Title:	Interpretation of the accidental predissociation of the E1Π state of CO
Authors:	Sathyamurthy, N. (/jspui/browse?type=author&value=Sathyamurthy%2C+N.)
Keywords:	Pre-dissociation Rydberg Bound state
Issue Date:	2014
Publisher:	American Institute of Physics
Citation:	Journal of Chemical Physics,140(16)
Abstract:	A special case of predissociation, known as indirect or accidental predissociation observed in the Rydberg E1Π bound state of CO is discussed. We resort to ab initio potentials in order to determine the plausible mechanism for this predissociation. Values of the predissociation width for the valence k3Π state of CO, as obtained from Fermi's golden rule, are also reported. The predissociation width obtained for the mixed E 1Π (v = 1, J = 7) state is 0.033 cm-1 compared to the experimental value of 0.034 cm-1. The mixed E - E′ state with J = 28, v = 0 is found to be in near resonance condition with the k3Π (v = 4, J = 28) state, thus providing the means to indirect predissociation.
Description:	Only IISERM authors are available in the record.
URI:	https://aip.scitation.org/doi/10.1063/1.4871109 (https://aip.scitation.org/doi/10.1063/1.4871109) http://hdl.handle.net/123456789/2966 (http://hdl.handle.net/123456789/2966)
Appears in Collections:	Research Articles (/jspui/handle/123456789/9)

Files in This Item:

File	Description	Size	Format	
Need to add pdf.odt (/jspui/bitstream/123456789/2966/1/Need%20to%20add%20pdf.odt)		8.63 kB	OpenDocument Text	View/Open (/jspui/bitstream/12345

Show full item record (/jspui/handle/123456789/2966?mode=full)
(/jspui/handle/123456789/2966/statistics)