

Title (en)  
USE OF PHOTOPOLYMERIZATION FOR AMPLIFICATION AND DETECTION OF A MOLECULAR RECOGNITION EVENT

Title (de)  
VERWENDUNG DER PHOTOPOLYMERISIERUNG ZUR AMPLIFIKATION UND ZUM NACHWEIS EINES MOLEKULAREN ERKENNUNGSEREIGNISSES

Title (fr)  
UTILISATION DE LA PHOTOPOLYMERISATION POUR AMPLIFIER ET DETECTER UN EVENEMENT DE RECONNAISSANCE MOLECULAIRE

Publication  
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Application  
**EP 05725765 A 20050316**

Priority  
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Abstract (en)  
[origin: WO2006031248A2] The invention provides methods to detect molecular recognition events. The invention also provides methods to detect the presence of or identify a target species based on its interaction with one or more probe species. The methods of the invention are based on amplification of the signal due to each molecular recognition event. The amplification is achieved through photopolymerization, with the polymer formed being associated with the molecular recognition event. In an embodiment, a fluorescent polymer, a magnetic polymer, a radioactive polymer or an electrically conducting polymer can form the basis of detection and amplification. In another embodiment, a polymer gel swollen with a fluorescent solution, a magnetic solution, a radioactive solution or an electrically conducting solution can form the basis of detection and amplification. In another embodiment, sufficient polymer forms to be detectable by visual inspection.

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CPC (source: EP)  
**C12Q 1/6816** (2013.01); **G01N 33/54306** (2013.01); **C12Q 1/6837** (2013.01)

Citation (search report)  
• [X] EP 0383126 A2 19900822 - OSTER GERALD [US], et al  
• [X] US 4749647 A 19880607 - THOMAS ELAINE K [US], et al  
• [A] GAYLORD BRENT S ET AL: "DNA detection using water-soluble conjugated polymers and peptide nucleic acid probes", PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE, WASHINGTON, DC, US, vol. 99, no. 17, 20 August 2002 (2002-08-20), pages 10954 - 10957, XP002406316, ISSN: 0027-8424  
• [A] COLLINS M L ET AL: "A branched DNA signal amplification assay for quantification of nucleic acid targets below 100 molecules/ml", NUCLEIC ACIDS RESEARCH, OXFORD UNIVERSITY PRESS, SURREY, GB, vol. 25, no. 15, 1997, pages 2979 - 2984, XP002208495, ISSN: 0305-1048  
• See references of WO 2006031248A2

Citation (examination)  
WO 2005024386 A2 20050317 - UNIV COLORADO A BODY [US], et al

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