

研究简报

高效液相色谱-电喷雾质谱(HPLC-ESI-MS/MS)测定新型抗癌铂配合物

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摘要 采用高效液相色谱-电喷雾-多级质谱法(HPLC-ESI-MS/MS), 研究了cis-3,5-diisopropylsalylic cyclohexanodiaminoplatinum(II)的电喷雾质谱行为, 鉴定了其杂质, 并测定了其纯度.

关键词 [电喷雾质谱](#) [铂配合物](#) [抗癌药物](#)

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Application of HPLC-ESI-MS/MS to the Determination of a Novel Antitumour Platinum Complex

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Abstract A novel platinum complex, named as saliplatin, was designed, synthesized and characterized with element analysis, coupled inductively plasma-mass spectrum, gravitational thermal-differential thermal analysis, ultraviolet-visible absorption spectrum, infrared spectrum, fast atom bombardment mass spectrum and ¹H NMR, etc. Its purity was investigated and determined. HPLC-ESI-MS was employed to separate the platinum complex and the impurity, and to identify and quantify the latter. It proved that the impurity in this novel compound was 3,5-diisopropylsalylic acid, a reactant used in the synthesis of the novel platinum complex, identified with ESI-MS. The mass fraction was determined with HPLC as 4.3%, which meant that the purity of this new substance was 95.7%.

Key words [ESI-MS](#) [Platinum complex](#) [Antitumour drug](#)

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