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Synthesis of Benzo[*a*]carbazoles from 2Ãƒ Â¢Ã‚€Ã‚•Arylindoles *via* a Sequential Propargylation, PropargylÃƒ Â¢Ã‚€Ã‚•Allenyl Isomerization, and 6Ãƒ Â•Ã‚€Ã‚Ã Â¢Ã‚€Ã‚•Electrocyclization

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Abstract

An efficient twoÃƒÂ¢Ã‚Â€Ã‚Â•step synthetic approach of benzo[*a*]carbazoles from 2ÃƒÂ¢Ã‚Â€Ã‚Â•arylindoles has been developed. The first step is a propargylation of 2ÃƒÂ¢Ã‚Â€Ã‚Â•arylindoles at the 3ÃƒÂ¢Ã‚Â€Ã‚Â•position catalyzed by montmorillonite KÃƒÂ¢Ã‚Â€Ã‚Â•10 in benzene. The second step is 1,8ÃƒÂ¢Ã‚Â€Ã‚Â•diazabicyclo[5.4.0]undecÃƒÂ¢Ã‚Â€Ã‚Â•7ÃƒÂ¢Ã‚Â€Ã‚Â•ene (DBU)ÃƒÂ¢Ã‚Â€Ã‚Â•catalyzed sequential propargylÃƒÂ¢Ã‚Â€Ã‚Â•allenyl isomerization and a concomitant 6ÃƒÂ•Ã‚Â€Ã‚ÃƒÂ¢Ã‚Â€Ã‚Â•electrocyclization process involving two aromatic ÃƒÂ•Ã‚Â€Ã‚ÃƒÂ¢Ã‚Â€Ã‚Â•bonds.

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