



Biennial Symposium on Emerging Trends in Separation Science and Technology Kalpakkam, India

Designing of ligands for solvent extraction of Cs ⁺ using molecular modeling approach S.K. Nagappayya, V.G. Gaikar (Matunga, Mumbai, India) and S.K.M. Ali (Mumbai, India)	1
Synthesis of crown ether functionalized polyacrylamide gel beads and their extraction behaviour for strontium ions M. Sivanatham, B.V.R. Tata and C.A. Babu (Tamil Nadu, India).....	8
Statistical study of factors affecting the phase separation kinetics in solvent extraction for uranium recovery from phosphoric acid K.K. Yadav, M. Anitha, D.K. Singh and H. Singh (Mumbai, India).....	15
Removal of ⁹⁹ Tc from low level radioactive liquid waste using commercial anion exchanger resin V. De, N.L. Sonar, Y. Raghavendra, T.P. Valsala, M.S. Sonavane (Tarapur, India), S. Jain (Trombay, India) Y. Kulkarni and R.D. Changrani (Tarapur, India)	22
Process modeling of in-situ electrochemical partitioning of uranium and plutonium in purex process: benchmark results with uranium reduction V. Reshmi, N.K. Pandey, R. Sivasubramanian, S. Ganesh, M.K. Ahmed, U.K. Mudali and R. Natarajan (Tamilnadu, India)	29
Evaluation of <i>N,N</i> -dihexyloctanamide as an alternative extractant for spent fuel reprocessing: batch and mixer settler studies P.N. Pathak, D.R. Prabhu, N. Kumari, A.S. Kanekar (Mumbai, India) and V.K. Manchanda (Suwon, Korea).....	40
Solvent extraction studies of protactinium for its recovery from short- cooled spent fuel and high-level waste solutions in thorium fuel cycle using diisobutyl carbinol (DIBC) as extractant N. Kumari, P.N. Pathak, D.R. Prabhu (Mumbai, India) and V.K. Manchanda (Suwon, Korea).....	46
Denitrification of high sodium nitrate bearing effluents using flow-through bioreactor U. Sandhya, D. Banerjee, I.J. Singh and P.K. Wattal (Mumbai, India).....	52
Selective separation of Cs(I) extraction from actual high level waste using a solvent containing calix [4]-bis 2,3-naphtho-crown-6 P.K. Mohapatra, P.S. Dhami, S. Panja, P. Jagasia, S.C. Tripathi, P.K. Dey and V.K. Manchanda (Mumbai, India)	59
Studies on the use of octyl (phenyl) phosphinic acid (OPPA) for extraction of yttrium (III) from chloride medium M. Anitha, D.K. Singh, R. Ruhela, J. Sharma and H. Singh	65
Electrochemical recovery of fission platinoids (Ru, Rh, Pd) from simulated high-level liquid waste M. Jayakumar, K.A. Venkatesan, T.G. Srinivasan and P.R.V. Rao (Kalpakkam, India).....	73
A highly efficient carboxyl-terminated hybrid adsorbent composite matrix for the adsorption of uranium(VI) and thorium(IV) from aqueous solutions and nuclear industry effluents T.S. Anirudhan, S. Rijith and V.R.N. Ratheesh (Kariavattom, Trivandrum)	79
Removal and biotransformation of U(VI) and Cr(VI) by aerobically grown mixed microbial granules Y.V. Nancharaiyah, V.P. Venugopalan (Kalpakkam, India) and A.J. Francis (Upton, NY, USA)	90
Transport of inorganic acids through polybenzimidazole (PBI) based membranes by chemo-dialysis Y.J. Chendake and U.K. Kharul (Pune, Maharashtra, India)	96
Eco-friendly waste water treatment by cow dung powder (Adsorption studies of Cr(III), Cr(VI) and Cd(II) using tracer technique) N.S. Barot and H.K. Bagla (Maharashtra, India)	104

Uranium preconcentration from seawater using phosphate functionalized poly(propylene) fibrous membrane S. Das, A.K. Pandey (Mumbai, India), A.A. Athawale (Pune, India), V. Natarajan and V.K. Manchanda (Mumbai, India)	114
Development of radio analytical method for in-vitro monitoring of Pu in urine matrix S. Kalaiselvan and V.S. Meenakshisundaram (Kalpakkam, India).....	121
Synthesis, characterization and application of cerium phosphate as an ion exchanger T. Parangi (Vadodara, Gujarat, India), B. Wani (Trombay, Mumbai, India) and U. Chudasama (Vadodara, Gujarat, India).....	126
Polishing of spent fuel storage bay, dhruva water using synthetic zeolites S. Jain, C.S. Pawaskar, S. Kumar and K. Raj (Mumbai, India).....	135
Studies on di-nonyl phenyl phosphoric acid (DNPPA): a potential extractant for uranium recovery from merchant grade phosphoric acid (MGA) D.K. Singh, R. Vijayalakshmi, H. Singh (Mumbai, India).....	138
Removal of dissolved Tri <i>n</i> -butyl phosphate from aqueous streams of reprocessing origin: engineering scale studies S. Manohar, K.N. Kutty, B.V. Shah, P.K. Wattal, S.L. Bajoria, N.S. Kolhe and V.K. Rathod (Mumbai, India)	146
Effects of alkyl substituents of organophosphorous extractants on uranium permeation for recovery from uranyl nitrate raffinate S. Biswas, P.N. Pathak, S.B. Roy (Mumbai, India) and V.K. Manchanda (Suwon, Korea)	151
Development of solvent extraction scheme for reprocessing of advanced heavy water reactor spent fuel using <i>N,N</i> -Dihexyl octanamide as extractant N. Kumari, P.N. Pathak, D.R. Prabhu (Mumbai, India) and V.K. Manchanda (Suwon, Korea).....	159
Steric effects of trialkyl phosphates on the extraction of uranyl cation R.S. Madyal and V.G. Gaikar (Mumbai, India).....	166
Separation of plutonium(IV) from uranium(VI) using phosphonate-based task-specific ionic liquid A. Rout, K.A. Venkatesan, T.G. Srinivasan and P.R.V. Rao (Kalpakkam, India).....	179
Validation of the flow-sheet proposed for reprocessing of AHWR spent fuel: counter-current studies using TBP P.S. Dhami, P. Jagasia, S. Panja, P.W. Naik, P.V. Achuthan, S.C. Tripathi, S.K. Munshi and P.K. Dey (Mumbai, India)	184
Supercritical fluid extraction of uranium from sintered oxides (UO ₂ , (U,Th)O ₂), soil and ore samples using tri- <i>n</i> -butylphosphate and <i>N,N</i> -di-(2-ethylhexyl) isobutyramide as extractants A.S. Kanekar, P. Pathak, P.K. Mohapatra, R. Acharya and V.K. Manchanda (Mumbai, India)	190
A mathematical model for pertraction of uranium in hollow fiber contactor using TBP S. Dixit, S. Mukhopadhyay, S. Govalkar, K.T. Shenoy, H. Rao and S.K. Ghosh (Mumbai, India)	195
Facilitated transport of uranium(VI) across supported liquid membranes (SLM) containing T2EHDGA: Part II. Nature of feed, pore size and temperature on pertraction rates S. Panja, P.K. Mohapatra and S.C. Tripathi (Mumbai, India)	207
Feasibility study of novel sorbent for chromium sequestration and enhanced immobilization S. Pal (Mumbai, India), P. Dhanpal (Roorkee, India), J.L. Goswami and P.K. Tewari (Mumbai, India)	215
Donnan membrane equilibrium studies of mercury salts with Nafion-117 membrane C. Agarwal, S. Chaudhury, A. Mhatre and A. Goswami (Mumbai, India)	222
Application of zirconium phosphonate—a novel hybrid material as an ion exchanger B. Shah and U. Chudasama (Gujarat, India).....	227
Simultaneous recovery of yttrium and uranium using D2EHPA–TBP and DNPPA–TOPO from phosphoric acid D.K. Singh, M. Anitha, K.K. Yadav, M.K. Kotekar, R. Vijayalakshmi and H. Singh (Mumbai, India)	236
Ionic liquid as a novel partitioning media A. Boda, S.M. Ali, M.R.K. Shenoj, H. Rao and S.K. Ghosh (Mumbai, India).....	245
Preparation of poly (4-vinylpyridine-DVB) based anion exchangers and its applications on the separation of ⁹⁹ TcO ₄ ⁻ ions from reprocessing waste solution D. Banerjee, M.A. Rao, A. Joseph, A. Manjrekar, I.J. Singh and P.K. Wattal (Mumbai, India).....	254
Decontamination of ¹⁰⁶ Ru and ⁹⁹ Tc bearing effluents by chemical treatment D. Banerjee, M.A. Rao, A. Joseph, A. Manjrekar, I.J. Singh and P.K. Wattal (Mumbai, India).....	259
Applicability of layered metal sulphide for estimation of Sr concentration in groundwater S. Dafauti, V. Pulhani and A.G. Hegde (Mumbai, India).....	264

**Second Maghreb Conference on Desalination and Water Treatment (CMTDE 2009),
19–22 December 2009, Hammamet, Tunisia**

Inhibition of CaCO ₃ scale formation in ground waters using mineral phosphates Y. Boulahlib-Bendaoud, S. Ghizellaoui (Algeria) and M. Tlili (Tunisia).....	271
Sorption of hexavalent chromium metal onto Amberlite IRA 410—equilibrium isotherms and Kinetic studies A.O. Yasmine, C. Malika (Algeria), A. Abdeltif (Rennes Cedex, France) and B. Aicha (Algeria).....	278
Sorption of mercury (II) from aqueous solution by Okoume sawdust E.K. Guechi, F. Bendebane, A. Aisset and R. Malaoui (Annaba, Algeria)	285

First Academic Workshop on Non-point Source Pollution Research, 2011, Korea

Forecasting performance of algae blooms based on artificial neural networks and automatic observation system M.E. Kim, T.S. Shon (Busan, Korea), K.S. Min (Daegu, Korea) and H.S. Shin (Busan, Korea).....	293
Optimization of phosphorus reduction in BNR process for urban watershed management Y.-M. Choi, K.-H. Kwon, S.-W. Kim and K.-S. Min (Daegu, Korea)	302
Diffuse pollutant unit loads of various transportation landuses M.C. Maniquiz, S. Lee (Chungnamdo, Korea), K.-S. Min (Daegu, Korea), J.H. Kim (Gwangju, Korea) and L.-H. Kim (Chungnamdo, Korea)	308
A characteristic analysis on the particles in a constructed stormwater wetland during dry days J. Yu, K. Park and Y. Kim (Chungnam, Korea).....	316
Flood reduction analysis on watershed of LID design demonstration district using SWMM5 J.-M. Lee, K.-H. Hyun, J.-S. Choi (Korea), Y.-J. Yoon and F.K.F. Geronimo (Chungcheongnamdo, Korea).....	326
Estimation of NPS pollutant properties based on SWMM modeling according to land use change in urban area T.S. Shon, S.D. Kim, E.Y. Cho, J.Y. Im (Busan, Korea), K.S. Min (Daegu, Korea) and H.S. Shin (Busan, Korea)	333
Characteristics of contaminant and phosphorus existence types in sediment of a constructed wetland J. Choi, M.C. Maniquiz, B. Lee, S. Jeong and L.-H. Kim (Chungnamdo, Korea).....	342
Particle removal properties of stormwater runoff with a lab-scale vortex separator K.-H. Kwon, S.-W. Kim (Daegu, Korea), L.-H. Kim (Cheonan, Korea), J.H. Kim (Gwangju, Korea), S. Lee (Daejeon, Korea) and K.-S. Min (Daegu, Korea)	349
Developing delivery ratio duration curve (DRDC) based on SWAT modeling in Nakdong river basin T.S. Shon, S.D. Kim, M.E. Kim, J.B. Park (Busan, Korea), K.S. Min (Daegu, Korea) and H.S. Shin (Busan, Korea)	354
Stormwater runoff monitoring in a deciduous and coniferous forest M.C. Maniquiz, J. Choi, S. Lee and L.-H. Kim (Chungnamdo, Korea)	364
Seasonal biomass changes at a newly constructed wetland in agricultural area J. Choi, M.C. Maniquiz (Chungnamdo, Korea), J.-H. Kang (Seoul, Korea), K. Lim and L.-H. Kim (Chungnamdo, Korea)	371
Operation of the vertical subsurface flow and partly submersed stormwater wetland with an intermittent recycle Y. Chen (China), H.B. Guerra (Chungnam, Korea), K.S. Min (Daegu, Korea) and Y. Kim (Chungnam, Korea).....	378
Investigation of stormwater runoff strength in an agricultural area, Korea S.M. Cha, S.W. Lee (Gwangju, Korea), L.-H. Kim (Chungnamdo, Korea), K.S. Min (Daegu, Korea), S. Lee (Daejeon, Korea) and J.H. Kim (Gwangju, Korea).....	389
Comparison of numerical schemes for improved prediction model of fecal indicator bacteria in a riverine system M. Choi, Y. Park, M. Cha (Gwangju, Korea), K.H. Cho (Ann Arbor, MI, USA) and J.H. Kim (Gwangju, Korea).....	395
New concept water purification module combined with renewable energy production J.-Y. Lee and K.-S. Min (Daegu, Korea)	404
Shedding and size distributions of suspended sediments in an urban watershed J.H. Ahn (Seoul, Korea)	411