Vibrational Dynamics in Excited State Quantum Dots

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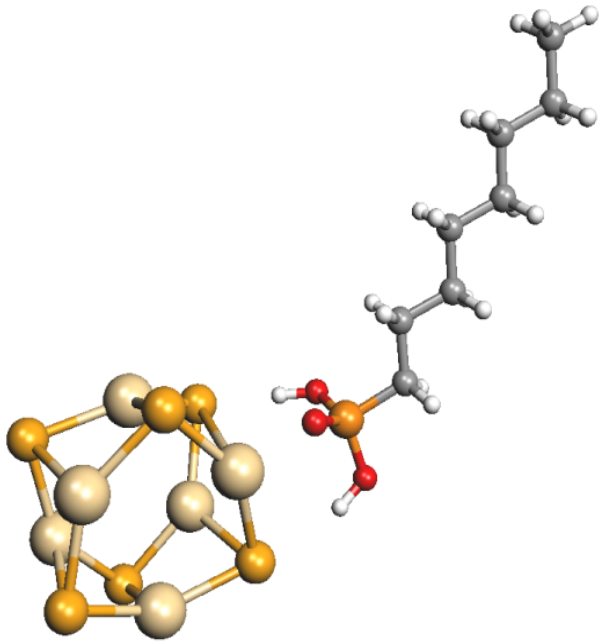
We can learn about the behavior of energy and electrons at organic-inorganic interfaces through time-dependent simulations of model systems, here a Cd_6Se_6 nanocluster bound to octyl phosphonic acid. Input of energy, in the form of electronic excitation, into the cluster dissipates into vibrational energy in the molecule with a rate that depends on specific chemical and electronic interactions at the interface.



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