References

Adikane H V, Dange M N and Selvakumari K. 2006
Optimization of anaerobically digested distillery molasses spent wash
decolourization using soil as inoculum in the absence of additional carbon and
nitrogen source
Bioresource Technology 97: 2131-2135

Agrawal C S and Pandey G S. 1994
Soil pollution by spentwash discharge: Depletion of manganese (II) and
impairment of its oxidation
Journal of Environmental Biology 15: 49-53

Aguilar C N, Augur C, Favela-Torres E and Viniegra-Gonzalez G. 2001
Production of tannase by *Aspergillus niger* Aa-20 in submerged and solid-state
fermentation: influence of glucose and tannic acid
Journal of Industrial Microbiology and Biotechnology 26: 296-302

Ahammed S and Prema P. 2002
Influence of media nutrients on synthesis of lignin peroxidase from
*Aspergillus* sp.
Applied Biochemistry and Biotechnology 103: 327-336

A I D A. 2007
All India Distillers Association

Aikat K and Bhattacharyya B C. 2000
Protease extraction in solid state fermentation of wheat bran by a local strain
of *Rhizopus oryzae* and growth studies by the soft gel technique
Process Biochemistry 35: 907-914

Production of tannase by *Aspergillus niger* HA37 growing on tannic acid and
olive mill waste waters
World Journal of Microbiology and Biotechnology 21: 609-614

Aitken M D. 1993
Waste treatment applications of enzymes: opportunities and obstacles
Chemical Engineering Journal 52: B49-B58

Evaluation of performance, acetoclastic methanogenic activity and archaeal
composition of full-scale UASB reactors treating alcohol distillery wastewaters
Process Biochemistry 41: 28-35
References

Akunna J C and Clark M. 2000
Performance of a granular-bed anaerobic baffled reactor (GRABBR) treating whisky distillery wastewater
Bioresource Technology 74: 257-261

Alexander M. 1981
Biodegradation of chemicals of environmental concern
Science 211: 132-139

Ozone treatment of distillery slop waste
Water Science and Technology 42: 193-198

Allison S D, Hanson C A and Treseder K K. 2007
Nitrogen fertilization reduces diversity and alters community structure of active fungi in boreal ecosystems
Soil Biology and Biochemistry 39: 1878-1887

Decolorization of semisolid olive residues of “alperujo” during the solid state fermentation by Phanerochaete chrysosporium, Trametes versicolor, Pycnoporus cinnabarinus and Aspergillus niger
Biochemical Engineering Journal 35: 120-125

Angayarkanni J, Palaniswamy M and Swaminathan K. 2003
Biotreatment of distillery effluent using Aspergillus niveus
Bulletin of Environment Contamination and Toxicology 70: 268-277

Anselmo A M, Mateus M, Cabral J M S and Novais J M. 1985
Degradation of phenol by immobilized cells of Fusarium flocciferum
Biotechnology Letters 7: 889-894

Anto H, Trivedi U C and Patel K C. 2006
Glucoamylase production by solid-state fermentation using rice flake manufacturing waste products as substrate
Bioresource Technology 97: 1161-1166

A P H A. 1995
Standard methods for the examination of water and wastewater
19th edn. American Public Health Association
Washington, DC. ISBN 0875532233

Arroyo M, Aldred D and Magan N. 2003
Impact of environmental factors and preservatives on growth and ochratoxin A production by Aspergillus ochraceus in wheat-based media
Aspects of Applied Biology 68: 169-174

Treatment of colour and biochemical oxygen demand of anaerobically treated distillery effluent by aerobic bacterial strains
Indian Journal of Environment Protection 21: 1070-1072

Atagana H I, Haynes R J and Wallis F M. 2006

TERI University-Ph.D. Thesis, 2007
Fungal bioremediation of creosote-contaminated soil: a laboratory scale bioremediation study using indigenous soil fungi
*Water Air and Soil Pollution* **172**: 201-219

Athanasopoulos N. 1987
Anaerobic treatment of beet molasses alcoholic fermentation wastewater in a downflow filter
*Resources and Conservation* **15**: 147-150

Atkin O K. 1996
Reassessing the nitrogen relations of arctic plants: a mini-review
*Plant Cell Environment* **19**: 695-704

Azaz A D. 2003
Isolation and identification of soilborne fungi in fields irrigated by GAP in Harran plain using two isolation methods
*Turkish Journal of Botany* **27**: 83-92

Bajpai P, Mehna A and Bajpai P K. 1993
Decolourization of kraft Bleach Plant effluent with the white rot fungus *Trametes versicolour*
*Process Biochemistry* **28**: 377-384

Baldrian P, Gabriel J and Nerud F. 1996
Effect of cadmium on the ligninolytic activity of *Stereum hirsutum* and *Phanerochaete chrysosporium*
*Folia Microbiologica* **41**: 363-367

Banat I M, Nigam P, Singh D and Marchant R. 1996
Microbial decolorization of textile-dye containing effluents: a review
*Bioresource Technology* **58**: 217-227

Barajas-Aceves M, Hassan M, Tinoco R and Vazquez-Duhalt R. 2002
Effect of pollutants on the ergosterol content as indicator of fungal biomass
*Journal of Microbiological Methods* **50**: 227-236

Plant species and nitrogen effects on soil biological properties of temperate upland grasslands
*Functional Ecology* **13**: 650-660

Barr D P and Aust S D. 1994
Pollutant degradation by white rot fungi
*Reviews of Environmental Contamination and Toxicology* **138**: 49-72

Batty L C and Younger P L. 2004
Growth of *Phragmites australis* (Cav.) Trin ex. Steudel in mine water treatment wetlands: effects of metal and nutrient uptake
*Environmental Pollution* **132**: 85-93

Treatment of high strength distillery wastewater (cherry stillage) by integrated aerobic biological oxidation and ozonation

TERI University-Ph.D. Thesis, 2007
References

*Biotechnology Progress* **17**: 462-467

Beltran F J, García-Araya J F and Alvarez P M. 1999a
**Wine distillery wastewater degradation 1. Oxidative treatment using ozone and its effect on the wastewater biodegradability**
*Journal of Agriculture and Food Chemistry* **47**: 3911-3918

Beltran F J, González M and González J F. 1997a
**Industrial wastewater advanced oxidation. Part 1. UV radiation in the presence and absence of hydrogen peroxide**
*Water Research* **31**: 2405-2414

Beltran F J, González M and González J F. 1997b
**Industrial wastewater advanced oxidation. Part 2. Ozone combined with hydrogen peroxide or UV radiation**
*Water Research* **31**: 2415-2428

Beltran F J, García-Araya J F and Alvarez P M. 1999b
**Wine distillery wastewater degradation 2. Improvement of aerobic biodegradation by means of an integrated chemical (ozone)-biological treatment**
*Journal of Agriculture and Food Chemistry* **47**: 3919-3924

**Simultaneous photodegradation and ozonation plus UV radiation of phenolic acids- Major pollutants in agro-industrial wastewaters**
*Journal of Chemical Technology and Biotechnology* **70**: 253-260

**Kinetics of ozonation and aerobic biodegradation of wine Vinasses in discontinuous and continuous processes**
*Journal of Hazardous Materials* **101**: 203-218

**Decolourization of wastewater from an alcoholic fermentation process with Trametes versicolor**
*Bioresource Technology* **61**: 33-37

Berg C. 2004
**World fuel ethanol analysis and outlook**

**Decolourization of molasses wastewater using activated carbon prepared from cane bagasse**
*Carbon* **35**: 1217-1221

Bhat T K, Makkar H P S and Singh B. 1997
**Preliminary studies on tannin degradation by Aspergillus niger van Tieghem MTCC 2425**
*Letters in Applied Microbiology* **25**: 22-23


TERI University-Ph.D. Thesis, 2007
References

Treatment of a molasses based distillery effluent in a constructed wetland in central India
*Water Science and Technology* **44**: 441-448

Blondeau R. 1989
*Biodegradation of natural and synthetic humic acids by the white rot fungus Phanerochaete chrysosporium*  
*Applied and Environmental Microbiology* **55**: 1282-1285

Blonskaja V, Menert A and Vilu R. 2003  
**Use of two-stage anaerobic treatment for distillery waste**  
*Advances in Environmental Research* **7**: 671-678

**Decolorization of synthetic dyes by solid state cultures of Lentinula (Lentinus) edodes producing manganese peroxidases as the main ligninolytic enzyme**  
*Bioresource Technology* **94**: 107-112

Boopathy R and Tilche A. 1991  
**Anaerobic digestion of high strength molasses wastewater using hybrid anaerobic baffled reactor**  
*Water Research* **25**: 785-790

Bories A and Ranyal J. 1988  
**Anaerobic digestion of high-strength distillery wastewater (cane molasses stillage) in a fixed-film reactor**  
*Biological Wastes* **23**: 251-267

Borja R, Martin A, Luque M and Duran M M. 1993  
**Enhancement of the anaerobic digestion of wine distillery wastewater by the removal of phenolics inhibitors**  
*Bioresource Technology* **45**: 99-104

Borrero M A V, Pereira J T V and Miranda E E. 2003  
**An environmental management method for sugar cane alcohol production in Brazil**  
*Biomass and Bioenergy* **25**: 287-299

Brancato F P and Golding N S. 1953  
**The diameter of the mold colony as a reliable measure of growth**  
*Mycologia* **45**: 848-864

Brix H. 1994  
**Functions of macrophytes in constructed wetlands**  
*Water Science and Technology* **29**: 71-78

**Production of wood decay enzymes, loss of mass, and lignin solubilization in wood by diverse tropical freshwater fungi**  
*Microbial Ecology* **48**: 331-337

Bumpus J A. 2003

TERI University-Ph.D. Thesis, 2007
Biodegradation of azo dyes by fungi
In: Fungal biotechnology in agricultural, food, and environmental applications. Arora D K (ed.) pp. 431-442
Marcel Dekker, Inc. New York

Buswell J A and Odier E. 1987
Lignin biodegradation
CRC Critical Reviews in Biotechnology 6: 1-60

Lignocellulolytic enzyme profiles of edible mushroom fungi
World Journal of Microbiology and Biotechnology 12: 537-542

Cabaleiro D R, Rodríguez-Couto S, Sanromán A and Longo M A. 2002
Comparison between the protease production ability of ligninolytic fungi cultivated in solid state media
Process Biochemistry 37: 1017-1023

Constructed wetland systems vegetated with different plants applied to the treatment of tannery wastewater
Water Research 41: 1790-1798

Cammerer B, Jalyschkov V and Kroh I W. 2002
Carbohydrate structures as part of the melanoidins skeleton
International Congress series 1245: 269-273

Chairattanamanokorn P, Imai T, Kondo R, Sekine M, Higuchi T and Ukita M. 2005
Decolourization of alcohol distillery wastewater by thermotolerant white rot fungi
Applied Biochemistry and Microbiology 41: 583-588

Chandra R, Yadav S, Bharagva R N and Murthy R C. 2007
Bacterial pretreatment enhances removal of heavy metals during treatment of post-methanated distillery effluent by Typha angustata L.

Chandra S, Joshi H C, Pathak H, Jain M C and Kalra N. 2002
Effect of potassium salts and distillery effluent on carbon mineralization in soil
Bioresource Technology 83: 255-257

Charcosset J Y and Chauvet E. 2001
Effect of culture conditions on ergosterol as an indicator of biomass in the aquatic hyphomycetes
Applied and Environmental Microbiology 67: 2051-2055

Chaudhari P K, Mishra I M and Chand S. 2007
Decolourization and removal of chemical oxygen demand (COD) with energy recovery: Treatment of biodigester effluent of a molasses-based alcohol distillery using inorganic coagulants
Colloids and Surfaces A: Physicochemical and Engineering Aspects 296: 238-247

TERI University-Ph.D. Thesis, 2007
Chaudhari P, Mishra I M and Chand S. 2008
Effluent treatment for alcohol distillery: Catalytic thermal pretreatment (catalytic thermolysis) with energy recovery
Chemical Engineering Journal **136**: 655-663

Spent oyster mushroom substrate performs better than many mushroom mycelia in removing the biocide pentachlorophenol
Mycological Research **102**: 1553-1562

Bioremediation of melanoidins containing digested spent wash from cane-molasses distillery with white rot fungus, *Coriolus versicolour*
Indian Journal of Microbiology **44**: 197-200

Biodegradation of potato slops from a rural distillery by thermophilic aerobic bacteria
Bioresource Technology **85**: 57-61

Ciftci T and Ozturk I. 1995
Nine years of full-scale anaerobic-aerobic treatment experiences with fermentation industry effluents
Water Science and Technology **32**: 131-139

Coca M, Garcia M T, González G, Peña M and García J A. 2004
Study of coloured components formed in sugar beet processing
Food Chemistry **86**: 421-433

Coca M, Peña M and González G. 2005a
Chemical oxidation proceses for decolorization of brown-colored molasses wastewater
Ozone: Science and Engineering **27**: 365-369

Coca M, Peña M and González G. 2005b
Variables affecting efficiency of molasses fermentation wastewater ozonation
Chemosphere **60**: 1408-1415

Coca M, Peña M and González G. 2007
Kinetic study of ozonation of molasses fermentation wastewater
Journal of Hazardous Materials **149**: 364-370

Cole J O and Parks C R. 1946
Semimicro-Kjeldahl procedure for control laboratories
Industrial and Engineering Chemistry Analytical Edition **18**: 61-63

Collins P J and Dobson A D W. 1997
Regulation of gene transcription in *Trametes versicolor*
Applied and Environmental Microbiology **63**: 3444-3450

Studies on the production of fungal peroxidases in *Aspergillus niger*
Applied and Environmental Microbiology **66**: 3016-3023

TERI University-Ph.D. Thesis, 2007
References

Usefulness of reverse osmosis in the treatment of condensates arising from the concentration of distillery vinasses
Desalination 196: 306-317

Couto S R and Rättö M. 1998
Effect of veratryl alcohol and manganese (IV) oxide on ligninolytic activity in semi solid cultures of Phanerochaete chrysosporium
Biodegradation 9: 143-150

Couto S R, Rivela I, Muñoz M R and Sanromán A. 2000
Stimulation of ligninolytic enzyme production and the ability to decolourise Poly R-478 in semi-solid-state cultures of Phanerochaete chrysosporium
Bioresource Technology 74: 159-164

CPCB 1998
Environmental standards for fermentation industry (Distilleries, Maltries & Breweries)
S.O. 64(E), dt. 18th Jan; 1988 / GSR 176(E), April 2, 1996

CPCB 2003
Charter on Corporate Responsibility for Environmental Protection
Workshop organized at Mumbai by MPCB on 03.01.2003

Dahiya J, Singh D and Nigam P. 2001a
Decolourisation of molasses wastewater by cells of Pseudomonas fluorescens immobilized on porous cellulose carrier
Bioresource Technology 78: 111-114

Dahiya J, Singh D and Nigam P. 2001b
Decolourisation of synthetic and spentwash melanoidins using the white-rot fungus Phanerochaete chrysosporium JAG-40
Bioresource Technology 78: 95-98

Interest of electrodialysis to reduce potassium level in vinasses. Preliminary experiments
Desalination 146: 393-398

Dehorter B and Blondeau R. 1993
Isolation of an extracellular Mn-dependent enzyme mineralizing melanoidins from the white rot fungus Trametes versicolor
FEMS Microbiology Letters 109: 117-122

Isolation and enzymic characterisation of South African white-rot fungi
Mycological Research 104: 820-824

de Souza-Cruz P B, Freer J, Siika-Aho M and Ferraz A. 2004

TERI University-Ph.D. Thesis, 2007
Extraction and determination of enzymes produced by Ceriporiopsis subvermispora during biopulping of Pinus taeda wood chips
*Enzyme and Microbial Technology* **34**: 228-234

de Souza Silva C M M S, de Melo I S and de Oliveira P R. 2005
Ligninolytic enzyme production by *Ganoderma* spp.
*Enzyme and Microbial Technology* **37**: 324-329

Fungal biomass in pastures increases with age and reduced N input
*Soil Biology and Biochemistry* **39**: 1620-1630

Screening for ligninolytic enzyme production by diverse fungi from Tunisia
*World Journal of Microbiology and Biotechnology* **21**: 1415-1423

Exopectinases produced by *Aspergillus niger* in solid-state fermentation and submerged fermentation: a comparative study
*Journal of Industrial Microbiology and Biotechnology* **26**: 271-275

Dikshit A K and Chakraborty D. 2006
A techno-economic feasibility study on removal of persistent colour and COD from anaerobically digested distillery effluent: A case study from India
*Clean Technologies and Environmental Policy* **8**: 273-285

Dix N J and Webster J. 1995
*Fungal Ecology*
Chapman and Hall, Cambridge, Great Britain

Domsch K H, Gams W and Anderson T H. 1993
*Compendium of soil fungi*
Reprint, IHW-Verlag, Eching, Germany

Donnison L M, Griffith G S and Bardgett R D. 2000
Determinants of fungal growth and activity in botanically diverse haymeadows: effects of litter type and fertiliser additions
*Soil Biology and Biochemistry* **32**: 289-294

Dreywood R. 1946
*Qualitative tests for carbohydrate materials*
*Industrial and Engineering Chemistry Analytical Edition* **18**: 499

Driessen W and Yspeert P. 1999
Anaerobic treatment of low, medium and high strength effluent in agro-industry
*Water Science and Technology* **40**: 221-228

Drista V, Rigas F, Natsis K and Marchant R. 2007
Characterization of a fungal strain isolated from a polyphenol polluted site
*Bioresource Technology* **98**: 1741-1747

TERI University-Ph.D. Thesis, 2007
Dresbøll, D B and Magid J. 2006
Structural changes of plant residues during decomposition in a compost environment
*Bioresource Technology* **97**: 973-981

Enhanced production of Laccase by a marine fungus during treatment of colored effluents and synthetic dyes
*Enzyme and Microbial Technology* **38**: 504–511

Duarte E, Martins M, Carvalho E, Costa S and Spranger I. 1997
An integrated approach for overcoming the environmental impacts of wineries wastewaters a Portuguese case study
In: Proceedings of International Symposium of the Vine and wine, 10 October’ 1997. pp. 1-5 Yangling, China

*Lentinus edodes* and *Pleurotus* species lignocellulolytic enzymes activity in submerged and solid-state fermentation of lignocellulosic wastes of different composition
*Bioresource Technology* doi: 10.1016/j.biortech.2007.01.011 (article in press)

Optimization of process parameters for glucoamylase production under solid state fermentation by a newly isolated *Aspergillus* species
*Process Biochemistry* **38**: 615-620

Eggert C, Temp U and Eriksson K E L. 1997
Laccase is essential for lignin degradation by the white-rot fungus *Pycnoporus cinnabarinus*
*FEBS Letters* **407**: 89-92

Ellis J J. 1979
Preserving fungus strains in sterile water
*Mycologia* **71**: 1072-1075

Ermektar G, Tuany O, Orhon D and Gonenc E. 1995
The pollution profile of alcohol distilleries treating beet sugar molasses
*Water Science and Technology* **32**: 181-188

Eusibio A, Petruccioli M, Lageiro M, Fedrici F and Duarte J C. 2004
Microbial characterization of activated sludge in jet-loop bioreactors treating winery wastewaters
*Journal of Industrial Microbiology and Biotechnology* **31**: 29-34

Fakoussa R M and Hofrichter M. 1999
Biotechnology and microbiology of coal degradation
*Applied Microbiology and Biotechnology* **52**: 25-40

Falcón M A, Rodríguez A., Carnicero A., Regalado V., Perestelo F., Milstein O. and Fuente G. De la. 1995

TERI University-Ph.D. Thesis, 2007
Isolation of microorganisms with lignin transformation potential from soil of Tenerife Island
*Soil Biology and Biochemistry* **27**: 121-126

Fedrici F. 1993
**Potential applications of viable, immobilized fungal cell systems**
*World Journal of Microbiology and Biotechnology* **9**: 495-502

Fenice M, Sermanni G G, Federici F and D’Annibale A. 2003
**Submerged and solid-state production of laccase and Mn-peroxidase by Panus tigrinus on olive mill wastewater-based media**
*Journal of Biotechnology* **100**: 77-85

**Ligninolytic activity of Phanerochaete chrysosporium: physiology of suppression by NH₄⁺ and L-glutamate**
*Archives in Microbiology* **130**: 66-71

**Production, partial characterization and mass spectrometric studies of the extracellular laccase activity from Fusarium proliferatum**
*Applied Microbiology and Biotechnology* **70**: 212-221

Ferraz A, Córdova A M and Machuca A. 2003
**Wood biodegradation and enzyme production by Ceriporiopsis subvermispora during solid-state fermentation of Eucalyptus grandis**
*Enzyme and Microbial Technology* **32**: 59-65

Field J A, de Jong E, Feijoo-Costa G and de Bont J A M. 1993
**Screening for ligninolytic fungi applicable to the biodegradation of xenobiotics**
*Trends in Biotechnology* **11**: 44–49

**Adsorption studies of recalcitrant compounds of molasses spentwash on activated carbons**
*Water Research* **40**: 3456-3466

Finkenstein D B and Ball C. 1992
**Biotechnology of Filamentous Fungi**
Biotechnology Series 21 Butterworth-Heinemann, Boston MA

Fischer G and Dott W. 2002
**Quality assurance and good laboratory practice in the mycological laboratory-compilation of basic techniques for the identification of fungi**
*International Journal of Hygiene and Environmental Health* **205**: 433-442

FitzGibbon F J, Nigam P, Singh D and Marchant R. 1995
**Biological treatment of distillery waste for pollution remediation**
*Journal of Basic Microbiology* **35**: 293-301

FitzGibbon F J, Singh D, McMullan G and Marchant R. 1998
**The effect of phenolics acids and molasses spent wash concentration on distillery wastewater remediation by fungi**

TERI University-Ph.D. Thesis, 2007
References

Process Biochemistry **33**: 799-803

Fog K. 1988
The effect of added nitrogen on the rate of decomposition of organic matter
*Biological Review* **63**: 433-462

Focht D D. 1994
Microbiological procedures for biodegradation research
Soil Science Society of America, Madison, Wisconsin

Characteristics and N-terminal amino acid sequence of a manganese peroxidase purified from *Lentinus edodes* cultures grown on a commercial wood substrate
*Applied Microbiology and Biotechnology* **33**: 359-365

Friedrich J. 2004
Bioconversion of distillery waste
In: Fungal biotechnology in agriculture, food and environmental applications. Arora D K (Ed.). pp. 431-442
Marcel Dekker Inc., New York

Decolourization of heat-treatment liquor of waste sludge using polyurethane foam-immobilized white rot fungus equipped with an ultramembrane filtration unit
*Journal of Bioscience and Bioengineering* **90**: 387-394

Fumi M D, Parodi G, Parodi E and Silva A. 1995
Optimization of long-term activated-sludge treatment of winery wastewater
*Bioresource Technology* **52**: 45-51

Gadd G M. 2001
Fungi in bioremediation
Cambridge University Press

Increased production of laccase by the wood-degrading basidiomycete *Trametes pubescens*
*Enzyme and Microbial Technology* **30**: 529-536

CBS Course of Mycology
Fourth Edition, Centraalbureau voor Schimmelcultures, Utrecht, The Netherlands

Anaerobic digestion of wine distillery wastewater in down-flow fluidized bed
*Water Research* **32**: 3593-3600

Gerlach W and Nirenberg H. 1982

TERI University-Ph.D. Thesis, 2007
The genus Fusarium – a pictorial atlas
Mitteilungen der Biologischen Bundesanstalt für Land- und Forstwirtschaft
Berlin-Dahlem, Heft 209, Verlag Paul Parey

Gessner M O and Chauvet E. 1993
Ergosterol-to-biomass conversion factors for aquatic hyphomycetes
Applied and Environmental Microbiology 59: 502-507

Ghosh M, Ganguli A and Tripathi A K. 2002
Treatment of anaerobically digested distillery spentwash in a two-stage bioreactor using Pseudomonas putida and Aeromonas sp.
Process Biochemistry 7: 857-862

Ghosh M, Verma SC, Mengoni A and Tripathi A K. 2004
Enrichment and identification of bacteria capable of reducing chemical oxygen demand of anaerobically treated molasses spent wash
Journal of Applied Microbiology 96: 1278-1286

Glaize W L and Kang J W. 1989
Advanced oxidation processes. Description of a kinetic model for the oxidation of hazardous materials in aqueous media with ozone and hydrogen peroxide in a semibatch reactor
Industrial and Engineering Chemistry Research 28: 1573-1580

Godbole J. 2002
Ethanol from cane molasses, Fuel Ethanol Workshop
Honolulu, Hawaii, November 14, 2002

Gold M H, Glenn J K and Alic M. 1988
Use of polymeric dyes in lignin biodegradation assays
Methods in Enzymology 161B: 74-78

González T, Terron M C, Yague S, Zapico E, Galletti G C and González A E. 2000
Pyrolysis/gas chromatography/ mass spectrometry monitoring of fungal biotreated distillery wastewater using Trametes sp. I 62 (CECT 20197)
Rapid Communication in Mass Spectrometry 14: 1417-1424

Goodwin J A S and Stuart J B. 1994
Anaerobic digestion of malt whisky distillery pot ale using upflow anaerobic sludge blanket reactor
Bioresource Technology 49: 75-81

Supercritical water oxidation for the destruction of municipal excess sludge and alcohol distillery wastewater of molasses
Journal of Supercritical Fluids 13: 277-282

Goyal S K, Seth R and Handa B K. 1996
Diphasic fixed-film biomethanation of distillery spentwash
Bioresource Technology 56: 239-244
Production of hydroxyl radical by the synergistic action of fungal laccase and aryl alcohol oxidase
Archives of Biochemistry and Biophysics 382: 142-147

Guimarães C, Porto P, Oliveira R and Mota M. 2005
Continuous decolourization of a sugar refinery wastewater in a modified rotating biological contactor with Phanerochaete chrysosporium immobilized on polyurethane foam discs
Process Biochemistry 40: 535-540

Hamachi M, Gupta B B and Aim R B. 2003
Ultrafiltration: a means for decolourization of cane sugar solution
Separation and Purification Technology 30: 229-239

Hamman B O, de la Rubia T and Martínez J. 1997
Effect of carbon and nitrogen limitation on lignin peroxidase and manganese peroxidase production by Phanerochaete flavido-alba
Journal of Applied Microbiology 83: 751-757

Hamza A S, Mohammady T F and Majcheaczyk A. 2003
Evaluation of five oyster mushroom species grown on corn stalks to be used as animal feed

Han J R, An C H and Yuan J M. 2005
Solid-state fermentation of cornmeal with the basidiomycete Ganoderma lucidum for degrading starch and upgrading nutritional value
Journal of Applied Microbiology 99: 910-915

Hao O J, Kim H and Chiang P-C. 2000
Decolorization of wastewater
Critical Reviews in Environmental Science and Technology 30: 449-505

Harada H, Uemura S, Chen A C and Jayadevan J. 1996
Anaerobic treatment of a recalcitrant distillery wastewater by a thermophilic UASB reactor
Bioresource Technology 55: 215-221

Hattaka A. 1994
Lignin-modifying enzymes from selected white rot fungi: production and role in lignin degradation
FEMS microbiology Reviews 13: 125-135

Haun U A, Seyfried C F and Rosenwinkel K H. 1997
Full scale experiences with anaerobic pre-treatment of wastewater in the food and beverage industry in Germany
Water Science and Technology 36: 321-328

Analyses of the chemical structures of melanoidins by $^{13}$C and $^{15}$N CP-MAS NMR spectrophotometry

TERI University-Ph.D. Thesis, 2007
References

*Agriculture and Biological Chemistry* **50**: 1951-1957

*Decolorization and degradation products of the melanoidins by hydrogen peroxide*
*Agriculture and Biological Chemistry* **48**: 2711-2717

Herpoël I, Asther M and Sigoillot J-C. 1999
*Design and scale up of a process for manganese peroxidase production using the hypersecretory strain* *Phanerochaete chrysosporium* **I-1512**
*Biotechnology and Bioengineering* **65**: 468-473

Holmquist G U, Walker H W and Stahr H M. 1983
*Influence of temperature, pH, water activity and antifungal agents on growth of* *Aspergillus flavus* *and A. parasiticus*
*Journal of Food Science* **48**: 778-782

Hsieh F M and Chiu K Y. 1974
*Physiological studies on* *Alternaria kikuchiana*
*Plant Protection Bulletin Taiwan* **16**: 83-90

*Lignin degradation by* *Penicillium simplicissimum*
*Huan Jing Ke Xue*. **26**: 167-71

Inanc B, Ciner F and Ozturk I. 1999
*Colour removal from fermentation industry effluents*
*Water Science and Technology* **40**: 331-338

Ince O, Kolukirik M, Oz N A and Ince B K. 2005
*Comparative evaluation of full-scale UASB reactors treating alcohol distillery wastewaters in terms of performance and methanogenic activity*
*Journal of Chemical Technology and Biotechnology* **80**: 138-144

Ingledew W M. 2003
*Water reuse in fuel alcohol plants: effect on fermentation. Is a ‘zero discharge’ concept attainable?*
Nottingham University Press

Itoh K. 2005
*Decolorization and degradation of methylene blue by* *Arthrobacter globiformis*
*Bulletin of Environmental Contamination and Toxicology* **75**: 1131-1136

Jain N, Minocha A K and Verma C L. 2002
*Degradation of predigested distillery effluent by isolated bacterial strains*
*Indian Journal of Experimental Botany* **40**: 101-105

Jasalvich C A, Ostrofsky A and Jellison J. 2000
*Detection and identification of decay fungi in spruce wood by restriction fragment length polymorphism analysis of amplified genes encoding rRNA*
*Applied and Environmental Microbiology* **66**: 4725-4734

TERI University-Ph.D. Thesis, 2007
Jiménez A M and Borja R. 1997
Influence of aerobic pretreatment with Penicillium decumbens on the anaerobic digestion of beet molasses alcoholic fermentation wastewater in suspended and immobilized cell bioreactors
*Journal of Chemical Technology and Biotechnology* **69**: 193-202

Jiménez A M, Borja R and Martin A. 2003
Aerobic-anaerobic biodegradation of beet molasses alcoholic fermentation wastewater
*Process Biochemistry* **38**: 1275-1284

Jiménez A M, Borja R, Martin A and Raposo F. 2006
Kinetic analysis of the anaerobic digestion of untreated vinasses and vinasses previously treated with Penicillium decumbens
*Journal of Environmental Management* **80**: 303-310

Joshi H C. 1999
Bio-energy potential of distillery effluents
*Bio Energy News* **3**: 10-15

Kahraman S and Yesilada O. 2003
Decolourization and bioremediation of molasses wastewater by white-rot fungi in a semi-solid state condition
*Folia Microbiologica* **48**: 525-528

Kalavathi D F, Uma L and Subramanian G. 2001
Degradation and metabolization of the pigment-melanoidin in distillery effluent by the marine cyanobacterium Oscillatoria boryana BDU 92181
*Enzyme and Microbial Technology* **29**: 246-251

Kambe T N, Shimomura M, Nomura N, Chanpornpong T and Nakahara T. 1999
Decolourization of molasses wastewater by Bacillus sp. under thermophilic and anaerobic conditions
*Journal of Bioscience and Bioengineering* **87**: 119-121

Kanayama N, Suzuki T and Kawai K. 2002
Purification and characterization of an alkaline manganese peroxidase from Aspergillus terreus LD-1
*Journal of Bioscience and Bioengineering* **93**: 405-410

Kannabiran B and Pragasam A. 1993
Effect of distillery effluent on seed germination, seedling growth and pigment content of Vigna mungo (L.) Hepper (CVT9)
*Geobios* **20**: 108-112

Kannan N, Karthikeyan G and Tamilselvan N. 2006
Comparison of treatment potential of electrocoagulation of distillery effluent with and without activated Areca catechu nut carbon
*Journal of Hazardous Materials B* **137**: 1803-1809

Kannan N, Karthikeyan G, Vallinayagam P and Tamilselvan N. 2004
A study on assessment of pollution load of sugar industrial effluent
*Indian Journal of Environmental Protection* **24**: 856-862

TERI University-Ph.D. Thesis, 2007
References

Effect of lignocellulose-containing substrates on production of ligninolytic peroxidases in submerged cultures of Phanerochaete chrysosporium ME-446
Enzyme and Microbial Technology 34: 187-195

Kato H and Hayase F. 2002
An approach to estimate the chemical structure of melanoidins
International Congress series 1245: 3-7

Impact of long and short term irrigation of a sodic soil with distillery effluent in combination with bioamendments
Bioresource Technology 96: 1860-1866

Keyser P, Kirk T K and Zseikus J G. 1978
Ligninolytic enzyme system of Phanerochaete chrysosporium: synthesised in the absence of lignin in response to nitrogen starvation
Journal of Bacteriology 135: 790-797

Kida K, Morimiura S, Abe N and Sonoda Y. 1995
Biological treatment of Shochu distillery wastewater
Process Biochemistry 30: 125-132

Kääskinen L L, Rättö M and Kruus K. 2004
Screening for novel laccase-producing microbes
Journal of Applied Microbiology 97: 640-646

Development of clean technology in alcohol fermentation industry
Journal of Cleaner Production 5: 263-267

Kim S J and Shoda M. 1999a
Batch decolourization of molasses by suspended and immobilizes fungus of Geotrichum candidum Dec 1.
Journal of Bioscience and Bioengineering 88: 586-589

Kim S J and Shoda M. 1999b
Purification and characterization of a novel peroxidase from Geotrichum candidum Dec 1 involved in decolorization of dyes
Applied Environmental Microbiology 65: 1029-1035

Purification and characterization of a laccase from Cerrena unicolor and its reactivity in lignin degradation
Bulletin of Korean Chemical Society 23: 985-989

Kirk T K and Farrell R L. 1987
Enzymatic ‘combustion’: the microbial degradation of lignin
Annual Review of Microbiology 41: 465-505


TERI University-Ph.D. Thesis, 2007
Roles of two white-rot basidiomycete fungi in decolorisation and detoxification of olive mill waste water
*Applied Microbiology and Biotechnology* **57**: 221-226

Kitamura Y, Maekawa T, Tagawa A, Hayashi H and Farrell-Poe K L. 1996
*Treatment of strong organic, nitrogenous wastewater by an anaerobic contact process incorporating ultrafiltration*
*Applied Engineering in Agriculture of the ASAE* **12**: 709-714

Kitts D D, Wu C H, Stich H F and Powrie W D. 1993
*Effects of glucose-glycine maillard reaction products on bacterial and mammalian cells mutagenesis*
*Journal of Agricultural and Food Chemistry* **41**: 2353-2358

*Use of wood-rotting fungi for the decolourisation of dyes and industrial effluents*
British Mycological Society, Cambridge University Press

*Identification and application of a new fungal strain Bjerkandera audusta R59 in decolorization of daunomycin wastes*
*Enzyme and Microbial Technology* **38**: 583-590

Kort M J. 1979
*Colour in the sugar industry*
In: Science and Technology. de Birch, G. G. and Parker, K. J. (Eds.). pp. 97-130
Applied Science, London

Kowalska M, Bodzek M and Bohdziewicz J. 1998
*Biodegradation of phenols and cyanides with immobilized microorganisms*
*Process Biochemistry* **33**: 189-197

Kroh L W. 1994
*Caramelisation in food and beverages*
*Food Chemistry* **51**: 373-379

Kumar A, Saroj D P, Tare V and Bose P. 2006
*Treatment of distillery spent-wash by ozonation and biodegradation: significance of pH reduction and inorganic carbon removal before ozonation*
*Water Environment Research* **78**: 994-104

Kumar P and Chandra R. 2004
*Detoxification of distillery effluent through Bacillus thuringiensis (MTCC 4714) enhanced phytoremediation potential of Spirodela polyrrhiza (L.) Schliden*
*Bulletin of Environmental Contamination and Toxicology* **73**: 903-910

Kumar P and Chandra R. 2006
*Decolorisation and detoxification of synthetic molasses melanoidins by individual and mixed cultures of Bacillus spp.*
*Bioresource Technology* **97**: 2096-2102

TERI University-Ph.D. Thesis, 2007
Kumar S and Gopal K. 2001
Impact of distillery effluent on physiological consequences in the freshwater teleost *Channa punctatus*
*Bulletin of Environmental Contamination and Toxicology* **66**: 617-622

Kumar S and Viswanathan L. 1991
Production of biomass, carbon dioxide, volatile acids, and their interrelationship with decrease in chemical oxygen demand, during distillery waste treatment by bacterial strains
*Enzyme and Microbial Technology* **13**: 179-186

Kumar S G, Gupta S K and Singh G. 2007
Biodegradation of distillery spent wash in anaerobic hybrid reactor
*Water Research* **41**: 721-730

Decolourization and biodegradation of anaerobically digested sugarcane molasses spent wash effluent from biomethanation plants by white-rot fungi
*Process Biochemistry* **33**: 83-88

Experimental studies on treatment of distillery effluent by liquid membrane extraction
*Chemical Engineering Journal* **95**: 199-204

Kumari M, Yadav R S and Yadav K D. 2002
Secretion of ligninperoxidase by *Penicillium citrinum, Fusarium oxysporum* and *Aspergillus terreus*
*Indian Journal of Experimental Biology* **40**: 802-806

Separation and characterization of two extracellular H$_2$O$_2$-dependent oxidases from ligninolytic cultures of *Phanerochaete chrysosporium*
*FEBS Letters* **169**: 247–250

Treatment of wastewater from distilleries with chitosan
*Water Research* **34**: 1503-1506

Lambers H, Chapin III F S and Pons L. 1998
*Plant physiological ecology*
Springer, New York

Ergosterol as a biomarker for the quantification of the fungal biomass in atmospheric aerosols
*Atmospheric Environment* **40**: 249-259

Effect of molasses on the production and activity of dye-decolourizing peroxidase from *Geotrichum candidum* Dec 1
*Journal of Bioscience and Bioengineering* **89**: 545-549

TERI University-Ph.D. Thesis, 2007
Leisinger T. 1983
**Microorganisms and xenobiotic compounds**
*Experientia* **39**: 1183-1191

Levin L, Papinutti L and Forchiassin F. 2004
**Evaluation of Argentinean white rot fungi for their ability to produce lignin-modifying enzymes and decolorize industrial dyes**
*Bioresource Technology* **94**: 169-176

**Below ground ectomycorrhizal fungal community change over a nitrogen deposition gradient in Alaska**
*Ecology* **83**: 104-115

Livernoche D, Jurasek L, Desrochers M and Dorica J. 1983
**Removal of colour from kraft mill wastewaters with cultures of white-rot fungi and immobilized mycelium of Coriolus versicolour**
*Biotechnology Bioengineering* **25**: 2055-2065

Loomis W D. 1969
**Removal of phenolic compounds during the isolation of plant enzymes**
*Methods in Enzymology* **13**: 555-563

**Vanillin and pH synergistic effects on mold growth**
*Journal of Food Science* **63**: 143-146

**Aspergillus flavus growth in the presence of chemical preservatives and naturally occurring antimicrobial compounds**
*International Journal of Food Microbiology* **99**: 119-128

Lorenzo M D, Moldes D, Rodriguez C S and Sanroman A. 2002
**Improving laccase production by employing different lignocellulosic wastes in submerged cultures of Trametes versicolor**
*Bioresource Technology* **82**: 109-113

Lovell R D, Jarvis S C and Bardgett R D. 1995
**Soil microbial biomass and activity in long-term grassland: effects of management changes**
*Soil Biology and Biochemistry* **27**: 969-975

Lowry O H, Rosebrough N J, Farr A L and Randall R J. 1951
**Protein measurement with the Folin-Phenol reagents**
*Journal of Biological Chemistry* **193**: 265-275

Mahimaraja S and Bolan N S. 2004
**Problems and prospects of agricultural use of distillery spentwash in India**
SuperSoil 2004. 3rd Australian New Zealand Soils Conference. 5-9 December 2004 University of Sydney, Australia

Maiorella B L, Blanch H W and Wilkie G R. 1983

TERI University-Ph.D. Thesis, 2007
Distillery effluent treatment and by-product recovery
*Process Biochemistry* **18**: 5-8

Makkar R S, Tsuneda A, Tokuyasu K and Mori Y. 2001
*Lentinula edodes* produces a multicomponent protein complex containing manganese (II)-dependent peroxidase, laccase and L-glucosidase
*FEMS Microbiology Letters* **200**: 175-179

Microbiology of a biological contactor for winery wastewater treatment
*Water Research* **37**: 4125-4134

Mane J D, Modi S, Nagawade S, Phadnis S P and Bhandari V M. 2006
Treatment of spentwash using chemically modified bagasse and colour removal studies
*Bioresource Technology* **97**: 1752-1755

Manisankar P, Rani C and Vishwanathan S. 2004
Effect of halides in the electrochemical treatment of distillery effluent
*Chemosphere* **57**: 961-966

Identification of a Laccase gene family in the new lignin-degrading basidiomycete CECT 20197
*Applied and Environmental Microbiology* **63**: 2637-2646

Martin F, Delaruelle C and Hilbert J L. 1990
An improved ergosterol assay to estimate fungal biomass in ectomycorrhizas
*Mycological Research* **94**: 1059-1064

A review of Maillard reaction in food and implications to kinetic modelling
*Trends in Food Science and Technology* **11**: 364-373

Martins S I F S and Van Boekel M A J S. 2003
Melanoidins extinction coefficient in the glucose/glycine Maillard reaction
*Food Chemistry* **83**: 135-142

Maston S J and Davies S H R. 1994
The use of ozonation to degrade organic contaminants in wastewaters
*Environmental Science and Technology* **28**: 180A-185A

A simple screening procedure for selecting fungi with potential for use in the bioremediation of contaminated land
*Enzyme and Microbial Technology* **39**: 1365-1372

Role of ethanol on growth, laccase production and protease activity in *Pycnoporus cinnabarinus ss3*
*Enzyme and Microbial Technology* **41**: 162-168


TERI University-Ph.D. Thesis, 2007
Decolourization of molasses wastewater using an inorganic flocculant
Journal of Fermentation and Bioengineering 75: 438-442

Flocculation of melanoidins induced by inorganic ions
Journal of Fermentation and Bioengineering 83: 287-291

Miller G L. 1959
Use of dinitro salicylic acid reagent for determination of reducing sugar
Analytical Chemistry 31: 426-428

Colour elimination from molasses wastewater by Aspergillus niger
Bioresource Technology 57: 229-235

Miyata N, Iwahori K and Fujita M. 1998
Manganese-independent and –dependent decolourization of melanoidin by extracellular hydrogen peroxide and peroxidases from Coriolus hirsutus pellets
Journal of Fermentation and Bioengineering 85: 550-553

Miyata N, Mori T, Iwahori K and Fujita M. 2000
Microbial decolourization of melanoidin-containing wastewaters: combined use of activated sludge and the fungus Coriolus hirsutus
Journal of Bioscience and Bioengineering 89: 145-150

Mohana S, Desai C and Madamwar D. 2007
Biodegradation and decolourization of anaerobically treated distillery spent wash by a novel bacterial consortium
Bioresource Technology 98: 333-339

Application of response surface methodology for optimization of important parameters in decolorizing treated distillery wastewater using Aspergillus fumigatus Uβ2 60
International Biodeterioration and Biodegradation 57: 195-199

Morales F and Jimenez-Perez S. 2001
Free radical scavenging capacity of Maillard reaction products as related to colour and fluorescence
Food Chemistry 72: 119-125

Treatment of distillery wastewater discharged from beet molasses-spirits production using yeast
Journal of Fermentation and Bioengineering 69: 138-140

Mukherjee G and Banerjee R. 2004
Biosynthesis of tannase and gallic acid from tannin rich substrates by Rhizopus oryzae and Aspergillus foetidus
Journal of Basic Microbiology 44: 42-48


TERI University-Ph.D. Thesis, 2007
Induction and characterization of laccase in the ligninolytic fungus *Pleurotus eryngii*
*Current Microbiology* **34**: 1-5

Nandy T, Shastry S and Kaul S N. 2002
*Wastewater management in a cane molasses distillery involving bioresource recovery*
*Journal of Environmental Management* **65**: 25-38

Nataraj S K, Hosamani K M and Aminabhavi T M. 2006
*Distillery wastewater treatment by the membrane-based nanofiltration and reverse osmosis processes*
*Water Research* **40**: 2349-2356

Navarro A R, Sepulveda M del C and Rubio M C. 2000
*Bio-concentration of vinasse from the alcoholic fermentation of sugar cane molasses*
*Waste Management* **20**: 581-585

*Simultaneous treatment of semiconductor wastewater and distillery slops by mixing and precipitation/coagulation*
*Journal of Chemical Technology and Biotechnology* **80**: 1125-1130

Newell S Y. 1994
*Total and free ergosterol in mycelia of saltmarsh ascomycetes with access to whole leaves or aqueous extracts of leaves*
*Applied and Environmental Microbiology* **60**: 3479-3482

*Decolorization of synthetic and real textile wastewater by the use of white-rot fungi*
*Enzyme and Microbial Technology* **38**: 94-100

*The effect of culture conditions on the production of lignin modifying enzymes by the white-rot fungus Phlebia radiata*
*Journal of Biotechnology* **13**: 211-221

*Capacity of Irpex lacteus and Pleurotus ostreatus for decolorization of chemically different dyes*
*Journal of Biotechnology* **89**: 113-122

*Ligninolytic fungi in bioremediation: extracellular enzyme production and degradation rate*
*Soil Biology and Biochemistry* **36**: 1545-1551

O’Melia C R. 1972
*Coagulation and flocculation*
John Wiley and Sons, New York

TERI University-Ph.D. Thesis, 2007
Oh S, Kamden D P, Keathley D E and Han K H. 2003
Detection and species identification of wood-decaying fungi by hybridization of immobilized sequence specific oligonucleotide probes with PCR-amplified fungal ribosomal DNA internal transcribed spacers
Holzforschung 57: 346-352

Ohmomo S, Daengsabha W, Yoshikawa H, Yui M, Nozaki K, Nakajima T and Nakamura I. 1988a
Screening of anaerobic bacteria with the ability to decolourize molasses melanoidin
Agriculture and Biological Chemistry 57: 2429-2435

Ohmomo S, Kainuma M, Kamimura K, Sirianuntapiboon S, Oshima I and Atthasumpunna P. 1988b
Adsorption of melanoidin to the mycelia of Aspergillus oryzae Y-2-32
Agriculture and Biological Chemistry 52: 381-386

Decolourization of molasses wastewater by a thermophilic strain Aspergillus fumigatus G-2-6
Agriculture and Biological Chemistry 51: 3339-3346

Ohmomo S, Aoshima I, Tozawa Y, Sakurada N and Ueda K. 1985
Purification and some properties of melanoidin decolourizing enzymes, P-3 and P-4, from mycelia of Coriolus vericolor Ps4a
Agriculture and Biological Chemistry 49: 2047-2053

Production of xylanase and protease by Penicillium janthinellum CRC 87M-115 from different agricultural wastes
Bioresource Technology 97: 862-867

Orchard B J, Douchette W J, Chard J K and Bugbee B. 2000
Uptake of trichloroethylene by hybrid poplar trees grown hydroponically in flow-through plant growth chambers
Environmental Toxicology and Chemistry 19: 895-903

Reduction of fungal growth and lignin decomposition in needle litter by avian excreta
Soil Biology and Biochemistry 38: 1623-1630

Osono T and Takeda H. 2001
Effect of organic chemical quality and mineral nitrogen addition on lignin and holocellulose decomposition of beech leaf litter by Xylaria sp.
European Journal of Soil Biology 37: 17-23

Pandey A. 1994
Solid-state Fermentation
Wiley Eastern Limited pp. 12–17

TERI University-Ph.D. Thesis, 2007
References

Pandey A, Selvakumar P, Soccol C R and Nigam P. 1999
Solid-state fermentation for the production of industrial enzymes
Current Science 77: 149-162

History and Development of Solid-state Fermentation
P-3 Asiatech Publishers, New Delhi

Pant D, Reddy U G and Adholeya A. 2006
Cultivation of oyster mushrooms on wheat straw and bagasse substrate amended with distillery effluent
World Journal of Microbiology and Biotechnology 22: 267-275

Exploitation of marine cyanobacteria for removal of colour from distillery effluent
Indian Journal of Environmental Protection 21: 1118-1121

Pathade G R. 1999
A review of technologies for distillery wastewater treatment
In: Advances in industrial wastewater treatment. Goel PK(Ed.). pp. 181-238
Technoscience Publications, Jaipur, India

Soil amendment with distillery effluent for wheat and rice cultivation
Water, Air and Soil Pollution 113: 133-140

Patil P U, Kapadnis B P and Dhamankar V S. 2003
Decolourisation of synthetic melanoidin and biogas effluent by immobilized fungal isolate of Aspergillus niger UM2
Indian Sugar 53: 167-173

Chemical oxidation of wastewater from molasses fermentation with ozone
Chemosphere 51: 893-900

Pérez J, De La Rubia T., Hamman O B and Martínez J. 1998
Phanerochaete flavido-alba laccase induction and modification of manganese peroxidase isoenzyme pattern in decolorized olive oil mill wastewaters
Applied and Environmental Microbiology 64: 2726-2729

Peterson S W, Bayer E M and Wicklow D T. 2004
Penicillium thiersii, Penicillium angular and Penicillium decaturense, new species isolated from wood-decay fungi in North America and their phylogenetic placement from multilocus DNA sequence analysis
Mycologia 96: 1280-1293

Petruccioli M, Duarte J C and Fedreric F. 2000
High rate aerobic treatment of winery wastewater using bioreactors with free and immobilized activated sludge
Journal of Bioscience and Bioengineering 90: 381-386

TERI University-Ph.D. Thesis, 2007
Petruccioli M, Duarte J C, Eusibio A and Federici F. 2002
**Aerobic treatment of winery wastewater using a jet-loop activated sludge reactor**
*Process Biochemistry* **37**: 821-829

Pickard M A, Vandertol H, Roman R and Duhalt V. 1999
**High production of ligninolytic enzymes from white rot fungi in cereal bran liquid medium**
*Canadian Journal of Microbiology* **45**: 627-631

**Application of electrooxidation process for treating concentrated wastewater from distillery industry with a voluminous electrode**
*Water Research* **40**: 2857-2864

Plavšić M, Ćosović B and Lee C. 2006
**Copper complexing properties of melanoidins and marine humic material**
*Science of the Total Environment* **366**: 310-319

**Laccase production by Phanerochaete chrysosporium – an artefact caused by Mn(III)?**
*Letters in Applied Microbiology* **32**: 407-411

Pointing S B. 2001
**Feasibility of bioremediation by white-rot fungi: Mini-review**
*Applied Microbiology and Biotechnology* **57**: 20-33

Raghukumar C and Rivonkar G. 2001
**Decolourization of molasses spent wash by the white-rot fungus Flavodon flavus, isolated from a marine habitat**
*Applied Microbiology and Biotechnology* **55**: 510-514

Raghukumar C, Mohandass C, Kamat S and Shailaja M S. 2004
**Simultaneous detoxification and decolourization of molasses spent wash by the immobilized white-rot fungus Flavodon flavus isolated from a marine habitat**
*Enzyme and Microbial Technology* **35**: 197-202

**State-of-the-art of anaerobic digestion technology for industrial wastewater treatment**
*Renewable and Sustainable Energy Reviews* **4**: 135-156

Rajor R, Singh R and Mathur R P. 2002
**Color removal of distillery waste by Saccharomyces**
*Indian Journal of Environmental Protection* **22**: 1241-1252

Ramakritinan C M, Kumaraguru A K and Balasubramanian M P. 2005
**Impact of distillery effluent on carbohydrate metabolism of freshwater fish, Cyprinus carpio**
*Ecotoxicology* **14**: 693-707

Ramana S, Biswas A K and Singh A B. 2002a

**References**

TERI University-Ph.D. Thesis, 2007
References

Effect of distillery effluent on some physiological aspects of maize
*Bioresource Technology* **84**: 295-297

Ramana S, Biswas A K, Kundu S, Jha J K and Yadava R B R. 2002b
**Effect of distillery effluent on seed germination in some vegetable crops**
*Bioresource Technology* **82**: 273-275

Ramendra and Awasthi M. 1992
**Anaerobic and aerobic fermentation- a proven biotechnology for distillery effluent treatment**
*Indian Journal of Environmental Protection* **12**: 835-838

Raper K B and Fennell D T. 1977
**The Genus Aspergillus**
Williams and Wilkins Company, Baltimore

Ravi V, Bose S C, Kumar T M P and Siddaramaiah. 2006
**Decolorization of distillery effluent using poly (vinyl chloride) and cellulose acetate phthalate as adsorbents**
*Journal of Macromolecular Science, Part A* **43**: 1247-1254

Reddy C A. 1995
**The potential for white rot fungi in the treatment of pollutants**
*Current Opinion in Biotechnology* **6**: 320-328

Reddy K R and DeBusk W F. 1987
**Nutrient storage capabilities of aquatic and wetland plants**
In: Aquatic plants for water treatment and resource recovery. Reddy K R and Smith W H (eds.). pp. 337-357
Magnolia Publishing. Orlando, Florida

Reid I D. 1991
**Nutritional regulation of synthetic lignin (DHP) degradation by Phlebia (Meulius) tremellosa: effect of nitrogen**
*Canadian Journal of Botany* **69**: 156-160

Research and Markets. 2006
**Market analysis- Competition in global wine market**

Revankar M S and Lele S S. 2006
**Synthetic dye decolorization by white rot fungus, Ganoderma sp. WR-1**
*Bioresource Technology* **98**: 775-780

Rěžáčová V, Hršelova H, Gryndlerova´ H, Mikšík I and Gryndler M. 2006
**Modifications of degradation-resistant soil organic matter by soil saprobic microfungi**
*Soil Biology and Biochemistry* **38**: 2292-2299

Rigas F, Marchant R, Drista V, Kapsanaki-Gotsi E, and Avramidis L. 2003
**Screening of wood rotting fungi potentially useful for the degradation of organic pollutants**
*Water, Air and Soil Pollution: Focus* **3**: 201-210

TERI University-Ph.D. Thesis, 2007
The development of an in situ remediation system for contaminated land sites
in Greece using white rot fungi
In: Proceedings of the first Bioremediation Conference
Chania, Crete, Greece

Rivero-Perez M D, Perez-Magarino S and Jose M L G. 2002
Role of melanoidins in sweet wines
Analytica Chimica Acta 458: 169-175

Rogalski J, Dawidowicz A., Józwik E and Leonowicz A. 1999
Immobilization of laccase from Cerrena unicolor on controlled porosity glass
Journal of Applied Catalysis B- Enzymatic 6: 29-39

Romero E, Plaza C, Senesi N, Nogales R and Polo A. 2007
Humic acid-like fractions in raw and vermicomposted winery and distillery
wastes
Geoderma 139: 397-406

Romero-Gómez S, Augur C and Viniegra-González G. 2000
Invertase production by Aspergillus niger in submerged and solid state
fermentation
Biotechnology Letters 22: 1255-1258

Sack U and Gunther T. 1993
Metabolism of PAH by fungi and correlation with extracellular enzymatic
activities
Journal of Basic Microbiology 33: 269-277

Saha N K, Balakrishnan M and Batra V S. 2005
Improving industrial water use: case study for an Indian distillery
Resources, Conservation and Recycling 43: 163-174

Sahoo D K and Gupta R. 2005
Evaluation of ligninolytic microorganisms for efficient decolorization of a
small pulp and paper mill effluent
Process Biochemistry 40: 1573-1578

Sangave P C, Gogate P R and Pandit A B. 2007a
Combination of ozonation with conventional aerobic oxidation for distillery
wastewater treatment
Chemosphere 68: 32-41

Sangave P C, Gogate P R and Pandit A B. 2007b
Ultrasound and ozone assisted biological degradation of thermally pretreated
and anaerobically pretreated distillery wastewater
Chemosphere 68: 42-50

Sangave P C and Pandit A B. 2006a
Enhancement in biodegradability of distillery wastewater using enzymatic
pretreatment
Journal of Environmental Management 78: 77-85

TERI University-Ph.D. Thesis, 2007
Sangave P C and Pandit A B. 2006b
**Ultrasound and enzyme assisted biodegradation of distillery wastewater**
*Journal of Environmental Management* **80**: 36-46

Saparrat M C N, Martínez M J, Cabello M N and Arambarri A M. 2002
**Screening for ligninolytic enzymes in autochthonous fungal strains from Argentina isolated from different substrata**
*Revista Iberoamericana de Micología* **19**: 181-185

**Production of ligninolytic enzymes by Fusarium solani strains isolated from different substrata**
*World Journal of Microbiology and Biotechnology* **16**: 799-803

Satyawali Y and Balakrishnan M. 2007
**Wastewater treatment in molasses-based alcohol distilleries for COD and color removal: A review**

Schnürer J. 1993
**Comparison of methods for estimating the biomass of three food-borne fungi with different growth patterns**
*Applied and Environmental Microbiology* **59**: 552-555

Scott J P and Ollis D F. 1995
**Integration of chemical and biological oxidation processes for water treatment: review and recommendations**
*Environmental Progress* **14**: 88

Seth M and Chand S. 2000
**Biosynthesis of tannase and hydrolysis of tannins to gallic acid by Aspergillus awamori, optimization of process parameters**
*Process Biochemistry* **36**: 39-44

**Microbial degradation of banana waste under solid state bioprocessing using two lignocellulolytic fungi (Phylosticta spp. MPS-001 and Aspergillus spp. MPS-002)**
*Process Biochemistry* **40**: 445-451

Shah S S, Desai J D, Ramakrishna C and Bhatt N M. 1998
**Aerobic biotreatment of wastewater from dimethyl terephthalate plant using biomass support particles**
*Journal of Fermentation and Bioengineering* **86**: 215-219

Sharma J and Singh R. 2001
**Effect of nutrient supplementation on anaerobic sludge development and activity for treating distillery effluent**
*Bioresource Technology* **79**: 203-206

Shayegan J, Pazouki M and Afshari A. 2005
**Continuous decolourization of anaerobically digested distillery wastewater**
*Process Biochemistry* **40**: 1323-1329
Sheehan G J and Greenfield P F. 1980
Utilization, treatment and disposal of distillery wastewater
Water Research 14: 257-277

Shivayogimath C B and Ramanaujum. 1999
Treatment of distillery spentwash by hybrid UASB reactor
Bioprocess Engineering 21: 255-259

Metal accumulation and ecophysiological effects of distillery effluent on Potamogeton pectinatus L.
Bulletin of Environmental Contamination and Toxicology 74: 857-863

An adsorption mechanism for melanoidin decolourization by Rhizoctonia sp.
Bioscience, Biotechnology and Biochemistry 59: 1185-1189

Sirianuntapiboon S, Phothilangka P and Ohmomo S. 2004
Decolourization of molasses wastewater by a strain no. BP103 of acetogeneric bacteria
Bioresource Technology 92: 31-39

Sirianuntapiboon S, Somchai P Ohmomo S and Atthisampunna P. 1988
Screening of filamentous fungi having the ability to decolourize molasses pigments
Agriculture and Biological Chemistry 52: 387-392

Sirianuntapiboon S, Zohsalam P and Ohmomo S. 2003
Decolourization of molasses wastewater by Citeromyces sp. WR-43-6
Process Biochemistry 39: 917-924

Srinivasan U and Glaser J A. 1999
Proceedings of Fifth International Symposium on in situ and on-site Bioremediation
San Diego, CA, Battelle Press, USA. Pp. 103-109

Fungal treatment of a delignification effluent from a nitrocellulose industry
Bioresource Technology 96: 1936-1942

Spadaro J T, Gold, M H and Renganathan V. 1992
Degradation of azo dyes by the lignin-degrading fungus Phanerochaete chrysosporium
Applied and Environmental Microbiology 58: 2397-2401

Solomon E I, Sundaram U M and Machonkin T E. 1996
Multicopper Oxidases and Oxygenases
Chemical Reviews 96: 2563-2606

Srivatava S, Bose P and Tare V. 2006
Enhancement of chemical-oxygen demand and color removal of distillery spent-wash by ozonation

TERI University-Ph.D. Thesis, 2007
References

Water Environment Research **78**: 409-420

**Effect of different carbon and nitrogen sources on laccase and peroxidases production by selected Pleurotus species**
*Enzyme and Microbial Technology** **38**: 65-73

Steffen K T, Hofrichter M and Hatakka A. 2000
**Mineralisation of 14C-labelled synthetic lignin and ligninolytic enzyme activities of litter decomposing basidiomycetous fungi**
*Applied Microbiology and Biotechnology** **54**: 819-825

Stevenson F J. 1982
**Humus chemistry**
Wiley, New York

Sumathi S and Manju B S. 2000
**Uptake of reactive textile dyes by Aspergillus foetidus**
*Enzyme and Microbial Technology** **27**: 347-355

Sumino T, Kon M, Mori N and Nakajima K. 1985
**Development of wastewater treatment techniques by immobilized microorganisms**
*Journal of Water Waste** **27**: 1024-1029

**Aquaculture sludge removal and stabilization within created wetlands**
*Aquacultural Engineering** **19**: 81-92

Swamy J and Ramsay J A. 1999
**The evaluation of white rot fungi in the decoloration of textile dyes**
*Enzyme and Microbial Technology** **24**: 130-137

Tanaka S. 1933
**Studies on black spot disease of the Japanese pear (Pyrus serotina Rehd.)**
*Memoirs, College of Agriculture, Kyoto Imperial University** **No. 28**: 31

Tano M S and Buzato J B. 2003
**Effect of the presence of initial ethanol on ethanol production in sugarcane juice fermented by Zymomonas mobilis**
*Brazilian Journal of Microbiology** **34**: 242-244

TERI project report no. 1997BM 63. 1997-2001
Fly ash mission, Technology information forecasting and assessment council funded project
**Application of fly ash, organic manure and mycorrhiza biofertilizer for improvement in tree plantation under the thrust area ‘Agriculture related studies and applications’**
TERI, New Delhi, India

**Comparative evaluation of natural adsorbent for pollutants removal from distillery spent wash**
*Journal of Scientific and Industrial Research** **65**: 935-938

TERI University-Ph.D. Thesis, 2007
References

Tewari P K, Batra V S and Balakrishnan M. 2007
Water management initiatives in sugarcane molasses based distilleries in India
Resources, Conservation and Recycling 52: 351-367

Thakkar A P, Dhamankar V S and Kapadnis B P. 2006
Biocatalytic decolourisation of molasses by Phanerochaete chrysosporium
Bioresource Technology 97: 1377-1381

The Gazette of India: extraordinary [part i- sec. I]
Ministry of Petroleum and Natural Gas Resolution
New Delhi, 3 September’ 2002 No. P-45018/28/2000-C. C

Thompson D P. 1990
Influence of pH on the fungitoxic activity of naturally occurring compounds
Journal of Food Protection 53: 429– 482

Thurston C F. 1994
The structure and function of fungal laccases
Microbiology 140: 19-26

Tien M and Kirk T K. 1988
Lignin peroxidase of Phanerochaete chrysosporium
Methods in Enzymology 6: 238-249

Travieso L, Benitez F and Dupeyron R. 1999
Algae growth potential measurement in distillery wastes
Bulletin of Environmental Contamination and Toxicology 62: 483-489

Travieso L, Sanchez E, Borja R, Benitez F, Raposo F, Rincon B and Jimnez A M. 2006
Evaluation of a laboratory-scale stabilization pond for tertiary treatment of distillery waste previously treated by a combined anaerobic filter-aerobic trickling system
Ecological Engineering 27: 100-108

Treseder K K. 2004
A meta-analysis of mycorrhizal responses to nitrogen, phosphorus and atmospheric CO2 in field studies
New Phytologist 164: 347-355

Trivedy R K and Nakate S S. 2000
Treatment of diluted distillery waste by constructed wetlands
Indian Journal of Environmental Protection 20: 749-753

Trivedy R K and Thomas C S. 2004
Review of performance data of few pilot and full-scale aquatic weed based waste treatment plants from India
Asian Journal of Microbiology, Biotechnology and Environmental Science 6: 157-162

Tuomela M, Vikman M, Hatakka A and Itävaara M. 2000
Biodegradation of lignin in a compost environment: a review
Bioresource Technology 72: 169-183

TERI University-Ph.D. Thesis, 2007
References

Decolourisation of industrial dyes by solid-state cultures of Pleurotus pulmonarius
Process Biochemistry 39: 855-859

Uppal J. 2004
TERI Press, New Delhi, India

Uzal N, Gokacay C F and Demirer G N. 2003
Sequential anaerobic/aerobic) biological treatment of malt whisky wastewater
Process Biochemistry 39: 279-286

Valášková V and Baldrian P. 2006
Estimation of bound and free fractions of lignocellulose-degrading enzymes of wood-rotting fungi Pleurotus ostreatus, Trametes versicolor and Piptoporus betulinus
Research in Microbiology 157: 119-124

Production of lignocellulose-degrading enzymes and degradation of leaf litter by saprotrophic basidiomycetes isolated from a Quercus petraea forest
Soil Biology and Biochemistry 39: 2651-2660

Valderrama L T, Del Campo C M, Rodriguez C M, Bashan L E and Bashan Y. 2002
Treatment of recalcitrant wastewater from ethanol and citric acid using the microalga Chlorella vulgaris and the macrophyte Lemna minuscula
Water Research 36: 4185-4192

Vasanthy M and Thamaraiselvi C. 2006
Decolourisation and deodourisation of diluted spent wash using chemical and biological agents
Journal of Industrial Pollution Control 22: 269-272

Vares T, Kalsi M and Hatakka A. 1995
Lignin peroxidases, manganese peroxidases, and other ligninolytic enzymes produced by Phlebia radiata during solid-state fermentation of wheat straw
Applied and Environmental Microbiology 61: 3515-3520

Identification of medically significant fungal genera by polymerase chain reaction followed by restriction enzyme analysis
FEMS Immunology and Medical Microbiology 23: 303-312

Vijayaraghavan K and Ramanujam T K. 2000
Performance of anaerobic contact filters in series for treating distillery spentwash
Bioprocess Engineering 22: 109-114

TERI University-Ph.D. Thesis, 2007
References

Productivity of laccase in solid substrate fermentation of selected agro-
residues by *Pycnoporus sanguineus*
*Bioresource Technology* 97: 171-177

Vlissidis A and Zouboulis A I. 1993
Thermophilic anaerobic digestion of alcohol distillery wastewaters
*Bioresource Technology* 43: 131-140

Vyas B R M and Molitoris H P. 1995
Involvement of an extracellular H2O2-dependent ligninolytic activity of the
white rot fungus *Pleurotus ostreatus* in the decolorization of Remazol blue R
*Applied and Environmental Microbiology* 61: 3919-3927

Vymzal J. 1995
Algae and element cycling in wetlands

Vymzal J. 2007
Removal of nutrients in various types of constructed wetlands
*Science of the Total Environment* 380: 48-65

Watanabe Y, Sugi R, Tanaka Y and Hayashida S. 1982
Enzymatic decolourization of melanoidin by *Coriolus sp. No. 20*
*Agriculture and Biological Chemistry* 46: 1623-1630

Wedzicha B L and Kaputo M T. 1992
Melanoidins from glucose and glycine: composition, characteristics and
reactivity towards sulphite ion
*Food Chemistry* 43: 359-367

Wesenberg D, Kyriakides I and Agathos S N. 2003
White-rot fungi and their enzymes for the treatment of industrial dye effluents
*Biotechnology Advances* 22: 161-187

Amplification and direct sequencing of fungal ribosomal RNA genes for
phylogenetics
In: PCR protocols: A guide to methods and applications. Innis M. (Ed.). (pp. 315-322)
San Diego: Academic

Whiteley C G and Lee D –J. 2006
Enzyme technology and biological remediation
*Enzyme and Microbial Technology* 38: 291-316

Treating a lignite pyrolysis wastewater in a constructed subsurface flow
wetland
*Water Research* 33: 1296-1302

Wilde F G N. 1987

TERI University-Ph.D. Thesis, 2007
Demineralization of a molasses distillery waste water
*Desalination* **67**: 481-493

**Stillage characterization and anaerobic treatment of ethanol stillage from conventional and cellulosic feedstocks**
*Biomass and Bioenergy* **19**: 63-102

Wolmarans B and de Villiers G H. 2002
**Start-up of a UASB effluent treatment plant on distillery wastewater**
*Water SA* **28**: 63-68

Yang J S, Yuan H L, Wang H X and Chen W X. 2005
**Purification and characterization of lignin peroxidases from *Penicillium decumbens* P6**
*World Journal of Microbiology and Biotechnology* **21**: 435-440

Yaropolov A I, Skorobogatko O V, Vartanov S S and Varfolomeyev S D. 1994
**Laccase: properties, catalytic mechanism and applicability**
*Applied Biochemistry and Biotechnology* **49**: 257-280

Yavuz Y. 2007
**EC and EF processes for the treatment of alcohol distillery wastewater**
*Separation and Purification Technology* **53**: 135-140

Yeoh B G. 1997
**Two-phase anaerobic treatment of cane-molasses alcohol stillage**
*Water Science and Technology* **36**: 441-448

Yeşilada Ö and Özcan B. 1998
**Decolorization of Orange II dye with the crude culture filtrate of white rot fungus, *Coriolus versicolour***
*Turkish Journal of Biology* **22**: 463-476

Yu H Q, Zhao Q B and Tang Y. 2006
**Anaerobic treatment of winery wastewater using laboratory-scale multi- and single-fed filters at ambient temperatures**
*Process Biochemistry* **41**: 2477-2481

Zache G and Rehm H J. 1989
**Degradation of phenol by a coimmobilized entrapped mixed culture**
*Applied Microbiology and Biotechnology* **30**: 426-432

Zhang M, Wu F, Wei Z, Xiao Y and Gong W. 2006
**Characterization and decolorization ability of a laccase from *Panus rudis***
*Enzyme and Microbial Technology* **39**: 92–97

**Performance of a metallic membrane bioreactor treating simulated distillery wastewater at temperatures of 30 to 45 °C**
*Desalination* **194**: 146-155

Zhao Y Q, Sun G and Allen S J. 2004

TERI University-Ph.D. Thesis, 2007
Purification capacity of a highly loaded scale tidal flow reed bed system with effluent recirculation
*Science of the Total Environment* **330**: 1-8

**Decolorization of polymeric dyes by a novel Penicillium isolate**
*Process Biochemistry* **34**: 31-37