

Title (en)
GROUTING STRUCTURE FILLED WITH SOLUBLE CRYSTAL AND CONSTRUCTION METHOD

Title (de)
MIT LÖSLICHEM KRISTALL GEFÜLLTE VERGUSSSTRUKTUR UND HERSTELLUNGSVERFAHREN

Title (fr)
STRUCTURE D'INJECTION REMPLIE D'UN CRISTAL SOLUBLE ET PROCÉDÉ DE CONSTRUCTION

Publication
EP 4015709 A4 20221228 (EN)

Application
EP 21847342 A 20210713

Priority
• CN 202010700824 A 20200720
• CN 2021106035 W 20210713

Abstract (en)
[origin: EP4015709A1] The present invention provides a grouting structure filled with soluble crystals and a construction method thereof, wherein the structure comprises a water-permeable section and a grouting section; a water-stop component is arranged between the water-permeable section and the grouting section; a permeable pipe is arranged in the water-permeable section; the permeable pipe is filled with solid soluble crystals; the water inlet of the drain pipe is arranged in the water-permeable section; the elevation of the water inlet of the drain pipe is higher than that of the water outlet of the drain pipe. The present structure is beneficial to increase the pressure of grouting, reduce cracks in the grouting section, and improve the sealing effect, thus enhancing the negative pressure effect of the water-permeable section, effectively supporting the water-stop component during grouting, preventing the slurry from entering the water-permeable section and the consequent interference in the formation of a negative pressure environment, avoiding blockage of the permeable pipe, and preventing large displacement of the water-stop component by squeezing. It is conducive to ensuring continuous drainage of the deep portion of the slope, and is of great significance in solving the problem of drainage treatment of large-scale landslide.

IPC 8 full level
E02D 17/20 (2006.01); **E02D 3/10** (2006.01); **E02D 5/80** (2006.01); **E02D 15/04** (2006.01); **E02D 19/10** (2006.01)

CPC (source: CN EP)
E02D 3/10 (2013.01 - EP); **E02D 15/00** (2013.01 - CN); **E02D 17/20** (2013.01 - EP); **E02D 19/10** (2013.01 - EP); **E02D 5/80** (2013.01 - EP); **E02D 15/04** (2013.01 - EP)

Citation (search report)
• [A] WO 2019000776 A1 20190103 - UNIV ZHEJIANG [CN]
• [A] CN 107237650 A 20171010 - UNIV ZHEJIANG
• [A] JP 2008274553 A 20081113 - TOYO CONSTRUCTION
• See references of WO 2022017226A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4015709 A1 20220622; EP 4015709 A4 20221228; EP 4015709 B1 20230531; CN 111794238 A 20201020; CN 111794238 B 20210504; WO 2022017226 A1 20220127

DOCDB simple family (application)
EP 21847342 A 20210713; CN 202010700824 A 20200720; CN 2021106035 W 20210713