

ABSTRACT**Method for the continuous synthesis of a diene elastomer with lithium amide initiator**

The invention relates to a process for the continuous synthesis of a diene elastomer by means of n reactors r_1 to r_n , considered to be continuous stirred-tank reactors, which are equipped with an internal stirring system, and which are arranged in series, n varying from 2 to 15, preferably from 2 to 9, the reactor r_1 being fed by an input solution comprising a solvent, one or more monomer(s), an anionic polymerization initiator chosen from lithium amides and a polar agent, the conversion by weight C_1 in the first reactor being less than 70%, the total conversion by weight C_n at the outlet of the reactor r_n being greater than or equal to 70%.

[No Figure]