

Title (en)  
OPTICAL METHOD FOR QUANTUM COMPUTING

Title (de)  
OPTISCHES VERFAHREN FÜR QUANTUMRECHNER

Title (fr)  
PROCEDE OPTIQUE DE CALCUL QUANTIQUE

Publication  
**EP 1183778 A2 20020306 (EN)**

Application  
**EP 99918827 A 19990426**

Priority  
• US 9908982 W 19990426  
• US 8298398 P 19980424

Abstract (en)  
[origin: WO9956392A2] An optical method for quantum computing that makes use of nonlocal effects to construct the quantum gates themselves. A nonlocal interaction in which pairs of atoms interchange two photons produces a large nonlinear phase shift. These nonlinear phase shifts are used to construct quantum logic gates, such as a Controlled-NOT.

IPC 1-7  
**H03K 3/00**

IPC 8 full level  
**G02F 3/00** (2006.01); **G06E 3/00** (2006.01); **G06N 99/00** (2010.01)

CPC (source: EP KR)  
**B82Y 10/00** (2013.01 - EP KR); **G06N 10/00** (2018.12 - EP)

Citation (search report)  
See references of WO 9956392A2

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
**WO 9956392 A2 19991104; WO 9956392 A3 20011213; WO 9956392 A8 20000629**; CA 2326187 A1 19991104; CN 1163788 C 20040825; CN 1419660 A 20030521; EP 1183778 A2 20020306; JP 2002531861 A 20020924; KR 20010085237 A 20010907

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