

fouling agent

Synonym: mechanical inhibitor *in catalysis*

in catalysis

Fouling agents (or mechanical inhibitors) are inhibitory substances bound by neither covalent nor other strong bonds to the active centres: the interaction is usually of the van der Waals, H-bond or sometimes ionic, type. They form protective layers or block pores, thus physically impeding access of reactants to the active centres. The fouling agents which cause real problems are those which have a long standing effect and do not disappear spontaneously. Carbon deposits act, partially or totally, this way (see coking). Other examples are vanadium and nickel sulfide deposits in hydrotreating catalysts.

Source:

PAC, 1991, 63, 1227 (*Manual on catalyst characterization (Recommendations 1991)*)
on page 1244