii_report.pdf).

Avrupa Birliği Müktesebatının Üstlenilmesine İlişkin Türkiye Ulusal Programı (2003) Resmi Gazete, 24.07.2003/25178, T.C. Başbakanlık Avrupa Birliği Genel Sekreterliği, Ankara.

Avrupa Çevre Politikası Enstitüsü (2009) “86/278/EEC sayılı Arıtma Çamuru Direktifi Hakkında Uygulama Raporu”, [http://ec.europa.eu/environment/waste/reporting/pdf/Sewage%20sludge\\_Directive.pdf](http://ec.europa.eu/environment/waste/reporting/pdf/Sewage%20sludge_Directive.pdf), 2009.

Avrupa Çevre Politikası Enstitüsü (2009) “86/278/EEC sayılı Arıtma Çamuru Direktifi Hakkında Uygulama Raporu”, [http://ec.europa.eu/environment/waste/reporting/pdf/Sewage%20sludge\\_Directive.pdf](http://ec.europa.eu/environment/waste/reporting/pdf/Sewage%20sludge_Directive.pdf), 2009.

Aydın, B. ve Civelekoğlu, G. (2010) Effects of ultrasonic treatment on the waste activated sludge, *Journal of Engineering Science and Design*, 1, 1, 28-32.

Ayol A. (2005) Enzymatic treatment effects on dewaterability of anaerobically digested biosolids-I: performance evaluations, *Process Biochemistry*, 40, 2427–2434.

Ayol, A., Filibeli, A., Sır, D. ve Kuzyaka, E. (2007) Arıtma çamurlarının biyolojik dezentegrasyonu: enzimatik arıtımın çamur minimizasyonu üzerine etkilerinin araştırılması, 7. Ulusal Çevre Mühendisliği Kongresi, 634-644, 24-27 Ekim, İzmir.

Ayol, A., Filibeli, A., Sır, D., Kuzyaka, E. (2008) Aerobic and anaerobic bioprocessing of activated sludge: floc disintegration by enzymes, *J. Environ. Sci. Heal.*, C. 43(13), 1528–1535.

Ayuso, M., Hernández, T., Garcia, C., Costa, F. (1992): Utilizacion de un lodo aerobio como substitutivo de fertilizantes fosforados inorganicos. *Suelo y Planta*. 2, 271-280.

Ayvaz, Z. (2000) Atıksu arıtma çamurlarının değerlendirilmesi, *Çevkor*, 9:35, 3-12.

Baier, U. ve Schmidheiny, P. (1997) Enhanced anaerobic degradation of mechanically disintegrated sludge, *Water Sci. Technol.*, 36, 11, 137-143.

Bălan, A., Jitoreanu, G., Galeş, D.C., Răus, L., Öztan, S., Felix-Henningsen, P and Ailincăi, C. 2010. Influence of some organic residues on wheat and maize yield and eroded soil fertility. *Cercetări Agronomice în Moldova Vol. XLIII, No. 1*, 141.

Balcıoğlu, I.A., Ötker, M., (2003) Treatment of pharmaceutical wastewater containing antibiotics by O<sub>3</sub> and O<sub>3</sub>/H<sub>2</sub>O<sub>2</sub> processes, *Chemosphere*, 50, 85-95.

Balcıoğlu Akmehmet I, Ötker M. (2004) Pre-treatment of antibiotic formulation wastewater by O<sub>3</sub>, O<sub>3</sub>/H<sub>2</sub>O<sub>2</sub>, and O<sub>3</sub>/UV Processes, *Turkish J. Eng. Env. Sci.*, 28, 325-332.

Balcıoğlu Akmehmet I, Uslu Ötker M. (2008) Comparison of ozonation and Fenton process performances for the treatment of antibiotic containing manure, *Proceedings of IOA Conference on ozone and related oxidants*, May 15-16, Brussels, Belgium.

Balciođlu Akmehmet I. (2007) Fate of veterinary drugs in the environment, TÜBİTAK-Julich Project Report.

Balciođlu Akmehmet I. Uslu Ötker M.H. (2007) Oxidation of antibiotics in wastes from animal feeding operations, Bođaziçi Üniversitesi Araştırma Fonu Proje Raporu.

Balciođlu Akmehmet I. ve diđerleri (2007a) Fate of Veterinary Drugs in the Environment, Julich 103 I047 Proje Raporu.

Balciođlu Akmehmet I. ve diđerleri (2007b) Determination of pharmaceuticals in the environment, Bođaziçi Üniversitesi Araştırma Fonu Proje Raporu.

Balciođlu Akmehmet I. ve diđerleri (2009) Hayvan gübresinde antibiyotik kirliliđinin kontrolü, TÜBİTAK, YDABÇAG-106Y073 Proje Raporu.

Balciođlu Akmehmet I., Oncu Bilgin N., Cengiz M. Uslu M.O. (2009) Treatment of antibiotics and antibiotic resistant bacteria in manure and water with ozonation process, 19th Ozone World Congress, 31 August-3 September, Tokyo Japan.

Balciođlu Akmehmet, I., Ötker, M. (2002) Oxidative Treatment of Antibiotics in Pharmaceutical Effluents, Proceedings of the 5th Specialised Conference on Small Water and Wastewater Treatment Systems, September, 24-26, İstanbul, Turkey.

Balciođlu Akmehmet, I., Ötker, M. (2003) Treatment of pharmaceutical wastewater containing antibiotics by O<sub>3</sub> and O<sub>3</sub>/H<sub>2</sub>O<sub>2</sub> processes. Chemosphere, 50, 85-95.

Barbosa R., Lapa N., Boavida D., Lopes H., Gulyurtlu İ. ve Mendes B. (2009) Co-combustion of coal and sewage sludge: Chemical and ecotoxicological properties of ashes. Journal of Hazardous Materials, 170, 902–909.

Barjenbruch, M., Hoffmann, H., ve Tranker, J. (1999) Minimizing of foaming in digesters by pre-treatment of surplus sludge, Water Sci. Technol., 42, 9, 235-242.

Barjenbruch, M., Kopplow, O., (2003) Enzymatic, mechanical and thermal pre-treatment of surplus sludge, Advances in Environmental Research, 7, 715–720.

Barker, P.S. and Dold, P.L., (1997) General model for biological nutrient removal activated-sludge systems: model presentation, Water Env. Res., 69(5), 969-984.

Barlaz M. A. (2006) Forest products decomposition in municipal solid waste landfill, Waste Management, 321-333.



- Bartlett, J. Ve Killilea, E. (2001) The characterization, treatment and sustainable biosolids in Ireland, *Water Sci and Technol*, v.44, n. 10, 35-40.
- Batchelder, A. R., (1982) Chlorotetracycline and oxytetracycline effects on plant growth and development in soil systems. *Journal of Environmental Quality*, 11, 675 – 678.
- Basta, N.T. and Tabatabai M.A. 1992. Effect of cropping systems on adsorption of metals by soils. I. Single-metal adsorption. *Soil Sci.*, 153(2): 108-114.
- Batstone, D.J., Keller, J., Angelidaki, R.I., Kalyuzhnyi, S.V., Pavlostathis, S.G., Rozzi, A., Sanders, W.T.M., Siegrist, H. and Vavilin, V.A. (2002). *Anaerobic Digestion Model No.1. STR No. 13*, IWA Publishing, London, UK.
- Batt A.L.. Investigating the Occurrence and Fate of Human and Veterinary Antibiotics in Environmental Water Systems. Ph.D. Thesis, The State University of New York at Buffalo, 2006.
- Begum, A. 2011. Influence of sewage sludge compost on the cultivation of Maize (*Zea mays* L.). <http://www.eco-web.com/edi/110311.html>.
- Bengtsson, M. and Tillman, A.-M. (2004) Actors and interpretations in an environmental controversy: the Swedish debate on sewage sludge use in agriculture. *Resources Conservation and Recycling*, 42: 65-82.
- Benitez, E., M. Romero, M. Gomez, F. Gallardolaro and R. Nogales, (2001) Biosolid and biosolid ash as sources of heavy metals in plant-soil system, *Water, Air and Soil Pollution*. 132: 75-87.
- Benzer D., 2003, Mineralojik Bileşim ve Mikro Yapı- Doku Değişimlerinin Klinker Örneklerinde Kırılma Fonksiyonuna Etkileri, Yüksek Lisans Tezi, Hacettepe Üniversitesi, p.105
- Berge, N.D., Reinhart, D.R., and Batarseh, E.S. (2009) “An Economic Comparison Between Aerobic and Anaerobic Bioreactor Landfills,” *Waste Management* 29 (5), 1558-1567.
- Bergkvist, P., Jarvis, N., Berggren, Dan. and Carlgren, K. 2003. Long-term effects of sewage sludge applications on soil properties, cadmium availability and distribution in arable soil Agriculture. *Ecosystems & Environment*, 97(1–3), 167–179.

- Bernal-Martinez, A., Carrere, H., Patureau, D., Delgenes, J. P., (2005) Combining anaerobic digestion and ozonation to remove PAH from urban sludge, *Process Biochemistry*, 40, 3244 – 3250.
- Bernal-Martinez, A., Carrere, H., Patureau, D., Delgenes, J.-P., (2007) Ozone pre-treatment as improver of PAH removal during anaerobic digestion of urban sludge, *Chemosphere*, 68, 1013 – 1019.
- Bertoncini, E.I., D’orazio, V., Senesi, N. ve Mattiazzo, M.E., (2008) Effects of sewage sludge amendment on the properties of two Brazilian oxisols and their humic acids, *Bioresour. Technol*, 99, 4972–4979.
- Besze’des S., Kerte’sz S., La’szlo’ Z., Szabo’ G., Hodu’r C. (2009) Biogas production of ozone and/or microwave-pretreated canned maize production sludge, *Ozone: Science & Engineering*, 31 (3), pp. 257 – 261.
- Bidwell, A.M., and R.H. Dowdy. 1987. Cadmium and zinc availability to corn following termination of sewage sludge applications. *J. Environ. Qual.* 16:438-442.
- Biganzoli L., Grosso M., Giugliano M., Campolunghi M. (2012) Chemical and sewage sludge co-incineration in a full-scale MSW incinerator: toxic trace element mass balance, *Waste Management & Research*, 30, 1081-1088.
- Bilgin, N., Eyüpoğlu, H., Üstün, H. 2003. İkinci kademe arıtım yapan kentsel nitelikli atıksu arıtma tesislerinden çıkan arıtma çamurlarının (biyokatıların) tarım alanlarında kullanılma olanakları. T.C. Tarım ve Köyişleri Bakanlığı Köy Hizmetleri Genel Müdürlüğü APK Dairesi Başkanlığı Toprak ve Su Kaynakları Araştırma Şube Müdürlüğü, Toprak ve Su Kaynakları Araştırma Sonuç Raporları 2003, Yayın No: 124, s.202-220, Ankara.
- Biyu, S., Xiaofei, C. (2009). Effect of *Aeolosoma hemprichi* on excess activated sludge reduction. *Journal of Hazardous Materials*, 162, 300–304.
- Björn, V. (2007). Comparison of composting, storage and urea treatment for sanitizing of fecal matter and manure. *Bioresour. Technol.*, 98, 3317–3321.
- Black, C.A. (1965) *Methods of Soil Analysis, Part 1*. Amer. Soc. of Agro., Inc., Publisher Madison, Wisconsin, USA.
- Blackwell P.A., Lutzhoft H.C.H., Ma H.P., B. Halling-Sorensen, A.B.A. Boxall, P. Kay. Ultrasonic extraction of veterinary antibiotics from soils and pig slurry with SPE clean-up and LC-UV and fluorescence detection, *Talanta* 64, 1058–1064, 2004.

- Blakey N.C., Bradshaw K., Reynolds P., Knox K. (1997) Bio-reactor landfill-A field trial of accelerated waste stabilisation. Proceedings Sardinia 97. Sixth International Landfill Symposium. CISA, Cagliari, I, 375-386.
- Blank, L.T., Tarquin, A.J., Engineering Economy, McGraw-Hill: Singapore, 1989.
- Boran J., Houdkova L., Ucekaj V. ve Stehlik P., (2007) Utilization of energy from thermal treatment of sludge, Management of Environmental Quality: An International Journal, 1477-7835.
- Borges, E. S. M. ve Chernicharo, C. A. L. (2009) Effect of thermal treatment of anaerobic sludge on the bioavailability and biodegradability characteristics of the organic fraction, Brazilian Journal of Chemical Engineering, 03, 26, 469-480.
- Bougrier C., Carrere H., Delgenes J.P. (2005) Solubilisation of waste-activated sludge by ultrasonic treatment, Chemical Engineering Journal, 106 (2), 163-169.
- Bougrier C., Delgenes Jp., Carrere H., (2007) Impacts of thermal pre-treatments on the semi-continuous anaerobic digestion of waste activated sludge, Biochemical Engineering Journal, 34, 20-27.
- Bougrier, C., Albasi, C., Delgenés, J. P., Carrère, H. (2006) Effect of ultrasonic, thermal, and ozone pre-treatments on waste activated sludge solubilisation and anaerobic biodegradability, Chemical Engineering and Processing 45, 711–718.
- Bougrier, C., Battimelli, A., Delgenès, J.P., Carrère, H. (2007) Combined ozone pre-treatment and anaerobic digestion for the reduction of biological sludge production in wastewater treatment, Ozone-Sci. Eng. 29 (3), 201–206.
- Bougrier, H. Carrère, J. P. Delgenes. (2005) Solubilisation of Waste-activated Sludge by Ultrasonic Treatment, Chemical Engineering Journal, 106, 163-169.
- Bouyoucos, G.J. 1951. A Recalibration of Hydrometer for Making Mechanical Analysis of Soils. Agronomy Journal, 43: 9.
- Bouyoucos, G.J., (1962) Hydrometer method improved for making particle size analysis of soil, Agronomy J., Vol. 54, No. 5.
- Boxall, A. B. A., Kolpin, D. W., Halling-Sorensen, B., Tolls, J., (2003) Are veterinary medicines causing environmental risks?, Environmental Science and Technology, 37, 286A – 294A.

- Bozkurt, M. A., Erdal, I., Çimrin, K. M., Karaca, S. ve Sağlam, M. (2000) Effects of sewage sludge and humic acid on nutrient and heavy metal content in maize, *Journal of Agricultural Sci.* 6, 35-43.
- Bozkurt, M. A., Yılmaz, İ., Çimrin, K. M. 2000. Kentsel arıtma çamurunun kışlık arpada azot kaynağı olarak kullanılması. *Ankara Üniversitesi Ziraat Fakültesi Tarım Bilimleri Dergisi.* 2000-7(1); 105-110.
- Bozkurt, M.A. ve Yarılgaç, T. 2003. The Effects of Sewage Sludge Applications on the Yield, Growth, Nutrition and Heavy Metal Accumulation in Apple Trees Growing in Dry Conditions. *Turk J Agric For*, 27, 285-292.
- Braguglia, C. M., Mininni, G. ve Gianico, G. (2007) Is sonication effective to improve biogas production and solids reduction in excess sludge digestion?, *Managerial and Public Synergy*, 699-704.
- Braguglia, C.M., Gianico, A., Mininni, G., (2012) Comparison between ozone and ultrasound disintegration on sludge anaerobic digestion, *Journal of Environmental Management*, 95, S139-S143.
- Braguglia, C.M., Gagliano, M.C., Rossetti, S., (2012) High frequency ultrasound pretreatment for sludge anaerobic digestion: Effect on floc structure and microbial population, *Biosource Technology*, 110, 43-49.
- Bremner, J.M. 1965. Total nitrogen. In: *Methods of Soil Analysis Part 2*; (C.A. Black, Ed). American Society of Agronomy, Madison, Wisconsin, 1145-1178.
- Bremner, J.M. 1965b. Inorganic Forms of Nitrogen. In: *Methods of Soil Analysis*. Black, C.A. American Soc. of Agron. Inc. Publ. Madison, Wisconsin, USA, 1197-1287.
- Bremner, J.M. (1965) 'Total Nitrogen', in C.A. Black (Ed.) *Methods of Soil Analysis, Part 2*, American Society of Agronomy Inc., Madison, Wisconsin-USA. 1149-1178.
- Brofas, G., P. Michopoulos, ve D. Alifragis. (2000) Sewage sludge as an amendment for calcareous bauxite mine spoils reclamation. *J. Environ. Qual.* 29: 811-816.
- Brooks, R. B. (1970) Heat treatment of sewage sludge, *Water Poll. Control*, 69, 2, 221-231.
- Bux M. ve Baumann R. (2003) Performance, Energy Consumption and Energetic Efficiency Analysis of 25 Solar Sludge Dryers. *Water Environment Federation, WEFTEC*, ABD.

- Buxton G.V., Greenstock C.L., Helman W.P., Ross, A.B. (1988) Critical Review of Data Constants for Reactions of Hydrated Electrons, Hydrogen Atoms and Hydroxyl Radicals in Aqueous Solutions, *J. Phys. Chem. Ref. Data*, 17, 513-586.
- Büyükkamacı, N. (2004) Biological Sludge Conditioning by Fenton's Reagent, *Process Biochemistry*, 39, 1503-1506.
- Cai, M.L., Wei, Y.S., Liu, J.X. (2004) Enhanced biohydrogen production from sewage sludge with alkaline pretreatment, *Environ. Sci. Technol.* 38, 3195–3202.
- Calvo, L., Sánchez, M., Morán, A. ve García, A., (2004) TG-MS as a technique for a better monitoring of the pyrolysis, gasification and combustion of two kinds of sewage sludge, *Journal of Thermal Analysis and Calorimetry*, 78, 587-598.
- Cao, X. Q., Liu, L., Wang, H. C., Gan, Y. P., Zhou, J. ve Bai, Y. (2007) Enhanced sludge decomposition by ultrasound, *Wastewater Biosolids Sustainability: Technical, Managerial and Public Synergy*, June 24-27, Moncton, New Brunswick, Canada.
- Caravelli, A., Giannuzzi, L., Zaritzky, N. (2006) Effect of ozone on filamentous bulking in a laboratory scale activated sludge reactor using respirometry and INTdehydrogenase activity. *J. Environ. Eng.-ASCE* 132, 1001–1010.
- Carballa M., Manterola G., Larrea L., Ternes T., Omil F., Lema J.M., (2007) Influence of ozone pre-treatment on sludge anaerobic digestion: Removal of pharmaceutical and personal care products, *Chemosphere*, 67 (7), pp. 1444–1452.
- Carson, P.L. 1980. Recommended potassium test. p: 20-21. in: Kacar, B., 1995. *Bitki ve Toprağın Kimyasal Analizleri III-Toprak Analizleri*. A.Ü. Ziraat Fak. Eğitim, Araştırma ve Geliştirme Yayınları, Yayın No: 3. Ankara.
- Casado-Vela J., Sellés S., Díaz-Crespo C., Navarro-Pedreño J., Mataix-Beneyto J. ve Gómez I. (2007) Effect of composted sewage sludge application to soil on sweet pepper crop (*Capsicum annuum* var. *annuum*) grown under two exploitation regimes, *Waste Manag.* 27,1509-18.
- Cassini, S.T., Andrade, M.C.E., Abreu, T.A. (2006) Alkaline and acid hydrolytic processes in aerobic and anaerobic sludges: effect on total EPS and fractions, *Water Sci. Technol.* 53, 51–58.
- Catalkaya E. C., Kargi, F. (2007) Color, TOC and AOX removals from pulp mill effluent by advanced oxidation processes: A comparative study, *Journal of Hazardous Materials*, B139, 244–253.

Cavallaro, N., Padilla, N. and Villaruda, J. 1993. Sewage effects on chemical properties of acid soils. *Soil Sci.*, Baltimore, 156, (2), 63-70.

Černý, J., Balík, J., Kulhánek, M., Vašák, F., Peklová, L., Sedlář, O. 2012. The effect of mineral N fertiliser and sewage sludge on yield and nitrogen efficiency of silage maize. *Plant Soil Environ.*, 58 (2), 76–83.

Cengiz M., Balcioğlu Akmehmet I., Oruc H.H., Gunduz Cengiz T. (2010) Evaluation of the interaction between soil and antibiotics, *Journal of Environmental Science and Health, Part B* 45, 183–189.

Chander, K. and Brookes, P.C., 1991. Effects of heavy metals from past applications of sewage sludge on microbial biomass and organic matter accumulation in a sandy loam and a silty loam UK soil. *Soil Biology & Biochemistry*, 23, 927–932.

Chaney, R.L., Li, Y.M., Angle, J.S., Baker, A.J.M., Reeves, R.D., Brown, S.L., Homer F.A., Malik, M. and Chin, M. 1999. Improving metal hyperaccumulators wild plants to develop commercial phytoextraction systems: Approaches and progress, *Phytoremediation of Contaminated Soil and Water*, N Terry, G.S Banuelos. CRC Pres Boca Raton, FL.

Chang, A.C., Page, A.L. and Bingham, F.T. 1982. Heavy metal absorption by winter wheat following termination of cropland sludge applications. *J. Environ. Qual.*, 11: 705-708.

Chang C., Ying-Shih Ma, Lo, C., (2002) Application of Oxidation–Reduction Potential as a Controlling Parameter in Waste Activated Sludge Hydrolysis, *Chemical Engineering Journal*, 90, 273–281.

Chapman, H.D. 1965. *Methods of soil analysis Part 2. Chemical microbiological properties.* Ed. C.A. Black., Amer. Soc. of Agron. Inc. Publ. Agron. Series no: 9, Madison, Wisconsin, USA.

Characterization, Design, Construction, and Monitoring of Bioreactor Landfills Alternative Landfill Technologies Team (2006).

Chaudri, A. M., Celine M. G., Alain, S. H., Badawy M. L., Adams S. P., Mc Grath, P., and Chambers, J. B. 2001. Cadmium content of wheat grain a long-term field experiment with sewage sludge. *J Environmental Quality* 30 (5): 1575-1580.

Chauzy, J., Cretenot D, Bausseon A, and D.S. (2007) Anaerobic digestion enhanced by thermal hydrolysis: First reference BIOTHELYS® at Saumur, France. Facing sludge diversities: challenges, risks and opportunities, Antalya, Turkey.

Chen, G.H. Mo, H.K. Liu, Y., (2002) Utilization of a metabolic uncoupler, 3,30,40,5-tetrachlorosalicylanilide (TCS) to reduce sludge growth in activated sludge culture, *Water Research* 36, 2077–2083.

Chen, G.H., An, K.A., Brois, E. and Djafer, M. (2003) Possible cause of excess sludge reduction in an oxic-settling-anaerobic activated sludge process (OSA process), *Water Research* 37, 3855-3866.

Chen, G.H. Saby, S, Djafer M. Mo HK. (2001) New approaches to minimize excess sludge in activated sludge systems. *Water Sci. Technol*:44 (10):203-8.

Chen T., Yan B. (2012) Fixation and partitioning of heavy metals in slag after incineration of sewage sludge, *Waste Management*, 32, 957, 964.

Cheng, H., Xu, W., Liu, J., Zhao, Q., He, Y. and Chen, G., 2007. Application of composted sewage sludge (CSS) as a soil amendment for turfgrass growth. *Ecological Engineering*, 29, 96-104.

Chiu, Y. C., Chang, C. N., Lin, J. G., (1997) Alkaline and ultrasonic pretreatment of sludge before anaerobic digestion, *Water Science and Technology*, 36, 11, 155 – 162.

Choi, H., Jeong, S., Chung, Y. (2005) Enhanced anaerobic gas production of waste activated sludge pretreated by pulse power technique, *Bioresource Technology*, 97, 198–203.

Christopher A. Wilson, John T. Novak and Sudhir N. Murthy, (2009) Thermal Hydrolysis of the lipid and protein fractions of wastewater sludge: implications for digester performance and operational considerations, *WEFTEC 2009*, Water Environment Federation.

Chu C.P., Feng W.C., Chang B.-V., Chou C.H., Lee D.J., (1999) Reduction of microbial density level in wastewater activated sludge via freezing and thawing, *Water Research*, 33 (16), 3532-3535.

Chu C.P., Lee D. J., Chang B.V., Liao G.S., Jean D.S. (2001) Observations on changes in ultrasonically treated waste activated sludge, *Water Research*, 35 (4), 1038-1046.

Chu, L. B., Yan, S. T., Xing, X. H., Yu, A. F., Sun, X. L., Jurcik, B. (2008) Enhanced sludge solubilization by microbubble ozonation, *Chemosphere* 72, 205–212.

Chu, L., Yan, S., Xing X-H., Sun, X. and Jurcik, B. (2009) Progress and perspectives of sludge ozonation as a powerful pretreatment method for minimization of excess sludge production, *Water Research* 43, 1811-1822.

Chudoba, P. and Capdeville, B. (1991) A possible way towards reduction of waste sludge production, Sixth IAWPRC Conference on Design and Operation of Large Wastewater Treatment Plants, Prague.

Ciambelli P., Sannino D., Vaiano V., Caracciolo D., Naviglo B., Calvanese G., (2010) A Thermogravimetric Study on Tannery Sewage Sludges. *Journal of the Society of Leather Technologists & Chemists*, 94.

Cigdem Eskicioglu, Kevin J. Kennedy, Ronald L. Droste, (2006) Characterization of soluble organic matter of waste activated sludge before and after thermal pretreatment, *Water Research*, 40 (20), pp. 3725-3736 .

Clarke, J. M., Leisler, D., De Pauw, R. M., and Thiessen, L. L. 1997. Registration of five pairs of durum wheat genetic stocks near-isogenic for cadmium concentration *Crop Sci.* 37:197

Coelho, N.M.G., Droste, R.L., Kennedy, K.J., (2011) Evaluation of continuous mesophilic, thermophilic and temperature phased anaerobic digestion of microwaved activated sludge, *Water Research*, 45, 2822-2834.

Cofie, O.O., Agbottah S., Strauss M., Esseku H., Montangero A., Awuah E., Kone D., 2004. Solid–liquid separation of faecal sludge using drying beds in Ghana: Implications for nutrient recycling in urban agriculture. *Water Research* 40, p.75-82.

Cogger, C.G., A.I. Bary, S.C. Fransen ve D.M. Sullivan.(2001) Seven years of biosolids versus inorganic nitrogen applications to tall fescue. *J. Environ. Qual.* 30: 2188-2194.

Conesa J. A., Galvez A., Mateos F., Gullon I. ve Font M, R., (2008) Organic and inorganic pollutants from cement kiln stack feeding alternative fuels. *Journal of Hazardous Materials*, 158, 585–592.

Craft, D.G., Blakey N.C. (1988) Co-disposal of Sewage Sludge and Domestic Waste in Landfills. In *ISWA Proceedings, Volume 1*, 161-168, Academic Press, London.

Cyr, M., Coutand, M., Clastres, P. 2007 (online) Technological and environmental behavior of sewage sludge ash (SSA) incement-based material. *Cement and Concrete Research* 37, 1278–1289.

Çakmak, I., A.Yilmaz, M. Kalayci, H. Ekiz, B. Turun, B. Erenoğlu and H.J. Braun. 1996. Zinc deficiency as a critical problem in wheat production in Central Anatolia. *Plant Soil.* 180: 165-172.



Çamurun Tarımsal Kullanımı İçin Gerekli Şartlar “Guidelines for the Utilisation and Disposal of Wastewater Sludge Volume 2: Requirements For the Agricultural Use of Wastewater Sludge”.

Çamurun Termal İşlem Uygulamaları ve Çamur İçeren Ticari Ürünlerin Kullanımında Gerekli Koşullar “Guidelines for the Utilisation and Disposal of Wastewater Sludge Volume 5: Requirements For Thermal Sludge Management Practices And For Commercial Products Containing Sludge”.

Çamurun Yararlı Kullanımı İçin Gerekli Şartlar “Guidelines for the Utilisation and Disposal of Wastewater Sludge Volume 4: Requirements For The Beneficial Use Of Sludge At High Loading Rates”.

Çamurun Yerinde ve Uzakta Bertarafı için Gerekli Şartlar “Guidelines for the Utilisation and Disposal of Wastewater Sludge Volume 3: Requirements For The On-Site and Off-Site Disposal Of Sludge”.

Çetin S. ve Erdinçler A. (2004) The role of carbohydrate and protein parts of extracellular polymeric substances on the dewaterability of biological sludges, Journal of Environmental Science and Technology, 50, 9, 49-56, 2004.

Çevre Koruma, Bilim, Politika ve Besin Yönetimi Yönetmeliği (2009) “Land Application of Sewage Biosolids: Environmental Protection, Science, Policy and the Nutrient Management Regulation”, September 18, Ontario. [http://www.e-laws.gov.on.ca/html/regs/english/elaws\\_regs\\_900347\\_e.htm](http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_900347_e.htm).

Çevre, Ulaşım ve Bölgesel İlişkiler Komitesi (1998) “Kanalizasyon Arıtımı ve Bertarafı İkinci Raporu”, <http://www.publications.parliament.uk/pa/cm199798/cmselect/cmenvtra/266ii/et0213.htm>.

Çınar, S., Onay, T.T. and Erdinçler, A. (2004) Co-disposal Alternatives of Various Municipal Wastewater Treatment-Plant Sludges with Refuse. Advances in Environmental Research, 8, 477-482.

Çiçek, T., Biyokütle Enerjisi ve Kireç fırınlarında kullanımı Çiçek T., Dokuz Eylül Üniversitesi, Mühendislik Fak., Maden Mühendisliği Böl. Buca/İzmir, Mayıs 2007. (Kimtaş şirket içi rapor).

Çiçek, T., Muğla Kireç Sanayi A.Ş. Kireç Fırınları modernizasyonu, Çiçek T., Dokuz Eylül Üniversitesi, Mühendislik Fak., Maden Mühendisliği Böl. Buca-İzmir, Aralık 2006. (Kimtaş şirket içi rapor).

Çokay, E., Şengül, F. (2006) Toksik Kirleticilerin İleri Oksidasyon Prosesleri İle Artımı. DEÜ Mühendislik Fakültesi Fen ve Mühendislik Dergisi, 8, 2, 1-9.

Dalias, P. 2012. Increased Yield Surplus of Vetch-Wheat Rotations under Drought in a Mediterranean Environment. The Scientific World Journal., 2012, Article ID 658518, 6 pages. doi:10.1100/2012/658518

Darvodelsky P., Flanagan D., Bradley J. (2009) Biosolids Regulatory Review. Australian and New Zealand Biosolids Partnership.

Davidsson A., Jansen J., (2006), Pre-treatment of Wastewater Sludge Before Anaerobic Digestion- Hygenisation, Ultrasonic Treatment and Enzyme Dosing, Vatten, 62, 335-340.

Davies, B.E. 1990. Lead in B.J. Alloway (ed). Heavy metals in soils. Blackie and Son Glasgow pp. 177-199.

Debosz, K., Petersen, S. O., Kure, L. K., & Ambus, P. (2002) Evaluating effects of sewage sludge and household compost on soil physical, chemical and microbiological properties. Applied Soil Ecology, 19(3), 237–248.

Debra R. Reinhart, Philip T. McCreanor, Timothy Townsend (2002) The bioreactor landfill: Its status and future, Waste Management.

Del Borghi, A., Converti, A., Pallazi, E., Del Borghi, M., (1999) Hydrolysis and Thermophilic Anaerobic Digestion of Sewage Sludge and Organic Fraction of Municipal Solid Waste. Bioprocess Eng., 20, 553–560.

Deleris, S., Geaugey, V., Camacho, P., Debellefontaine, H., Paul, E. (2002) Minimization of sludge production in biological processes: an alternative solution for the problems of sludge disposal, Water Sci. Technol. 46 (10), 63–70.

Deleris, S., Paul, E., Audic, J. M., Roustan, M., Debellefontaine, H. (2000) Effect of ozonation on activated sludge solubilization and mineralization, Ozone Sci. Eng. 22, 473–486.

Delgenes, J. P., Penaud, V., Moletta. R. (2003) Pretreatments for Enhancement of Anaerobic Digestion of Solids Waste, IWA Publishing, ISBN 1900222140.

- Delibacak, S., Okur, B. ve Ogun, A.R. (2009a) Influence of treated sewage sludge applications on temporal variations of plant nutrients and heavy metals in a Typic Xerofluent soil, *Nutrient Cycling in Agroecosystems*, 83, 249-257.
- Delibacak, S., Okur, B. ve Ogun, A.R. (2009b) Effects of treated sewage sludge levels on temporal variations of some soil properties of a Typic Xerofluent soil in Menemen Plain, Western Anatolia, Turkey, *Environmental Monitoring and Assessment*, 148, 85–95.
- Delibacak, S., Okur, B., Yağmur, B. ve Ogun, A.R. (2008) Effects of sewage sludge applications on the yield and trace element and heavy metal accumulation in peanut (*Arachis hypogaea* L.), *Asian Journal of Chemistry*, 20, 563-570.
- Deng W., Yan J., Li X., Wang F., Chi Y., Lu S., (2009c) Emission characteristics of dioxins, furans and polycyclic aromatic hydrocarbons during fluidized-bed combustion of sewage sludge, *Journal of Environmental Sciences*, 21, 1747–1752.
- Deng, W., Yan, J., Li, X., Wang, F., Lu, S., Chi, Y. ve Cen, K. (2009b) Measurement and simulation of the contact drying of sewage sludge in a nara-type paddle dryer, *Chemical Engineering Science*, 64, 5117-5124.
- Deng, W., Yan, J., Li, X., Wang, F., Zhu, X., Lu, S. ve Cen, K. (2009a) Emission characteristics of volatile compounds during sludges drying process. *Journal of Hazardous Materials*, 162, 186–192.
- Derbal, K., Bencheikh-Iehocine, M., Cecchi, F., Meniai, A. H., Pavan, P. (2009) Application of the IWA ADM1 model to simulate anaerobic co-digestion of organic waste with waste activated sludge in mesophilic condition, *Bioresource Technology*, 100, 1539-1543.
- Devlieghere, F., Vermeiren, L., Debevere, J. (2003) New preservation technologies: Possibilities and limitations. *International Dairy Journal* 14 (2004) 273–285.
- Devlet Su İşleri, (2012) DSİ 2012 Yılı Birim Fiyat Cetveli, DSİ Destek Hizmetleri Dai. Bşk. Basım ve Foto-Film Şb. Md.
- Dewil R, Appels L, Baeyens J, Degreè J., (2007) Peroxidation enhances the biogas production in the anaerobic digestion of biosolids, *Journal of Hazardous Materials*.
- Dewil, R., Baeyens, J., Neyens, E. (2005) Fenton peroxidation improves the drying performance of waste activated sludge, *J. Hazard. Mater.* 117, 161–170.

- Dewil, R., Appels, L., Baeyens, J., Degrève, J. (2007) Peroxidation enhances the biogas production in the anaerobic digestion of biosolids, *Journal of Hazardous Materials* 146, 577–581.
- Dey, E.S., Szewczyk, E., Wawrzynczyk, J., Norrlov, O. (2006) A novel approach for characterization of exopolymeric material in sewage sludge, *J. Residuals Sci. Technol.* 3 (2), 97–103.
- Dignac, M.F., Urbain, V., Rybacki, D. (1998) Chemical description of extracellular polymers: implication on activated sludge floc structure, *Water Sci. Technol.* 38, 45–53.
- Dinç, U., Kapur, S., Şenol, S., Cangir, C., Altınbaş, Ü., Durak, A., Kahraman, C., Çullu, M. A., Aksoy, E., Öztürk, N., Kurucu, Y., Gündoğan, R., Kılıç, K., Öztekin, E., Dingil, M., Akça, E., Çelik, İ., Kılıç, Ş., Ölmez, A., Karadeniz, S., Vural, H., Ergün, H., Bolca, M. ve Dengiz, O. 1998. Polatlı Tarım İşletmesi Topraklarının Detaylı Toprak Etüt ve Haritalanması. Tarım İşletmeleri Genel Müdürlüğü. Sayı: 25.
- Dindar, E., Topaç, O., Şağban F., Başkaya, H.S. (2010) Stabilize arıtma çamurlarının topraktaki azot ve üreaz aktivitesine etkileri, *İTÜ dergisi*, 20, 29-38.
- Dogan I., Sanin F. D. (2009) Alkaline solubilization and microwave irradiation as a combined sludge disintegration and minimization method, *Water Research*, 43 (8), pp. 2139-2148.
- Dogan, I, Koksoy, G.T, Kara, F., Kıvılcımdan, C. ve Sanin, F.D. Lab-scale Evaluation of Thermal, Thermo-chemical and Acidic Pretreatment of Sludge to Improve Anaerobic Digestion, IWA Specialist Conference on Facing Sludge Diversities: Challenges, Risks and Opportunities, 28-30 Mart 2007, Antalya Türkiye.
- Dohanyos, M., Jabranska, J., Kutil, J. ve Jenicek, P. (2003) Improvement of anaerobic digestion of sludge *Wastewater Sludge as a Resource* Bildiri kitabı, 23-25 June, Trondheim. Norvec.
- Dohanyos, M., Zabranska, J., Jenicek, P. (1997) Enhancement of sludge anaerobic digestion by using of a special thickening centrifuge, *Water Sci. Technol.* 36 (11), 145–153.
- Dohányos, M., Zábranská, J., Kutil, J., Jeníček, P., (2004) Improvement of anaerobic digestion of sludge, *Water Science and Technology*, 49, 10, 89–96.
- Domeno, X., JColón, J., Uras, M.V., Izquierdo, R., Àvila, A. ve Alcañiz, J.M. (2010) Role of soil properties in sewage sludge toxicity to soil collembolans, *Soil Biology & Biochemistry*, 30, 1-9.

Dölgen, D. Alpaslan, M:N:, Özkan, B. ve Delen, N. (2007) Bitki işleme tesisi arıtma çamurunun tarımsal amaçlı geri kullanımı, 7. Ulusal çevre mühendisliği kongresi, Yaşam Çevre Teknoloji, 24-27 Ekim 2007 – İzmir.

Dölgen, D. Alpaslan, M:N:, Özkan, B. ve Delen, N. (2007) Bitki işleme tesisi arıtma çamurunun tarımsal amaçlı geri kullanımı, 7. Ulusal çevre mühendisliği kongresi, Yaşam Çevre Teknoloji, 24-27 Ekim 2007 – İzmir.

DSC, 2004. Decree of the State Committee on Technical Regulation and Consumer Policy (Derzhspozhyvstandart) of Ukraine as of May 28, 2004 No. 98. [http://www.agromark.com.ua/index.php?lang=en&part=6&id\\_s=21](http://www.agromark.com.ua/index.php?lang=en&part=6&id_s=21).

Duda, W. H., 1985, Cement Data Book, Vol. 1, 2<sup>nd</sup> Edition, Macdonald and Evans, London, 302 p.

Duan Y., Zhao C., Wang Y. ve Yu C., (2010) Mercury Emission from Co-combustion of Coal and Sludge in a Circulating Fluidized-Bed Incinerator, Energy Fuels, 24, 220–224.

Düzgüneş, O., Kesici, T., Kavuncu, O. ve Gürbüz, F., 1987. Araştırma ve Deneme Metodları (İstatistik Metodlar II). A.Ü. Ziraat Fakültesi Yayınları Ders Kitabı: 295, Ankara.

DVWK-ATV131 (2000) Abwassertechnische Vereinigung, Dimensioning of Single-Stage Activated Sludge Plants, Rules and Standards.

Dytczak, M.A., Londry, K.L., Siegrist, H., Oleszkiewicz, J.A. (2007) Ozonation reduces sludge production and improves denitrification, Wat. Res., 41, 543 - 550.

Dytczak, M. ., Londry, K.L., Siegrist, H., Oleszkiewicz, J. A., (2006) Ozonation reduces sludge production and improves denitrification, Water Research 42, 543-550.

E. Neyens, J. Baeyens, M. Weemaes, B. De heyder, (2003) Pilot Scale Peroxidation (H<sub>2</sub>O<sub>2</sub>) of Sewage Sludge, Journal of Hazardous Materials B98, 91-106.

EC. 2001. Commission Regulation (EC) 466/2001. Setting maximum levels for certain contaminants in foodstuffs. Official Journal of the European Communities, pp77.

E.U. - Project Poseidon Home Page <http://poseidon.bafg.de/servlet/is/2884/>. (accessed September 2001).

E.U. 86/278/ EEC Directive, 5.June.2003.

Eastman, J.A., Ferguson, J.F., (1981) Solubilization of particulate organic carbon during the acid phase of anaerobic digestion. JWPCF 53, 3, 352-366.

EC [European Commission], (2000) Working document on sludge—3RD draft. Reference ENV.E.3/LM, Brussels, 27 April 2000.

Egemen, E., Corpening, J., Nirmalakhand, N. (2001) Evaluation of an ozonation system for reduced waste sludge generation, *Water Sci. Technol.* 44, 445–452.

Ehlers R-U (2001) Mass production of entomopathogenic nematodes for plant protection. *Appl Microbiol and Biotechnol* 56: 623-633.

Ekinci, K., Keener, H.M. ve Akbolat, D. (2006) Effects of feedstock, airflow rate, and recirculation ratio on performance of composting systems with air recirculation, *Bioresour. Technol.* 97, 922–932.

El-Fadel, M., Shazabak, S., Saliby, E., and Leckie, J. (1999) Comparative assessment of settlement models for municipal solid waste landfill applications, *Waste Management and Research*, 17, 347-368.

Elliott A., Mahmood T., (2007) Pretreatment technologies for advancing anaerobic digestion of pulp and paper biotreatment residues, *Water Research*, 41(19), 4273-4286.

Englande, A.J. ve Reimers, R.S. (2001) Biosolids management – sustainable development status and future direction, *Water Sci and Technol*, v.44, n. 10, 41-46.

Epstein, E., Keane, D.B., Meisinger, J.J., 1978. Mineralization of nitrogen from sewage sludge and sludge compost. *J. Environ. Qual.*, 7: 217-221.

EPA, 1985a. Municipal wastewater sludge combustion technology, EPA/625/4-85/015.

EPA, 1985b, Estimating sludge management costs, EPA/625/6-85/010, Water Engineering Research Laboratory Cincinnati, USA.

EPA, 1985c. Technology assessment of Carver-Greenfield municipal sludge drying process, EPA-600/S2-84-200, Water Engineering Research Laboratory, Cincinnati, USA.

EPA, 1987, Design manual; dewatering wastewater sludges, EPA/625/1-87/014, Water Engineering Research Laboratory Cincinnati, USA.

EPA, 2006. Biosolids technology fact sheet; Heat drying. <http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P10053EN.txt>.

EPA, 2011. Opportunities for Combined Heat and Power at Wastewater Treatment Facilities: Market Analysis and Lessons from the Field, USA.

- Epstein, E., Keane and D.B. and Meisinger, J.J. 1978. Mineralization of nitrogen from sewage sludge and sludge compost. *J. Environ. Qual.*, 7, 217-221.
- Erden G., Buyukkamaci N., Filibeli A. (2010) Effect of low frequency ultrasound on anaerobic biodegradability of meat processing effluent, *Desalination*, 259 (1-3), 223-227.
- Erden G., Demir O., Filibeli A. (2010) Disintegration of biological sludge: Effect of ozone oxidation and ultrasonic treatment on aerobic digestibility, *Bioresource Technology*, 101 (21), 8093-8098.
- Erden G., Filibeli A. (2009) Improving anaerobic biodegradability of biological sludges by Fenton pre-treatment: Effects on single stage and two-stage anaerobic digestion, *Desalination*, 251 (1-3), 58-63.
- Erden K. G., Filibeli., A., (2006) Arıtma Çamuru Dezentegrasyonu. İTÜ 10. Endüstriyel Kirlenme Kontrolü Sempozyumu 7- 9 Haziran 2006, İstanbul.
- Erden K. G., Filibeli., A., (2007) Sludge Disintegration using Fenton's Peroxidation. Facing Sludge Diversities: Chalanges, Risks and Opportunities, 28-30 March 2007, Antalya.
- Erden, G., Filibeli, A. (2010a) Ultrasonic pre-treatment of biological sludge: consequences for disintegration, anaerobic biodegradability, and filterability, *J. Chem. Technol. Biotechnol.* 85 (1), 145–150.
- Erden, G., Filibeli, A. (2010b) Ozone oxidation of biological sludge: Effects on disintegration, anaerobic biodegradability, and filterability, *Env. Progress.* (in press).
- Erdinçler A.U., Vesilind P.A. (2000) Effect of sludge cell disruption on compactibility of waste activated sludge, *Water Science and Technology*, 42, 9, 119-126.
- Erses A. S., Onay, T.T., Yenigun, O. (2007) Comparison of aerobic and anaerobic degradation of municipal solid waste in bioreactor landfills, *Biosource Technology*, 5418-5426.
- Eskicioglu C, Kennedy KJ, Droste RL., (2008) Initial examination of microwave pretreatment on primary, secondary and mixed sludges before and after anaerobic digestion, *Water Science Technology*, 57(3), 311-7.
- Eskicioglu C., Kennedy K.J., Droste R.L.,(2009) Enhanced disinfection and methane production from sewage sludge by microwave irradiation, *Desalination*, 248 (1-3), 279-285.
- Esplugas S., Yue P.L., Pervez M.I. (1994) Degradation of 4-chlorophenol by Photolytic Oxidation, *Wat. Res.*, 28-6, 1323-1328.

EU-DG Environment, 2007. Data gathering and impact assessment for a review and possible widening of the scope of the IPPC Directive in relation to waste treatment activities, Final Report.

European Commission (2009) Report from the Commission: Implementation Of Council Directive 91/271/EEC Of 21 May 1991 Concerning Urban Waste Water Treatment, As Amended By Commission Directive 98/15/EC of 27 February 1998.

European Union (2009) “Waste Legislation”, <http://ec.europa.eu/environment/waste/legislation/index.htm>, 2009.

Eurostat (2012) <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>.

Everett, J. G., (1973) Recent developments in heat treatments, *J. Water Pollut. Control Fed.*, 50, 1, 73-75.

Evsel ve Kentsel Arıtma Çamurlarının Toprakta Kullanılmasına Dair Yönetmelik (2010), Resmi Gazete, 03.08.2010 /27661, Çevre ve Orman Bakanlığı, Ankara.

FAO. 1990. Micronutrient Assessment at the Country Level: An International Study. FAO Soils Bulletin, Rome. 208 pp.

FAO/WHO. 1993. Report of the 8th session of the Codex Committee on cereals, pulses and legumes held in Washington D.C., 26-30 October 1992. Joint FAO/WHO Food Standards Programme, Codex Alimentarius Commission, 20th Session, Geneva 28 June- 7 July 1993. pp 3.

FAO/WHO. 2011. Joint Fao/Who Food Standards Programme, Codex Committee On Contaminants In Foods. Codex Alimentarius Commission. Fifth Session, The Hague, The Netherlands, 21 - 25 March 2011.

Federal Gübre Yasası (Fertilizers Act and Fertilizer Regulations), Canadian Food Inspection Agency. <http://www.inspection.gc.ca/english/plaveg/fereng/ferenge.shtml>

Feng, X., Deng, J., Le, H., Bai, T., Fan, Q. ve Li, Z. (2009) Dewaterability of waste activated sludge with ultrasound conditioning, *Bioresource Technology*, 100, 3, 1074-1081.

Fernandez-Polanco, F., Velazquez, R., Perez-Elvira, S.I., Casas, C., del Barrio, D., Cantero, F.J., Fdz-Polanco, M., Rodriguez, P., Panizo, L., Serrat, J., Rouge, P., (2008) Continuous thermal hydrolysis and energy integration in sludge anaerobic digestion plants, *Water Sci. Technol.* 57 (8), 1221–1226.



Ferrasse, J. H., Arlabosse, P. ve Lecomte, D. (2002) Heat, momentum, and mass transfer measurements in indirect agitated sludge dryer, *Drying Technology*, 20: 4, 749–769.

Ferrer I., Ponsa S., Vazquez F., Font X. (2008) Increasing biogas production by thermal (70 °C) sludge pre-treatment prior to thermophilic anaerobic digestion, *Biochemical Engineering Journal*, 42 (2), 186-192.

Filibeli A., Ayol A., Stabilize Arıtma Çamurlarının Toprakta Kullanımının Değerlendirilmesi, *Deutch-Türkische Abfalltage- Handlungsstrategien un Technologien für eine nachhaltige Kreislaufwirtschaft (Türk-Alman Katı Atık Günleri-Sürdürülebilir Dönüşümlü Katı Atık Yönetimi için Stratejiler ve Teknolojiler)*, TAKAG2011 Bildiriler Kitabı s.211-232, Stuttgart, Almanya.

Filibeli, A., Kaynak, G. E.: “Arıtma çamuru miktarının azaltılması ve özelliklerinin iyileştirilmesi amacıyla yapılan ön işlemler”; *İTÜ Dergisi/e, Su Kirlenmesi Kontrolü*, Cilt 16, Sayı:1-3, s.3-12,2006.

Filibeli, A., (1998) Arıtma Çamurlarının İşlenmesi, *Dokuz Eylül Üniversitesi Yayınları*, No: 225, ISBN 975-441-117-4.

Flaga A. (2007) Sludge Drying, *Proceedings of Polish-Swedish seminars, Cracow March 17-18*, (2005) *Integration and optimisation of urban sanitation systems*. E. Plaza, E. Levlin, (Editors) TRITA-LWR.REPORT 3018, ISSN 1650-8610, ISRN KTH/LWR/REPORT 3018-SE, ISBN 978-91-7178-826-9.

Fonda K.D., Lynch E. (2009). ‘Going for the Green in Thermal Drying: Evaluation of Innovative New Technologies and Industry Trends’ *Residuals and Biosolids*, WEF.

Forster, C. F., Fernandez, N., Chacin, E., (2000) The use of ultrasound to enhance the thermophilic digestion of waste activated sludge, *Environmental Technol.*, 21, 357 – 362.

Franco-Hernandez O., Mckelligan-Gonzalez A. N., Lopez-Olguin A. M., Espinosa-Ceron F., Escamilla-Silva E. and Dendooven L. (2003) Dynamics of carbon, nitrogen and phosphorus in soil amended with irradiated, pasteurized and limed biosolids, *Bioresource Technology*, 87(1): 93-102.

Freytag, J .1986. Bestimmung von Transferfaktoren Boden/Pflanze einiger Elemente und Untersuchungen u̇ber deren Abhȧngigkeit von ausgewȧhlten Bodeneigenschaften. *Hamburger Bodenkundliche Arbeiten*, 1,43–51.

Fuchs, L., Schwinning, H.G. (1997) Zum stand der aerob-thermophilenstabilisierung und entseuchung von Klärschlamm. *Korrespondenz Abwasser* 44 (10), 1834–1842.

Fuentes, M.J. Font, R., Gomez-Rico, M.F., Molto, J. (2007) Multivariant statistical analysis of PCDD/FS in sewage sludges from different areas of the Valencian Community (Spain), *Chemosphere* 67(2007)1423–1433.

Fuji R, Corey RB. 1986. Estimation of isotopically exchangeable cadmium and zinc in soils. *Soil Science Society of America Journal*, 50, 306–308.

Fullana A., Conesa J. A., Font R. ve Sidhu S., (2004) Formation and Destruction of Chlorinated Pollutants during Sewage Sludge Incineration, *Environ.Sci.Technol.*, 38, 2953-2958.

Furrer, O.J., Gupta, S.K.and Stauffer, W. 1984. Sludge as a source of phosphorus and consequences of phosphorus accumulation in soils. In: *Processing and use of sewage sludge. Proceedings of the Third International Symposium held at Brighton, 1983*, L'Hermite P. (Ed.), Reidel Publishing Co. Dordrecht, pp. 279-294.

Fuzhou, L., Wei, Z. (2011). Combustion of Sewage Sludge as Alternative Fuel for Cement Industry. *Journal of Wuhan Univesity of Technology-Mater.Sci.Ed.*, 26(3), 556-560.

Fytili, D. ve Zabaniotou, A. (2008) Utilization of sewage sludge in EU application of old and new methods – a review, *Renewable and Sustainable Energy Reviews*, 12, 116-140.

Galvez A., Conesa J.A. ve Martin-Gullon I, Font R.( 2007) Interaction between pollutants produced in sewage sludge combustion and cement raw material, *Chemosphere*, 69, 387-394.

Ganidi, N., Tyrrel, S., Cartmell, E. (2009) Anaerobic digestion foaming causes - a review. *Bioresource Technology*, 100(23): 5546–5554.

Garces, P., Pérez M., Carrióna,E., García-Alcocelb,J., Payác, J., Monzóc,J. ve Borrachero M.V. (2008) Mechanical and physical properties of cement blended with sewage sludge ash, *Waste Management*.

Gascó, G. ve Lobo, M.C. (2007) Composition of a Spanish sewage sludge and effects on treated soil and olive trees, *Waste Management*, 27, 1494-1500.

Gavala HN, Yenal U, Skiadas IV, Westermann P, Ahring BK. (2003) Mesophilic and thermophilic anaerobik digestion of primary and secondary sludge. Effect of pre-treatment at elevated temperature, *Water Res.*, 37(19), 4561-4572.

Gençtan, T. ve N.Sağlam. 1987. Ekim zamanı ve ekim sıklığının üç ekmeklik buğday çeşidinde verim ve verim unsurlarına etkisi. Türkiye Tahıl Simpozyumu, Bildiriler:171-182 6-9 Ekim, Bursa.

Ghazy M.R., Dockhorn T., Dichtl N., (2011), Economic and environmental assessment of sewage sludge treatment processes application in Egypt, 15th International Water Technology Conference, IWTC-15.

Ghyoot, W., Verstrate, W., (1999) Reduced Sludge Production in a two-stage membrane-assisted bioreactor, BII:S0043-1354,00138-4.

Gianfreda, L., Rao, M. A. (2004) Potential of extracellular enzymes in remediation of polluted soils: a review, *Enzyme Microb. Technol.* 35 (4), 339–354.

Gobel, A., Thomsen, A., McArdell, C. S., Alder, A. C., Giger, W., Theis, N., Löffler, D., Ternes, T. A. (2005) Extraction and determination of sulfonamides, macrolides, and trimethoprim in sewage sludge, *Journal of Chromatography A*, 1085, 179–189.

Goel, R., Mino, T., Satoh, H., Matsuo, T., (1998) Enzyme activities under anaerobic and aerobic conditions in activated sludge sequencing batch reactor, *Water Res.*, 32, 7, 2081–2088.

Golet, E. M., Xifra, I., Siegrist, H., Alder, A. C., Giger, W., (2003) Environmental exposure assessment of fluoroquinolone antibacterial agents from sewage to soil, *Environmental Science and Technology*, 37, 3243 – 3249.

Goma, G., Rols, J.L. and Pareilleux, A. (1997) Membrane bioreactors for waste water treatment:reduction of sludge production, *Studies in Environmental Science* 66, 461-467.

Gonze, E., Fourel, L., Gonthier, Y.; Boldo, P.; Bernis, A., (1999) Wastewater pretreatment with ultrasonic irradiation to reduce toxicity, *Chemical Engineering Journal*, 73, 93-100.

Gonze, E., Pillot, S., Valette, E., Gonthier, Y., and Bernis, A. (2003) Ultrasonic treatment of an aerobic activated sludge in a batch reactor, *Chem. Eng. Process*, 42, 965–975.

Gottschalk, C., Libra, j. A., Saupe, A., (2000) *Ozonation of Water and Wastewater*. Wiley-VCH, Weinheim. <http://www.jomueller.de/english/indexengl.html>.

Göçmez,S. (2006) “Menemen Ovası Topraklarında İZSU Kentsel Arıtma Çamuru Uygulamalarının Mikrobiyal Aktivite ve Biyomas ile Bazı Fiziksel ve Kimyasal Toprak Özellikleri Üzerine Etkisi” Doktora Tezi, Ege Üniversitesi Fen Bilimleri Enstitüsü, İzmir.

Göksu N, Işık Y. Atçeken T, Ojur O & Tongarlık Ş (2008). Arıtma çamuru uygulamasının buğdayın verim ve potansiyel toksik element kapsamı üzerine etkileri, Ülkesel Tahıl Sempozyumu, Bildiriler: 552-561, 2-5 Haziran 2008, Konya

Graja, S., Chauzy, J., Fernandes, P., Patria, L., Cretenot, D. (2005) Reduction of sludge production from WWTP using thermal pretreatment and enhanced anaerobic methanisation, *Water Sci. Technol.* 52 (1–2), 267–273.

Grant, C.A., Buckley, W.T., Bailey, L.D., and Selles, F. 1998. Cadmium accumulation in crops. *Can. J. Plant Sci.*, 78: 1-17.

Gray N.F. (2010). *Water Technology: An Introduction for Environmental Scientists and Engineers*. Elsevier Ltd. Third Edition. p.654.

Groß, B., Eder, a C., Grziwac, P., Horst, J., Kimmerle, K. 2007 (online) Energy recovery from sewage sludge by means of fluidised bed gasification, *Waste Management xxx 2007 xxx–xxx*.

Grönroos, A., Kyllönen, H., Korpijarvi, K., Pirkonen, P., Paavola, T., Jokela, J., Guo, X., Liu, J., Wei, Y. ve Li, L., (2007) Sludge reduction with Tubificidae and the impact on the performance of the wastewater treatment process, *J. Environ. Sci.* 19, 257–263.

Guidelines for the Utilisation and Disposal of Wastewater Sludge Volume 1: Selection of Management Options, Güney Afrika - [www.dwa.gov.za/Dir\\_WQM/docs/Sewage\\_Sludge\\_Mar06vol2toc.pdf](http://www.dwa.gov.za/Dir_WQM/docs/Sewage_Sludge_Mar06vol2toc.pdf)

Gupta, S. and Hani, H. 1979. Estimation of available phosphate content of sewage sludges. In: *reatment and use of sewage sludge. Proceedings of the first European Symposium held in Cadarache, 1979.* Alexandre, D. and Ott, h. (Ed.), pp: 261-268.

Guyer, J.P., 2011. *Introduction to sludge handling, treatment and disposal*, Course No: C04-021, CED Engineering, NY.

Gül, M. L. ve Elevli, S. (2006). Tamsayılı Doğrusal Programlama ile Bir Çimento Fabrikasının Nakliye Probleminin Çözümü. *Erciyes Üniversitesi Fen Bilimleri Enstitüsü Dergisi*, 22 (1-2), 229-241.

Güleç, S. B., Onay, T. T., Erdinçler, A. (2000) Determination of the remaining stabilization potential of landfilled solid waste by sludge addition, *Water Sci. and Technol.*, 42, 269-276.

Gündüz, Ç. (2009) *Ultrasonic Disintegration of Sewage Sludge*, Graduate Thesis, Dokuz Eylül University, İzmir, Türkiye.

- Güneş, G. (2005) Effects of Different Ratios of Treatment Plant Sludge on the Stabilization of Solid Wastes at Anaerobic and Aerobic Landfill Areas, Yüksek Lisans Tezi, Boğaziçi Üniversitesi. Gürtekin, E., Şekerdağ, N., (2006) Aktif çamur prosete aşırı çamur üretimini azaltmak için kullanılan yöntemler, Uludağ Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi, Cilt 11, Sayı 1.
- Haan, S. de. 1975. Land Application of Liquid Municipal Wastewater Sludges. Journal (Water Pollution Control Federation, 47 (11), 2707-2710.
- Hach Company. DR/2010 Spectrophotometer Handbook, U.S.A. 23, 1997.
- Hall, J. (1999) Session 3: Technology and innovative options related to sludge management in Proceedings of the workshop on "Problems around sludge", 18-19 November 1999, Stresa (Italy)
- Hall, J., Zmyslowska, A. (1993) Co-composting Municipal Solid Waste and Sludge in Warsaw, Biocycle, 6, 46-50.
- Halling-Sorensen, B., (2000b) Algal toxicity of antibacterial agents used in intensive farming, Chemosphere, 40, 731.
- Halling-Sorensen, B., Holten-Lutzhof, H. C., Andersen, H. R., Ingerslev, F., (2000a) Environmental risk assessment of antibiotics: comparison of mecillinam, trimethoprim and ciprofloxacin, Journal of Antimicrobial Chemotherapy, 46, 53–58.
- Halling-Sorensen, B., Nors Nielsen, S., Lanzky, P. F., Ingerslev, F., Holten-Lutzhof, H. C., Jorgensen, S. E., (1998). Occurrence, fate and effects of pharmaceutical substances in the environment – A review, Chemosphere, 36, 357 – 393.
- Han J., He X., Wang G., Furuuchi M. ve Hata M., (2010) Studying the influence of operation parameters on heavy and alkali metals partitioning in flue gases, Waste Management and Research, 28, 158–164.
- Han, X., Niu, M., Jiang, X., & Liu, J. (2012). Combustion Characteristics of Sewage Sludge in a Fluidized Bed. Ind. Eng. Chem. Res., 51, 10565-10570.
- Hanay, Ö. ve Hasar, H. (2007) Kayseri ili kentsel atıksu arıtma tesisi çamurlarının tarımsal amaçlı kullanım potansiyeli. Fırat Üniv. Fen ve Müh. Bil. Dergisi, 19, 333-337.

- Hanmin, X., Xiaoqian, M., & Kai, L. (2010). Co-Combustion Kinetics of Sewage Sludge with Coal and Coal Gangue under Different Atmospheres. *Energy Conversion and Management*, 51, 1976-1980.
- Hargreaves, J.C., Adl M.S. and Warman P.R. 2008 .A review of the use of composted municipal solid waste in agriculture, *Agriculture, Ecosystems & Environment*, 123:1-14.
- Haris, N.S. and Taylor, G.J., 2001. Remobilization of cadmium in maturing shoots of near isogenic lines of durum wheat that differ in grain cadmium accumulation. *Journal of Experimental Botany*, Vol. 52, No: 360, pp 1473-1481.
- Hart, J.J., Welch, R.M., Norvell, W.A., and Kochian, L.V. 2002. Transport interactions between cadmium and zinc in roots of bread and durum wheat seedlings. *Physiologia Plantarum*. 116(1): 73-78.
- Hartman, M., Svoboda, K., Pohorely, M., Trnka, O., (2007) Combustion of dried sewage sludge in a fluidized-bed reactor, *Cement and Concrete Research*, 37, 1278–1289.
- Hassouneh, O., Jamrah, A. and Qaisi, K. (1999) Sludge stabilization by composting: a Jordanian case study, *Bioprocess Engineering*; 20:413–421.
- Hatch W.R. & Ott, W.L., (1968) Determination of sub-microgram quantities of mercury by atomic absorption spectrophotometry, *Anal. Chem.* Vol. 40, No. 14, 2085.
- Hati, K.M. ve Biswas, A.K., Bandyopadhyay, K.K. ve Misra, A.K. (2007) Soil properties and crop yields on a vertisol in India with application of distillery effluent, *Soil & Tillage Research* 92, 60-68.
- Havelsky V., (1999) Energetic efficiency of cogeneration systems for combined heat, cold and power production, *International Journal of Refrigeration*, Elsevier Science Ltd., Vol 22, pp. 479-486.
- He, M-h. and Wei, C-h., (2010) Performance of membrane bioreactor (MBR) system with sludge Fenton oxidation process for minimization of excess sludge production, *Journal of Hazardous Materials* 176, 597-601.
- He, S., Xue, G. and Wang, B., (2006) Activated sludge ozonation to reduce sludge production in membrane bioreactor (MBR), *Journal of Hazardous Materials* B135, 406-411.
- He, S., Xue, G., wng, B., (2005) Activated sludge ozonation to reduce sludge production in membrane bioreactor (MBR), *Journal of Hazardous Materials*. B135, 406-411.

- Hernández, F., Gonzalez ,N. M., Olguin ,M. L., Ceron ,F. E., Silva, E. E., and Dendooven, L.2003.Dynamics of carbon nitrogen and phosphorus in soil amended with irradiated pasteurized and limed sludge, *Bioresour Technol* 87, 93–102.
- Hernández-Apaolaza, L., Gascó, A.M., Gascó, J.M. and Guerrero, F. 2005. Reuse of waste materials as growing media for ornamental plants. *Bioresource Technology*, 96 (1): 125-131.
- Hernandez, M. T., J. I. Moreno, F. Costa, F. J. Gonz´alez-Vila, and R. Fr¨und. 1990. Structural features of humic acid like substances from sewage sludges. *Soil Science*, 149(2): 63–68.
- Hernandez, T., Moreno, J.I., Costa, F., 1991. Infuence of sewage sludge application on crop yields and heavy metal availability. *Soil Sci. Plant Nutr.*, 37: 201–210.
- Henze, M., Gujer, W., Mino, T., and van Loosdrecht, M.C.M., (2000) *Activated Sludge Models: ASM1, ASM2, ASM2d and ASM3*, Scientific and Technical Report No:9, IWA Publishing, London.
- Herbert, D., Elsworth, R. and Telling RC. (1956) The continuous culture of bacteria: a theoretical and experimental study, *J Gen Microbial*, 114:601.
- Hewlett P.C., 2004. *Lea’s Chemistry of Cement and Concrete*, 4th Ed, Elsevier Science and Technology Books, p 118.
- Hiraishi, A. and Kawagishi, T. (2002) Effects of chemical uncouplers on microbial biomass production, metabolic activity, and community structure in an activated sludge system, *Microbes and Environments* 17, 197-204.
- Hiraoka, M., Takeda, N, Sakai, S., ve Yasuda, A. (1985) Highly efficient anaerobic digestionwith thermal pre-treatment, *Water Sci. Technol.*, 17, 529-539.
- Hirsch, R., Ternes, T., Haberer, K., Kratz, K. L., (1999) Occurrence of antibiotics in the aquatic environment,. *Science of the Total Environment*, 225, 109 – 118. <http://www.wm.com/sustainability/pdfs/bioreactorbrochure.pdf>.
- Horttanainen, M., Kaikko, J., Bergman, R. ve Pasila-Lehtinen ve M., Nerg, J. (2009). Performance analysis of power generating sludge combustion plant and comparison against other sludge treatment Technologies. *Applied Thermal Engineering*, 30, 110–118.
- Hospido A., Teresa M., Feijo G., (2008), A Comparison of Municipal Wastewater Treatment Plants for Big Centres of Population in Galicia, *Int J LCA* 13 (1) 57-64.

Houdkova L., Boran J., Ucekaj V., Elsaber T., Stehlik P.,(2008), Thermal processing of sewage sludge-II, Applied Thermal Engineering, 28, 2083-2088.

Hu, Y., Zhang, C., Zhang, C., Tan, X., Zhu, H. ve Zhou, Q. (2009) “Effect of alkaline pre-treatment on waste activated sludge solubilization and anaerobic digestion” 3rd International Conference on Bioinformatics and Biomedical Engineering, ICBBE 2009, Beijing.

Huan, L., Yiying, J., Mahar,R. B., Zhiyu, W., Yongfeng, N. (2009) Effects of ultrasonic disintegration on sludge microbial activity and dewaterability, Journal of Hazardous Materials 161, 1421–1426.

Huang, W. S., (1995) The solubility and digestion property of applying ultrasound and alkaline to waste activated sludge (WAS) Master Thesis, Graduate Institute of Environmental Science, Tunghai University, Taichung, Taiwan, ROC.

Huang, X., Liang, P. and Qian, Y. (2007) Excess sludge reduction induced by Tubifex tubifex in a recycled sludge reactor, Journal of Biotechnology 127, 443-451.

Huang, X., Liang, P., Qian, Y., (2006) Excess sludge induced by Tubifex tubifex in arecycled sludge reactor, Journal of Biotechnology.

HUBER Solar Active Dryer SRT Broşürü, 2007Huber, M. M., Gobel, A., Joss, A., Hermann, N., Loffler, D., McArdeU, C. S., Ried, A., Siegrist, H., Ternes, T., Gunten, U. V., (2005) Oxidation of Pharmaceuticals during Ozonation of Municipal Wastewater Effluents: A Pilot Study, Environmental Science and Technology, 39, 4290 – 4299.

Husseini, A.H.A. (2009) Impact of sewage sludge as organic manure on some soil properties, growth, yield and nutrients content of cucumber plants, J. Of Applied Science. 9, 1401-1411.

Husseini, A.H.A., Fawy, H.A. ve Abdel-Hady, E.S. (2010) Study of sewage sludge use in agriculture and its effect on plant and soil. Agriculture and Biology J. Of North America. ISSN Print: 2151-7517, ISSN Online: 2151-7525, doi:10.5251/abjna.2010.1.5.1044.1049.

Hwang E.J., Zhang X., Lee Y.O., Lee H.J., Yoo K.S., Jo Q.T. Effects of chemical pretreatment on aerobic digestion and fertilizer value.

Ikehata, K.; Naghashkar, N.J.; El-Din, M.G., (2006) Degradation of aqueous pharmaceuticals by ozonation and advanced oxidation processes: A review. Ozone Science and Engineering, 28, 353-414.

Ineris, J. 2008. *Public Health Risk Assessment of Sludge Landspreading, Final Report.*



Insel G., Dulekgurgen E.Sözen S., Orhon D. (2011) Conceptual basis for the appropriate design of biological wastewater treatment systems: drawbacks of existing prescriptions, *Desalination and Water Treatment*, 26, 104-110.

Insel G., Güder B., Güneş G and Ubay Cokgor E. (2012) Are standard wastewater treatment plant design methods suitable for any municipal wastewater? *Water Science and Technology*, 66.2, 328-335.

Ippolito, J.A., K.A. Barbarick, D.G. Westfall, R.H. Follett, and R. Jepson. 1992. Application of anaerobically digested sewage sludge to dryland winter wheat. *Colorado Agric. Exp. Stn. TR92-5*.

ISO/DIS. 1994. 11466.2 Soil Quality-Extraction of Trace Metals Solubge in Aqua Regia: ISO/Tc 190/SC3.

ISO/DIS. 1995. 11047. Soil Quality-Determination of Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel and Zinc Flame and Electrothermal Atomic Absorbtion Spectrometric Methods.

Işık, Y., Tongarlık, Ş. ve Göksu, N. 2005. Organik ve İnorganik Kaynaklı Ağır Metallerin Toprak Kirliliği ve Bitki Gelişimi Üzerine Etkileri. T.C. Tarım ve Köyişleri Bakanlığı Tarımsal Araştırmalar Genel Müdürlüğü Toprak ve Su Kaynakları Araştırma Enstitüsü, Yayın No: KHGM-99330F01.

İngiltere Çevre, Gıda ve Ziraat İşleri Departmanı (2002) “İngiltere’de Kanalizasyon Arıtımı- EC Kentsel Atıksu Arıtımı Direktifi’nin İngiltere’de Uygulanması”, <http://www.defra.gov.uk/environment/quality/water/waterquality/sewage/uwwtd/documents/uwwtreport2.pdf>.

İngiltere Çevre, Gıda ve Ziraat İşleri Departmanı (2010) “Arıtma Çamurlarının Tarımsal Kullanımı için Uygulama Kuralları”, <http://www.defra.gov.uk/environment/quality/water/waterquality/sewage/documents/sludge-cop.pdf>.

Jackson, M. 1958. *Soil chemical Analysis*. P.1-498. Prentice- Hall Inc. Englewood Cliffs, New Jersey, USA.

Jackson, M.L. 1962. *Soil chemical analysis*. Prentice Hall Inc. Eng. Cliffs., U.S.A.

Jackson, M.L., (1967) *Soil Chemical Analysis*, Prentice Hall of India Private Limited, New Delhi.

- Jamil, I. M., Qasim, M., Umar, M. and Rehman, K. 2004. Impact of Organic Wastes (Sewage Sludge) on the Yield of Wheat (*Triticum aestivum* L.) in a Calcareous Soil. *International journal of agriculture & biology. Int. J. Agri. Biol.*, 6(3): 465–467.
- Jansson, G. and Oborn, I. 2000. Cadmium content of Swedish carrots and the influence of soil factors. *Acta Agriculture Scandinavica Sect. B, Soil and Plant Science* 50:49-56.
- Jarusch-Wehrheim, B., Mocquot, B. and Mench, M. 1999. Absorption and translocation of sludge-borne zinc in field-grown maize (*Zea mays* L.). *European Journal of Agronomy*, 11(1): 23-33.
- Jayasinghe G.Y., Tokashiki Y., Arachchi I.D. L., Arakaki M. (2010) Sewage sludge sugarcane trash based compost and synthetic aggregates as peat substitutes in containerized media for crop production, *Journal of Hazardous Materials*, 174 (1-3), 700-706.
- Jean D.S., Lee D.J., Chang C.Y. (2001) Direct sludge freezing using dry ice, *Advances in Environmental Research*, 5 (2), 145-150.
- Jeong, J., Song, W., Cooper, W.J., Jung, J., Greaves, J., (2010) Degradation of tetracycline antibiotics: Mechanisms and kinetic studies for advanced oxidation/reduction processes, *Chemosphere*, 78, 533-540.
- Jewell W.J., Kabrick M., (1978) Autoheated Aerobic Thermophilic Digestion with Air Aeration. 51 st Annual Water Pollution Control federation Conference, Anaheim, California.
- Jiang J., Du X. ve Yang S., (2010) Analysis of the combustion of sewage sludge-derived fuel by a thermogravimetric method in China, *Waste Management*, 30, 1407–1413.
- Jiang J., Zhao Q., Wei L., Wang K., Lee D.J. (2010b) Degradation and characteristic changes of organic matter in sewage sludge using microbial fuel cell with ultrasound pretreatment, *Bioresource Technology*.
- Jin, Y., Li, H., Mahar, R. B., Wang, Z. ve Nie, Y. (2009) Combined alkaline and ultrasonic pretreatment of sludge before aerobic digestion, *Journal of Environmental Sciences*, 3, 21, 279-84.
- John, M.K. 1972. Lead contamination of some agricultural soils in western Canada. *Environ. Science Technol.*, 5: 1199-1203.
- Johnson, C.M., and Ulrich, A. 1959. Analytical methods for use in plant analysis. II. *California Agri. Exp. Sta. Bull.*, 766.

Jordão, C.P., Cecon, P.R. and Pereira, J.L. 2003. Evaluation of metal concentrations in edible vegetables grown in compost amended soil. *Int. J. Environ. Stud.*, 60, 547–562.

Joss, A., Keller, E., Alder, A. C., Gobel, A., Mc Ardell, C. S., Ternes, T., Siegrist, H. (2005) Removal of pharmaceuticals and fragrances in biological wastewater treatment, *Water Research* 39, 3139–3152.

Juel I., Jøns E., 2001, The influence of earth alkalis on the mineralogy in a mineralized portland cement clinker, *Cement and Concrete Research*, 31, p 893- 897

Justice, J. K. and Smith, R. L. 1962. Nitrification of Ammonium Sulfate in a Calcareous Soil as Influenced by Combinations of Moisture, Temperature, and Levels of Added Nitrogen. *Soil Science Society of America Journal*, 26 (3), 246-250.

Kaantee U. ve Zevenhoven R. (2004), Cement Manufacturing using Alternative Fuels and the advantages off Process Modeling, *Fuel Processing Technology*, 85, 293-301.

Kabata Pendias, A. and Pendias, H., 1992. Trace Elements in Soils and Plants. 2nd edition, CRC Press, Baton Rouge, Fa.

Kabata Pendias, G., Terelak, H. and Pietruch, C., 2001. Impact of soil factors on Zn and Cd contents in potato tubers. *Proceedings oh 6th International Confernce on the Biogeochemistry of Trace Elements*, pp. 568. Guelph, Canada.

Kabir, M. K., Kamala, A.K., Jahan, S., Faizullah, A.M.M., Ullah, S.M. 2011. Yield of rice and its mineral contents as influenced by sewage sludge and nitrogen. *Bangladesh J. of Sci.Res.* 24(2): 161-168  
Kacar, B. 1995. Bitki ve Toprağın Kimyasal Analizleri III-Toprak Analizleri., A.Ü. Ziraat Fak. Eğitim Araştırma ve Geliştirme Vakfı Yayınları, Yayın No: 3, Ankara.

Kacar, B., 1972. Bitki ve Toprağın Kimyasal Analizleri II-Bitki Analizleri., A.Ü. Ziraat Fak. Yayınları:453 Uygulama kılavuzu 155.

Kalderis, D., Aivalioti M. ve Gidarakos E. (2010) Options for sustainable sewage sludge management in small wastewater treatment plants on islands: The case of crete, *Desalination*, 260, 211–217.

Kamiya, T., Hirotsuji, J. (1997) Combined system of activated sludge and ozonation treatment for improving waste water treatment. 13th Ozone World Congress, Kyoto, 1, 199 – 204.

Kang, S. F., Liao, C. H., Chen, M. C. (2002) Pre-oxidation and coagulation of textile wastewater by the Fenton process, *Chemosphere* 46, 923–928.

- Karaca, A. 2004. Effect of organic wastes on the extractability of cadmium, copper, nickel and zinc in soil. *Geoderma an International J. of Soil Science (Special Issue)*, 122, 297-303
- Karci, A., Balcioğlu Akmehmet I. (2009) Investigation of the tetracycline, sulfonamide, and fluoroquinolone antimicrobial compounds in animal manure and agricultural soils in Turkey, *Science of the Total Environment*, 407(16), 4652-4664.
- Karthikeyan P., Kurian Joseph Centre, Bioreactor Landfills for Sustainable Solid Waste Management.  
<http://www.swlf.ait.ac.th/UpdData/National/BIOREACTOR%20LANDFILLS%20FOR%20SUSTAINABLE%20SOLID%20WASTE%20MANAGEMENT.pdf>.
- Katı Atıkların Kontrolü Yönetmeliği (1991), Resmi Gazete, 14.3.1991/20814, Çevre ve Orman Bakanlığı, Ankara.
- Katkat, A.V., Aşık, B.B. 2010. Arıtma Çamurlarının Tarımsal Amaçlı Kullanımı ve Gübre Değeri. 5. Ulusal Bitki Besleme ve Gübre Kongresi, 15-17 Eylül 2010, Ege Üni., İzmir
- Katsiris, N., Kouzeli-Katsiri, A. (1987) Bound water content of biological sludges in relation to filtration and dewatering, *Water Res.* 21 (11), 1319–1327.
- Kayhanian, M., Rich, D. (1996) Sludge management using the biodegradable organic fraction of municipal solid waste as a primary substrate, *Water Environ. Res.*, 68 2, 240–252.
- Kaynak, G. E., Filibeli, A. (2008) Assessment of Fenton process as a minimization technique for biological sludge: Effects on anaerobic sludge bioprocessing, *J. Residuals Sci. Technol.* 5 (3), 151–160.
- Kelly G.H., (1999) Comparing North American Biosolids Treatment of Thermophilic Aerobic Digestion, Thermal-Chemical and Heat Drying Technologies, Proceeding of the 4 th. European Biosolids and Organic Residuals Conference, Wakefield, UK.
- Kelly, H., Warren, R. (1995) What's in a name? – Flexibility, *Water Environmental Technology*, 7 (7), 46–50.
- Kelly, H.G. ve Mavinic, D.S. (2003) Autothermal Thermophilic Aerobic Digestion Research Application and Operational Experience, WEFTEC 2003 Workshop W104 Thermophilic Digestion, Los Angeles, 2003-11-11.

Kelly, H.G., Melcer, H., Mavinic, D.S. (1993) Autothermal thermophilic aerobic digestion of municipal sludges: a one-year, full-scale demonstration project, *Water Environ. Res.* 65 (7), 849–861.

Kentsel Arıtma Çamurlarının Tarımsal Alanlarda Uygulanması hakkındaki yönerge (2001) “Guidelines for the Application of Municipal Wastewater Sludges to Agricultural Lands”, March, Government of Alberta.

Kentsel Arıtma Çamurunun Arazilerde Uygulanması Yönergesi (2004) “Land Application of Municipal Sewage Sludge Guidelines”, June, Saskatchewan.

Kentsel Atıksu Arıtımı Direktifi (91/271/EEC), Council Directive of 21 May 1991 Concerning Urban Wastewater Treatment.

Kentsel Atıksu Arıtımı Yönetmeliği (2006), Resmi Gazete, 08.01.2006/26047, Çevre ve Orman Bakanlığı, Ankara.

Kepp, U. Machenbach, I., Weisz, N. Ve Solheim, O. E. (2000) Enhanced stabilization of sewage sludge through thermal hydrolysis – 3 years of experience with full-scale plant, *Water Sci. Technol.*, 42, 9, 89-96.

Kepp, U., Solheim, O. E., (2001) Meeting Increased Demands on Sludge Quality – Experience with Full Scale Plant for Thermal Disintegration. 9th World Congress Anaerobic Digestion 2001, September 2-6, 2001, Antwerpen, Belgium.

Keskin, B. Bozkurt, M.A. ve Akdeniz, H. (2010) The effects of sewage sludge and nitrogen fertilizer application on nutrient and (bromus inermis leyss.), *J. Of Animal and Veterinary Advances.*, 9, 896-902.

Khan, J. 2011. Impact of Selected Doses of Organic Wastes on Physico-Chemical Characteristics of the Soil and Yield of Wheat 2nd International Conference on Environmental Engineering and Applications IPCBEE vol.17 IACSIT Press, Singapore.

Khan, M.A., Kazi, T.G., Ansari, R., Mujtaba, S.M., Khanzada, B., Khan, M.A., Shirazi, m.u. and Mumtaz Pak, S.J. 2007. Effects of un-treated sewage sludge on wheat yield, metal uptake by grain and accumulation in the soil. *Pak. J. Bot.*, 39(7), 2511-2517.

Khanal, Samir Kumar, Grewell, David, Sung, Shihwu and van Leeuwen (Hans), J.(2007) Ultrasound applications in wastewater sludge pretreatment: a review', *Critical Reviews in Environmental Science and Technology*, 37 (4), 277-313.

Khoufi S., Aloui F., Sayadi S., (2006) Treatment of olive mill wastewater by combined process electro-Fenton reaction and anaerobic digestion, *Water Research*, 40 (10), 2007-2016.

Kırımhan, S., Sağlam, M. T., Karakaplan S. 1983. Erzurum’da kentsel atık sular ile sulanan tarım topraklarında kimyasal kirlenme: II. toprakta ve bitkide ağır metal birikimi. *Atatürk Ü. Ziraat Fakültesi Dergisi*, 14 (3-4); 13-23.

Kırtok, Y., İ. Genç, M. Çölkesen, ICARDA, 1987. Kökenli bazı Arpa çeşitlerinin Çukurova koşullarında başlıca tarımsal karakterleri üzerinde araştırmalar. *Türkiye Tahıl Sempozyumu. TOAG 6-7Ekim, Bursa*, 83-89s.

Kızılkaya, R. 2010. Fındık zurufu ve ahır gübresi ile kompostlanmış arıtma çamurunun buğday bitkisinin verim ve toksik metal kapsamına etkisinin belirlenmesi, *I.Ulusal Toprak ve Su Kaynakları Kongresi. 1-4 Haziran 2010, Eskişehir*.

Kızılkaya, R. 2010. Fındık zurufu ve ahır gübresi ile kompostlanmış arıtma çamurunun buğday bitkisinin verim ve toksik metal kapsamına etkisinin belirlenmesi, *I.Ulusal Toprak ve Su Kaynakları Kongresi. 1-4 Haziran 2010, Eskişehir*.

Kianmehr, P. (2010) Characterization of pretreatment impacts on properties of waste activated sludge and digestibility, *MSc Thesis, Waterloo University, Ontario, Canada*.

Kick, H., Bürger, H., Sommer, K., 1980. Gesamtgehalte an Pb, Zn, Sn, As, Cd, Hg, Cu, Ni, Cr und Co in landwirtschaftlich und gartnerisch genutzten Boden Nordrhein-Westfalens’ *Landwirtsch, Forsch., Vol. 33, No. 1, 12-22*.

Kim D.H., Jeong E., Oh S.E., Shin H.S., (2010) Combined (alkaline+ultrasonic) pretreatment effect on sewage sludge disintegration, *Water Research*, 44 (10), 3093-3100.

Kim J. K., Lee H. D. (2011) Combustion Possibility of Dry Sewage Sludge Used as Blended Fuel in Anthracite-Fired Power Plant, *Journal of Chemical Engineering in Japan*.

Kim J. K. ve Lee H. D., (2009) Investigation on the combustion possibility of dry sewage sludge as a pulverized fuel of thermal power plant, *Journal of Industrial and Engineering Chemistry*, 16, 510–516.

Kim Tae-Hun, Kim Tak-Hyun, Yu Seungho, Nam Youn Ku, Choi Dong-Kyu, Lee Sang Ryul, Lee Myun-Joo (2007) Solubilization of waste activated sludge with alkaline treatment and gamma ray irradiation, *Journal of Industrial Engineering Chem.*, 13 (7), 1149-1153.

- Kim, D-H., Jeong, E., Oh, S-E., Shin, H-S. (2010) Combined (alkaline-ultrasonic) pretreatment effect on sewage sludge disintegration, *Water Research* 44, 3093-3100.
- Kim, J.S., Park, C.H. ve Kim, T.H.(2003) Effects of various pretreatment for enhanced anaerobic digestion with waste activated sludge. *J. Biosci. Bioeng.* 95, 271–275.
- Kim, M. ve Speece, R.E. (2002) Aerobic waste activated sludge (WAS) for start up seed of mesophilic and thermophilic anaerobic digestion, *Water Resource* 36, 3860-3866.
- Kim, T. H., Lee, S. R., Nam, Y. K., Yang, J., Park, C. ve Lee, M. (2009) Disintegration of excess activated sludge by hydrogen peroxide oxidation, *Desalination*, 246, 275-284.
- Kim, T. H., Yu, S., Nam, Y. K., Choi, D. K., Lee, S. R. ve Lee, M. J. (2007) Solubilization of waste activated sludge with alkaline treatment and gamma ray irradiation, *Journal of Industrial and Engineering Chemistry*, 13, 7, 1149-1153.
- Kinman, R. N., Nutini, D. L., Walsh, J. J., Vogt, W. G., Stamm, J., Rickabaugh, J. (1987) Gas enhancement techniques in landfill simulators, *Waste Management and Research*, 5, 13.
- King, R. O., Forster, C. F., (1990) Effects of sonication on activated sludge, *Enzyme Microb. Technol.*, 12, 109–115.
- Kirven, D.M. 1986. An Industry Viewpoint: Horticultural Testing-is our Language Confusing. *Proc. of Sym. Interpretation of Extraction and Nutrient Determination Procedures for Organic Potting Substrates*, 215-217.
- Kitis M., Adams C.D., Daigger G.T. (1999) The effects of Fenton's reagent pretreatment on the biodegradability of nonionic surfactants, *Water Research*, 33 (11), 2561-2568.
- Kitis, M., Adams, C. D. & Daigger, G. T. (1999) The Effects of fenton's reagent pre-treatment on the biodegradability of non-ionic surfactants, *Water Research* 33 (11), 2561–2568.
- Kloke A., Sauerbeck D. R. and Vetter H. 1993. The contamination of plants and soils with heavy metals and the transport of metals in terrestrial food chains. in: Nriagu, J.O. (ed.) *Changing Metal Cycles and Human Health*. Springer Verlag Berlin, pp: 113-141.
- Knöfel, D., 1984, *Inorganic Binders, Process Mineralogy of Ceramic Materials*, Ferdinand Enke Publishers, Stuttgart, p 51- 79.
- Kocaer, F.O. ve Başkaya, H.S. (2001) Arıtma çamurlarının araziye uygulanması, *Ekoloji*, 11, 12-15.

Koenig, R.T., Miner, D., Godrich, K. 2010. Land application of biosolids: A guide for. POTW operators. Utah State University Extension Electronic Publication (extension.usu.edu), AG-WM-03, 18 p. 25.

Kopp, J., Muller, J., Dichtl, N. ve Schwedes, J. (1997) Anaerobic digestion and dewatering characteristics of mechanically disintegrated excess sludge, Water Sci. Technol., 36, 11, 129-136.

Kopp J., Kopmann T., Nilsem J., Holte H., Kleiven H., Karbı J., (2010), Full scale continuous thermal hydrolysis of waste activated sludge for the improvement of sludge digestion and sludge dewatering in WWTP Geiselbullach in Germany, 15th European Biosolids and Organic Resources Conference

Köleli, N. 1998. Değişik tahıl türlerinin ve buğday çeşitlerinin kadmiyum toksisitesine duyarlılığı ve buna çinko eksikliğinin etkisi. Çukurova Üniversitesi Fen Bilimleri Enstitüsü Doktora Tezi, Adana.

Köleli, N., Çakmak, Ö., İşler, F., and Çakmak, I. 1998. The effects of zinc nutrition on cadmium toxicity in different cereal species. I. National Zinc Congress (Agriculture, Food and Health). pp. 491-500.

Kuleli, Ö., 2010, Çimento Mühendisliği El Kitabı, Türkiye Çimento Müstahsilleri Birliği, Ankara, p 19-18.

Kummerer, K., Henninger, A., (2003) Promoting resistance by the emission of antibiotics from hospitals and households into effluent, Clinical Microbiology and Infection, 9, 1203 – 1214.

Kunz, P.M. (1998) Behandlung von Schlamm, Vogel Verlag, Würzburg.

Kuzkaya E. (2008) Enzymatic treatment effects on aerobic sludge stabilization. Dokuz Eylül University, MSc. Thesis.

Kurdowski W., 1991, Chemistry and Mineralogy of Cement Clinker, Cement and Concrete Science Technology, Vol. 1, Part 1, 1st Edition, New Delhi, p 201- 236.

Küçükhemek M., Berktaş A. (2005) Uzun Havalandırmalı Aktik Çamur Prosesinde Oluşan Çamurların Stabilizasyonu ve Karakterizasyonu, I. Ulusal Arıtma Çamurları Sempozyumu, 153-160, İzmir.



- Kümmerer, K (2009) The presence of pharmaceuticals in the environment due to human use – present knowledge and future challenges, *Review Journal of Environmental Management*, 90(8), 2354-2366.
- Kün, E. 1988. Serin İklim Tahılları, Ankara Üniv. Ziraat Fak. Yayınları No: 1032, Ders Kitabı No: 299, Ankara.
- Kün, E. 1996. Tahıllar-I (Serin İklim Tahılları). Ankara Üniv. Ziraat Fak. Yayınları, Yayın No:1451, Ankara.
- Kütük, A.C., G. Çaycı ve A. Baran. (1995) Çay atıklarının bitki yetiştirme ortamı olarak kullanılabilme olanakları. *Ankara Üniv. Zir. Fakültesi Tarım Bilimleri Dergisi*, 1, 35-40.
- Lai, T.E., Nopharatana, A., Pullammanappallil, P.C., Clarke, W.P., (2001) Cellulolytic activity in leachate during leach-bed anaerobic digestion of municipal solid waste, *Biores. Technol.*, 80, 205–210.
- Lakhdar, A., Slatni, T., Lanneli, M.A., Debez, A., Pietrini, F., Jedidi, N., Massaci, A., Abdelly, C. 2012. Risk of municipal solid waste compost and sewage sludge use on photosynthetic performance in common crop (*Triticum durum*). *Acta Physiologiae Plantarum*, 34(3), 1017-1026.
- Lalumera, G. M., Calamari, D., Galli, P., Castiglioni, S., Crosa, G., Fanelli, R., (2004) Preliminary investigation on the environmental occurrence and effects of antibiotics used in aquaculture in Italy, *Chemosphere*, 54, 661.
- Lapara, T. M., Alleman, J. E., (1998) Thermophilic Aerobic Biological Wastewater Treatment, *Water Research*, 33, 4, 895-908.
- Laurent J., Casellas M., Pons M. N., Dagot C., (2010) Cadmium biosorption by ozonized activated sludge: The role of bacterial flocs surface properties and mixed liquor composition, *Journal of Hazardous Materials*.
- Lederer J. Ve Rechberger H., (2010) Comparative goal-oriented assessment of conventional and alternative sewage sludge treatment options, *Waste Management*, 30, 1043–1056.
- Lee H. ve Bae S., (2009) Combustion kinetics of sewage sludge and combustible wastes, *Journal of Material Cycles Waste Management*, 11, 203–207.
- Lee, D.J., Liu, J.C. (2004) Route to synthesize the sludge management processes, *Water Sci and Technol*, v.49, n. 10, 259-266.

- Lee, J.W., Cha, H.-Y.,K., Park, Song, K.-G., Ahn, K.-H. (2005) Operational strategies for an activated sludge process in conjunction with ozone oxidation for zero excess sludge production during winter season, *Water Research* 39, 1199-1204.
- Lee, M. J., Kim, T. H., Yoo, G. Y., Min, B. K. ve Hwang, S. J. (2010a) Sewage sludge reduction and system optimization in a catalytic ozonation process, *Environmental Technology*, 31, 1, 7-14.
- Lee, M. J., Kim, T. H., Yoo, G. Y., Min, B. K. ve Hwang, S. J. (2010b) Reduction of sewage sludge by ball mill pretreatment and Mn catalytic ozonation, *KSCE Journal of Civil Engineering*, 5, 14, 693-697.
- Legrini O., Oliveros E., Braun A. M. (1993) Photochemical Processes for Water Treatment. *Chem. Rew.*, 93, 671-698.
- Lehne, G. A, Müller, J. A., & Schwedes, J. (2001) Mechanical disintegration of sewage sludge, *Water Science and Technology* 43 (1), 19–26.
- Lerch, R.N.; Barbarick, K.A.; Westfall, D.G., Follett, R.H., McBride, T.M., and Owen. W.F. 1990. Sustainable rates of sewage sludge for Dryland Winter Wheat production I. Soil nitrogen and heavy metals. *J. Prod. Agric. Nitrogen and Heavy Metals. J. Prod. Agr.* 3(1): 60-65.
- Lettinga, G., Hulshoff Pol, LA. (1991) UASB process design for various type of waste waters, *Wat. Sci. Tech.*,24, 8, 87-107.
- Leuschner, A. P. (1989). *Enhancement of Degradation: Laboratory Scale Experiments, Sanitary Landfilling: Process, Technology and Environmental Impact*: Academic Press.
- Li, H., Li, C., Zou, S., (2012) Optimized alkaline pretreatment of sludge before anaerobic digestion, *Biosource Technology*, 123, 189-194.
- Li, YH., Chaney, R.L. and Schneiter, A.A. 1994. Effect of soil chloride level of cadmium concentration in sunflower kernels. *Plant and Soil*, 167: 275-80.
- Li, H., Jin, Y. ve Mahar, R.B., (2008) Effects and model of alkaline waste activated sludge treatment, *Bioresour. Technol.* 99, 5140–5144.
- Liang, P., Huang, x., Qian Y., (2006) Excess sludge reuction in activated process through predation of *Aelosoma hemprichi*, *Biochemical Engineering Journal* 28, 117-122.

- Liang, P., Huang, X., Qian, Y., Wei, Y. ve Ding, G., (2006) Determination and comparison of sludge reduction rates caused by micro-faunas' predation, *Bioresource Technology* 97, 854–861.
- Lin Z.-Q., Cervinka V., Pickering I.J., Zayed A. ve Terry N. (2002) Managing selenium-contaminated agricultural drainage water by the integrated on-farm drainage management system role of selenium volatilization. *Water Res.*,12, 3149–3159.
- Lin, J. G., Chang, C. N., (1995) Solubilization kinetics of waste activated sludge with chemical pretreatment. *Proceeding 5th IAWQ Asian Regional Conference On Water Quality And Pollution Control*, 660-665.
- Lin, Y., Zhou, S., Li, F., & Lin, Y. (2012). Utilization of Municipal Sewage Sludge as Additives for the Production of Eco-Cement. *Journal of Hazardous Materials*, 213-214, 457-465.
- Lindsay, W.L. and Norvell, W.A., (1978) Development of a DTPA Soil Test For Zn, Fe, Mn and Cu. *Soil Amer. J.*, 42 (3): 421-428.
- Lindsay, W.L., and Norwell, W.A. 1978. Development of a DTPA Soil Test. *Soil Science American Proceedings*, 35: 600-602.
- Lindsay, W.L., Norwell, W.A. 1969. Development of DTPA soil test for zinc, iron, manganese and copper. *Soil Sci. Soc. Am. Proc.*, 33 (1969), pp. 49–54.
- Little, D.A., R.B. Reneau Jr. and D.C. Martens, 1991. Lime stabilized and chemically fixed sewage sludge as lime amendments. *Bioresource Technology*, 37, 93-102.
- Liu, W.-T., Mino, T., Nakamura, K. & Matsuo, T. (1994). *Role of glycogen in acetate uptake and polyhydroxyalkanoate synthesis in anaerobic–aerobic activated sludge with a minimized polyphosphate content.* *J Ferment Biotechnol* 77, 535-540.
- Liu X., Liu H., Chen J., Du G., Chen J., (2008) Enhancement of solubilization and acidification of waste activated sludge by pretreatment, *Waste Management*, 28, 2614-2622.
- Liu, Y. (2000) Effect of chemical uncoupler on the observed growth yield in batch culture of activated sludge, *Wat. Res.* 34, 2025-2030.
- Liu, Y. (2003) Chemically reduced excess sludge production in the activated sludge process, *Chemosphere* 50, 1-7.
- Liu, Y. ve Tay, J. H. (2001) Strategy for minimization of excess sludge production from the activated sludge process, *Biotechnology Advances*, 19, 97-107.

- Liu, Z., Qian, G., Sun, Y., Xu, R., Zhou, J., & Xu, Y. (2010). Speciation Evolutions of Heavy Metals during the Sewage Sludge Incineration in a Laboratory Scale Incinerator. *Energy Fuels*, 24, 2470-2478.
- Loeffler M., Schmidt W., Schuhmann R., Röttering A., Neumann J., Dreesen C., (2001) Treatment of Sewage Sludge with Pulsed Electric Fields, International Conference on Pulsed Power Applications, Paper Number: B.04, Gelsenkirchen, March 27-29, 2001.
- Lomnicki, S. ve Dellinger, B. (2003) Development of supported iron oxide catalyst for destruction of PCDD/F, *Environ.Sci.Technol.* 37,2354–4260.04.
- Lopes H., Gulyurtlu I., Abelha P., Crujeira T., Salema D., Freire M., Pereira R. ve Cabrita I. (2009) Particulate and PCDD/F emissions from coal co-firing with solid biofuels in a bubbling fluidised bed reactor, *Fuel*, 88, 2373–2384.
- Lopes M. H., Gulyurtlu I., Cabrita I. (2004) Control of Pollutants during FBC Combustion of Sewage Sludge. *Ind. Eng. Chem. Res.* 43, 5540-5547.
- Low, E. W. and Chase, H. A. (1998) Reducing production of excess biomass during wastewater treatment, *Water Research* 33, 5, 1119-1132.
- Lowe, P., 1995. Developments in the thermal drying of sewage sludge, *Water and Environmental Journal*, 9(3): 306-316.
- Lu M.-C., Lin C.-J., Liao C.-H., Huang R.-Y., Ting W.P. (2003) Dewatering of activated sludge by Fenton's reagent, *Advances in Environmental Research*, 7 (3), 667-670.
- Lu, J., Gavala, H. N. , Skiadas, I., Mladenovska, Z., Ahring, B. (2008) Improving anaerobic sewage sludge digestion by implementation of a hyper-thermophilic prehydrolysis step, *Journal of Environmental Management*, 88, 4, 881-889.
- Ma X., Weng H., Su M., Lehua P. (2012). Drying sewage sludge using flue gas from power plants in China. *Environ Earth Sci* 65:1841–1846.
- Machnicka, A., Grúbel, K. ve Suschka, J. (2009) The use of hydrodynamic disintegration as a means to improve anaerobic digestion of activated sludge, *Water SA*, 1, 35, 129-132.
- Magdalena, A., Dytczak, K. L., Londry, H. S., Oleszkiewicz J. A. 2007. Ozonation reduces sludge production and improves denitrification. *Water Research.* 41, 543 – 550.
- Magdoff, F.R. ve Amadon, J.F. (1980) Nitrogen availability from sewage sludge, *J.Environ. Qual.*, 9(3),451-455.

- Magdziarz, A., Wilk, M., & Kosturkiewicz, B. (2011). Investigation of Sewage Sludge Preparation for Combustion Process. *Chemical and Process Engineering*, 32(4), 299-309.
- Magoarou P. (1999) Urban waste water in Europe – What about the sludge?, Workshop on Problem Proceedings around sludge, 9-16, Italy.
- Mahmood, T. and Elliot, A., (2006) A review of secondary sludge reduction Technologies for the pulp and paper industry, *Water Research* 40, 2093-2112.
- Malerius O. ve Werther J. (2003) Modeling the adsorption of mercury in the flue gas of sewage sludge incineration, *Chemical Engineering Journal*, 96(1-3), 197-205.
- Mantovi, P., Baldoni, G. and Toderi, G. 2005. Reuse of liquid, dewatered, and composted sewage sludge on agricultural land: effects of long-term application on soil and crop. *Water Research*, 39, 289-296.
- Marani, D., Braguglia, G.M., Mininni, G., ve Maccioni, F. (2003) Behaviour of Cd, Cr, Mn, Ni, Pb, and Zn in sewage sludge incineration by fluidised bed furnace, *Waste Management* 23:117–124.
- Masten S.J., Davies S.H.R. (1994) The use of ozonation to degrade organic contaminants in wastewaters, *Env.Sci.Technol.*, 28, 180A-185A.
- Mathioudakis, V.L., Kapagiannidis, A.G., Athanasoulia, E., Diamantis, V.I., Melidis, P. ve Aivasidis, A. (2009) Extended dewatering of sewage sludge in solar drying plants, *Desalination*, 248, 733–739.
- McBride, M.B. 1995. Toxic metal accumulation from agricultural use of sludge: are US EPA regulations protective? *J. Environ. Qual.*, 24, 5–18.
- McCarthy, P.L. (1982) One hundred years of anaerobic treatment. In: Hughes et al., (eds) *Anaerobic Digestion 1981*, Elsevier Biomedical, Amsterdam, 3-22.
- McGrath, S.P., Zhao, F.J., and Dunham, S.J. 2000. Long-term changes in the extractability and bioavailability of zinc and cadmium after sludge application. *J. Environ. Qual.*, 29: 875-883.
- McGrath, S.P., Loveland, P.J. 1992. *The Soil Geochemical atlas of England and Wales*. Glasgow: Blackie Academic and Professional; UK.
- McGrath, S.P., Smith, S. 1990. Chromium and Nickel. B.J. Alloway (Ed.), *Heavy Metals in Soils*, Blackie, London (1990), pp. 125–146.

- McGrath, S.P., Brookes, P.C. and Giller, K.E. 1988. Effects of potentially toxic metals in soil derived from past applications of sewage sludge on nitrogen fixation by *Trifolium repens*. *Soil Biol. Biochem*, 20, 415-424.
- McGrath, SP., Brookes PC and Giller, KE .1988. Effects of potentially toxic metals in a long-term field experiment with sewage sludge. *Environ Pollut*, 60,235–256.
- McIlveen-Wright D.R., Huang Y., Rezvani S., Mondol J.D., Redpath D., Anderson M., Hewitt N.J., Williams B.C. (2011) A Techno-economic assessment of the reduction of carbon dioxide emission through the use of biomass co-combustion, *Fuel*, 90, 11-18.
- McLaughlin, M.J., Palmer, L.T., Tiller, K.G., Beech, T.A., Smart, M.K. 1994. Increased soil salinity causes elevated cadmium concentrations in field-grown potato tubers. *J Environ Qual.*, 23: 1013–8.
- McLaughlin, M.J. and Champion, L. 1987. Sewage sludge as a phosphorus amendment for sesquioxenic soils. *Soil Science*, 143, 113–119.
- Melo, W.J., M.O., Marques, G., Santiago, R.A. and Chelli and Leite, S.A.S. 1994. Efeito de doses crescentes de lodo de esgoto sobre frações da matéria orgânica e CTC de um latossolo cultivado com cana-de-açúcar. *Rev. Bras. Cienc. Solo*, 18, 449–455.
- Mench, M., Baize, D., Mocquot, B. 1997. Cadmium availability to wheat in five soil series from the Yonne district, Burgundy, France. *Environ Pollut.*, 95: 93–103.
- Menelik, G., Renau, R.B., Martens, D.C. ve Simpson, T.W. 1991. Yield and elemental composition wheat grain as influenced by source and rate of nitrogen. *Journal of Plant Nutrition*, 14 (2): 205-217.
- Metcalf ve Eddy (2003) *Wastewater Engineering, Treatment and Reuse*. McGraw-Hill 4th Eds., New York, USA.
- Metcalf ve Eddy (2003) *Wastewater Engineering, Treatment, Disposal, Reuse*. McGraw-Hill, 1523., New York.
- Midgley H. G., 1964, *The Formation and Phase Composition of Portland Cement Clinker*, *The Chemistry of Cements*, ed. H.F.W. Taylor, Vol. 1, Chap. 3, Academic Press, London and New York.
- Mines R. O. JR., Northen C. B., Murchison M. (2008) Oxidation and ozonation of waste activated sludge, *Journal of Environmental Science and Health*, 43 (6), 610 – 618.

- Montusiewicz A., Lebiocka M., Rożej A., Zacharska E., Pawłowski L., (2010) Freezing/thawing effects on anaerobic digestion of mixed sewage sludge, *Bioresource Technology*, 101 (10), 3466-3473.
- Moonkhum, M. (2007) Aerobic digestion of waste activated sludge with ultrasonic pretreatment, MSc Thesis, Songkla University, Surat Thani, Thailand.
- Moussavi G., Asilian H., Jamal A., (2008) Effect of ozonation on reduction of volume and mass of waste activated sludge, *Journal of Applied Sciences Research*, 4(2), 122-127.
- Morariu, F., Măsu, S., Dragomir, N., Rus, V., Demetrovici, L. 2011. Stela Uruioc<sup>3</sup>, Dumitru Popescu<sup>1</sup>, Adela Jurjescu. Indicator of Bioavailability of Heavy Metals in Phyto-Stabilized Processes of Fly Ash Deposits. *Animal Science and Biotechnologies*, 44 (1).
- Moreno, J.L., Garcia, C., Hernandez, T. and Ayuso, M. 1997. Application of composted sewage sludges contaminated with heavy metals to an agricultural soil *Soil Sci Plant Nutr*, 43, 565–573.
- Moreno, J.L., Garcia, C., Hernandez, T., Pascual, J.A. 1996. Transference of heavy metals from a calcareous soil amended with sewage-sludge compost to barley plants. *Bioresource Techn.*, 55: 251-258.
- Mujumdar, A.J., 2007. Selection of dryers. <http://serve.me.nus.edu.sg/arun>
- Muller C.D., Abu-Orf M., Blumenschein C.D., Novak J.T. (2009) A comparative study of ultrasonic pretreatment and an internal recycle for the enhancement, *Water Environment Research*, 81 (12), 2398-2410 (13).
- Muller, A., Coenen, S., Monnet, D., the ESAC project group, (2007) European surveillance of antimicrobial consumption (ESAC): outpatient antibiotic use in Europe, 1998–2005. *Eurosurveillance* 12 (11), <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=3284>
- Muller, J., Lehne, G., Schwedes, J., Battenberg, S., Näveke, R., Kopp, J., Dichtl, N., Scheminski, A., Krull, R., Hempel, D. C. (1998) Disintegration of sewage sludges and influence on anaerobic digestion, *Wat. Sci. Technol.* 1223, 00720-3.
- Murakami T., Suzuki Y., Nagasawa H., Yamamoto T., Koseki T., Hirose H. ve Okamoto S., (2009) Combustion characteristics of sewage sludge in an incineration plant for energy recovery, *Fuel Processing Technology*, 90, 778–783.

- Murray A., Horvath A., Nelson K.L., (2008),Hybrid Life-Cycle Environmental and Cost Inventory of Sewage Sludge: Treatment and End-Use Scenarios: A Case Study from China, *Environ.Sci. Technol.*,42, 3163-3169
- Muz, M., Sönmez, S. M., Komesli, O. T. ve Gökçay, C. F. (2010) Kesikli ozonlama yöntemi ile atık çamur azaltımı, *İTÜ Dergisi Su Kirlenmesi Kontrolü*, 1, 20, 77-84.
- Müller J. A, Winter A., Strünkmann G., (2004) Investigation and assessment of sludge pre-treatment processes, *Water Science and Technology*, 49, 10, 97-104.
- Müller J. A., (2000b) Pretreatment processes for the recycling and reuse of sewage sludge, *Water Science Technology*, 42, 9, 167–174.
- Müller J. A., (2003) Conditioning, thickening and dewatering of mechanically disintegrated excess sludge, *Separation Science and Technology*, 38, 4, 889-902.
- Müller, J. A., (2000a) Disintegration as a key-step in sewage sludge treatment, *Wat. Sci. Tech.*, 41,8, 123–130.
- Müller, J.A. (2001) Prospects and problems of sludge pre-treatment processes, *Water ScienceTechnology*, 44 (10), 121-128.
- Nagare, H., Tsuno, H., Saktaywin, W. ve Soyama, T. (2008) Sludge ozonation and its application to a new advanced wastewater treatment process with sludge disintegration, *Ozone: Science and Engineering*, 30, 136-144.
- Nan, Z., Li, J., Zhang, J. and Cheng, G. 2002. Cadmium and zinc interactions and their transfer in soil-crop system under actual field conditions. *The Science of the Total Environment*, 285: 187-195.
- NAS (1983) Risk assessment in the federal government: Managing the process. National Academy of Sciences. Washington, D.C., National Academy Press.
- National Research Council.(1994) Science and judgment in risk assessment. Washington, DC, National Academy Press.
- National Research Council. (2002) Biosolids Applied to Land: Advancing Standards and Practices. Washington, DC, National Academy Press.
- Navaee-Ardeh, S., Bertrand, F. ve Stuart, P.R. (2006) Emerging biodrying technology for the drying of pulp and paper mixed sludges, *Drying Technol.* 24, 863–878.



- Navia, R., Soto, M., Vidal, G., Bornhardt, C., Diez, M. C (2002) Alkaline pretreatment of kraft mill sludge to improve its anaerobic digestion, *Bulletin of Environmental Contamination and Toxicology* 69(6), 869–876.
- Neidermann, D. M. and Lerch K. (1990) Molecular cloning of the L-amino acid oxidase gene from *Neurospora crassa*, *J. Biol. Chem.* 265: 17246-17251.
- Neyens E., Baeyens J. , (2003) A review of classic Fenton's peroxidation as an advanced oxidation technique, *Journal of Hazardous Materials B98*, 33–50.
- Neyens, E., Baeyens, J. (2003) A review of thermal sludge pre-treatment processes to improve dewaterability, *J Hazard. Mater.* 98, 51-67.
- Neyens, E., Baeyens, J., Creemers, C. (2003) Alkaline thermal sludge hydrolysis, *J. Hazard. Mater.* 97, 295–314.
- Neyens, E., Baeyens, J., Dewil, R. (2004) Advanced sludge treatment affects extracellular polymeric substances to improve activated sludge dewatering, *J. Hazard. Mater.* 106, 83–92.
- Neyens, E., Baeyens, J., Weemaes, M., De Heyder, B., (2003) Pilot scale peroxidation (H<sub>2</sub>O<sub>2</sub>) of sewage sludge, *Journal of Hazardous Materials*, B9, 8, 91-106.
- Ng, A.N.L. and Kim, A. S., (2007) A mini-review of modelling studies on membrane bioreactor (MBR) treatment for municipal wastewaters, *Desalination* 212, 261-268
- Nguyen, H. (2005) Recycling sludge to produce fertilizer, *Currents*, 34-35
- Nickel, K. ve Neis, U. (2007) Ultrasonic disintegration of biosolids for improved biodegradation, *Ultrasonics Sonochemistry*, 14, 4, 450-455.
- Nickel, K., Tiehm, A., Neis, U., (Eds.) (1999) *Ultrasound in environmental engineering*, TUHH Reports on Sanitary Engineering, 25, 205-216.
- Nicole D. Berge, Debra R. Reinhart, Eyad S. Batarseh (2009) An assessment of bioreactor landfill costs and benefits, *Waste Management*, 1558-1567.
- Niedermann, D. M. ve Lerch K. (1990) Molecular cloning of the L-amino acid oxidase gene from *Neurospora crassa*. *J. Biol. Chem.* 265: 17246-17251.
- Nieto, A., Borrull, F., Pocurull, E., Marce, R. M., (2010) Occurrence of pharmaceuticals and hormones in sewage sludge., *Environmental Toxicology and Chemistry*, 29, 1484 – 1489.

- Niu S., Han K., Lu C. ve Sun R., (2010) Thermogravimetric analysis of the relationship among calcium magnesium acetate, calcium acetate and magnesium acetate, *Applied Energy*, 87, 2237–2242.
- Nosrati, M., Sreerishnan, T. R., Mukhopadhyay, S. N. (2007) Energy audit, solids reduction and pathogen inactivation in secondary sludges during batch thermophilic aerobic digestion process, *Journal of Environmental Engineering* 133(5), 477–484.
- Novak J.T. (2001) Dewatering. In: *Sludge into Biosolids: Processing, Disposal and Utilization*, IWA Publishing, 18, 339-363.
- Novak J.T., Wilson C. A. (2009) Hydrolysis of macromolecular components of primary and secondary wastewater sludge by thermal hydrolytic pretreatment, *Water Research*, 43 (18), 4489-4498.
- Ødegaard, H., (2004) Sludge minimization technologies- An overview, *Water Science and Technology*, 49,(10), 31–40.
- Okur, B. ve S. Delibacak. (1996) Prina, cibre, karasu ve çöp gübresi gibi doğal atıkların toprağın bazı fiziksel özellikleri üzerine etkileri, *Tarım-Çevre İlişkileri Sempozyumu, Doğal Kaynakların Sürdürülebilir Kullanımı, Bildiri Kitabı*, 179-183, 13-15 Mayıs 1996, Mersin.
- Olsen, S.R., Cole, V., Watanabe, F.S., and Dean, L.B. 1954. Estimation of available phosphorus in soils by extraction with sodium bicarbonate. U.S. Dept. of Agr., 939 Washington, D.C.
- Onaka T.(2000) Sewage can make Portland cement: a new technology for ultimate reuse of sewage sludge, *Water Science and Technology*, IWA Publishing, 41(8),93–98.
- Onay, T.T., Pohland, F.G. (1998) In situ nitrogen management in controlled bioreactor landfills, *Water Research* 32 (5), 1383–1392.
- Ongun, A.R., Yağmur, B., Bozokalfa, K., Eşiyok, D. ve Okur, B. (2010). Effects of Municipal Waste Treatment Sludge Application on Heavy Metal Content of Sweet Corn and Soil. M.E. Aydın & A. Tor & S. Ozcan (Eds), *International Sustainable Water and Wastewater Management Symposium* , Konya, 26-28 October 2010 (pp. 1303-1309).
- Onyeche, I. T. (2003) Advanced Anaerobic Digestion of Sludge through High Pressure Homogenisation, *Journal of Solid Waste Technology and Management* 29(1), 56-61.
- Oregon Association of Clean Water Agencies (ACWA) and Energy Trust of Oregon. (2008). *Final Energy Independence Project*, Kennedy/Jenks Consultants, Portland OR.

Organik Maddelerin Geri Dönüşümü Yönetmeliği (2002) “British Columbia Organic Matter Recycling Regulation, 18/2002; amendments 321/2004”.  
[http://www.qp.gov.bc.ca/statreg/reg/E/EnvMgmt/18\\_2002.htm#](http://www.qp.gov.bc.ca/statreg/reg/E/EnvMgmt/18_2002.htm#)

O’Riordan, E. G., Dodd, V. A., Tunney, H. and Fleming G. A. 1987. The fertiliser nutrient value of activated sewage sludge under grassland field conditions. *Ir. J. Agric. Res.* 26: 213-229.

Otero M., Calvo L. F., Gil M. V., Garcia A. I. ve Moran A., (2007b) Co-combustion of different sewage sludge and coal: A non-isothermal thermogravimetric kinetic analysis, *Bioresource Technology*, 99,6311–6319.

Otero M., Gomez X., Garcia A.I ve Moran A.(2007a) Effects of sewage sludge blending on the coal combustion: A thermogravimetric assessment, *Chemosphere*, 69, 1740–1750.

Otero M., Sanchez M. E., Gomez X. ve Moran A., (2010) Thermogravimetric analysis of biowastes during combustion, *Waste Management*, 30,1183–1187.

Otero M.I., Dez C., Calvo L.F., Garca A.I. ve Moran A. (2002) Analysis of the co-combustion of sewage sludge and coal by TG-Ms, *Biomass and Bioenergy*, Volume 22, Number 4, 319-329(11).

Otero, M., Sánchez, M., García, A. ve Morán, A. (2006 ) Simultaneous thermogravimetric-mass spectrometric study on the co-combustion of coal and sewage sludges, *Journal of Thermal Analysis and Calorimetry*, Volume 86, Number 2, November 489-495.

Otte-Witte, R., Wunsch, M., Hodder, M. (2000) Sludge disintegration by Lysate thickening centrifuge, 5th Biosolids Conference, Wakefield, UK.

Oviedo, M.D.C, Sanchez, J.B., Alonso J.M.Q. (2005) Enzymatic estimation of biosolids stability in aerobic digestion systems, *Enzyme and Microbial Technology*, 36, 191–197.

Öborn, I., Jansson, G., Johnsson, L., 1995. A field study on the influence of soil pH on trace element levels in spring wheat (*Triticum aestivum*), potatoes (*Solanum tuberosum*) and carrots (*Daucus carota*). *Water, Air and Soil Pollution* 85: 835-840.

Ötker M. and Balcioğlu Akmehmet I., (2005) Adsorption and degradation of enrofloxacin, a veterinary antibiotic on natural zeolite, *Journal of Hazardous Materials*, Vol.122, 251–258.

Öncü N.B., Balcioğlu I.A. Antimicrobial removal from environmentally relevant matrices by advanced oxidation processes, *Ozone Sci. Eng.*, 2010.

- Özsoy, G. (2006) Recovery and Reuse of Waste Sludges , Yüksek Lisans Çalışması (MSc)
- Özsoy, G., Dilek F. B. ve Sanin, F. D. (2006) An investigation of agricultural use potential of wastewater sludges in turkey - case of heavy metals, Water Science and Technology, v. 54, n. 5, 155-161, 2006.
- Öztürk, İ. (1999) Anaerobik Biyoteknoloji ve Atık Arıtımındaki Uygulamaları. Su Vakfı Yayınları, 11-46, İstanbul.
- Özyazıcı, M.A., Bayraklı, B., Özdemir, O., Özyazıcı, G. ve Alpay, S. (2008) İkinci Kademe Arıtılmış Kentsel Nitelikli Atıksu Arıtma Tesisinden Elde Edilen Biyokatının Bafra Ovası Tarımında Kullanılma Olanakları. Toprak ve Su Kaynakları Samsun Araştırma Enstitüsü Müdürlüğü, yayın no: TAGEM-BB-TOPRAKSU-2008/60.
- Özyazıcı, M. A, Özyazıcı, G. (2012). Arıtma çamurunun toprağın bazı temel verimlilik parametreleri üzerine etkileri. Anadolu Tarım Bilim. Derg., 27(2), 101-109.
- Özyazıcı, M.A., Özyazıcı, G., Bayraklı, B. 2012. Arıtma Çamuru Uygulamalarının Toprağın Ekstrakte Edilebilir Demir, Bakır, Çinko ve Mangan Kapsamı Üzerine Etkileri. Toprak Su Dergisi, 1 (2), 110-118.
- Panamerican Health Organization Anasayfası,<http://www.bvsde.paho.org/bvsacd/unam7/comparison.pdf>, Winter A., Müller J. A., Comparison of Disintegration Methods at a Full-scale Anaerobik Digestion Plant, pp.572-579, Alıntılama tarihi: 18.07.2010.
- Park, K. Y., Ahn, K.H., Maeng, S. K. (2003) Feasibility of sludge ozonation for stabilization and conditioning. Ozone-Sci. Eng. 25, 73–80
- Park S. W., Jang C. H.(a) (2011) Characteristics of carbonized sludge for co-combustion in pulverized coalpower plants, Waste Management, 31, 523-529.
- Park S. W., Jang C. H.(b) (2011) Effects of carbonization and solvent extraction on change in fuel characteristicsof sewage sludge, Bioresource Technology, 102, 8205-8210.
- Parker T. W., 1952, Mineralizers in cement, Journal of Applied Chemistry, 2, p 78.
- Pedreno, N. J., Gomez, J., Moral, M.J.and Mataix, L. 1996. Improving the agricultural value of semiarid soil by addition of sewage sludge and Almond residue. Agriculture, Ecosystem and Environment, 58 (2-3), 1-6.

- Pham TTH, Brar SK, Tyagi RD and Surampalli RY, Ultrasonication of wastewater sludge—Consequences on biodegradability and flowability, *Journal of Hazardous Materials*. 163: 891–898 (2009).
- Parkin, G. F., Owen, W. F. (1986) Fundamentals of anaerobic digestion of wastewater sludges, *Journal of Environmental Engineering*, 112, 867.
- Pascual, I., Antolin'a M.C., Garcia, C., Polo, A. ve Diaz, M.S. (2007) Effect of water deficit on microbial characteristics in soil amended with sewage sludge or inorganic fertilizer under laboratory conditions, *Bioresource Technology* 98, 29–37.
- Paul, E. ve Debellefontaine, H. (2007) Reduction of excess sludge produced by biological treatment processes: effect of ozonation on biomass and on sludge, *Ozone: Science and Engineering*, 29, 415-427.
- Pedreno, J.N., I. Gomez, R. Moral ve J. Mataix. (1996) Improving the agricultural value of a semi arid soil by addition of sewage sludge and almond residue, *Agriculture, Ecosystems and Environment*, 58,115-119.
- Pei HY, Hu WR, Liu QH., (2010) Effect of protease and cellulase on the characteristic of activated sludge, *Journal of Hazardous Materials*, 178 (1-3), 397-403.
- Peregrina, C., Rudolph, V., Lecomte, D. ve Arlabosse, P. (2008) Immersion frying for the thermal drying of sewage sludge: An economic assessment. *Environ. Management*, 86, 246–261.
- Perez M., Torrades F., Doménech X., Peral, J. (2002) Removal of organic contaminants in paper pulp effluents by AOPs: an economic study, *J. Chem. Technol. Biotechnol.* 77, 525.
- Perez-Elvira, S.I., Diez, P.N., Fernandez-Polanco, F. (2006) Sludge minimisation technologies, *Rev. Environ. Sci. Bio/Technol.* 5 (4), 375–398.
- Pettersson A, Amand ., L. E. ve Steenaric B.-M., (2007) Leaching of ashes from co-combustion of sewage sludge and wood—Part I: Recovery of phosphorus. *Biomass and Bioenergy*, 32, 224 – 235.
- Pham T.T.H., Brar S.K., Tyagi R.D., Surampalli R.Y. (2009) Influence of ultrasonication and Fenton oxidation pre-treatment on rheological characteristics of wastewater sludge, *Ultrasonics Sonochemistry*, 17 (1), 38-45.

- Phothilangka, P., Schoen M. A. ve Wett, B. (2008) Benefits and drawbacks of thermal pre-hydrolysis for operational performance of wastewater treatment plants, *Water Science Technology*, 8, 58, 1547-53.
- Pickel, J. (2010) An evaluation of alternatives for enhancing anaerobic digestion of waste activated sludge, MSc Thesis, Waterloo University, Ontario, Canada.
- Picó Y., Andreu V. Fluoroquinolones in soil-risks and challenges, *Anal. Bioanal. Chem.* 387, 1287–1299, 2007.
- Pirt, S.J., (1965) The maintenance energy of bacteria in growing cultures, *Proc R Soc London*, B31, 163-224.
- Pohland, F. G. (1980) Leachate recycle as landfill management option, *Journal of the Environmental Engineering Division, ASCE*, 106(EE6), 1057-1069.
- Polo, M. J., R. Ordonez, and J. V. Giraldez. 1999. Copper and zinc adsorption by sewage sludgetreated soil in Southern Spain. *Commun. Soil Sci. Plant Anal.* 30,1063–1079.
- Pratt, P.F. 1965. *Methods of soil analysis, Part 2, Chemical and microbiological properties*. In Ed. C.A. Black, American Society of Agronomy, Inc. Pub. Agron. Series, No. 9., Madison, Wisconsin, USA.
- Prorot, A., Eskicioğlu, C., Droste, R., Dagot, C. ve Leprat, P. (2008) Assessment of physiological state of microorganisms in activated sludge with flow cytometry: application for monitoring sludge production minimization, *Journal of Industrial Microbiology and Biotechnology*, 35, 1261-1268.
- PURE (2012) *Good Practices in Sludge Management, Project on Urban Reduction of Eutrophication (PURE)*, Union of the Baltic Cities Environment Commission, Finland
- Puschenreiter, M., Schnepf, A., Millan, I.M., Fitz, W.J., Horak, O., Klepp, J., Schrefl, T., Lombi, E. and Wenzel, W.W. 2005. Changes in Ni biogeochemistry in the rhizosphere of the hyperaccumulator *Thlaspi goesingense* Plant and Soil, 271, 205–218.
- Radjenovic, J., Jelic, A., Petrovic, M., Barcelo, D. (2009b) Determination of pharmaceuticals in sewage sludge by pressurized liquid extraction (PLE) coupled to liquid chromatography-tandem mass spectrometry (LC-MS/MS), *Analytical and Bioanalytical Chemistry*, 393, 1685 – 1695.

- Radjenovic, J., Petrovic, M., Barcelo, D., (2009a) Fate and distribution of pharmaceuticals in wastewater and sewage sludge of the conventional activated sludge (CAS) and advanced membrane bioreactor (MBR) treatment, *Water Research*, 43, 831 – 841.
- Rai, C. L. ve Rao, P. G. (2009) Influence of sludge disintegration by high pressure homogenizer on microbial growth in sewage sludge: an approach for excess sludge reduction, *Clean Technologies and Environmental Policy* 11, 437-446.
- Rajan, R. V., Lin, J.-G. & Ray, B. T., (1989) Low-level chemical pretreatment for enhanced sludge solubilization, *Res. J. Water Pollut. Control Fed.*, 61, 1678–1683.
- Ramaswamy R., Jin T., Balasubramaniam V. M., Zhang H. (2010) Pulsed Electric Field Processing Fact Sheet for Food Processors, FSE 02-5, <http://ohioline.osu.edu/fse-fact/0002.html>, The Ohio State University College of Food, Agricultural, and Environmental Sciences Department of Food Science and Technology. Alıntılama tarihi: 07.07.2010.
- Rauterberg, E. and Kremkus, F. (1951) Bestimmung von Gesamt Humus und Alkalischen Humusstoffen in Boden. *Z. für Pflanzenernaehrung, Düngung und Bodenkunde*, Verlag Chemie, GmbH, Weinheim.
- Raw D.I, Jan B., Elisabeth N. (2005) Fenton peroxidation improves the drying performance of waste activated sludge, *Journal of Hazardous Materials*, B117 161-170.
- Ray, B. T., Rajan, R. V. & Lin, J.-G., (1990) Low-level alkaline solubilization for enhanced anaerobic digestion, *Res. J. Water Pollut. Control Fed.*, 62, 81-87.
- Reinhart R., (2007) Design and Operational Issues Related to Co-Disposal of Sludges and Biosolids in Class-I Landfills – Phase III.
- Reinhart, D., Townsend, T. (1998) *Landfill Bioreactor Design and Operation.*, Washington, D.C.: Lewis Publishers.
- Rezig, A. M. R., Elhadig, E. A., Mubarak, A. R. 2012. *International Journal of Recycling of Organic Waste in Agriculture*, 1:1.
- Richards B.K., Steenhuis T.S., Peverly J.H., McBride M.B. (2000) Effect of sludge-processing mode, soil texture and soil pH on metal mobility in undisturbed soil columns under accelerated loading, *Environmental Pollution*, 2, 109, 327-346.
- Richards, L.A. 1960. Advances in soil physics. *Trans. 7th International Congress Soil Sci.* Madison, WI, vol: 1, pp: 67-69.

- Richards, L.A. 1954. *Diagnosis and Improvement of Saline and Alkaline Soils*, USDA, Salinity Laboratory Agricultural Handbook, No.60, pp: 110-118. Riverside.
- Riesz, P., Berdahl, D. and Christman, L. (1985) Free radical generation by ultrasound in aqueous and nonaqueous solutions, *Environ. Health Perspect* 64, 233-252.
- Rintala, J. (2005) Assisted method to increase soluble chemical oxygen demand (sCOD) of sewage sludge for digestion, *Ultrason. Sonochem.* 12 (1-2), 115-120.
- Ritterbusch S. ve Bux M. (2012). *Solar Drying Of Sludge - Recent Experiences in Large Installations*. 3.ECSM.
- Ritterbusch S. ve Bux M. (2012). *Solar Drying of Sludge - Recent Experiences in Large Installations*. 3. European Conference on Sludge Management, September 6-7, Leon, İspanya.
- Rittmann, B.E.; Lee, H-S.; Zhang, H.; Alder, J.; Banaszak, J.E.; Lopez, R. (2008) Full-Scale application of focused-pulsed pre-treatment for improving biosolids digestion and conversion to methane, *Water Science and Technology*, (58)10, 1895,
- Rivard C.J. (1989) Anaerobic digestion of processed municipal solid waste using a novel high solids reactor: Maximum solids levels and mixing requirements, *Biotechnology Letters*, 12, 235-240, Colorado.
- Robert Vranitzky, Dr. Josef Lahnsteiner (2005) *Sewage Sludge Disintegration Using Ozone – A Method of Enhancing the Anaerobic Stabilization of Sewage Sludge*. VA TECH WABAH, R&D Process Engineering, Siemensstrasse 89, A-1211 Vienna, Austria.
- Rodriguez R., Gauthier D., Udaquiola S., Mazza G., Martinez O. ve Flamant G., (2008) Kinetic study and characterization of sewage sludge for its incineration, *J. Environ. Eng. Sci.*, 7, 247–257.
- Roman H.J., Burgess J.E., Pletschke BI (2006) Enzyme treatment to decrease solids and improve digestion of primary sewage sludge, *African Journal of Biotechnology*, 5 (10), 963-967.
- Romdhana, M. H., Lecomte, D., Ladevie, B. ve Sablayrolles, C. (2009a) Monitoring of pathogenic microorganisms contamination during heat drying process of sewage sludge, *Process Safety and Environmental Protection*, 87, 377–386.



- Romdhana, M.H., Hamasaiid, A., Ladevie, B. ve Lecomte, D.(2009b) Energy valorization of industrial biomass: Using a batch frying process for sewage sludge, *Bioresource Technology*, 100, 3740–3744.
- Ronja, B. (2008) Enzymatic treatment of wastewater sludge in presence of a cation binding agent-improved solubilisation and increased methane production, Linkopings University, Sweden, 49–50.
- Rovira, J., Mari, M., Nadal, M., Sschuhmacher, M., & Domingo, J. (2011). Use of Sewage Sludge as Secondary Fuel in a Cement Plant: Human Health Risks. *Environment International*, 37, 105-111.
- Roxburgh R., Sieger R, Johnson B., Rabinowit, B., Goodwin S., Crawford G., Daigger G.(2006) Proceedings of the Water Environment Federation, WEFTEC 2006: Session 1-10 , pp. 506-525(20).
- Roxburgh R.,Sieger R., Johnson B., Rabinowitz B., Goodwin S., Crawford G., Daigger G., (2006), Sludge Minimization Technologies-Doing More to Get Less, WEFTEC.06
- Rubio-Loza, L.A., Noyola, A. (2010) Two-phase (acidogenic/methanogenic) anaerobic thermophilic/mesophilic digestion system for producing Class A biosolids from municipal sludge, *Bioresource Technology*, 101, 2, 576-585.
- Rughoonunduna, H. , Grandab, C., Moheea, R., Holtzapple, M.T. (2010) Effect of thermochemical pretreatment on sewage sludge and its impact on carboxylic acids production, *Waste Management*, 30, 8-9, 1614-1621.
- Russel, J. B. and Cook, G. M. (1995) Energetics of bacterial growth: balance of anabolic and catabolic reactions, *Microbial. Rev.* 59, 1, 48-62.
- Saby, S., Djafer, m., Chan, G.H. (2002) Feasibility of using a chlorination step to reduce excess sludge in activated sludge process. *Water Research*, 36, 656-666.
- Saby, S., Djafer, M., Chen, G.H., (2003) Effect of low ORP in anoxic sludge zone an excess sludge production in oxic-settling-anoxic activated sludge process, *Water Research* 37, 11-20.
- Saifuddin, N., Fazlili S.A. (2009) Effect of microwave and ultrasonic pretreatments on biogas production from anaerobik digestion of palm oil mill effluent, *American J. of Engineering and Applied Sciences*, 2 (1), 139-146.
- Sakai, Y., Fukase, T., Yasui, H., ve Shibata M. (1997) An activated sludge proces without excess sludge production, *Water Sci. Technol.*, 36, 11, 163-170.

Saktaywin, W., Tsuno, H., Nagare, H., Soyama, T. and Weerapakkaron, J. (2005) Advanced sewage treatment.

Salihoğlu, N. K., Pınarlı V. ve Salihoğlu, G. (2007) Solar drying in sludge management in Turkey, *Renewable Energy*, 32, 1661–1675.

Salmasi R., Tavassoli A. (2005) Using different amendments to reduce heavy metals movement in soils, *International Journal of Environmental Science and Technology*, 4, 1, 295-300.

Salsabil M.R., Laurent J., Casellasa M., Dagot C., (2010) Techno-economic evaluation of thermal treatment, ozonation and sonication for the reduction of wastewater biomass volume before aerobik or anaerobik digestion, *Journal of Hazardous Materials*, 174 (1-3), 323-333.

Salsabil, M. R., Prorot, A., Casellas, C., Dagot, C. (2009) Pre-treatment of activated sludge: Effect of sonication on anaerobic biodigestibility, *Chemical Engineering Journal* 148(2-3), 327-335.

San I. (2001) Evaluation of insitu Leachate Management Alternatives on Municipal Solis Waste Stabilization in Sanitary Landfills, M. Sc. Thesis, Bogazici University.

San I., Onay T.T. (2001) Impact of various recirculation regimes on municipal solid waste degradation, *Journal of Hazardous Material*, B87, 259-271.

Sandip, M.T., Kanchan, K.C., Ashok, B.H., (2012) Enhancement of methane production and bio-stabilisation of municipal solid waste in anaerobic bioractor landgill, *Biosource Technology*, 110, 10-17.

Sandler, I.S., 2006. *Chemical, Biochemical, and Engineering Thermodynamics*, 4.ed., John Wiley and Sons.

Sarmah A.K., Meyer M.T, Boxall A.B. A, A Global perspective on the use, sales, exposure pathways, occurrence, fate and effects of veterinary antibiotics (VAs) in the environment, *Chemosphere* 65, 725-759, 2006.

SASI Group ve Newman M. (2005) Map 306 Sewage Sludge, United Nations Environment Programme, ([www.worldmapper.org](http://www.worldmapper.org))

Sauerbeck, D.R. 1991. Plant, element and soil properties governing uptake and availability of heavy metals derived from sewage sludge. *Water, Air, and Soil Pollution*, 57-58, 227-237.

Seginer, I., Ioslovich, I., Bux, M., 2007. Optimal control of solar sludge dryers. *Drying Technology*, 25(2): 401-415.

Scharenberg U.M. ve Pöppke M. (2010). Large-scale Solar Sludge Drying in Managua/Nicaragua. *Water and Waste*. 26-27.

Schlichting, E., Blume, H.P., (1966) *Bodenkundliches Praktikum*, Verlag Paul Parey, Hamburg-Berlin.

Schowanek D. , Carr, R., David, H., Douben, P., Hall, J., Kirchmann, H., Patria, H., Sequi, P., Smith, S. ve Webb, S.,(2004) A risk-based methodology for deriving quality standards for organic contaminants in sewage sludge for use in agriculture conceptual framework, *Regulatory Toxicology and Pharmacology*, Vol 40.

Schowanek, D., David, H., Francaviglia, R., Hall, J., Kirchmann, H., Krogh, P.H., Schraepen, S.S., Wildermann, T. (2007) Probabilistic risk assessment for linear alkylbenzene sulfonate (LAS) in sewage sludge used on agricultural soil. *Regulatory Toxicology and Pharmacology*, 49, 245-259.

Schwarz S. (1988). *An Economic Evaluation of Sewage Sludge Drying and Incineration Processes*. Clemson University.

Schwinning, H.G., Deeny, K.J., Hong, S-N. (1997) Experience with autothermal thermophilic aerobic digestion (ATAD) in the United States. In: *Proceedings of the 70th Water Environment Federation Annual Conference and Exposition*, Chicago, IL, USA, pp. 275–285.

Selivanovskaya, S.Y., V.Z. Latypova, S.N. Kiyamova and F.K. Alimova, (2001) Use of microbial parameters to assess treatment methods of municipal sewage sludge applied to grey forest soils of Tatarstan, *Agriculture, Ecosystem and Environment*, 86: 145-153.

Seginer, I., Ioslovich, I., Bux, M., 2007. Optimal control of solar sludge dryers. *Drying Technology*, 25(2): 401-415.

Seng, B., Khanal, S. K. ve Visvanathan, C. (2010) Anaerobic digestion of waste activated sludge pretreated by a combined ultrasound and chemical process” *Environmental Technology*, 31, 257-265.

Seyhan D., Erdinçler A. (2003) Effect of lime stabilization of enhanced biological phosphorus removal sludges on the phosphorus availability to plants, *Water Science and Technology*, 48, 1, 155-162.

Shaheen, S.M. Shams, S., Elbehiry, F.A. and Ibrahim, S.M. 2012. Influence of Stabilized Biosolids Application on Availability of Phosphorus, Copper, and Zinc. *Applied and Environmental Soil Sci*. ISSN 1687-7667.

Shammas, N.K., Wang, L.K. (2006a) Biosolids Composting in Biosolids Treatment Processes, Ed. Lawrence K. Wang, Nazih K. Shammas, Yung-Tse Hung, Humana Press

Shammas, N.K., Wang, L.K. (2006b) Land Application of Biosolids in Biosolids Treatment Processes, Ed. Lawrence K. Wang, Nazih K. Shammas, Yung-Tse Hung, Humana Press

Shammas, N.K., Wang, L.K. (2008) Process Selection of Biosolids Management Systems in Biosolids Engineering and Management Ed. Lawrence K. Wang, Nazih K. Shammas, Yung-Tse Hung, Humana Press

Show K.Y., Mao T., Tay J.H., Lee D.J. (2006) Effects of ultrasound pretreatment of sludge on anaerobic digestion, *Journal of Residuals Science and Technology*, 3 (1), 51-59.

Show, K. Y., Mao, T., Lee D. J. (2007) Optimisation of sludge disruption by sonication, *Water Research* 41, 4741 – 4747.

Sims, J. T. 1990. Nitrogen mineralization and elemental availability in soil amended with composed sewage sludge. *J. Environ. Qual.* 19, 269-275.

Singh, K.P., Mohan, D., Sinha, S., and Dalwani, R. (2004) Impact assessment of treated/untreated wastewater toxicants discharged by sewage treatment plants on health, agriculture, and environmental quality in the wastewater disposal area, *Chemosphere*, 55: 227-255.

Singh, R.P. ve Agrawal, M. (2007) Effects of sewage sludge amendment on heavy metal accumulation and consequent responses of *Beta vulgaris*, *Chemosphere* 67, 2229–2240.

Slavin, W. (1968) *Atomic Absorbtion Spectroscopy*, Interscience Publishers, New York-London-Sydney.

Smernik, R. J. , Oliver, I.W., and McLaughlin, M. J. 2004.Changes in the nature of sewage Sludge organic matter during a twenty-one-month incubation.*Journal of Environmental Quality*, 33(5), 1924-1929.

Smith, K. E., Besser, J. M., Hedberg, C. W., Leano, F. T., Bender, J. B., Wicklund, J. H., Johnson, B. P., Moore, K. A., Osterholm, M. T., (1999) Quinolone-Resistant *Campylobacter jejuni* infections in Minnesota, 1992 – 1998. *New England Journal of Medicine*, 340, 1525 – 1532.

Smoldres, 2001. Cadmium uptake by plants. *International Journal of Occupational Medicine and Environmental Health*, Vol. 14, No. 2, 177—183.

Soares, A., Maillard, S., Kampas, P., Wood, E., Calvert, A., Parsons, S. A. ve Cartmell, E. (2007) Fermentation and disintegration of sludge to promote biological nutrient removal, Proceedings of the IWA Specialist Conference, 567-573, Moncton, New Brunswick, Canada.

Soil Survey Staff, (2006) Keys to Soil Taxonomy. 10th ed. US Govt. Printing Office, Washington DC, USA.

Solimone R., Urciolo M., Cammarota A., Chirone R, Salatino P., Damonte G., ve C. Donati, Puglisi G., (2010) Devolatilization and ash comminution of two different sewage sludges under fluidized bed combustion conditions, Experimental Thermal and Fluid Science, 34, 387–395.

Sommers, L.E. and Sutton, A.L. 1980. Use of waste materials as source of phosphorus, pp. 515-544. In: F.E. Khasawneh, E.C. Sample, and E.J. Kamprath (eds.), The Role of Phosphorus in Agriculture. American Society of Agronomy, Madison, WI.

Sommers, L. 1977. Chemical composition of sewage sludges and analysis of their potential use as fertilizers. J. Environ. Qual. 6:225-232.

Song, K.G., Choung, Y.K., Ahn, K. H., Cho, j., yun, H., (2003) Performance of membrane bioreactor system with sludge ozonation process for minimization of excess sludge production, Desalination 157, 353-359.

Song, L. J., Zhu, N. W., Yuan, H. P., Hong, Y. ve Ding, J. (2010) Enhancement of waste activated sludge aerobic digestion by electrochemical pre-treatment, Water Research, 44, 4371-4378.

Sönmez, O., Aydemir, S., Saygan, E. 2007. Kurşun ve kurşun biyoalınabilirliğinin belirlenmesi. HarranÜni. Ziraat Fakültesi Dergisi, 2007, 11 (3/4):1-8.

Speece, R.E. (1996) Anaerobic Biotechnology for Industrial Wastewaters. 3, 6, 36, Archae Press, USA.

Sponza D.T., Akdag, O.N. (2004) Impact of leachate recirculation and recirculation volume on stabilization of municipal solid wastes in simulated anaerobic bioreactors, Process Biochemistry 39, 2157–2165.

SPSS, 1999. SPSS 9 for Windows User's Guide, Copyright 1999 by SPSS Inc., SPSS, Chicago, IL.

Sommers, L.E. and Sutton, A.L. 1980. Use of waste materials as source of phosphorus, pp. 515-544. In: F.E. Khasawneh, E.C. Sample, and E.J. Kamprath (eds.), *The Role of Phosphorus in Agriculture*. American Society of Agronomy, Madison, WI.

Stehlik P., (2009) Contribution to advances in waste-to-energy Technologies. *Journal of Cleaner Production*, 17, 919–931.

Stelmach S. ve Wasielewski R., (2008) Co-combustion of dried sewage sludge and coal in a pulverized coal boiler, *Journal of Material Cycles Waste Management*, 10, 110–115.

Stratton, M.L., A.V. Barker and J.E. Rechcigl. (1995) Compost. In: Rechcigl, J.E. (Ed.), *Soil Amendments and Environmental Quality*. CRC Press, USA, 249-309.

Stuer-Lauridsen F., Birkved M., L.P., Hansen H.C.H., Luthoft B., Halling-Sorensen. Environmental risk assessment of human pharmaceuticals in Denmark after normal therapeutic use, *Chemosphere* 40, 783–793, 2000.

Su Kirliliği Kontrolü Yönetmeliği ve İdari Usuller Tebliği (1989), Resmi Gazete, 12.03.1989/20106, Çevre ve Orman Bakanlığı, Ankara.

Sun, D. D., Khor, S.L, Hay, C. T. and Leckie, J. O. (2007) Impact of prolonged sludge retention time on the performance of a submerged membrane bioreactor, *Desalination* 208, 101-112.

Sundin, A. M. (2008) Disintegration of sludge – a way of optimizing anaerobic digestion, 13th European Biosolids and Organic Resources Conference, Manchester.

Şahin, U., Angin, I. ve Kiziloglu, F.M. (2008) Effect of freezing and thawing processes on some physical properties of saline–sodic soils mixed with sewage sludge or fly ash, *Soil & Tillage Research* 99. 254–260.

Takachi, R., Inoue, M., Ishihara, J., Kurahashi, N., Iwasaki, M., Sasazuki, S., Iso, H., Tsubono, Y., ve Tsugane, S. (2007) Fruit and vegetable intake and risk of total cancer and cardiovascular disease, *American Journal of Epidemiology*, 167 (1), 59-70.

Tamrabet, L., H. Bouzerzour, M. Kribaa ve M. Makhlof. (2009) The effect of sewage sludge application on durum wheat (*Triticum durum*), *Int. J. Agric. Biol.*, 11, 741–745.

Tanaka, S., Kobayashi, T., Kamiyama, K, ve Bildan, M.L. (1997) Effects of thermochemical pre-treatment on anaerobic digestion of waste activated sludge, *Water Sci. Technol.*, 8, 209-215.

- Tanase, V., Dumitru, M., Vrinceanu, D.M. 2011. Evaluation of effects of composted sewage sludge on soil chemical properties. Scientific Papers, UASVM Bucharest, Series A, Vol. LIV, 2011, ISSN 1222-5339.
- Taşeli, B.K. (2007) The impact of the European landfill directive on waste management strategy and current legislation in Turkey's specially protected areas, Resources, Conservation and Recycling, 1, 52, 119-135.
- Taylor H. F. W., 1964, The Chemistry of Cements, ed. H.F.W. Taylor, Vol. 1, Academic Press, London and New York, p 460.
- Taylor H. F. W., Cement Chemistry, Academic Press, Londra, 1990, p 61, 78.
- Tchobanoglous G, Burton F.L., Stensel H.D., In: Jones EA (ed.) (2003) Wastewater Engineering Treatment and Reuse, Metcalf and Eddy Inc. McGraw-Hill, New York.
- Tehlikeli Atık Direktifi (91/689/EC), Council Directive of 12 December 1991 on Hazardous Waste.
- Tehlikeli Atıkların Kontrolü Yönetmeliği (2005), Resmi Gazete, 14.03.2005/27527, Çevre ve Orman Bakanlığı, Ankara.
- Tehlikeli Atıkların Yakılması Direktifi (94/67/EC), Council Directive of 16 December 1994 on the Incineration of Hazardous Waste.
- Tehlikesiz ve İnert Atıkların Geri Kazanımı Tebliği (2010), Resmi Gazete, 12.05.2010/27579, Çevre ve Orman Bakanlığı, Ankara.
- Terelak, H., Kabata-Pendias, G. and Piedruch, C. 2001. Regional variation in trace element content of cereals in Poland. Proc. 6th International Conference on the Biogeochemistry of Trace Elements, pp. 403. Guelph, Canada.
- Texier, P. (2008) Effect of acidification on sludge dewatering properties, Année, 78-83.
- Thipkhunthod P., Meeyoo V., Rangsunvigit P., Kitiyanan B., Siemanond K. and Rirksoomboon T. (2005), Predicting the heating value of sewage sludges in Thailand from proximate and ultimate analyses, Fuel, 84: 849–857.
- Thomas, E., Jaroslav, B. ve Lucie, H. (2009) Dewatering of thermally disintegrated sewage sludge, Chemical Engineering Transactions, Volume 18.
- Thomas, L., Jungschaffer, G. ve Sprossler, B. (1993) Improved sludge dewatering by enzymatic treatment, Water Sci. Technol., 28, 1, 189-192.

Tiehm, A., Nickel, K., Zellhorn, M., Neis U., (2001) Ultrasonic waste activated sludge disintegration for improving anaerobic stabilization, J. Water Res., 35, 8 123 - 130.

T.K.K.Y. 2001. Toprak Kirliliğinin Kontrolü Yönetmeliği 10.12.2001 Tarih ve 24609 Sayılı Resmi Gazete.

T.K.K.Y. 2005. Toprak Kirliliğinin Kontrolü Yönetmeliği 31.05.2005Tarih ve 25831 Sayılı Resmi Gazete.

Tlustos, P., Pavlikova, D., Balik, J., Szakova, J.ve Hanc, A. (2000) The availability of sewage sludge derived cadmium and nicel by crops planted on soils of different types, Roslinna Vyroba, 46(12): 555-561.

Takumura, M., Sekine, M., Yoshinari, M., Znad, H. T. & Kawase, Y. (2007) Photo-Fenton process for excess sludge disintegration, Process Biochemistry 42, 627–633.

Topaç, F.O. ve Başkaya, H.S.(2008) Eysel nitelikli arıtma çamurlarının bitki besin düzeylerinin değerlendirilmesinde azot formlarının önemi, Uludağ Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi, Cilt 13, Sayı 1, 2.

Toprak Kontrolü Ve Noktasal Kaynaklı Kirilenmiş Sahalara Dair Yönetmelik (2010), Resmi Gazete, 08.06.2010/27605, Çevre ve Orman Bakanlığı, Ankara.

Toprak Kontrolü Ve Noktasal Kaynaklı Kirilenmiş Sahalara Dair Yönetmelik (2010), Resmi Gazete, 08.06.2010/27605, Çevre ve Orman Bakanlığı, Ankara.

Toreci I., Kennedy K.J, Droste R.L. (2009) Evaluation of continuous mesophilic anaerobic sludge digestion after high temperature microwave pretreatment, Water Research, 43 (5), 1273-1284.

Toreci I., Kennedy K.J, Droste R.L. (2008) High temperature microwave treatment for enhancement of anaerobik sludge digestion, PhD. Thesis.

Tosun, O.ve Yurtman, N. 1973. Ekmeklik Buğdaylarda Verime Etkili Morfolojik ve Fizyolojik Özellikler. Ankara Üniveraitesi Ziraat Fakültesi Yıllığı, 23: 418-434.

Townsend, T. G., Miller, W. L., Lee, H. J., Earle, J. F. K. (1996) Acceleration of landfill stabilization using leachate recycle, Journal of Environmental Engineering-ASCE, 122(4), 263-268.

Tsadilas C.D., Matsi Theodora,Barbayiannis N. and Dimoyiannis D.2005 . Influence of Sewage Sludge Application on Soil Properties and the Distribution and Availability of Heavy Metal



Fraction, Soil Science Laboratory, Aristotelian University, Thessaloniki, Greece.pp, 2603-2618.

Tsugane, S. (2007) Fruit and Vegetable Intake and Risk of Total Cancer and Cardiovascular Disease, *American Journal of Epidemiology*, 167 (1): 59-70.

Türk Gıda Mvezuatı Kodeksi. 1999. Yayımlandığı R.Gazete : 17.02.1999-23614. Tebliğ No: 99/01.

Türker, M. (2006) Anaerobik Biyoteknoloji: Türkiye ve Dünya'daki Eğilimler. Anaerobik Arıtma Teknolojileri ve Moleküler Ekoloji Tanımlama Teknikleri Çalıştayı, 31.10.-02.11.2006. Ankara.

Türkmen, C., Karaca, A. and Arcak, S., 2001. Influence of sewage sludge application on heavy metal availability of soil and barley crop. *Soil Science Agrochemistry and Ecology*, Vol. 36, No: 4-6, Sofia.

Türkmen, Ö., Sensoy, S., Dursun, A. ve M.Turan (2004) sewage sludge as a substitute for mineral fertilization of spinach (*spinicia oleraceae l.*) at two growing periods, *Acta Agric. Scand., Sect.B, Soil and Plant Sci.* 54, 102-107.

UrciuoloM., SolimeneR., ChironeR., SalatinoP. (2012) Fluidized bed combustion and fragmentation of wet sewage sludge, *Experimental Thermal and Fluid Science*, 43, 97-104.

U.S. EPA (1988) Proposed Guidelines for Exposure-related Measurements 53 Federal Register, 48830, December 2, 1988.

U.S. EPA .1989. Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part A) Interim Final. Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, Washington, DC. EPA/540/1-897002.

US EPA. 1992. Technical Support Document for Land Application of Sewage Sludge, Document No. EPA-822/R0-93-001a.

U.S. EPA (1993) The Standards for the Use or Disposal of Sewage Sludge (Title 40 of the code of Federal Regulation [CRF], Part 503. Published in the Federal Register (58 FR 9248 to 9404)

US EPA .1993b. The Standards for the Use or Disposal of Sewage Sludge, Title 40 of the Code of Federal Regulations, Part 503.

U.S. EPA (1994) A Plain English Guide to the EPA Part 503 Biosolids Rule. U.S. Environmental Protection Agency Office of Wastewater Management, Washington, DC. EPA/832/R-93/003. September 1994.

U.S. EPA (1994b) Land Application of Sewage Sludge: A Guide for Land Appliers on the Requirement of the Federal Standards for the Use or Disposal of Sewage Sludge, 40 CFR Part 503. EPA/831-B-93-002b, Office of Enforcement and Compliance Assurance, Washington, D.C.

U.S. EPA (1994c) A Guide for Land Appliers on the Requirements of the Federal Standards for the Use or Disposal of Sewage Sludge, 40 CFR Part 503. U.S. Environmental Protection Agency Office of Enforcement and Compliance Assurance, Washington, DC 20460, EPA/831-B-93-002b. December 1994.

U.S. EPA (1995) A Guide to the Biosolids Risk Assessments for the EPA Part 503 Rule. EPA/8332/B-93/005, Office of Wastewater Management, Washington, DC, September 1995.

U.S. EPA (1996). PCBs: Cancer Dose-Response Assessment and Application to Environmental Mixtures. National Center for Environmental Assessment Office of Research and Development, U.S. EPA, Washington, DC. EPA/600/P-001F.

US EPA .1996a. Evaluation of Candidate Pollutants for the Round Two Sewage Sludge Regulation, Office of Wastewater Management.

US EPA .1996b. Soil Screening Guidance, EPA Tech. Background Document No. 9355.4-23.

US EPA .1996c. Technical Support Document for the Round Two Sewage Sludge Pollutants, Office of Water, EPA-822/R-96-003.

U.S. EPA (1999) Biosolids Generation, Use, and Disposal in the United States.

U.S. EPA (1999) Solid Waste and Emergency Response. 5306W. Biosolids, generation, use and disposal in the United States. United States Environmental Protection Agency, EPA 530-R-99-009.

U.S. EPA (1989) A Risk Assessment Guidance for Superfund, <http://www.epa.gov/oswer/riskassessment/ragsa>.

U.S. EPA (2000) Biosolids Technology Fact Sheet, Land Application of Biosolids, U.S. Environmental Protection Agency, Office of Water, Washington, DC. EPA-832-F-00-064. September 2000.

U.S. EPA “40 CFR Part 503” (2010), Standards for the Use or Disposal of Sewage Sludge, Protection of Environment, Chapter I, Environmental Protection Agency, Subchapter O, Sewage Sludge, November 4.

U.S. EPA.(2005) Guidelines for Carcinogen Risk Assessment, Washington, DC 20460, EPA/630/P-03-001F. March 2005.

U.S. EPA Pharmaceuticals and personal care Products in water, soil, sediment, and biosolids by HPLC/MS/MS, Office of Water, EPA-821-R-08-002, Method 1694, Washington, DC, 2007.

U.S. Salinity Laboratory Staff., (1954). Diagnosis and Improvement of Saline and Alkali Soils. Agri. Handbook No: 60, USDA.

U.S. Soil Survey Staff, 1951, Soil Survey Manuel. U.S. Dept. Agr. Handbook 18. U.S. Govt. Printing Office. Washington D.C. USA.

Ucisik, A. S. ve Henze, M. (2008) Biological hydrolysis and acidification of sludge under anaerobic conditions: the effect of sludge type and origin on the production and composition of volatile fatty acids, Water Research, 42, 3729-3738.

UNIDO (1992) Anaerobic Treatment, How to Staff Manufacturing Industries, File:z18, Austria.

USEPA, (1985a) Municipal wastewater sludge combustion technology, EPA/625/4-85/015.

USEPA, (1985b), Estimating sludge management costs, EPA/625/6-85/010, Water Engineering Research Laboratory Cincinnati, USA.

USEPA, (1985c). Technology assessment of Carver-Greenfield municipal sludge drying process, EPA-600/S2-84-200, Water Engineering Research Laboratory, Cincinnati, USA.

USEPA, (1987), Design manual; dewatering wastewater sludges, EPA/625/1-87/014, Water Engineering Research Laboratory Cincinnati, USA.

USEPA, (1994), Land Application of Biosolids. Process Design Manual U.S. EPA Cincinnati, Ohio, 1994.

U.S. EPA (1994c) A Guide for Land Appliers on the Requirements of the Federal Standards for the Use or Disposal of Sewage Sludge, 40 CFR Part 503. U.S. Environmental Protection Agency Office of Enforcement and Compliance Assurance, Washington, DC 20460, EPA/831-B-93-002b. December 1994.

U.S. EPA (1995) A Guide to the Biosolids Risk Assessments for the EPA Part 503 Rule. EPA/832/B-93/005, Office of Wastewater Management, Washington, DC, September 1995.

U.S. EPA (2000) Biosolids Technology Fact Sheet, Land Application of Biosolids, U.S. Environmental Protection Agency, Office of Water, Washington, DC. EPA-832-F-00-064. September 2000.

U.S. EPA.(2005) Guidelines for Carcinogen Risk Assessment, Washington, DC 20460, EPA/630/P-03-001F. March 2005.

USEPA, (2006). Biosolids technology fact sheet; Heat drying. <http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P10053EN.txt>

USEPA, (2011) Opportunities for Combined Heat and Power at Wastewater Treatment Facilities: Market Analysis and Lessons from the Field, USA.

USEPA, (2012) Combined Heat and Power A Clean Energy Solution, US Department of Energy, USA.

Uslu Otker M., Yediler A., Balcıoğlu Akmehmet I., (2008) Analysis and sorption behavior of flouroquinolones in solid matrices, *Water Air and Soil Pollution*, 190 (1-4), 55-63.

Uslu, M.O., Balcıoğlu Akmehmet I. (2008a) Ozonation of antibiotics in synthetic pharmaceutical, wastewater, *Fresenius Environmental Bulletin*, 17(11A), 1833-1838.

Uslu, M.O., Balcıoğlu Akmehmet I. (2008b) Ozonation of animal wastes containing oxytetracycline, *Ozone-Science & Engineering*, 30(4), 290-299.

Uslu, M.O., Balcıoğlu Akmehmet I. (2009a) Comparison of the ozonation and Fenton process performances for the treatment of antibiotic containing manure , *Science of the Total Environment*, 407(11), 3450-3458.

Uslu, M.O., Balcıoğlu Akmehmet I. (2009b) Simultaneous Removal of oxytetracycline and sulfamethazine antibacterials from animal waste by chemical oxidation processes, *Journal of Agricultural and Food Chemistry*, 57(23), 11284-11291.

- Usman, A.R.A., Kuzyakov, Y. and Stahr, K. 2004. Dynamics of organic C mineralization and the mobile fraction of heavy metals in a calcareous soil incubated with organic wastes. *Water, Air, and Soil Pollution* 158, 401–418. doi: 10.1023/B:WATE.0000044864.07418.8f.
- Uzun, P. ve Bilgili. U. 2011. Arıtma çamurlarının tarımda kullanım olanakları. *Uludağ üni. Ziraat fak. Dergisi*, 25:2, 135-146.
- Ünal, M., Karaca, A., Camcı Çetin, S., Çelik, A. 2011. İçme Suyu Tesisi Arıtma Çamurunun Arpa Zambağı (*Freesia spp.*) Bitkisi Gelişimi ve Bazı Toprak Özellikleri Üzerine Etkileri. *Selçuk Tarım ve Gıda Bilimleri Dergisi*, 25 (2), 46-56.
- Vaca, R., Lugo, J., Martinez, R., Esteller, M.V., Zavaleta, H. 2011. Effects of sewage sludge and sewage sludge compost amendment on soil properties and *Zea Mays L. Plants* (Heavy metals, quality and productivity). *Rev. Int. Contam. Ambie*, 27(4) 303-311.
- Valencia Vázquez, R. (2008) Enhanced stabilisation of municipal solid waste in bioreactor landfills. Ph. D. Thesis, WUR Wageningen UR.
- Valderrama C., Granados R., Cortina J.L., Gasol C.M., Guillem M., Josa A., (2013), Comparative LCS of sewage sludge valorisation as both fuel and raw material substitute in clinker production, *Journal of Cleaner Production*, in press.
- Valo, A., Carrère, H., Delgenès, J. P. (2004) Thermal, chemical and thermo-chemical pre-treatment of waste activated sludge for anaerobic digestion, *J. Chem. Technol. Biotechnol.* 79 (11), 1197–1203.
- Van Haandel A., Van Der Lubbe J., (2007) 'Handbook Biological Wastewater Treatment: design and optimisation of activated sludge systems' Quist Publishing, Leidschendam, Netherlands.
- Van de Velden M., Dewil R, Baeyens J., Josson L. ve Lanssens P., (2007) The distribution of heavy metals during fluidized bed combustion of sludge (FBSC), *Journal of Hazardous Materials*, 151, 96–102.
- Van Noordwijk, M., D. Schhonderbeek and M.J. Kooistra, (1993) Root-soil contact of grown winter wheat. *Geoderma* 56, 277-286.
- Vaxelaire, J. ve Puiggali, J. R. (2002) Analysis of the drying of residual sludge: From the experiment to the simulation of a belt dryer, *Drying Technology*, 20:4, 989 –1008.

- Vaxelaire, J., Bongiovanni, J. M., Mousques, P. ve Puiggali, J. R. (1999) Thermal drying of residual sludge, *Water Resources* 34:17, 4318-4323.
- Vera, M. A., Nickel, K., Neis, U. Ve Ritchie, J. (2005) Disintegration of sewage sludge for improved anaerobic biodegradation, *Proceeding kitabi, Conference on the Management of Residues Emanating from Water and Wastewater Treatment*, Johannesburg, Güney Afrika, 9-12 Ağustos 2005.
- Vergine, P., Menin, G., Canziani, R., Ficara, E., Fabiyi, M., Novak, R., Sandon, A., Bianchi, A., Bergna, G. (2007) Partial ozonation of activated sludge to reduce excess sludge production: evaluation of effects on biomass activity in a full scale demonstration test, *International Water Association Specialist Conference*, Moncton, Canada.
- Vesilind P.A. (1979) *Treatment and Disposal of Wastewater Sludges*. Ann Arbor Science Publishers, Inc. Michigan, USA.
- Vesilind P.A. (1994) The role of water in sludge dewatering, *Water Environment Research*, 66, 4-11.
- Vesilind, P.A and Spinosa, L. (2001) *Production and Regulations*, Ch 1 in *Sludge into Biosolid*. London: IWA.
- Viana M. M., Melchert M. B. M., Morais L. C., Buchler P. M., Dweck J. (2011) Sewage sludge coke estimation using thermal analysis, *Journal of Thermal Analysis and Calorimetry*, 106, 437-443.
- Vlyssides A.G., Karlis P.K. (2004) Thermal-alkaline solubilization of waste activated sludge as a pre-treatment stage for anaerobic digestion, *Bioresource Technology*, 91 (2), 201-206.
- Vranitzky, R., Lahnsteiner, J. (Eds) (2005) *Sewage sludge disintegration using ozone – a method of enhancing the anaerobic stabilization of sewage sludge*. VA TECH WABAH, R&D Process Engineering, Siemensstrasse 89, A-1211 Vienna, Austria.
- Valderrama C., Granados R., Cortina J.L., Gasol C.M., Guillem M., Josa A., (2013), Comparative LCS of sewage sludge valorisation as both fuel and raw material substitute in clinker production, *Journal of Cleaner Production*, in press.
- Wang L.K., Shammass N.K. ve Hung Y. (2009) *Advanced Biological Treatment Processes*, Humana Press.

- Wang, F., Wang, Y., Ji, M., (2005) mechanisms and kinetics models for ultrasonic waste activated sludge disintegration, *Journal of Hazardous Materials*, B123, 145–150.
- Wang L., Skjevrak G., Hustad J. E., Grønli M. G. (2012) Sintering characteristics of sewage sludge ashes at elevated temperatures, *Fuel Processing Technology*, 96, 88-97.
- Wang, L.K., Shammam, N.K., Evanylo, G. (2008) *Engineering and Management of Agricultural Land Application in Biosolids Engineering and Management* Ed. Lawrence K. Wang, Nazih K. Shammam, Yung-Tse Hung, Humana Press.
- Wang, J. Y., Stabnikova, O., Ivanov, V., Tay, S. T. L., ve Tay, J. H. (2003) Intensive aerobic bioconversion of sewage sludge and food waste into fertilizer, *Waste Management Research*, 21(5), 405–415.
- Wang, J., Zhao, Q., Jin, W. And Lin, J. (2008a) Mechanism on minimization of excess sludge in oxic-settling-anaerobic (OSA) process, *Front. Environ.Sci.Engin.China* 2(1), 36-43.
- Wang, X., Chen, T., Ge, Y. ve Jia, Y. (2008b) Studies on land application of sewage sludge and its limiting factors, *Journal of Hazardous Materials* 160, 554–558.
- Wang, H., Brown, S.L., Magesan, G.N., Slade, A.H., Quintern, M., Clinton, P.W. ve Payn, T.W. (2008c). Technological options for the management of biosolids. *Enve. Sci. Pollution Research*, 15, 308-317.
- Wang, Q., Kuninobu, M., Kokimoto, K., Ogawa, H. I., Kato, Y., (1999) Upgrading of anaerobic digestion of waste activated sludge by ultrasonic pretreatment, *Bioresource Technol.*, 68, 309 – 313.
- Wang, Z., Wu, Z., Yu, G., Liu, J., Zhou, Z., (2006) Relationship between sludge characteristics and membrane flux determination in submerged membrane bioreactors, *Journal of Membrane Science*, 284, 87-94.
- Warith M. (2003) Solid waste management : new trends in landfill design, *Emirates Journal for Engineering Research*, 8 (1), 61-70.
- Warith M., Li X. (2005) Bioreactor landfills: State-of-the-Art Review, *Emirates Journal for Engineering Research*, 10 (1), 1-14.
- Warith, M. (2001) Bioreactor landfills: experimental and field results, *Waste Management*, 7-17.
- Wawrzynczyk, J., Dey, E. S., Norrlov, O., Jansen, J. I. C. (2003) Alternative method for sludge

dge reduction using commercial enzymes. In: Aqua Enviro Technology Transfer: Eighth CLWEM/Aqua Enviro European Biosolids and Organic Residuals Conference: Wakefield West Yorkshire UK, pp. 1–5.

Wawrzynczyk, J., Recktenwald, M., Norrlöw, O. ve Sz wajcer, D. E. (2007) Solubilisation of sludge by combined chemical and enzymatic treatment, *African Journal of Biotechnology*, 17, 6, 1994-1999.

Weber, J., Karczewska, A., Drozd, J., Licznar, M., Licznar, S., Jamroz, E. and Kocowicz, A. 2007. Agricultural and Ecological Aspects of a Sandy Soil as Affected by the Application of Municipal Solid Waste Composts. *Soil Biol. Biochem*, 39, 1294-1302.

Weber, R., Nagai, K., Nishino, J., Shiraishi, H., Ishida, M., Takasuga, T., Konno, K. Ve Hiraoka, M. (2002) Effects of selected metal oxides on the dechlorination and destruction of PCDD and PCDF, *Chemosphere*, 46, 1247–1253.

WEB1, 2012. Energy efficient, solar sludge drying for large treatment facilities,

<http://www.parkson.com/products/thermo-system>.

WEF (2004) Thermal Drying of Wastewater Solids, Water Environment Federation, Residuals and Biosolids Committee, Bioenergy Technology Subcommittee.

Weemaes, M., & Verstraete, W. (2001) In L. Spinosa, & A. Vesilind (Eds.), *Sludge into biosolids: Processing, disposal, utilization* (pp. 365–383) London: IWA Publishing.

Weemaes, M., Grootaerd, H., Simoens, F., Huysmans, A., Verstraete, W. (2000) Ozonation of sewage sludge prior to anaerobic digestion, *Water Science & Technology* 42 (9), 175 – 178.

Wei, Y., Houten, R. T. V., Borger, A. R., Eikelboom, D. H., fan, Y., (2003) Minimization of excess sludge production for biological wastewater treatment, *Water Research* 37, 4453-4467.

Wei, Y., ve Liu, J., (2006) Sludge reduction with a novel combined worm-reactor, *Hydrobiologia*, 564, 213–222.

Werle S., ve Wilk R. K. (2010) A review of methods for the thermal utilization of sewage sludge: The Polish perspective, *Renewable Energy*, 35, 1914–1919.

Werther, J. ve Ogada, T. (1999) Sewage sludge combustion, *Prog. Energ. Combust.* 25, 55–116.

White, C.S., Lotfin, S.R. and Aguilar, R. 1997. Application of biosolids to degraded semiarid rangeland. Nine year responses. *J. of Environ. Qual.*, 26: 1663-1671.



- Whiteley, C.G., Heron, P., Pletschke, B., Rose, P.D., Tshivhunge, S., Van Jaarsveld, F.P., Whittington-Jones, K., (2002) The enzymology of sludge solubilisation utilising sulphate reducing systems: properties of protease and phosphatases, *Enzyme Microb. Technol.* 31 (4), 419–424.
- WHO (2004) Public Health Monitoring of the Metro Manila Air Quality Improvement Sector Development Program, March 2004,15.
- Wijekoon, K.C., Visvanathan, C., Abeynayaka, A., (2010) Effect of organic loading rate on VFA production, organic matter removal and microbial activity of a two-stage thermophilic anaerobic membrane bioreactor, *Biosource Technology*, 102, 5353-5360.
- Williford, C., Chen, W.Y., Shammass, N.K., Wang, L.K. (2008) Lime Stabilization in Biosolids Engineering and Management Ed. Lawrence K. Wang, Nazih K. Shammass, Yung-Tse Hung, Humana Press.
- Wilson, C. A., Novak, J. T. (2009) Hydrolysis of macromolecular components of primary and secondary wastewater sludge by thermal hydrolytic pretreatment, *Water Res.* 43(18), 4489-4498.
- Winter, A., (2002) Minimisation of costs by using disintegration at a full-scale anaerobic digestion plant, *Water Science and Technology*, 46, 4-5, 405-412.
- Witherspoon, J.R., Adams, G., Cain, W., Cometto-Muniz, E., Forbes, B., Hentz, L., Novack, J.T., Higgins, M., Murthy, S., McEwen, D., Ong, H.T., Daigger, G.T. (2004) *Water Science & Technology* Vol 50 No 4 9–16 © IWA Publishing.
- Wojciechowska E., (2005) Application of microwaves for sewage sludge conditioning, *Water Research* 39 (19), pp. 4749–4754.
- Wong, J.W.C., Fang, Li K., Su, M., 2001. Toxicity evaluation of sewage sludges in Hong Kong. *Environ. Intern.* 27 (5), 373–380.
- Wong J.W.C. ve Zhou L.X. (2001) Effect of dissolved organic matter from sludge and sludge compost on soil copper sorption, *Journal of Environmental Quality*, 30: 878-883.
- Wong, J. W. ve Su, D. C. (1997) The growth of *Agropyron elongatum* in an artificial soil mix from coal fly ash and sewage sludge, *Bioresource Technology*, 59(1),57–62.
- Wzorek, M. (2012). Characterisation of the Properties of Alternative Fuels Containing Sewage Sludge. *Fuel Processing Technology*, 104, 80-89.

Wzorek, M., Koziol, M., & Sciarski, W. (2010). Emission Characteristics of Granulated Fuel Produced from Sewage Sludge and Coal Slime. *J. Air & Waste Manage. Assoc.*, 60, 1487-1493.

[www.kemwater.com](http://www.kemwater.com)

[www.lysatec.com/index\\_c.php?&jist=6701&lang=en&cont=p&ident=29](http://www.lysatec.com/index_c.php?&jist=6701&lang=en&cont=p&ident=29)

[www.rwzi.nl/stowa](http://www.rwzi.nl/stowa)

Xiao H., Ma X, ve Lai Z.(2009) Isoconversional kinetic analysis of co-combustion of sewage sludge with straw and coal, *Applied Energy*, 86,1741–1745.

Xiao, B., Liu, J. (2006) Study on treatment of excess sludge under alkaline condition (Chinese), *Environ. Sci.* 27, 319–323.

Xie, B., Liu, H., Yan, Y. (2009) Improvement of the activity of anaerobic sludge by low-intensity ultrasound, *Journal of Environmental Management* 90, 260-264.

Xie, R., Xing, Y., Ghani, Y. A., Ooi, K. E. ve Ng, S. W. (2007) Full-scale demonstration of an ultrasonic disintegration technology in enhancing anaerobic digestion of mixed primary and thickened secondary sewage sludge, *Journal of Environmental Engineering and Science*, 6, 5, 533-541.

Xu, H., He, P., Shao, L., (2010) Effect of ultrasonic pretreatment on anaerobic digestion and its sludge dewaterability, *Journal of Environmental Sciences*, 23(9), 1472-1478.

Xu W., Zhang G., Li X., Zou S., Li P., Huand Z., Li J. (2007) Occurrence and elimination of antibiotics at four sewage treatment plants in the Pearl River Delta (PRD), South China. *Water Resarch*, 41, 4526-4534.

Xu, G., Chen, S., Shi, J., Wang, S. ve Zhu, G (2010) Combination treatment of ultrasound and ozone for improving solubilization and anaerobic biodegradability of waste activated sludge, *Journal of Hazardous Materials*, 180, 340-346.

Xue, Y., Liu, J., Yue, D., Zhang, Y., Li, R., Liu, J., (2012) Effect of landfill conditions on the characteristics of the production and stabilization of municipal solid waste landfill, *Journal of Tsinghua University Science and Technology*, 52, 216-222.

Y. Yu, W.I. Chan, P.H. Liao, K.V. Lo. (2010) Disinfection and solubilization of sewage sludge using the microwave enhanced advanced oxidation process, *Journal of Hazardous Materials*, 181 (1-3), 1143-1147.

Yalap, K.S., Balcıođlu Akmehmet I. (2009) Effects of Inorganic Anions and Humic Acid on the Photocatalytic and Ozone Oxidation of Oxytetracycline in Aqueous Solution, *Journal of Advanced Oxidation Technologies*, 12(1), 134-143.

Yalçın, G. , Yavuz, R., Yılmaz, M., Taşpınar, K. ve Ateş, Ö. 2011. Evaluation of Sewage Sludge on Agricultural Lands. *Journal of Engineering and Natural Sciences*, Sigma 3, 156-164.

Yalçın, G., Yavuz, R., Taşpınar, K., Ateş, Ö. ve Yılmaz, M. (2009) Arıtma Çamurunun Buğday Verimine, Topraktaki Ve Bitkideki Potansiyel Toksik Element Kapsamına Etkisi. *Ulusal Katı Atık Yönetimi Kongresi*, 27-29 Mayıs 2009 Eskişehir.

Yamada, M., Waki, I., Sakairi, M., Sakamoto, M. ve Imai, T. (2004) Real-time monitored decrease of trichlorophenol as a dioxin surrogate in flue gas using iron oxide catalyst, *Chemosphere* 54, 1475–1480.

Yamahata, Y. ve Izawa, H. (1985) Experimental study on application of paddle dryers for sludge cake drying. *Proceedings of the 4th International Drying Symposium, IDS'84, Kyoto*, 719–724.

Yamamoto, K. (2001) Membrane bioreactor: an advanced wastewater treatment/reclamation technology and its function in excess-sludge minimization, *Advances in Water and Wastewater Treatment Technology*, 229-237.

Yaman, K. (2009a) Kentsel arıtma çamurunun tarımda kullanımı konusundaki Türkiye, AB ve ABD yasal düzenlemelerin karşılaştırmalı analizi. *Katı Atık ve Çevre Dergisi*, Sayı 75, 18-26. (Katı Atık Yönetimi Kongresi, 27-29 Mayıs 2009 Eskişehir)

Yaman, K. (2009b) Arpa üretiminde kentse arıtma çamuru kullanımının ekonomik sonuçları: Ankara ili örneđi. II. Ulusal arıtma çamurları sempozyumu, 04-06 Kasım 2009, İzmir, 137-143.

Yaman, K., Olhan, E. 2011. Arıtma Çamuru Kullanımının Buğdayın Verim, Fiziki Girdi ve Maliyetleri Üzerindeki Etkisi. *Tarım Bilimleri Dergisi – Journal of Agricultural Sciences*, 17, 157-166.

Yan S.T., Chu L.B., Xing X.H., Yu A.F., Sun X.L., Jurcik B. (2009) Analysis of the mechanism of sludge ozonation by a combination of biological and chemical approaches, *Water Research*, 43, 195-203.

Yan, Y., Feng, L., Zhang, C., Zhu, H. ve Zhou, Q. (2010) Effect of ultrasonic specific energy on waste activated sludge solubilization and enzyme activity, *African Journal of Biotechnology*, 9, 12, 1776-1782.

Yanfen, L. ve Xiaoqian, M. (2010). Thermogravimetric analysis of the co-combustion of coal and paper mill sludge, *Applied Energy*, 87, 11, 3526-3532.

Yang Q., Luo K., Li X., Wang D., Zheng W., Zeng G., Liu J., (2010) Enhanced efficiency of biological excess sludge hydrolysis under anaerobic digestion by additional enzymes, *Bioresour. Technol.* 101 (9), 2924-2930.

Yang, X., Wang, X., Wang, L. (2010) Transferring of components and energy output in industrial sewage sludge disposal by thermal pretreatment and two-phase anaerobic process, *Bioresour. Technol.* 101 (8), 2580–2584.

Yang, X-F., Xie, M-L. And Liu, Y. (2003) Metabolic uncouplers reduce excess sludge production in an activated sludge process, *Process Biochemistry* 38, 1373-1377.

Yao, H. ve Naruse, I. (2005) Combustion characteristics of dried sewage sludge and control of trace-metal emission, *Energy&Fuels* 19, 2298-2303.

Yasui H., Shibata M. (1994) An innovative approach to reduce excess sludge production in the activated sludge process, *Water Science and Technology*, 30, 9, 11-20.

Yasui, H., Nakamura, K., Sakuma, S., Iwasaki, M., Sakai, Y., (1996) A full-scale operation of a novel activated sludge process without excess sludge production, 18th IAWQ Biennial International Conference: Water Quality International' 96, Singapore, 23-28 June 1996.

Ye, F. and Li, Y. (2010) Oxidation-settling-anoxic (OSA) process combined with 3,3',4,4'-tetrachlorosalicylanilide (TCS) to reduce excess sludge production in the activated sludge system, *Biochemical Engineering Journal* 49, 229-234.

Ye, F.X., Shen, D.S. and Li, Y. (2003) Reduction in excess sludge production by addition of chemical uncouplers in activated sludge batch cultures, *Journal of Applied Microbiology* 95, 781-786.

Yenilenebilir Kaynaklardan Elde Edilen Enerjinin Kullanılmasına İlişkin Direktif (2009/28/EC), Directive of the European Parliament and of the Council of 23 April 2009 on the Promotion of the Use of Energy from Renewable Sources and Amending and Subsequently Repealing Directives 2001/77/EC and 2003/30/EC.

Yie, S. M., Pagilla, S. R., Seo, Y., Mills, W. J. ve Holsen T. M. (2008) Emissions of polychlorinated biphenyls (PCBs) from sludge drying beds to the atmosphere in Chicago. *Chemosphere* 71, 1028–1034.

- Yin, J., Zhang, L. ve Liu, L. (2008) Mesophilic two-phase anaerobic digestion of excess sludge pretreated by ultrasound and lime, the 2nd International Conference on Bioinformatics and Biomedical Engineering, 3347-3350, Shanghai.
- Yiying, J., Huan, L., Bux, M. R., Zhiyu, W., Yongfeng, N. (2009) Combined alkaline and ultrasonic pretreatment of sludge before aerobic digestion, *Journal of Environmental Sciences* 21, 279–284.
- Yongde, L., Jun, L. ve Jihong, Z. (2009) Factors Analysis on Ultrasonic Sludge Reduction in Continuous Flow System, 3rd International Conference on Bioinformatics and Biomedical Engineering.
- Yoon, S-H., Kim, H-S. and Yeom, I-T. (2004) The optimum operational condition of membrane bioreactor (MBR): cost estimation of aeration and sludge treatment, *Water Research* 38, 37-46.
- Yoshio S., Tetuso F., Hidenari Y., Masahide S., (1997) An activated sludge process without excess sludge production, *Water Science and Technology*, 36, 11, 163–170.
- Young P. K., Ahn K-H., Maeng S. K; Hwang J. H., Kwon J.H. (2003) Feasibility of Sludge Ozonation for Stabilization and Conditioning, *Science & Engineering*, 25 (1), 73 -80.
- Yu, T., Lin, A.Y., Lateef, S. K., Lin, C., Yang, P., (2009) Removal of antibiotics and non-steroidal anti-inflammatory drugs by extended sludge age biological process, *Chemosphere*, 77, 175-181.
- Yu, Y., Chan, W. I., Liao, P. H. ve Lo, K. V. (2010) Disinfection and solubilization of sewage sludge using the microwave enhanced advanced oxidation process, *Journal of Hazardous Materials*, 181, 1143-1147.
- Yuan, G., Lavkulich, L. M. 1997. Sorption behavior of Cu, Zn and Cd in response to stimulated changes in soil properties. *Commun. Soil Sci. Plant Anal.* 28-571-587.
- Yürür, N., Tosun, O., Eser, D. ve Geçit, H.H., 1981. Buğdayda anasap verimiyle bazı karakterler arasındaki ilişkiler. *Ankara Üniversitesi Ziraat Fakültesi Yayınları*: 755.
- Zabanitou A. ve Theofilou C., (2008) Green energy at cement kiln in Cyprus-Use of sewage sludge as a conventional fuel substitute, *Renewable and Sustainable Energy Reviews*, 12, 531-541.

- Zabranska, J., Dohanyos, M., Jenicek, P., Kutil, J. (2006) Disintegration of excess activated sludge—evaluation and experience of full-scale applications, *Water Sci. Technol.* 53(12), 229–236.
- Zawieja, I., Wolny, L., Wolski, P. (2008). Influence of excessive sludge conditioning on the efficiency of anaerobic stabilization process and biogas generation. *Desalination*, 222, 374–381.
- Zhang G., Yang J., Liu H., Zhang J. (2009) Sludge ozonation: Disintegration, supernatant changes and mechanisms, *Bioresource Technology*, 100 (3), 1505-1509.
- Zhang H., Banaszak J.E., Parameswaran P., Alder J., Krajmalnik-Brown R., Rittmann B.E. , (2009) Focused-Pulsed sludge pre-treatment increases the bacterial diversity and relative abundance of acetoclastic methanogens in a full-scale anaerobic digester.
- Zhang, D., Yinguang, C., Zhao, Y. ve Zhu, X. (2010) New sludge pretreatment method to improve methane production in waste activated sludge digestion, *Environmental Science and Technology*, 44, 4802-4808.
- Zhang, G., He, J., Zhang, P. ve Zhang, J. (2009) Ultrasonic reduction of excess sludge from activated sludge system II: Urban Sewage Treatment, *Journal of Hazardous Materials*, 164, 1105-1109.
- Zhang, G., Yang, J., Liu, H., Zhang, J. (2009) Sludge ozonation: Disintegration, supernatant changes and mechanisms, *Bioresource Technology* 100, 1505–1509.
- Zhang, G., Zhang, P., Yang, J. ve Chen, Y. (2007) Ultrasonic reduction of excess sludge from the activated sludge system, *Journal of Hazardous Materials*, 145, 515-519.
- Zhang, G., Zhang, P., Yang, J., Liu, H, (2008) Energy-efficient sludge sonication: power and sludge characteristics, *Bioresource Technol*, 99, 9029–9031.
- Zhang, H.(2002) *Biochemistry Tutorial*, third ed. Sichuan University Publishing Company, Chengdu, China, pp. 22–23, 33–34, 103,124.
- Zhang, P., Zhang, G., Wang, W., (2006) Ultrasonic treatment of biological sludge: floc disintegration, cell lysis and inactivation, *Bioresource Technology*, In Press, Corrected Prof.
- Zhao, L., Gu, W.-M., He, P.-J. ve Shao, L.-M. (2010) Effect of air-flow rate and turning frequency on bio-drying of dewatered sludge, *Water Research*.

Zhao, Y. X., Yin, J., Yu, H. L., Han, N. ve Tian, F. J. (2007) Observations on ozone treatment of excess sludge, *Water Science and Technology*, 9, 56, 167-175.

Zheng J., Kennedy K. J., Eskicioglu C., (2009) Effect of low temperature microwave pretreatment on characteristics and mesophilic digestion of primary sludge, *Environmental Technology*, 4, 30, 319–327.

Zhou, Q. (2009) Effect of alkaline pre-treatment on waste activated sludge solubilization and anaerobic digestion, 3rd International Conference on Bioinformatics and Biomedical Engineering, ICBBE 2009, Beijing.

Zhu, Hong, Chen, J., (2005) Study of hydrolysis and acidification process to minimize excess biomass production, *Journal of Hazardous Materials*, B127, 221-227.

Zufiaurre, R., Olivar, A., Chamorro, P., Nerin, C., ve Callizo, A. (1998) Speciation of metals in sewage sludge for agricultural uses, *Analyst*, 123, 255-259.

<http://www.izmir.bel.tr/projeler>

Zsabokorszky F. (2012). Present and future sewage sludge treatment in hungary and energetic utilisation of sewage sludge. ECSM, 3rd European Conference on Sludge Management. 6-7 Eylül 2012, Leon, İspanya.

