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(71) Applicant: **CENTRE DE RECHERCHE PUBLIC - GABRIEL LIPPMANN** [LU/LU]; 41, rue du Brill, L-4422 Belvaux (LU).

(72) Inventor: **LENOBLE, Damien**; 58, rue du Treux, B-5580 Eprave (BE).

(74) Agent: **LECOMTE & PARTNERS**; P.O.Box 1623, L-1016 Luxembourg (LU).

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(54) Title: CONTROLLED RADICAL ASSISTED POLYMERIZATION

(57) Abstract: The present invention is directed to a method of forming a polymer coating on a substrate (1). The method comprising the steps of providing in an evacuated reaction chamber (3) a substrate (1) having a surface (2) to be coated; and providing a first source (5) of polymer forming material (6) and a second source (7) of radicals (8). According to the invention the first source (5) and the second source (7) are separated from each other and from the reaction chamber (3), and the polymer forming material (6) as well as the radicals (8) are, at least temporarily, conducted contemporaneously but spatially separated to the substrate's surface (2), so that a reaction of the polymer forming material (6) with the radicals (8) is avoided before they reach the substrate's surface (2). Further, the present invention is directed to a device (100) for carrying out the method according to the invention.



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