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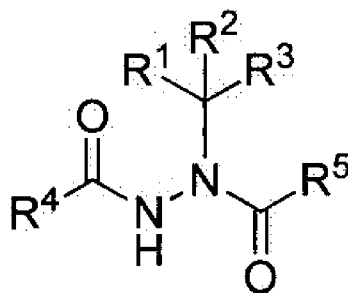
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(54) **Title:** BORON-CONTAINING DIACYLHYDRAZINES



(I)

(57) **Abstract:** The present disclosure provides boron-containing diacylhydrazines having Formula I: and the pharmaceutically acceptable salts and solvates thereof, wherein R¹, R², R³, R⁴, and R⁵ are defined as set forth in the specification. The present disclosure also provides the use of boron-containing diacylhydrazines in ecdysone receptor-based inducible gene expression systems. Thus, the present disclosure is useful for applications such as gene therapy, treatment of disease, large scale production of proteins and antibodies, cell-based screening assays, functional genomics, proteomics, metabolomics, and regulation of traits in transgenic organisms, where control of gene expression levels is desirable.