

Keywords: Dichlorodiphenyltrichloroethane (DDT); Polychlorinated biphenyls; Nanomaterials; Adsorption

Introduction

Because of the straightforward equipment, low cost, and minimal energy consumption required, heap leaching of ore has been frequently employed. Target minerals and valuable components must be transported via seepage out of the ore heap during the heap leaching process. At the same time, leaching dead corners and blind sections prevent recovery of the target metal, and the permeability of the ore heap directly influences the uniformity of solution dispersion in the ore heap. The recovery rate decreases with increasing permeability. The development of heap leaching technology is now being hampered by the poor permeability of ore heaps [5].



the electrostatic relations between the adsorbent and the adsorbate. As