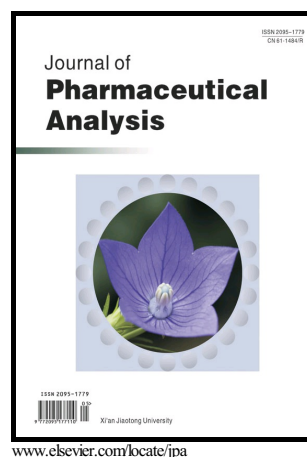


## Author's Accepted Manuscript

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**Unusual retention behavior of omeprazole and its chiral impurities B and E on the amylose tris (3-chloro-5-methylphenylcarbamate) chiral stationary phase in polar organic mode**

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**Abstract**

Recent reports have demonstrated that the new commercially available immobilized-type chiral stationary phases (CSPs) containing amylose tris(3-chloro-5-methylphenylcarbamate) (ACMPC) as a selector exhibit not only an exceptionally high enantioselectivity in high-performance liquid chromatography (HPLC) but they are also applicable to a wide range of chiral analytes. Herein, the results obtained in the HPLC analysis of omeprazole and its impurities B and E on the ACMPC-based Chiralpak IG-3 CSP (CSP) under polar organic conditions are reported. A systematic evaluation of the retention characteristics of the selected benzimidazole chiral probes was carried out changing the composition of the mobile phase and the column temperature. It is worth emphasizing that the high affinity of both enantiomers of all analytes recorded in pure methanol mode dramatically decreased incorporating small volumes of either basic or acid additives in the mobile phase. Unspecified sites of the IG-3 CSP presumably involved in strong and non-

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