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Removal of basic dyes from aqueous solutions using phosphoric acid modified ferula communis adsorbent: Thermodynamic and kinetic studies

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The potential of Ferula Communis biomass (FC) was evaluated for removal of cationic dye from aqueous solution. Phosphoric acid modified FC was utilized to remove basic red 9 (BR-9) under varying adsorption parameters such as pH, temperature, contact time, adsorbent dosage, and ionic strength. The adsorption process using modified FC (PFC) was evaluated under isothermal conditions and Langmuir model showed monolayer adsorption of 354.89 mg/g with high R2 value of 0.9997 compared to Freundlich model.

Biography

Luki Stella is a PhD student majoring in Polymer Chemistry at Eastern Meditteranean University whereby she obtained a degree in chemistry science. Due to the various advances in science these days it has been realized that a majority of polymeric material such as natural, synthetic, degradable and non-degradable etc has gained interest in the field of Biomedical Engineering due to its numerous advantages such as non- immunogenic, non toxic, easily processible, biodegradable amongst. Some fields in which they are applied involve tissue engineering, gene delivering, wound healing etc. This and a lot of others have pushed her drive for Biomedical engineering.

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