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	Paper Title:	Removal of Some Hazardous Dyes by Photodegradation in Presence of Yttrium Oxide		
	<p>Abstract: The photodegradation of Rhodamine B and Congo red dye solutions were studied in presence of yttrium oxide. The rate constant of the photodegradation process was calculated. The effects of pH values, sun light, UV lamps, the dye concentration, and the dose of Y2O3 on the rate of photodegradation were studied. Also the kinetic parameters by using Longmireequation were calculated. The carbon oxygen demand (COD) and the total organic carbon (TOC) were determined. The analysis of the obtained results indicate that photodegradation of the both dyes depend on the structure of the dyes, the function groups of the dyes, the pH value of the media, the dose of the catalyst and the concentration of the dyes.</p> <p>Keywords: Photodegradation, Dyes mineralization, Rhodamine B, Congo red and yttrium oxide.</p> <p>References:</p> <ol style="list-style-type: none"> Z. Fan, W. Zhuang, W.Se, F. Hao, C. Mindong, X. Defu, T. Lili, W. Degao, Physicochemical properties and ecotoxicological effects of yttrium oxide nanoparticles in aquatic media: Role of low molecular weight natural organic acids, <i>Environmental Pollution</i>, 2016, 212, pp.113-20. D. M.EL-Mekkawi, H. R.Galal, R. M. Abd EL Wahab,W. A.A.Mohamed,Photocatalytic activity evaluation of TiO2 nanoparticles based on COD analyses for water treatment applications: a standardization attempt, <i>Int. J. Environ. Sci. Technol.</i>, 2016,DOI 10.1007/s13762-016-0944-0. T.Andelman, S.Gordonov, G.Busto, P.V.Moghe, R.E.Riman, Synthesis andcytotoxicity of Y2O3 nanoparticles of various morphologies <i>Nanoscale, Res. Lett.</i>, 2009, 5, pp.63-73. A.Castro-Bugallo, A.Gonzalez-Fernandez, C.Guisande,A. Barreiro,Comparative responses to metal oxide nanoparticles in marine phytoplankton, <i>Arch. Environ. Contam. Toxicol.</i>,2014,67, pp. 83-93. A.Hosseini, A.M.Sharifi, M.Abdollahi, R.Najafi, M.Baeeri, S.Rayegan, J.Cheshmehnoor,S. Hassani, Z.Bayrami, M. Safa,Cerium and yttriumoxide nanoparticles against lead-induced oxidative stress and apoptosis in rathippocampus, <i>Biol. Trace Elem. Res.</i>,2015; 164:80-9. V.Selvaraj, S.Bodapati, E.Murray, K.M.Rice, N.Winston,T. Shokuhfar, Y.Zhao,E.Blough, Cytotoxicity and genotoxicity caused by yttrium oxide nanoparticlesin HEK293 cells., <i>Int. J. Nanomed.</i> 2014,9, pp. 1379-91. S.A.Cotton, "Scandium Yttrium & the Lanthanides," <i>Inorganic & CoordinationChemistry. Encyclopedia of Inorganic Chemistry</i>, 2006. D. Bloor, R. J. Brook, M.C.Flemings,S. Mahajan, Yttrium oxide,"<i>The Encyclopedia of Advanced Materials</i>" Pergamon Press,Ltd., Oxford, 1994, Chapter 4. G.Bour, A.Reinholdt, A.Stepanov, C.Keutgen,U. Kreibig,Optical andelectrical properties of hydrogenated yttrium nanoparticles, <i>Eur. Phys. J.D.</i>,2001,16, pp.219-223. K.Kiryu Yap, J.Susan Neuhaus, "Making cancer visible Dyes in surgical oncologySurgical," <i>Oncology</i>,2016, 25, pp. 30-36. M.Tatsuta, H.Iishi,S. Okuda,Diagnosis of early gastric cancers in theupper part of the stomach by the endoscopic Congo red-methylene blue test, <i>Endoscopy</i>,1984,16(4), pp.131-134. T.Andelman,S.Gordonov,G.Busto,P.V.Moghe, R. E.Riman,Synthesis and cytotoxicity of Y2O3 nanoparticles of various morphologies,<i>Nanoscale Res. Lett.</i>, 2010,5, pp. 263-273. A.K.Kondru,P.Kumar, S. Chand, Catalytic wet peroxide oxidation of azo dye(Congo red) using modified Y zeolite as catalyst, <i>J. Hazard. Mater.</i>,2009,166, pp.342-347. F.A.Pavan, S.L.P. Dias, E.C. Lima,E. V. Benvenuto,Removal of Congo red fromaqueous solution by aniline propylsilica xerogel, <i>Dyes and Pigment</i>,2008,76, pp.64-69. J. Luana, M. Li, K. Maa, Y. Li, Z. Zou, Photocatalytic activity of novel Y2InSbO7 and Y2GdSbO7 nanocatalysts for degradation of environmental pollutant rhodamine B under visible light irradiation, <i>Chemical Engineering Journal</i>, 2011, 167,pp. 162-171. S. Gupta, C. Giordano, M. 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Ibrahim, Studies on photodegradation of Methylene Blue (MB) by nano-sized titanium oxide., <i>Journal of Egyptian Chemistry</i>, 2014,57,4, pp. 315-326. A.El-sayed, Ibrahim I. A. I., Mohamed,Walied A. A., M. A. M.Ahmed, Synthesis and Characterization of Crystalline Nano TiO2 and ZnO and their effects on the Photodegradation of Indigo Carmine Dye, <i>International Journal of Advanced Engineering and Nano Technology</i>, 2015, 2,12,pp. 15-22. M. A. Wahba, W. A. A.Mohamed, A. A.Hanna,Sol-gel synthesis, characterization of Fe/ZrO2 nanocomposites and their photodegradation activity on indigo carmine and methylene blue textile dyes,<i>International Journal of Chem Tech Research</i>, 2016, 9,5,pp.914-925. K. Subramani, K.Byrappa,S. Ananda , R. K. M. Lokanatha, C.Ranganathaiah, M.Yoshimura, Photocatalytic degradation of indigo carmine dye using TiO2 impregnated activated carbon, 2007,DOI: 10.1007/s12034-007-0007-8. A.Hanna, W. A. A.Mohamed, H. 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2.	Authors:	Guntuku Ravikiran, Mohammed Jaffar, Kadiyam Sasidhar		
	Paper Title:	A Novel Multilevel Inverter based Micro Grid and ITS Co-Ordination Control		

	<p>Abstract: This thesis first proposes a hybrid ac/dc micro-grid and its coordination control for reducing the processes of multiple conversions in an individual ac or dc grid. Renewable energy based distributed generators (DGs) play a dominant role in electricity production, with the increase in the global warming. Distributed generation based on wind, solar energy, biomass, mini-hydro along with use of fuel cells and micro- turbines will give significant momentum in near future. Advantages like environmental friendliness, expandability and flexibility have made distributed generation, powered by various renewable and nonconventional micro-sources. The micro-grid concept introduces the reduction of multiple reverse conversions in an individual AC or DC grid and also facilitates connections to variable renewable AC and DC sources and loads to power systems. The interconnection of DGs to the utility/grid through power electronic converters has risen concerned about safe operation and protection of equipment's. To the customer the micro-grid can be designed to meet their special requirements. In the present work the performance of hybrid AC/DC micro-grid system is analyzed in the grid tied mode. Here photovoltaic system, wind turbine generator and battery are used for the development of Micro- grid. A small hybrid grid has been modeled and simulated using the Simulink in the MATLAB. The simulation results show that the system can maintain stable operation under the proposed coordination control schemes.</p> <p>Keywords: Hybrid ac/dc micro-grid, RES, Distributed generators (DGs), Photovoltaic system, Wind turbine generator and Battery.</p> <p>References:</p> <ol style="list-style-type: none"> 1. M. E. Ropp and S. Gonzalez, "Development of a MATLAB/simulink model of a single-phase grid- connected photovoltaic system," IEEE Trans. Energy Conv., vol. 24, no. 1, pp. 195–202, Mar. 2009. 2. Sera, R. Teodorescu, J. Hantschel, and M. Knoll, "Optimized maximum power point tracker for fast-changing environmental conditions," IEEE Trans. Ind. Electron., vol. 55, no. 7, pp. 2629–2637, Jul. 2008. 3. Bryant and M. K. Kazimierczuk, "Voltage loop of boost PWM DC-DC converters with peak current-mode control," IEEE Trans. Circuits Syst. I, Reg. Papers, vol. 53, no. 1, pp. 99–105, Jan. 2006. 4. S. Arnalte, J. C. Burgos, and J. L. Rodriguez- amenedo, "Direct torque control of a doubly-fed induction generator for variable speed wind turbines," Elect. Power Compon. Syst., vol. 30, no. 2, pp. 199–216, Feb. 2002. 5. W. S. Kim, S. T. Jou, K. B. Lee, and S. Watkins, "Direct power control of a doubly fed induction generator with a fixed switching frequency," in Proc. IEEE Ind. Appl. Soc. Annu. Meet., Oct. 2008, pp. 1–9. 	7-12				
3.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Authors:</td> <td>K. Vamsi Krishna Reddy, Ch. Abhinav</td> </tr> <tr> <td>Paper Title:</td> <td>Brief Review on Thermal Properties of Graphene-Aluminium Metal Matrix Composites</td> </tr> </table> <p>Abstract: In this paper we report an obvious review of the thermal properties of graphene and aluminium sheet reinforced with graphene layer. Graphene is one of very few materials with exceptionally high thermal conductivity due to the scattering of phonons. The experimental results revealed that the thermal conductivity of graphene is very high when compared to carbon nanotubes (CNTs). To increase the thermal properties of aluminium, graphene can be used as reinforcement in producing metal matrix composites. The reported results revealed that the fabricated composites showed enhanced thermal conductivity as compared with the various metal matrix composites like aluminium, copper, beryllium, silver and their alloys. The thermal conductivity of graphene reinforced aluminium increased from 324 W/mK to 783W/mK and has the potential to provide the sufficient thermal conductivity for food drying process and can be used in heat exchangers.</p> <p>Keywords: Graphene; Al MMC; Thermal properties.</p> <p>References:</p> <ol style="list-style-type: none"> 1. C.H. Jeon, Y.H. Jeong, J.J. Seo, H.N Tien, S.T Hong, Y.J Yum, S.H Hur, K.J Lee, International Journal of Precision Engineering and Manufacturing 15 (2014) 1235. 2. Balandin, Nat. Mater. (2011) 3064. 3. E. Pop, V. Varshney, and A.K. Roy, Material Research Society (2012). 4. J. Wang, Z. Li, G. Fan, H. Pan, Z. Chen, D. Zhanga, Scripta Mater. 66 (2012) 594. 5. Cao, J. Appl. Phys. 111 (2012) 083528. 6. A.A. Balandin, S. Ghosh, W. Bao, I. Calizo, D. Teweldebrhan, F. Miao, C.N. Lau, Nano Lett. 8 (3) (2008). 7. Balandin, S. Ghosha, D. L. Nika, and E. P. Pokatilova, Electrochem. Soc. Interface, 28 (5) (2010) 63. 8. S. Ghosh, D. L. Nika, E. P. Pokatilov, A. A. Balandin, New. J. Phy. (2009) 095012. 9. S. Ghosh, W. Bao, D.L. Nika, S. Subrina, E.P. Pokatilov, C.N. Lau and A. A. Baladin, Nat. mater. (2010) 2753. 10. D. Singh, J. Y. Murthy, T. S. Fisher, J. Appl. Phys. 110 (2011) 044317. 11. Alofi, G. P. Srivastav, Phys. Rev. B 87 (2013) 115421. 12. M. M. Sadeghi, M. T. Pettes, Li Shi, Solid State Commun. (2012) 1321. 13. P. G. Klemens, D. F. Pedraza, Peragamon carbon, 32 (4) (1994). 14. Vadym Adamyan and Vladimir Zavalniuk, PACS numbers: 63.22. Rc, 65.80. Ck, 66.70.-f, 61.72.J-, 63.20.k 15. S. Ghosh, I. Calizo, D. Teweldebrhan, E. P. Pokatilov, D. L. Nika, A. A. Balandin, W. Bao, F. Miao and C. N. Lau, Appl. Phys.Lett. 92 (2008) 151911. 16. F. Hao, D. Fang, and Zhiping Xu, App. Phy. Lett. 99 (2011) 041901. 17. D. L. Nika, S. Ghosh, E. P. Pokatilov, and A. A. Balandin, App. Phys. Lett. 94 (2009) 203103. 18. J.K. Chen, I.S. Haung, Composites B 44 (2013) 698. 19. A.C. Ferrari, J.C. Meyer, V. Scardaci, C. Casiraghi, M. Lazzeri, F. Mauri, S. Piscanec, D. Jiang, K.S. Novoselov, S. Roth, and A.K. Geim, Phys. Rev. Lett. 97 (2006) 187401. 20. Calizo, A. A. Balandin, W. Bao, F. Miao, and C. N. Lau, Nano Lett. 7 (9) (2007) 2645. 21. J. D. Renteria, D. L. Nika, A. A. Balandin, Appl. Sci. 4 (2014) 525. 22. S. Stankovich, D. A. Dikin, G. H. B. Dommett, K. M. Kohlhaas, E. J. Zimney, E. A. Stach, R. D. Piner, S. T. Nguyen, R. S. Ruoff, Nat. Lett. 442 (2006). 23. S. Ghosh, A. A. Balandin, Mater. Res. Soc. Symp. Proc. (2011) 1344. 	Authors:	K. Vamsi Krishna Reddy, Ch. Abhinav	Paper Title:	Brief Review on Thermal Properties of Graphene-Aluminium Metal Matrix Composites	13-17
Authors:	K. Vamsi Krishna Reddy, Ch. Abhinav					
Paper Title:	Brief Review on Thermal Properties of Graphene-Aluminium Metal Matrix Composites					

	<p>24. L. A. Jauregui, Y. Yue, A. N. Sidorov, J. Hu, Q. Yu, G. Lopez, R. Jalilian, D. K. Benjamin, D. A. Delk, Wei Wu, Z. Liu, X. Wang, Z. Jiang, X. Ruan, J. Bao, Steven S. Pei, Y. P. Chena, Thermal Transport in graphene Nanostructures: Experimental and Simulation.</p> <p>25. H. Zhang, G. Lee, K. Cho, Phys. Rev. B 84 (2011) 115460.</p> <p>26. K. M. F. Shahil, A. A. Balandin, Solid State Commun.152 (2012) 1331.</p> <p>27. K. M. F. Shahil, A. A. Balandin, Nano Lett. 12 (2012) 861.</p> <p>28. M. Park, SC. Lee, YS. Kim, J. Appl. Phys 114 (2013) 053506.</p> <p>29. X. Colin, Tong, Springer series in Advanced Microelectronics, LLC (2011).</p>	
Authors:	Akansha A. Tandon, Sujata Tuppad	
Paper Title:	Efficient Feature Selection by using Global Redundancy Minimization and Constraint Score	
4.	<p>Abstract: A central problem in automatic learning is the identification of a representative set of characteristics from which to construct a classification model for a particular task. This thesis deals with the problem of the selection of characteristics for automatic learning by a correlation - based approach. The central assumption is that good sets of characteristics contain characteristics that are highly correlated with the class but not correlated with each other. A formula for evaluating characteristics, based on ideas derived from test theory, provides an operational definition of this hypothesis. CFS (Correlation based Feature Selection) is an algorithm that couples this evaluation formula with an appropriate correlation measure and a heuristic search strategy. Other experiments compared the CFS to a wrapper - a well-known approach to feature selection that uses the target learning algorithm to evaluate sets of features. In many cases CFS has given results comparable to the envelope, and in general, surpassed the envelope on small sets of data. CFS runs much faster than the wrapper, enabling it to extend to larger sets of data.</p> <p>Keywords: Feature selection, feature ranking, redundancy minimization, Radial Basis Function, Kernel</p> <p>References:</p> <ol style="list-style-type: none"> 1. Pena, J.M., Lozano, J.A., Larranaga, P., Inza, I. Dimensionality reduction in unsupervised learning of conditional gaussian networks. IEEE Transactions on Pattern Analysis and Machine Intelligence 2001;23(6):590–603. 2. Kurun, O., Akar, C.O., Favorov, O., Aydin, N., Urgen, F. Using covariates for improving the minimum redundancy maximum relevance feature selection method. Turkish Journal of Electrical Engineering and Computer Sciences 2010;18(6):975–987. 3. Kamandar, M., Ghassemian, H. Maximum relevance, minimum redundancy band selection for hyperspectral images. In: 19th Iranian Conference on Electrical Engineering (ICEE),. 2011. 4. Dy, J.G., Brodley, C.E., Kak, A., Broderick, L.S., Aisen, A.M.. Unsupervised feature selection applied to content-based retrieval of lung images. IEEE Transaction on Pattern Analysis and Machine Intelligence 2003;25(3):373–378. 5. Zhang, Z., R.Hancock, E. A graph-based approach to feature selection. In: International Workshop on Graph-Based Representations in Pattern Recognition. 2011. 6. Cai, D., Zhang, C., He, X.. Unsupervised feature selection for multi-cluster data. In: 16th ACM SIGKDD International Conference on Knowledge Discovery and Data mining. 2010. 7. Ruiza, R., Riquelmea, J.C., Aguilar-Ruizb, J.S.. Incremental wrapper-based gene selection from microarray data for cancer classification Pattern Recognition 2006;39(12):2383–2392. 8. Mitra, P., Murthy, C., Pal, S.K.. Unsupervised feature selection using feature similarity. IEEE Transaction on Pattern Analysis and Machine Intelligence 2002;24(3):301–312. 9. Sondberg-Madsen, N., Thomsen, C., Pena, J.M.. Unsupervised feature subset selection. In: In Proc. of the Workshop on Probabilistic Graphical Models for Classification. 2003. 10. Ding, C.H.Q.. Unsupervised feature selection via two-way ordering in gene expression analysis. Bioinformatics 2003;19(10):1259–1266 11. Kohavi, R., John, G.. Wrapper for feature subset selection. Artificial Intelligence 1997;97:273–324 12. Jiang, S., Wang, L.. An unsupervised feature selection framework based on clustering. In: New Frontiers in Applied Data Mining. 2008 13. Morita, M., Oliveira, L.S., Sabourin, R.. Unsupervised feature selection for ensemble of classifiers. In: Frontiers in Handwriting Recognition. 2004 14. Handl, J., Knowles, J.. Feature subset selection in unsupervised learning via multiobjective optimization. International Journal of Computational Intelligence Research 2006;2(3):217–238 15. Dash, M., Liu, H.. Unsupervised feature selection. In: In Proc. Pacific Asia Conf. Knowledge Discovery and Data Mining. 2000 16. P. N. Belhumeur, J. P. Hespanha, and D. Kriegman, “Eigenfaces vs. fisherfaces: Recognition using class specific linear projection,”IEEE Trans. Pattern Anal. Mach. Intell., vol. 19, no. 7, pp. 711–720, Jul. 1997 17. X. Chang, F. Nie, Y. Yang, and H. Huang, “A convex formulation for semi-supervised multi-label feature selection,” in Proc. AAAI Conf. Artif. Intell., 2014, pp. 1171– 1177 18. J. Wu and J. M. Rehg, “CENTRIST: A visual descriptor for scene categorization,” IEEE Trans. Pattern Anal. Mach. Intell., vol. 33,no. 8, pp. 1489–1501, Aug. 2011 [5] G. Forman and E. Kirshenbaum, “Extremely fast text feature extraction for classification and indexing,” in Proc. Int. Conf. Inf. Knowl. Manag., 2008, pp. 1221–1230 19. R. Kohavi and G. H. John, “Wrappers for feature subset selection,” Artif. Intell., vol. 97, no. 1/2, pp. 273–324, 1997 	18-20