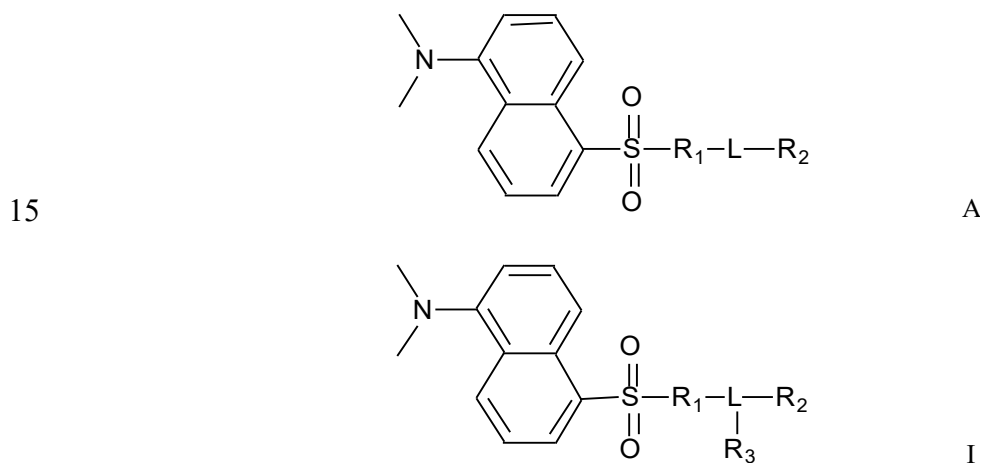


ABSTRACT

DANSYLAMIDE-MODIFIED PSMA-TARGETING COMPOUND, AND PREPARATION METHOD AND USE THEREOF

The present invention provides a dansylamide-modified PSMA-targeting compound,
5 having a structure thereof as represented by formula A or formula I, where R_1 is of an amino acid analog structure; R_2 is of a prostate-specific membrane antigen-targeting compound structure; R_3 is a nuclide chelating group; and L is $-(X)_n-(CH_2)_m-(Y)_q-$, where X and Y are independently selected from lysine, glutamic acid, or a derivative structure containing lysine or glutamic acid, n is an integer from 0 to 10, m is an integer from 0 to 20, and q is an integer
10 from 0 to 6, and where each CH_2 may be individually replaced with $-OCH_2-$, $-NH(CO)-$, or $-(CO)-NH-$. The present invention further provides a radionuclide-labeled compound based on the structure of the compound. The compound and the radionuclide-labeled compound exhibit relatively high tumor uptake and retention time, making them suitable for use in nuclide therapy and imaging of PSMA-highly expressing tumors.



[FIG. 16]