

1. A kind of proof diamond alkane and β -cyclodextrin successful method for assembling [Machine Translation].

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From [Faming Zhuanli Shenqing \(2016\)](#), [CN 105527285 A 20160427](#), Language: Chinese, Database: CAPLUS

[Machine Translation of Descriptors]. The invention discloses a kind of diamond adamantane and beta-cyclodextrin shows successful assembly method, this method is used to prove host mol. mercapto- β -cyclodextrin and guest mol. change of pH sensitivity of polymer alkane by host-guest chem. diamond, the diamond adamantane and beta-cyclodextrin, which successfully exploit gold is assembled with host mol. on the interaction between sulfhydryl, makes gold bound to host mol., then by adjusting pH value, The guest mol. in pH sensitivity is hydrophobic polymer water condition, if the diamond adamantane and beta-cyclodextrin, and successfully guest mol. assembling junction alloy host mol. and pptn., floc formation and marked with clear and colorless soln., upper layer is alkane and β -cyclodextrin, if Diamond assembly, is not only with guest mols. pptn. (white floccule), junction of the alloy host mol. exist in the upper soln. to obtain supernatant as purple clear soln. The present invention does not require large equipment detection, low cost, and high accuracy of test results.

~0 Citings

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2. Hydrocarbon thin films produced from adamantane-diamond surface deposition: Molecular dynamics simulations

By Plaisted, Thomas A.; Sinnott, Susan B.

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Atomistic simulations are used to study thin-film growth through the deposition of beams of adamantane mols. on hydrogen-terminated diamond (111) surfaces. A range of incident velocities from 13 to 17 km/s (corresponding to kinetic energies of 119-204 eV/mol.) are considered that fall in the hyperthermal energy region for particle deposition on surfaces. The forces on the atoms in the simulations are calcd. using a many-body reactive empirical potential for hydrocarbons. During the deposition process the adamantane mols. react with one another and the surface to form hydrocarbon thin films that are primarily polymeric with the amt. of adhesion depending strongly on incident energy. Despite the fact that the C atoms in the adamantane mols. are fully sp^3 hybridized, the films contain primarily sp^2 hybridized C with the percentage of sp^2 hybridization increasing as the incident velocity goes up. These results are compared with the predictions of simulations that examine the deposition of ethylene mol. and cluster beams.

~10 Citings

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