

Remediation Laboratory

§Ò¹ÇÔÑÁÇÍ§ËÉÍ§»Ô°ÑμÔ;ÒÃ Remediation

- ;ÒÃ¾Ñ²¹ÒμÑÇ´Ù´«Ñ°μèÒ§æ¨Ò;ÇÑË´ØàËÁ×Í·Ôé§·Ò§;ÒÃà;ÉμÃà¾xèláªéã¹;ÒÃ°ÓÑ´¹éÓàËÏÃ·ÏèÁÏËÏÃÍÏ¹·ÃÏÃíáÃÐáÃË
- ;ÒÃ°ÓÑ´¹éÓàËÏÃ/Ô¹·ÏèÁÏËÏÃÍÏ¹·ÃÏÃíáÃÐáÃËËË¹Ñ;»¹à»xéí¹á´Ãªªé¾xª
- ;ÒÃ;Ò´Ñ´ËÏã¹ÍØμËÏË;ÃÃÁÍÏËÏÃª´ÃªªéÇÑË´Ø·ÏèÁÏÍÁÙèã¹»ÃÐà·Ë

ËÉÍ§»Ô°ÑμÔ;ÒÃ Remediation ¢´é´Óà¹Ô¹;ÒÃÇÔÑÁà;ÏèÃÇ;Ñ°μÑÇ´Ù´«Ñ°Ò;ÇÑË´ØàËÁ×Í·Ôé§·Ò§;ÒÃà;ÉμÃ ¢ªè¹ «Ñ§ÇéÒÇ à¾xéí¹ÓÃ°ÓÑ´¹éÓàËÏÃ·Ïè»¹à»xéí¹áÃËËË¹Ñ;áÃÐËÏÃÍÏ¹·ÃÏÃí á´ÃËÏ;ËÏ¶Ò§;Ãà;ÇÍ§ÇÑË´Ø´Ù´«Ñ°μèÒ§æª¹;ÒÃ°ÓÑ´¹é áÃÐ·ÃÏÇÔ Ò;ÒÃ´Ñ´;ÒÃμÑÇ´Ù´«Ñ°·ÏèªªéáÃéÇμèíá»à¾xèláËËà;Ô´ÇÇÒÃ»ÁÍ´ÃÑÁμèÍËËé§Ç´ÁéÍÁ ÇÔ;Ï¹ÏéÁÏÃÏªÒáÃéá à¾xèlá´é¹éÓ·Ôé§·Ïè»ÁÍ´ÃÑÁáÃÐ¾èÒ¹ÁÒμÃ´Ò¹¹éÓ·Ôé§

ã¹»Ñ¨¨Ø°Ñ¹;ÃÐ°Ç¹;ÒÃ°ÓÑ´¹éÓàËÏÃ·Ïè¾Ñ²¹Òà´ÃËÉÍ§»Ô°ÑμÔ;ÒÃ Remediation ËÏÃÏÃ¶¹Óà»ªªéá´é¨ÃÏ§ ¢´éá;è ãÐ°°ÓÑ´¹é

ÃÙ»·Ïè 1 ãÐ°°ÓÑ´¹éÓàËÏÃËËËËÑªÃ§¾ÔÁ¾ÃÐ°ÍÍ;à«Çμ à;Ã;á«;ÃÏ;Ï áÃÐË;ÃÏ¹

μÑÇÍÁèÒ§ãÃ§§Ò¹·ÏèÁÏ;ÒÃ»ÃÑ°»ÃØ§ÇÔ;Ò°ÓÑ´¹éÓàËÏÃ

μÑÇÍÁèÒ§ãÃ§§Ò¹·ÏèÁÏ;ÒÃÍÍ;áªªáÃÐμÔ´μÑé§ãÐ°°ÓÑ´¹éÓàËÏÃ

ËÉÍ§»Ô°ÑμÔ;ÒÃ Remediation ÃÑ§ËÏ;ËÏ;ÒÃ°ÓÑ´¹éÓàËÏÃ/Ô¹·Ïè»¹à»xéí¹áÃËËË¹Ñ;áÃÐËÏÃÍÏ¹·ÃÏÃíá´Ãªªé¾xª ¢´ÃÑ´ à¾xèíËËÏÃ¶¹Óà»»ÃÐÁØ;μíªªéá´é¨ÃÏ§

1í"Ò;1ÕéÉéí\$»-Ô°ÑµÔ;ÒÃ Remediation ÂÑ\$Ê'ã"ÈÖ;ÉÖ;ÒÃ;Ó"Ñ'ÊÕ·Õè»1à»xé1á1ØµÊÖ;ÃÃÁÍÒÈÒÃ à¼xèíáÈéá'éÍÒÈÒÃ·
à»ç1;ÒÃ¼Ñ²1Òà·âá1âÃÃÖçÖé1ãéáí\$ã1»ÃÐà·È

ÇÑµ¶Ø»ÃÐÊ\$πì

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à¼xèí¼Ñ²1ÒÇÑÊ'ØàÈÃxí·Ôé\$·Ò\$;ÒÃà;ÉµÃà»ç1µÑÇ'Ù'«Ñ°·ÕèÁÕ»ÃÐÊÖ·,ÒÀÒ¼ÈÙ\$ÊØ'ã1;ÒÃ°ÓÑ'1éÓàÈÕÃ /ÊÕ·Õè»1à»

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à¼xèíÈÖ;ÉÖ;ÒÃ°ÓÑ'1éÓàÈÕÃ/Ô1·Õè»1à»xé1áÃÈÐÊ'Ñ;áÃÐÊÒÃÍÔ1·ÃÕÃíà'Ããé¼xª

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à¼xèíÈÖ;ÉÖ;ÒÃ;Ó"Ñ'ÊÕá1ØµÊÖ;ÃÃÁÍÒÈÒÃá'ÃãéçÑÊ'Ø·ÕèÁÕÍÁÙèã1»ÃÐà·È

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à¼xèí¼Ñ²1ÒÃÐ°°ÓÑ'1éÓàÈÕÃ·ÕèÁÕ»ÃÐÊÖ·,ÒÀÒ¼ áÃÐ¶èÒÃ·Í'ÈÙèÀÒπíØµÊÖ;ÃÃÁ

§Ò'ÇÔ"ÑÃ·Õè'Óà1Ô1;ÒÃÍÁÙè

ìÒÃ¼Ñ²1ÒµÑÇ'Ù'«Ñ°"Ò;ÇÑÊ'ØàÈÃxí·Ôé\$·Ò\$;ÒÃà;ÉµÃà¼xèí°ÓÑ'1éÓàÈÕÃ·Õè»1à»xé1áÃÈÐÊ'Ñ;áÃÐÊÒÃÍÔ1·ÃÕÃí/ÊÕ

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ìÒÃ°ÓÑ'°ÔÊ;Ô1ÍÁá"Ò;1éÓ'xèÁã'Ããéà¶èÒÃÍÁ°Ò1éÍÁ

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ìÒÃ1Ó1Ô;à;ÒÃáÃÐãπãÃÁÕÃ"Ò;1éÓàÈÕÃáÃ\$ªØªÃÈÐ;ÃÑ°ÁÒãéãÈÁèá'ÃãéçØÃÁÐ¼ÃéÒÇà»ç1µÑÇ'Ù'«Ñ°

;ÒÃ°ÓÑ´¹éÓàÊÕÃ´Ô¹·Õè»¹à»xéÍ¹áÁËÐË¹Ñ;áÁÐËÒÁÍÓ¹·ÃÕÃìâ´Áãªé¾xª (Wetland/Phytoremediation)

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;ÒÃ°ÓÑ´¹éÓàÊÕÃ´Ò;áÃ§§Ò¹ÊÕè§·Íá´Áãªéµé¹,Ù»ÃÒÉÕ

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;ÒÃ°ÓÑ´´Ô¹·Õè»¹à»xéÍ¹áÁËÐáµ´àÁÕÃÁá´ÁãªéË-éÒáËéÇËÁÙ

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ÃÐºººÓÑ´¹éÓàÊÕÃ·Õè»¹à»xéÍ¹áÍ·ÔÁÕ¹ä;ÁµÍÁáºººÖ§»ÃÐ´ÔÉºíâ´Áãªé;ÍáÁ«Í¹áÃÐ;ÍÃÒªÔ¹Õ

;ÒÃ;ÓÑ´ÊÕã¹ÍØµÊÒË;ÃÃÁÍÒËÒÃá´ÁãªéÇÑË¹·Ø·ÕèÁÓÍÁÙèã¹»ÃÐà·Ë

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;ÒÃ°ÓÑ´ÊÕ¹éÓàªxéÍÁá´Áãªéà¶éÒÁÍÁªÒ¹ÍéÍÁ/¶èÒ¹;ÑÁÁÑ¹µìà¶éÒÁÍÁªÒ¹ÍéÍÁ

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;ÒÃ´Ù´«ÑºÊÕàÁÁÒ¹ÍÁ´Ô¹á´ÁãªéãµÔ¹Ç¹Ò´¹Òá¹

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;ÒÃ°ÓÑ´ÊÕ¹éÓÁÑ¹ÃÓÇéÒÇâ´Áãªé´Ô¹ÇÒÇ

ºØµÁÒ;Ã

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ÃË·Á·ã¾·Ô¾Áì,ÕÃàÇª-Ò³

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'Ã. »ÒÃÔ¹'Ò ÊØçÊ°ÒÃ

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¹Ò§ »ÃÐä¾, ØÃÐìÔ"

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¹Ò§ÊÒÇ ÊÔÃÔ;Ò-¹ì ¹Øè¹»ØÃ

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¹Ò§ÊÒÇÍÃØ³Õ ÊÔÃÐÃÑµ¹Á§µÃ

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¹Ò§ÊÒÇ»ÔÃÐÇÃÃ³ ÊÃÕªÒµÔ (ÈÖ;ÉÒµèì)

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¹Ò§ÊÒÇÃØ"ÔÃÒ 'Ãà¾ç- (ÈÖ;ÉÒµèì)

§Ò¹ºÃÔ;ÒÃ

ÃÑªãÊéµÓ»ÃÖ;ÉÒ Ííáº µÔ'µÑé§ ÃÐºººÓÑ¹éÓàÊÔÃÍØµÊÔË;ÃÃÁ;ÒÃ¾ÔÃ¾ì ¹éÓàÊÔÃ·ÕèÁÔÊÕ áÃÐ/ËÃ×í áÃÊÐË¹Ñ;»¹à áÃÐãÃ§¾ÔÃ¾ìÊ;ÃÔ¹·ÕèªéÊÃÖ;Ò¹¹éÓ à»ç¹µé¹ ÊèÇ¹¹éÓàÊÔÃ·ÕèÁÔÊÕ/ËÃ×íãÃÊÐË¹Ñ;»¹à»xéí¹ ä´éá;è áÃ§§Ò¹¼ÃÔµÊÕà à»ç¹µé¹

¹í;"Ò;¹ÔéÃÑ§ãÊéºÃÔ;ÒÃ·Ò§ÇÔªÒ;ÒÃáÃÐ"Ñ¹½Ö;íºÃÃÊÑÃÁ¹Ò à¾xéíà¼Ãá¾ÃèáÃÐãÊéµÇÒÃÃÙé;Ñº¼Ùé»ÃÐ;íº;ÒÃ ¼Ùé·Õ

¼Ã§Ò¹à¼Ãá¾Ãèã¹ÇÒÃÊÔÃÃÐ¹Ñº¹Ò¹ÒªÒµÔ

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Ewecharoen, A., Thiravetyan, P., Wendel, E. and Bertagnolli, H. Nickel adsorption by sodium polyacrylate-grafted activated carbon, J. of Hazardous Materials (in press) (impact factor 2007 = 2.337).

-
Simaratanamongkol, A., Thiravetyan, P. (2010) Decolorization of melanoidin by activated carbon obtained from bagasse bottom ash, *J of Food Engineering*, 96, 14-17. (impact factor 2007 = 1.848).

-
Aworn, A., Thiravetyan, P. and Nakbanpote, W. (2009) Preparation of CO₂ activated carbon from corncob for monoethylene glycol adsorption, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 333, 19-25 (impact factor 2007 = 1.601)

-
Suksabye, P., Nakajima, A., Thiravetyan, P. , Baba, Y. and Nakbanpote, W. (2009) Mechanism of Cr(V) adsorption by coir pith studied by ESR and adsorption kinetic, *J. of Hazardous Materials*, 161, 1103-1108. (impact factor 2007 = 2.337)

-
Leechart, P., Nakbanpote, W. and Thiravetyan, P. (2009) Application of 'waste' wood shaving bottom ash for adsorption of azo reactive dye, *J. of Environmental Management*, Vol. 90, 912-920. (impact factor 2007 = 1.446)

-
Suksabye, P., Thiravetyan, P. , Nakbanpote, W. (2008) Column study of chromium (VI) adsorption from electroplating industry by coconut coir pith, *J. of Hazardous Materials*, Vol. 160, 56-62 (impact factor 2007 = 2.337)

-
Aworn, A., Thiravetyan, P. and Nakbanpote, W. (2008) Preparation and characteristics of agricultural waste activated carbon by physical activation having micro- and mesopores, *J. of Analytical and Applied Pyrolysis*, 82, 279-285. (impact factor 2007 = 2.12)

-
Ewecharoen, A., Thiravetyan, P. and Nakbanpote, W. (2008) Comparison of nickel adsorption from electroplating rinse water by coir pith and modified coir pith, *Chemical Engineering Journal*, 137, 181-188. (impact factor 2007 = 1.707)

-
Nilratnisakorn, S., Thiravetyan, P. and Nakbanpote, W. (2007) Synthetic reactive dye wastewater treatment by Narrow-leaved cattails (*Typha angustifolia* Linn.): effects of dye, salinity and metals, *Science of the Total Environment*, 384, 67-76. (impact factor 2007 = 2.182)

-
Nakbanpote, W., Goodman, B. A. and Thiravetyan, P. (2007) Copper adsorption on rice husk derived materials studied by EPR and FTIR, *Colloid and Surface A: Physicochemical and Engineering Aspects*, Vol. 304, 7-13. (impact factor 2007

=1.601)

-

Dolphen, R., Sakkayawong, N., Thiravetyan, P. and Nakbanpote, W. (2007) Adsorption of synthetic reactive dye wastewater onto modified chitin, *J. of Hazardous Materials*, Vol. 145, 250-255. (impact factor 2007 =2.337)

-

Suksabye, P., Thiravetyan, P., Nakbanpote, W. and Chayabutra, S. (2007) Chromium removal from electroplating wastewater by coir pith, *J. of Hazardous Materials*, Vol. 141, 637-644. (impact factor 2007 = 2.337)

-

Aworn, A., Thiravetyan, P. and Nakbanpote, W. (2005) Recovery of gold from gold slag by wood shaving fly ash, *J. of Colloid and Interface Science*, Vol. 287, 394-400. (impact factor 2007 =2.309)

-

Sakkayawong, N., Thiravetyan, P. and Nakbanpote, W. (2005) Adsorption mechanism of synthetic reactive dye wastewater by chitosan, *J. of Colloid and Interface Science*, Vol. 286, 36-42. (impact factor 2007 = 2.309)

-

Netpradit, S., Thiravetyan, P., Nakbanpote, W., Rattanakajhonsakul, K., Tantarawong and S., Jantarangsri, P. (2004) Waste metal hydroxide sludge as a new adsorbent, *Environmental Engineering Science*, Vol. 21, No. 5, 575-582. (impact factor 2007 = 0.944)

-

Songkroah, C., Nakbanpote, W. and Thiravetyan, P. (2004) Recovery of silver-thiosulphate complexes by chitin, *Process Biochemistry*, Vol. 39, 1553-1559. (impact factor 2007 = 2.336)

-

Inthorn, D., Singhtho, S., Thiravetyan, P. and Khan, E. (2004) Decolorization of basic, direct and reactive dyes by pre-treated narrow-leaved cattail (*Typha angustifolia* Linn.), *Bioresource Technology*, Vol. 94, 299-306. (impact factor 2007 =3.103)

-

Netpradit, S., Thiravetyan, P. and Towprayoon, S. (2004) Adsorption of 3 azo reactive dyes by metal hydroxide sludge: Effect of temperature, pH and electrolytes *Journal of Colloid and Interface Science*, Vol. 270, No. 2, 255-261. (impact factor 2007 =2.309)

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