

Title (en)  
HIGH-ENERGY ELECTRON SOURCE MADE FROM CNT WITH OFFSET ELECTROMAGNETIC WAVE CONTROL ELEMENT

Title (de)  
HOCHENERGETISCHE ELEKTRONENQUELLE AUS CNT MIT STEUERELEMENT DURCH VERSETZTE ELEKTROMAGNETISCHE WELLEN

Title (fr)  
SOURCE D'ELECTRONS DE HAUTE ENERGIE A BASE DE CNT AVEC ELEMENT DE COMMANDE PAR ONDE ELECTROMAGNETIQUE DEPORTEE

Publication  
**EP 3238225 B1 20190130 (FR)**

Application  
**EP 15820149 A 20151222**

Priority  
• FR 1402973 A 20141223  
• EP 2015080990 W 20151222

Abstract (en)  
[origin: WO2016102575A1] A high-energy switchable electron source controlled by a current source (SCCO) in which: • the switchable cathode comprises at least one field-effect transmitter (105) and one screening electrode (111) located in or under a plane P comprising the conductive surface located under the foot of the transmitter (105), • an input terminal (132) of the SCCO (120) disposed outside the vacuum chamber is linked to the HV power supply and to the screening electrode (111), • an output terminal (131) of the SCCO is linked to the base electrode between the transmitter (105) and the substrate. • The high voltage power supply (103) delivers a potential for creating an anode field for inducing the transmission from the transmitter (105), • the output potential (131) being greater than or equal to the input potential (132), the screening electrode (111) is capable of reducing the electric field induced by the anode (106) on the transmitter (105) such that the current transmitted by the transmitter is equal to the current delivered by the SCCO.

IPC 8 full level  
**H01J 1/304** (2006.01); **H01J 35/06** (2006.01)

CPC (source: EP)  
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