

Name Ulhas Kharul

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Subjects Membrane Science and Technology



- Education and experience
- MSc. PhD.
 - Proton exchange membranes for fuel cell, Gas separation using polymeric membranes, Ultrafiltration, Chemo-dialysis
- Achievements
- Technology of Ultrafiltration membranes transferred to a commercial entrepreneur:
 - ICICI Technology of the year award (2006)
 - Prototype development and demonstration for various separation applications (oxygen enrichment of air, explosive vapors, PEM-fuel cell)
- Research Area
- Structure-permeation property relation in polymeric membranes
- Recent publications
1. Y.J. Chendake, U.K. Kharul; Transport of inorganic acids through polybenzimidazole (PBI) based membranes by chemo-dialysis; *Desalination and Water Treatment* 38 (2012) 96-103
 2. H. Lohokare, Y. Bhole, S. Taralkar, U. Kharul; Poly(acrylonitrile) based ultrafiltration membranes: Optimization of preparation parameters; *Desalination* **282** (2011) 46–53
 3. R. Kannan, R. Vellacheri, N. Pardeshi, H D. Chaudhari, U. K. Kharul, S. Kurungot, and V.K. Pillai; Application of Functionalized CNT–Polymer Composite Electrolytes for Enhanced ChargeStorage in “All Solid-State Supercapacitors” *Journal of Nano Energy and Power Research* **1** (2011) 1-7
 4. R.Kannan, H.N.Kagalwala, H.D. Chaudhari, U.K. Kharul, S. Kurungot, V,K. Pillai; Improved Performance of Phosphonated Carbon Nanotube – Polybenzimidazole Composite Membranes in Proton Exchange Membrane Fuel Cells; *J. Mater. Chem.*, **21** (2011) 7223–7231
 5. R.S. Bhavsar, M.S. Kale, S.G. Patil, R.A. Bhavsar, U.K. Kharul; Polybenzimidazoles based on 3,3'-diaminobenzidine and aliphatic dicarboxylic acids: Synthesis and evaluation of physico-chemical properties towards applicability as proton exchange and gas separation membrane material; *J. Appl. Polym. Sci.*, **120** (2011) 1090–1099