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摘要：本文采用同步扫描固体基质室温磷光（SS-RTP）法测定水样中的咔唑。以 β -环糊精修饰滤纸为固体基质，KI为重原子，考查咔唑在芴，7,8-苯并喹啉，芘，蒽等多环芳烃（PAHs）存在下同步扫描的最优条件，选择最佳的 $\Delta\lambda$ 值为150nm，建立咔唑的恒波长同步扫描固体基质室温磷光分析方法。咔唑的线性范围是 $6.30\text{ng}\cdot\text{mL}^{-1} \sim 1.67\mu\text{g}\cdot\text{mL}^{-1}$ ，检出限为 $6.30\text{ng}\cdot\text{mL}^{-1}$ ，相对标准偏差（RSD）为3.67%，回收率为94%-109%。该方法简便快速，无需预分离，与常规激发和发射光谱相比分辨力显著提高。

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[Determination of carbazole in water by synchronous scanning with solid-substrates room temperature..](#)

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Abstract: Carbazole was determined by synchronous scanning with solid-substrates room temperature phosphorescence(SS-RTP). Synchronous scanning spectrums of carbazole in presence of fluorene, 7,8-benzoquinoline and other polycyclic aromatic hydrocarbons(PAHs) were obtained using potassium iodine as heavy atom salt perturbation and β -cyclodextrin modified filter paper as solid substrates. Some conditions were examined, including drying time($t=4.5\text{min}$), heavy atom ($V=10\mu\text{L}$)and the constant wavelength interval ($\Delta\lambda=150\text{nm}$). Constant wavelength interval synchronous phosphorescence spectrum of carbazole was studied. Linearity range is $6.30\text{ng}\cdot\text{mL}^{-1} \sim 1.67\mu\text{g}\cdot\text{mL}^{-1}$ with limit of detection $6.30\text{ng}\cdot\text{mL}^{-1}$, the relative standard derivation is 3.67% and the recovery rate is 94%-109%. The method is convenience and rapid without separation.

Key words:

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