

**PROCESSES FOR PREPARING
(CYCLOPENTYL[d]PYRIMIDIN-4-YL)PIPERAZINE COMPOUNDS**

ABSTRACT OF THE DISCLOSURE

The present disclosure relates to processes for preparing (cyclopentyl[d]pyrimidin-4-yl)piperazine compounds, and more particularly relates to processes for preparing (R)-4-(5-methyl-7-oxo-6,7-dihydro-5*H*-cyclopenta[d]pyrimidin-4-yl)piperazine and N-protected derivatives thereof, which may be used as an intermediate in the synthesis of Ipatasertib (*i.e.*, (S)-2-(4-chlorophenyl)-1-(4-((5*R*,7*R*)-7-hydroxy-5-methyl-6,7-dihydro-5*H*-cyclopenta[d]pyrimidin-4-yl)piperazin-1-yl)-3-(isopropylamino)-propan-1-one). The present disclosure additionally relates to various compounds that are intermediates employed in these processes.

[no suitable figure]