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(54) **FERMENTATION TECHNIQUE TO IMPROVE PRODUCTION LEVEL OF RECOMBINANT HUMAN COLLAGEN**

GÄRUNGSVERFAHREN ZUR VERBESSERUNG DES HERSTELLUNGSVOLUMENS VON REKOMBINANTEM HUMANEM KOLLAGEN

TECHNIQUE DE FERMENTATION POUR AMÉLIORER LE NIVEAU DE PRODUCTION DE COLLAGÈNE HUMAIN RECOMBINANT

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(56) References cited:

WO-A2-2014/170460 CN-A- 103 725 623
CN-A- 104 561 201

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- G. CORNELISSEN ET AL: "Production of Recombinant Proteins with *Pichia pastoris* in Integrated Processing", *ENGINEERING IN LIFE SCIENCES*, vol. 3, no. 9, 10 September 2003 (2003-09-10), pages 361-370, XP55566097, DE ISSN: 1618-0240, DOI: 10.1002/elsc.200300033
- EDA Å?ELIK ET AL: "Metabolic flux analysis for recombinant protein production by *Pichia pastoris* using dual carbon sources: Effects of methanol feeding rate", *BIOTECHNOLOGY AND BIOENGINEERING*, vol. 105, no. 2, 1 February 2010 (2010-02-01), pages 317-329, XP55566103, ISSN: 0006-3592, DOI: 10.1002/bit.22543
- H.T Ren ET AL: "Modeling and Model Based Feeding Control for *Pichia pastoris* fed-batch cultivation", *Advanced Control of Chemical Processes*, 1 January 2004 (2004-01-01), XP055566790, Retrieved from the Internet: URL:https://ac.els-cdn.com/S1474667017387736/1-s2.0-S1474667017387736-main.pdf?_tid=a8b997d4-5c4f-4916-b991-994f1e6f7e2f&acdna t=1552291044_0f55530f3ad5cd812d2403acd87705af [retrieved on 2019-03-11]
- H. YIN et al.: "Intracellular Expression and Purification of the Canstatin-N Protein in *Pichia Pastoris*", *Gene*, vol. 504, no. 1, 2 May 2015 (2015-05-02), pages 122-126, XP055452700,
- LI, BAOKU et al.: "Study on the Culture Conditions of L-lactic Acid Bacteria", *Liquor-Making Science & Technology*, 31 December 2007 (2007-12-31), pages 51-57, XP009511442,