

Method for obtaining sensor nanocomposite of carbon nanotubes with electrically conductive polymer sensitized with calix[4]arene derivative is aimed for detection of volatile organic compounds in the atmosphere. In this case, polyaniline—obtained by polymerization—is incorporated into the composition as the conductive polymer, and sensitization is achieved both by removing the initial dopant from the polyaniline through treatment (dedoping) with ammonia water followed by redoping with calix[4]arene methylphosphonic acid, and by introducing an additional amount of this acid into its composition.