

Title (en)

DESIGN OPTIMIZED COMPOSITIONS AND PROCESSES FOR MICROSTRUCTURALLY ENGINEERING CEMENTITIOUS MIXTURES

Title (de)

ENTWURF OPTIMIERTER ZUSAMMENSETZUNGEN UND VERFAHREN ZUR MIKROSTRUKTURELLEN BEARBEITUNG VON ZEMENTMISCHUNGEN

Title (fr)

COMPOSITIONS OPTIMISEES ET PROCEDES DE CONCEPTION MICROSTRUCTURELLE DE MELANGES DE CIMENT

Publication

EP 0714383 A4 19980401 (EN)

Application

EP 94927185 A 19940818

Priority

- US 9409328 W 19940818
- US 10910093 A 19930818

Abstract (en)

[origin: WO9505350A1] A method for manufacturing a design optimized cement mixture comprising the steps of: calculating the maximum packing density for the cement, fine aggregate and coarse aggregate (66); setting the optimal cost mixture (69); calculating the volume of water for a desired slump (72); determining cement mixture strength (74); comparing calculated strength versus desired strength (76); calculating mixture cost (80); comparing it to optimal mixture cost (82); and comparing the volume of fine aggregate with the maximum volume of fine aggregate allowed.

IPC 1-7

C04B 7/36; C04B 7/38

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

- [A] EP 0495098 A1 19920722 - ITO YASURO [JP], et al
- [A] WO 8103170 A1 19811112 - AALBORG PORTLAND CEMENT [DK], et al
- [A] US 3927163 A 19751216 - GABRIEL LESTER H, et al
- [A] US 3754954 A 19730828 - GABRIEL L, et al
- [A] US 3917781 A 19751104 - GABRIEL LESTER H, et al
- [A] WO 9117875 A1 19911128 - CONCRETE TECHNOLOGY CORP [US]
- [A] WO 9202344 A1 19920220 - KHASHOGGI E IND [US]
- [AP] WO 9404330 A1 19940303 - KHASHOGGI E IND [US], et al
- [AP] WO 9412328 A1 19940609 - KHASHOGGI E IND [US]
- [T] WO 9419172 A1 19940901 - KHASHOGGI E IND [US], et al
- [T] WO 9420274 A1 19940915 - KHASHOGGI E IND [US], et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 012, no. 444 (C - 545) 22 November 1988 (1988-11-22)
- [AP] DATABASE WPI Section Ch Week 9414, Derwent World Patents Index; Class L02, AN 94-116188, XP002042996
- See references of WO 9505350A1

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US 9409328 W 19940818; AU 7670994 A 19940818; BR 9407168 A 19940818; CA 2168643 A 19940818; CN 94109224 A 19940818; CO 94036247 A 19940817; EG 49894 A 19940815; EP 94927185 A 19940818; IL 11060594 A 19940809; JP 50717995 A 19940818; NZ 27343594 A 19940818; PE 24762494 A 19940727; RU 96105708 A 19940818; ZA 945497 A 19940728; ZW 10394 A 19940809