Editor's Note

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Nanotechnology in Preparation of Semipermeable Polymers

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Chemical engineering as a branch of engineering applies physical, chemical and life sciences with applied mathematics and economics to design large-scale processes for converting raw materials into useful forms and products. Advancement in chemical engineering helps in optimizing the industrial outputs.

Chemical Engineering Journal is an open access international peer reviewed publication that publishes recent advances on these topics. Seven research articles and a review article have been published in volume 6 issue 2 of the journal. Ahamed et al. in their research article described the synthesis of aminoguanidyl-chitosan imprinted polymers (AGCIPs) for the recovery of precious metals like gold and silver from aqueous solutions [1]. The author found that AGCIPs are effective in absorbing gold and silver from the solutions and also the polymer can be regenerated for reusing up to five times without change in the adsorption capacity.

In the research article published by Shehu et al., the authors have successfully developed mesoporous membrane by using dip coated silica and zeolite for selectively removing Carbon dioxide from methane and to produce quality pipelines meant for natural gas. Shil et al. in their research article described the process of preparing Aluminum oxide from the industrial wastes by acid and alkali methods [2,3].

Jaiswal et al. prepared a series of Copper/Palladium bimetallic nanostructures based on Nano fluids and investigated its antimicrobial activity [4]. Their studies showed that the preparednanofluids possessed potential antibacterial activity against microbial species making it valuable for biomedical and industrial applications.

Islam et al. in their research article showcased the synthesis of a series of irradiated hydrogels from an aqueous mixture of Kappa-Carrageenan (KC) and Poly Vinyl Alcohol (PVA) [5]. Authors have found that KC incorporation influenced Water absorption, Water desorption, and Cu2+ intake in PVA / KC blended hydrogel.

Okon et al. and Kajama et al. in their research articles described the synthesis of inorganic composite mesoporous membrane and γ–Alumina Ceramic, respectively [6,7]. In the review article Liszkowska et al. discussed about the changes in thermal properties of Polyurethane–Polyisocyanurate (PUR–PIR) foams when added with Tris (5-Hydroxypenthyl) Citrate [8].

References

1. Ahamed MEH, Marjanovic L, Mbianda XY (2016) Statistical Optimization, Kinetic and Isotherm Studies on Selective Adsorption of Silver and Gold Cyanocomplexes Using Aminoguanidyl-Chitosan Imprinted Polymers. J AdvChemEng 6: 149.
2. Shehu H, Okon E, Orakwe I, Gobina E (2016) Study of the Selectivity of Methane over Carbon Dioxide Using Composite Inorganic Membranes for Natural Gas Processing. J Adv Chem Eng 6: 150.
3. Shil TC, Poddar P, Murad ABMW, Neger AJMT, Chowdhury AMS (2016) Preparation of Aluminum Oxide from Industrial Waste Can Available in Bangladesh Environment: SEM and EDX Analysis. J Adv Chem Eng 6: 152.
4. Jaiswal AK, Gangwar M, Nath G, Yadav RR (2016) Antimicrobial Activity of Bimetallic Cu/PdNanofluids. J Adv Chem Eng 6: 151.
5. Islam T, Dafader NC, Poddar P, Khan NS, Chowdhury AMS (2016) Studies on Swelling and Absorption Properties of the γ – Irradiated Polyvinyl Alcohol (PVA)/Kappa-Carrageenan Blend Hydrogels. J Adv Chem Eng 6: 153.
6. Okon E, Shehu H, Gobina E (2016) Evaluation and Characterisation of Composite Mesoporous Membrane for Lactic Acid and Ethanol Esterification. J Adv Chem Eng 6: 147.

7. Kajama MN, Shehu H, Okon E, Orakwe I (2016) Single Gas Permeation on γ-Alumina Ceramic Support. J Adv Chem Eng 6: 154.

8. Liszkowska J, Czupryński B, Paciorek-Sadowska J (2016) Thermal Properties of Polyurethane-Polyisocyanurate (PUR-PIR) Foams Modified with Tris(5-Hydroxypenthyl) Citrate. J Adv Chem Eng 6: 148.