

Title (en)  
TEMPERATURE-RESPONSIVE DEGRADABLE HYDROGELS

Title (de)  
TEMPERATURREAKTIVE ABBAUBARE HYDROGELE

Title (fr)  
HYDROGELS DÉGRADABLES SENSIBLES À LA TEMPÉRATURE

Publication  
**EP 3700589 A4 20210728 (EN)**

Application  
**EP 18871782 A 20181024**

Priority  
• US 201762576269 P 20171024  
• US 2018057398 W 20181024

Abstract (en)  
[origin: WO2019084197A1] A polymer composition can include an aqueous vehicle and a temperature-responsive degradable polymer having a polymer including a LCST-imparting unit and a lactone-bearing unit including a pendent lactone group. The number of LCST-imparting units is greater than the number of lactone-bearing units. The temperature-responsive degradable polymer has an initial lower critical solution temperature (LCST) of 37°C or below. The polymer composition can have a pH lower than 7.

IPC 8 full level  
**A61L 24/04** (2006.01); **A61L 27/50** (2006.01); **A61L 27/52** (2006.01); **A61L 27/54** (2006.01); **A61L 27/58** (2006.01); **A61L 31/14** (2006.01); **A61L 31/16** (2006.01); **C08F 220/54** (2006.01); **C08F 290/00** (2006.01); **C08F 290/02** (2006.01); **C08F 290/06** (2006.01)

CPC (source: EP US)  
**A61L 27/52** (2013.01 - EP); **A61L 27/54** (2013.01 - EP); **A61L 27/58** (2013.01 - EP); **A61L 31/145** (2013.01 - EP); **A61L 31/148** (2013.01 - EP); **A61L 31/16** (2013.01 - EP); **C08F 220/54** (2013.01 - EP US)

C-Set (source: EP US)  
EP  
1. **C08F 220/54 + C08F 220/282 + C08F 220/58 + C08F 220/1804**  
2. **C08F 220/54 + C08F 230/085 + C08F 220/1804**  
3. **C08F 220/54 + C08F 220/58**  
4. **C08F 220/54 + C08F 220/282 + C08F 220/58**  
5. **C08F 220/54 + C08F 220/58 + C08F 220/1804**  
US  
1. **C08F 220/54 + C08F 220/282 + C08F 220/58 + C08F 220/1804**  
2. **C08F 220/54 + C08F 230/085 + C08F 220/1804**

Citation (search report)  
• [A] WO 2013056170 A1 20130418 - UNIV ARIZONA [US], et al  
• [A] WO 0044800 A1 20000803 - AMERSHAM PHARMACIA BIOTECH K K [JP], et al  
• [A] TURTURICA GABRIEL ET AL: "ABA triblock copolymers of poly(N-isopropylacrylamide-co-5,6-benzo-2-methylene -1,3-dioxepane) (A) and poly(ethylene glycol) (B): synthesis and thermogelation and degradation properties in aqueous solutions", COLLOID & POLYMER SCIENCE, SPRINGER VERLAG, HEIDELBERG, DE, vol. 294, no. 4, 21 January 2016 (2016-01-21), pages 743 - 753, XP035878440, ISSN: 0303-402X, [retrieved on 20160121], DOI: 10.1007/S00396-016-3831-9

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**US 2018057398 W 20181024**; EP 18871782 A 20181024