

藉时间分辨荧光技术研究氢苾、荧蒹与环糊精的络合过程

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摘要 用时间分辨荧光技术研究二氢苾、荧蒹与 β -环糊精的络合过程以及乙醇分子对络合过程的影响,观察到它们在环糊精水溶液中有长寿命组份存在. 证明这些分子与环糊精分子发生了络合作用,并根据荧光衰减曲线的指前因子计算出了它们的络合平衡常数.

关键词 [环糊精](#) [二氢化物](#) [荧光特性](#) [络合常数](#) [络合](#) [荧蒹](#) [苾 P](#) [时间分辨特性](#)

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Study on the complexation of acenaphthene and fluoranthene with cyclodextrins by means of time-resolved fluorescence technique

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Abstract The complexation of acenaphthene and fluranthene with β -cyclodextrin (CD) in aqueous solution in the presence and absence of ethanol was investigated by means of the time-resolved fluorescence technique. The appearance of a longer lifetime component and the increase of its fraction relative to that of the shorter lifetime component with increasing CD concentration demonstrate the formation of inclusion complex between the guest mol. and CD. The formation constants for complexation were derived from the pre-exponential factor A_i , of fluorescence decay curves. The presence of ethanol in the reaction systems enhanced the inclusion to a large extent.

Key words [CYCLODEXTRIN](#) [DIHYDRO-COMPOUNDS](#) [FLUORESCENCE CHARACTERISTIC](#) [COMPLEX CONSTANT](#) [COMPLEX](#) [FLUORANTHENE](#) [ACENAPHTHENE P](#) [TIME RESOLUTION CHARACTERISTIC](#)

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