

# Synthesis of New 1-Aryl-4-(biarylmethylene)piperazine Ligands, Structurally Related to Adoprazine (SLV313)

Nisar Ullah

Chemistry Department & Centre of Research Excellence in Nanotechnology, King Fahd University of Petroleum and Minerals, Dhahran 31261, Saudi Arabia

Reprint requests to Professor Nisar Ullah. Fax: + 966 3 860 4277. E-mail: nullah@kfupm.edu.sa

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A series of new 1-aryl-4-(biarylmethylene)piperazines has been synthesized. These ligands are structurally related to SLV-313, a potential atypical antipsychotic having potent D<sub>2</sub> receptor antagonist and 5-HT<sub>1A</sub> receptor agonist properties. Buchwald-Hartwig coupling reactions of 1-boc-piperazine with appropriate aryl halides and subsequent removal of the boc group rendered arylpiperazines. The reductive amination of the latter with suitable biarylaldehydes accomplished the synthesis of these ligands.

*Key words:* Schizophrenia, Aryl-(biarylmethylene)piperazines, Buchwald-Hartwig Amination, Reductive Amination