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(54) Title: PROCESSES FOR PREPARING (CYCLOPENTYL[d]PYRIMIDIN-4-YL)PIPERAZINE COMPOUNDS

(57) Abstract: 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-5H-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-((5R,7R)-7-hydroxy-5-methyl-6,7-dihydro-5H-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.