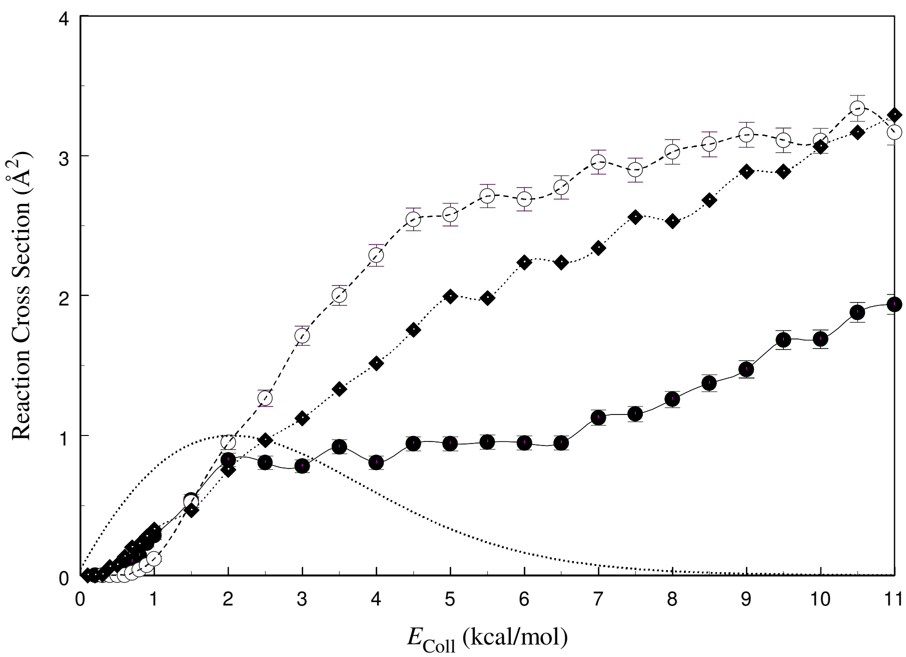
(a)



(b)

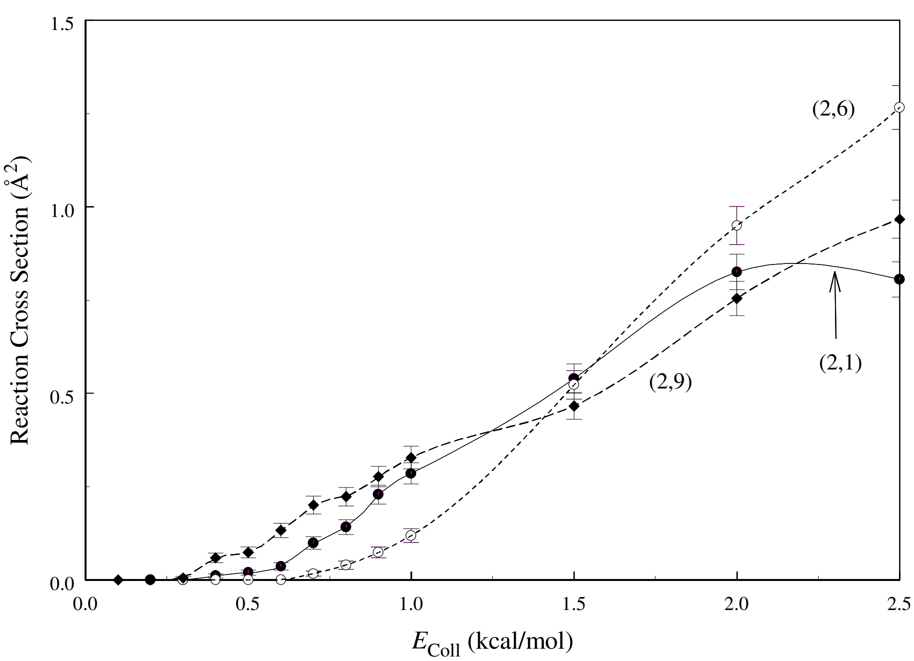


Figure 3. The total reaction cross section as a function of collision energy for reactions initiated in the HCl (v = 2, j = 1, 6, 9) states. Panel (a) shows the full range of collision energies examined as well as the broad collision energy distribution used to weight the cross-sections when computing the product rotational distributions. Panel (b) expands the low energy region to reveal some details of the near-threshold behavior. The symbols represent the energies at which the QCT calculations were carried out, and the lines are spline interpolations through them. For each initial state, 10 000 trajectories were propagated at each energy.