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(57) Abstract: The present invention relates to imaging agents suitable for *in vivo* optical imaging, which comprise conjugates of pentamethine cyanine dyes having reduced non-specific binding, *eg.* to plasma proteins. This is achieved by control of the nature and location of the sulfonic acid substituents, in particular the sulfoalkyl groups. Also disclosed are pharmaceutical compositions and kits, as well as *in vivo* imaging methods.



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