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Biosorption and Removal of Cr(VI) from Aqueous Solutions by *Nigella Sativa* Seeds Biomass

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Every year millions tons of biomasses issues from agriculture activities and food factories are discarded as a waste. These bulk vegetal biomasses constitute a potential and promoting material in heavy metal pollutants remediation. This first study investigated the efficiency removal of Cr(VI) from solution effluents using *Nigella sativa* seeds waste biomass. In this context, the study aims to assess biosorbing properties by batch procedure of waste biomass toward Cr(VI) by varying contact time, initial Cr(VI) concentration, initial pH and biosorbent dose. The biosorption data was analyzed using Langmuir and Freundlich isotherms. The optimal conditions such as equilibrium contact time for the removal of Pb(II), amount of adsorbent dose and pH were 90 min, 0.025g and pH >2. Under these conditions, the corresponding response for maximum biosorption yield was 0.150mg/g. The Langmuir model and pseudo-second order kinetic fitted well to the adsorption experimental data. Based on the results, the *Nigella sativa* seeds waste biomass appears as a promising biosorbent for remediation of lead pollutant from wastewaters.