

Title (en)
NITRIC OXIDE-PRODUCING HYDROGEL MATERIALS

Title (de)
STICKSTOFFMONOXID-FORMENDE HYDROGEL-MATERIALIEN

Title (fr)
MATERIAUX HYDROGELS PRODUISANT DU MONOXYDE D'AZOTE

Publication
EP 1315476 A2 20030604 (EN)

Application
EP 01968448 A 20010904

Priority
• US 0127414 W 20010904
• US 65340600 A 20000901

Abstract (en)
[origin: WO0217880A2] Hydrogels releasing or producing NO, most preferably polymerizable biodegradable hydrogels capable of releasing physiological amounts of NO for prolonged periods of time, are applied to sites on or in a patient in need of treatment thereof for disorders such as restenosis, thrombosis, asthma, wound healing, arthritis, penile erectile dysfunction or other conditions where NO plays a significant role. The polymeric materials can be formed into films, coatings, or microparticles for application to medical devices, such as stents, vascular grafts and catheters. The polymeric materials can also be applied directly to biological tissues and can be polymerized in situ. The hydrogels are formed of macromers, which preferably include biodegradable regions, and have bound thereto groups that are released in situ to elevate or otherwise modulate NO levels at the site where treatment is needed. The macromers can form a homo or hetero-dispersion or solution, which is polymerized to form a hydrogel material, that in the latter case can be a semi-interpenetrating network or interpenetrating network. Compounds to be released can be physically entrapped, covalently or ionically bound to macromer, or actually form a part of the polymeric material. The hydrogel can be formed by ionic and/or covalent crosslinking. Other active agents, including therapeutic, prophylactic, or diagnostic agents, can also be included within the polymeric material.

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IPC 8 full level
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